

# **Allen Harbor / Calf Pasture Point Master Plan**

*Prepared for:*

**The Town of North Kingstown, Rhode Island**

*Prepared by:*

**The Cecil Group, Inc.**

*with*

Parsons Brinckerhoff Quade & Douglass, Inc.

September 2000

---

## **Acknowledgements**

### **North Kingstown Town Council**

David R. Burnham, Town Council President  
Patricia Beauchamp  
Kenneth C. D'Ambrosio  
Dale M. Grogan  
Robin Porter

**Town Manager**, Richard Kerbel

**Town Clerk**, James D. Marques

### **Allen Harbor / Calf Pasture Point Master Plan Ad Hoc Committee**

Robert Holtzman, Chair	Celia Humphreys	Michael Simeone
Beverly Brewer	Suzanne Lussier	Greg Soder
Lorimer C. Dunklee	Susan Macy	William Waring
Peter Elleman	Thomas Moakley	
David Greenberg	Shirley Shehan	

### **North Kingstown Recreation Department**

Al Southwick, Recreation Director  
Paul Duffy, former Assistant Recreation Director

### **North Kingstown Planning Department**

Marilyn Cohen, Director  
Rebecca Cipriani, Principal Planner

### **Rhode Island Economic Development Corporation**

Katherine Trapani, Senior Planner  
Amrita Roy, Associate Planner

### **Leisure Services Committee**

### **North Kingstown Fire Department**

### **North Kingstown Police Department**

### **Allen Harbor Boating Association (formerly Quonset Davisville Navy Yacht Club)**

### **Mount View Neighborhood Association**

### **US EPA, Region I**

US Navy - Walter Davis, Environment Coordinator

### **Consultant Team**

The Cecil Group, Inc., prime consultant  
Parsons Brinckerhoff Quade & Douglas, Inc.

*The participation of the community's residents and town agencies has been instrumental in the development of the Allen Harbor / Calf Pasture Point Master Plan. Their contributions in the form of workshops and discussion provided valuable input necessary for a master plan that will benefit all of North Kingstown.*

---

## **A Vision for Allen Harbor and Calf Pasture Point**

...an improved marina and expanded recreation area...with a quiet and peaceful

atmosphere – well harmonized with the environment... that allows for

compatible development that is mindful of the cultural, historic, and educational

needs of the community.

---

## TABLE OF CONTENTS

<b>Executive Summary</b> .....	<b>1</b>
INTRODUCTION .....	1
VISION OF THE COMPLEX.....	1
IMPLEMENTATION SCHEDULE.....	3
SUMMARY OF KEY CONCLUSIONS .....	4
<b>I. Introduction</b> .....	<b>7</b>
OVERVIEW .....	7
STUDY AREA OF THE PLAN .....	8
ORGANIZATION OF THE PLAN .....	10
PROPERTY DEEDS AND LEASE CONSIDERATIONS .....	10
PLANNING PROCESS AND INVOLVEMENT .....	11
<b>II. History</b> .....	<b>13</b>
SETTING.....	13
SITE HISTORY OF THE COMPLEX.....	13
<b>III. Existing Conditions</b> .....	<b>17</b>
LAND USES AND ACTIVITIES .....	17
ENVIRONMENTAL CONDITIONS.....	23
TRANSPORTATION AND ACCESSIBILITY .....	29
ARCHEOLOGICAL AND CULTURAL RESOURCES .....	31
INFRASTRUCTURE .....	33
ADJACENT PROPERTIES AND AREAS OF INTEREST .....	38
HARBOR MANAGEMENT AND FEES.....	40
CURRENT PROPOSALS.....	41
<b>IV. Master Plan Recommendations</b> .....	<b>45</b>
OVERVIEW OF THE PLAN’S RECOMMENDATIONS.....	45
SAFETY CONCERNS AND REQUIREMENTS .....	52
<b>V. Implementation</b> .....	<b>55</b>
CONSTRUCTION PHASING .....	55
IMPLEMENTATION SCHEDULE.....	56
CONSTRUCTION BUDGETS AND INCOME / EXPENSE STATEMENTS .....	63
SUMMARY OF RESOURCES .....	70
<b>Appendix I: Community Involvement</b> .....	<b>73</b>
<b>Appendix II: Opportunities and Constraints</b> .....	<b>77</b>
<b>Appendix III: Summary of Alternative Development Scenarios</b> .....	<b>85</b>
<b>Appendix IV: Comparative Analysis for Similar Marina Operations</b> .....	<b>88</b>

---

## LIST OF FIGURES

FIGURE 1. PROPERTIES UNDER NEGOTIATION WITH THE TOWN.....	7
FIGURE 2. PLANNING SUB-AREAS FOR THE ALLEN HARBOR COMPLEX MASTER PLAN .....	9
FIGURE 3. WETLAND AREAS WITHIN THE COMPLEX.....	23
FIGURE 4. FLOOD ZONES AROUND THE ALLEN HARBOR COMPLEX.....	26
FIGURE 5. ARCHEOLOGICAL AREAS WITHIN AND AROUND THE COMPLEX.....	30
FIGURE 6. WATER AND SEWER LINES IN THE AREA.....	31
FIGURE 7. FACILITIES IN THE ALLEN HARBOR COMPLEX.....	34
FIGURE 8. PROPOSED BICYCLE PATH TO THE ALLEN HARBOR COMPLEX.....	41
FIGURE 9. ILLUSTRATION OF THE COMPLEX IN TEN YEARS .....	44
FIGURE 10. PROPOSED DEVELOPMENT AREAS IN WESTERN ALLEN HARBOR.....	48

## LIST OF TABLES

TABLE 1. IMPLEMENTATION SCHEDULE .....	57
TABLE 2. COSTS FOR PHASE I, YEARS 1 – 5.....	65
TABLE 3. COSTS FOR PHASE II, YEARS 6 – 10.....	66
TABLE 4. INCOME/EXPENSE STATEMENTS FOR DEVELOPMENT OF PHASE I OVER A TEN-YEAR PERIOD .....	67
TABLE 5. INCOME/EXPENSE STATEMENTS FOR DEVELOPMENT OF PHASES I AND II OVER A TEN-YEAR PERIOD.....	68



## **EXECUTIVE SUMMARY**

### **Introduction**

The Town of North Kingstown has a vision to provide more recreational opportunities, improve boating, and increase access to Narragansett Bay. The Allen Harbor / Calf Pasture Point Complex can help to make Allen Harbor and the surrounding land a unique recreational resource for the community. The Allen Harbor / Calf Pasture Point Master Plan provides the Town with a vision of what the Complex can be over the next ten years and an implementation schedule to help achieve this vision.

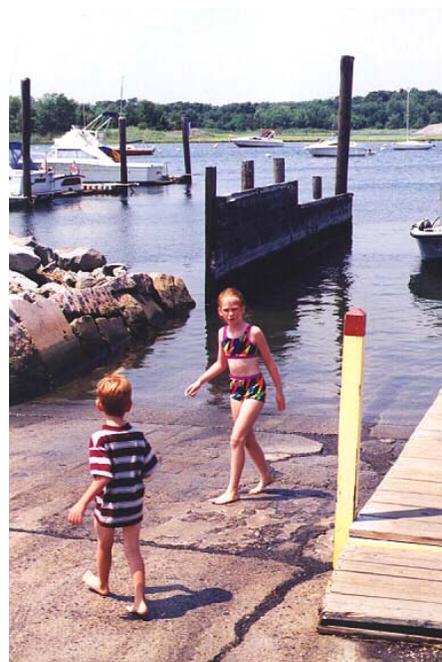
This Plan reflects the desires and needs of the community and users of the Complex. The recommendations within this Plan are the result of extensive community participation through public meetings, a workshop, a questionnaire, and of interviews, discussions, and meetings with key stakeholders, along with local, state, and federal agencies.

The Complex will take on a new role in a long history of its use as a natural resource. From its use by Native Americans to make wampum, the development of its land for farming, its use and physical disturbance by the Naval Construction Battalion Center, and now its new role as a recreational park and boating facility, the Complex will once again be utilized for its natural resources.

### **Vision of the Complex**

The Plan envisions the Complex to provide a resource for boating and passive recreation in a quiet and natural setting for the community of North Kingstown. After the Town takes control of over 240 acres of land that border Allen Harbor, it will provide direction for the management and use of the Complex. Over the next ten years, the Town will seek to develop portions of the marina and open space areas with compatible uses to ensure the area provides residents of the community and other users with access to Narragansett Bay and a large recreation area. This plan sees the Complex as a viable marina facility and a natural resource area for families, bicyclists, hikers, sailors, beach goers, and other users for the next ten years and for future generations as well.

The overall purpose of the Master Plan is to provide a 5-year and 10-year plan that allows the community to



---

benefit from use of the site as a recreation area. The Plan will also present options to develop and manage specific areas according to the land transfer and conveyance agreements.

The proposed land uses within this plan were based on the most suitable uses for the areas regardless of the existing governance of the property. The Town presently manages the marina on the east side of Allen Harbor. The marina on the western side of Allen Harbor is currently run as yacht club, known as the Allen Harbor Boating Association. The Town recently negotiated a 10-year contract with the yacht club that allows it to operate as such providing it meets specific conditions.



*Allen Harbor provides a safe refuge for many boaters*

The Master Plan proposes to substantially improve the recreational opportunities in the marina and open space areas. Central to this plan is the development of a *gateway* for users of the open space areas, and new business to support the operations and maintenance of the Complex. Substantial infrastructure requirements such as water and sewer lines would be required. Investments to the marina facilities and in the open space areas would be needed to make the Complex into an enjoyable, aesthetically pleasing, and safe boating complex and recreational park for the community of North Kingstown.

---

## **Implementation Schedule**

The following table provides a summary of the necessary actions to create additional recreational opportunities in Allen Harbor. A more detailed explanation of the actions is identified in the main text of the Master Plan.

<b>Action</b>	<b>Years 1 – 5</b>	<b>Years 6 - 10</b>
Coordinate Allen Harbor activities	<ul style="list-style-type: none"><li>• Federal, State, and Local agencies</li></ul>	<ul style="list-style-type: none"><li>• Federal, State, and Local agencies</li></ul>
Identify necessary permitting	<ul style="list-style-type: none"><li>• Bike trails in Calf Pasture Point</li><li>• Access roads for police and fire vehicles</li><li>• Bulkhead replacement</li><li>• New slips</li></ul>	<ul style="list-style-type: none"><li>• Revetment upgrade</li><li>• New moorings</li><li>• Leased land</li></ul>
Repair and upgrade facilities	<ul style="list-style-type: none"><li>• Restrooms</li><li>• Marina</li><li>• Bulkhead</li><li>• Sewer connection to the North Kingstown Marina</li><li>• Bike trails</li><li>• Road repair</li></ul>	<ul style="list-style-type: none"><li>• Boat ramps</li><li>• Revetment at beach</li><li>• Sewer connection to Western Allen Harbor</li></ul>
Improve amenities	<ul style="list-style-type: none"><li>• Landscaping</li><li>• Benches in the North Kingstown Marina</li></ul>	<ul style="list-style-type: none"><li>• Benches in Calf Pasture Point</li></ul>
Identify potential economic development opportunities		<ul style="list-style-type: none"><li>• Prepare land for developer</li><li>• Lease properties</li></ul>

---

## **Summary of Key Conclusions**

The Allen Harbor / Calf Pasture Point Master Plan provides specific direction for the development, uses, and activities of the Complex. The following section summarizes the key conclusions of the Plan and provides a basis for the recommendations.

### *Allen Harbor as a Unique Resource*

The Town will manage virtually all the land surrounding the Harbor. This type of property arrangement is rare for a New England community since most lands bordering harbors have multiple owners, which generally prevents coordinated development or the creation of single uses. The community, however, has the unique opportunity to make the best use of the property as a small marina and recreational facility.

### *Limited Uses According to Deed Restrictions and Regulatory Control*

Although the Town will have control of the property, its uses are still limited by deed restrictions and environmental regulations. The deeds generally restrict the land to conservation and recreational uses. Most of the land is designated as conservation area according to environmental regulations.

There is some flexibility of the uses, however, within the Complex. Western Allen Harbor is allowed to have commercial uses according to the Maritime Administration deed restrictions. These uses include, but are not limited to mixed waterfront complexes, marinas, fishing, and similar structures and water-related uses.

### *Provides Increased Public Access to the Water*

The location of the Complex and its natural features will allow the public to have increased access to Narragansett Bay as well as to many acres of open space. The Town has the opportunity to allow specific activities that encourage use of the Complex without changing its character, so that it can be used for many generations.

### *Community Wants to Maintain the Harbor's High Quality and Atmosphere*

Most comments from the public meetings and the questionnaire stated that the Complex should be protected and remain as it is with some modest commercial development to offset its operation and maintenance costs.

### *Development in Two Phases*

The development of the Complex should be in two phases. The initial actions should address the infrastructure that needs immediate attention and supports the operations of the marinas, such as the sewer line connections and the replacement of the bulkheads. All other actions should be organized and coordinated to match the intended uses at the appropriate times. A schedule of detailed actions is provided in the implementation section of this Plan.

---

*Acquisition of the US Food and Drug Administration Property*

The Town should acquire the 1.6-acre parcel from the Food and Drug Administration (FDA) as soon as it becomes available. This property has excellent potential for waterfront development due to its location on the water, deep berthing, and the views of the Harbor, Narragansett Bay, and the entrance channel. The University of Rhode Island is currently operating the facility with the Department of Ocean Engineering under an unassignable and revocable license.

*Generate Additional Revenues*

The Town can generate additional revenues by creating additional slips and moorings. This action will provide the maximum amount of revenue with a minimum capital cost in a short time frame. Other long-term investments, such as leasing parcels of land for new water-enhanced or water-dependent businesses should also be investigated. This option, however, may require more time and investment capital, and is dependent on market conditions and demand for the property.

*Public Input Supports Recreational and Boating Needs*

Public input received from several meetings, a workshop, and a survey showed that the public is generally content with the current use of the Complex. Most people had the following sentiments:

- Keep the area as a quiet and scenic harbor
- Preserve the open spaces as conservation areas for low-impact uses
- Support the operations of the marina
- Provide access to Narragansett Bay
- Minimize impacts from future development of the Quonset Davisville Port and Commerce Park



## I. INTRODUCTION

### Overview

The Allen Harbor / Calf Pasture Point Complex is one of the most secluded and scenic harbors and natural resource areas on Narragansett Bay. Located on the eastern edge of North Kingstown, the harbor and adjacent land areas provide boaters with a quiet and protected harbor. The Town of North Kingstown owns a portion of the Complex, known as the North Kingstown Marina, which it operates as a marina and recreation area. A separate entity, the Allen Harbor Boating Association, is on the Western Allen Harbor property.

The land and beach areas surrounding this area have excellent potential for passive recreational uses to be enjoyed by the community. The value of these surrounding properties to the community of North Kingstown lies in its natural condition.

The following properties comprise the Allen Harbor Complex: the North Kingstown Marina, Calf Pasture Point, Western Allen Harbor and the Allen Harbor Landfill (see Figure 1). All of the properties were at one time part of the military installation at Quonset Point Davisville. Each one is at a different stage of conveyance to the Town of North Kingstown and/or the RIEDC.

For the community to enjoy these properties, they would have to be either leased or conveyed to the Town for recreational or commercial uses. Because of this ownership arrangement, the Town is working with the federal government and the RIEDC to finalize the lease and conveyance of these properties. All three properties have opportunities for development with specific use restrictions.

The Complex can be improved considerably with some changes in use, such as new passive recreational uses in the open space areas, strategic upgrades to the marina facilities, and a new, revenue-generating business to help support the operation of the complex. Central to this Plan is the inclusion of low-impact recreational uses at Calf Pasture Point and capital

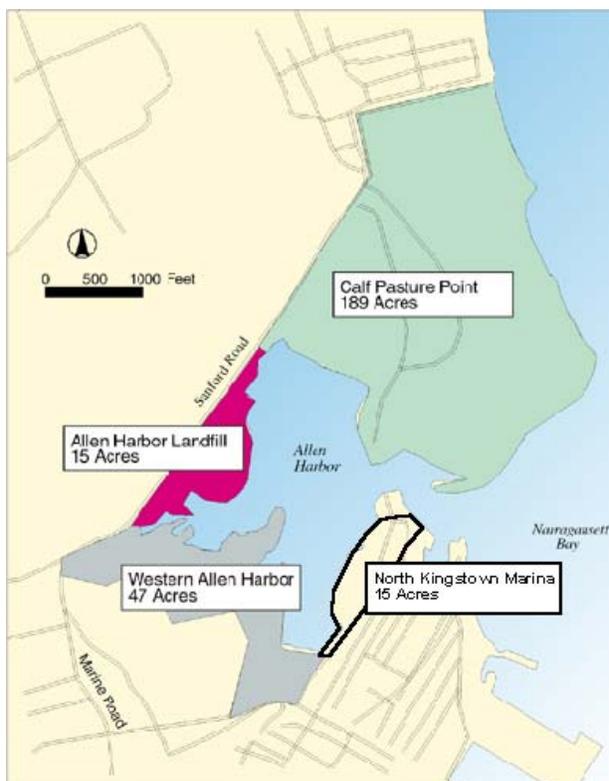


Figure 1. Properties under negotiation with the Town of North Kingstown.

---

improvements to the marina such as a rebuilt bulkhead and additional boat slips.

The Allen Harbor / Calf Pasture Point Master Plan provides a long-term vision of the Complex for the next ten years and beyond. It is the result of a series of community meetings and workshops, public input from users, and extensive analyses of the existing conditions and potential opportunities at the Complex. It identifies development and use options for the Harbor and the adjacent land areas. It outlines feasible harbor development projects, and describes the implementation process and costs associated with the proposed uses and phases of the recommendations that will help realize its potential for recreational and other uses.

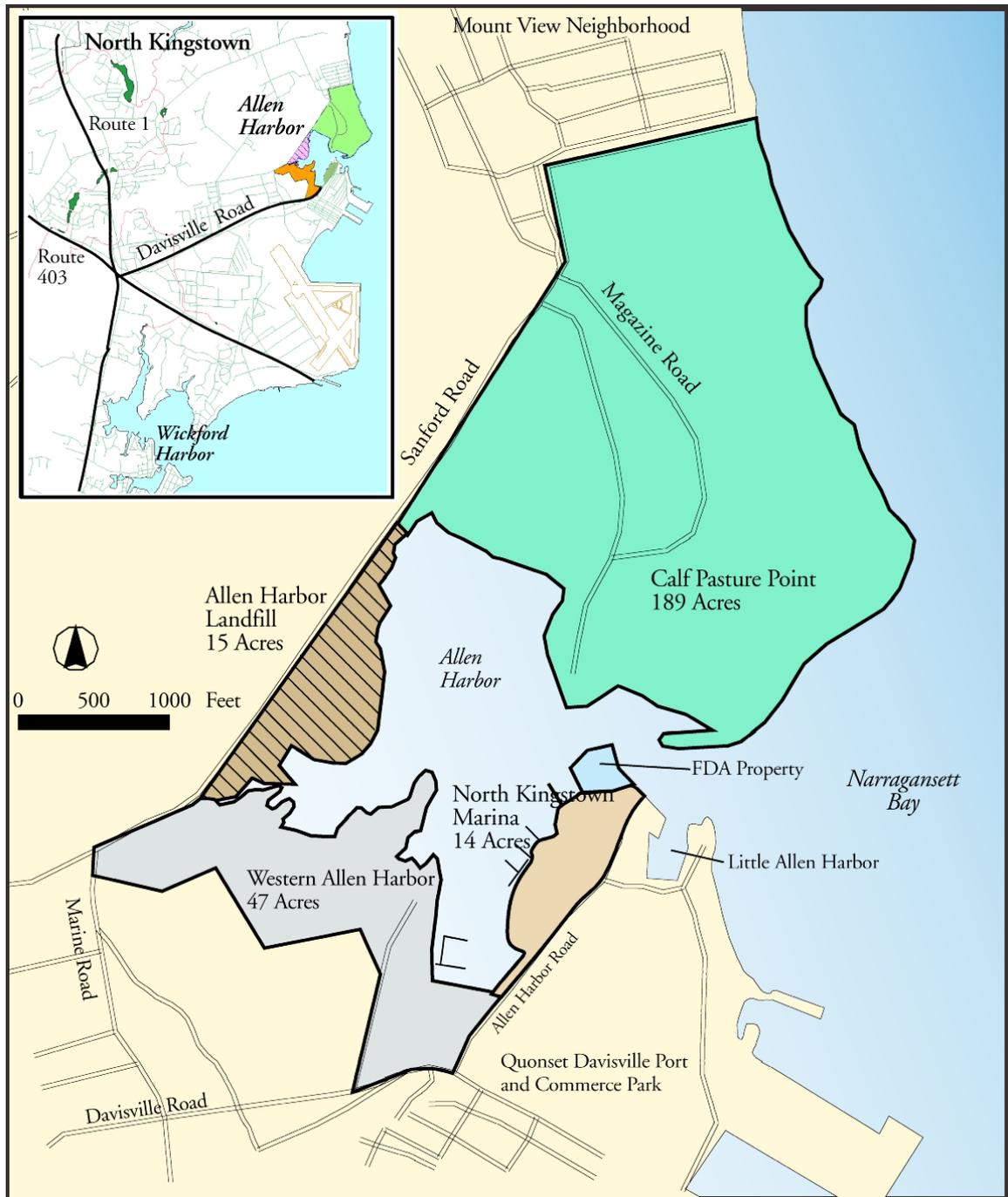
### **Study Area of the Plan**

The planning area for this plan incorporates all the land, activities, and waterfront uses in and around Allen Harbor and its adjacent properties. This area encompasses approximately 266 acres of land, and approximately 76 acres of harbor area (see Figure 2). The planning area is divided into four sub-areas as follows:

1. North Kingstown Marina – This 14.7 acre sub-area is bounded on the west by Allen Harbor, on the east side by Allen Harbor Road, on the south side by Davisville Road, and by the FDA property and the harbor entrance channel on the north side. This area also includes all the activities associated with the operation of the North Kingstown Marina in the Harbor.
2. Allen Harbor Landfill- This sub-area is bounded by Sanford Street on the west side, Calf Pasture Point on the north side, and Allen Harbor on the south and east sides. The 15-acre landfill was recently capped and re-vegetated.
3. Western Allen Harbor – This sub-area is bounded by the landfill and Allen Harbor on the north side, Sanford Road on the west side, Allen Harbor on the east side, and a vacant vegetated parcel on the south side. Western Allen Harbor contains 47 acres of mostly vegetated land.
4. Calf Pasture Point – This area is bounded Pettee Avenue to the north, Sanford Road and Finn Street to the west, the landfill and Allen Harbor to the south, and Narragansett Bay to the east. This area encompasses approximately 189 acres of beach, vegetated uplands, and wetlands.

In addition to the areas that are the focus of planning efforts, the studies have taken into account conditions and trends in the surrounding areas that have a direct impact on the uses at Allen Harbor. These areas include the adjacent Mount View residential area and the main activities of the Quonset Davisville Port and Commerce Park.

Figure 2. Planning Sub-areas for the Allen Harbor Complex Master Plan



---

## **Organization of the Plan**

The organization of this Report includes the following elements:

- Introduction
- History
- Existing Conditions
- Master Plan Recommendations
- Implementation Strategies

The recommendations of the Allen Harbor Complex Master Plan were derived in part from several sources:

- Previous reports, studies, and legal documents
- Meetings with the Allen Harbor / Calf Pasture Point Master Plan Ad Hoc Committee
- Interviews with key stakeholders in Allen Harbor
- Interviews with town, state, and federal officials
- Rhode Island Geographic Information System (RIGIS) database
- The Cecil Group consultant team

## **Property Deeds and Lease Considerations**

Some of the recommendations within this Plan are guided by existing and future deed constraints. The North Kingstown Marina, for example, is restricted to recreational uses for the public by its deed. Maritime Administration deed restrictions on Western Allen Harbor will allow commercial development that either supports or is a water-dependent activity. Draft deed restrictions for Calf Pasture Point limit land uses to recreational activities, require buildings to have adequate ventilation, and prevent use of its ground water. The landfill deed restriction does not allow disturbance of the soil except for plantings. Furthermore, the University of Rhode Island leases the property owned by the US Food and Drug Administration, and there are no immediate plans for other uses at this site. Its current use as a marine education facility was considered during the planning of other uses in the Complex.

Moreover, environment regulations have to be considered when planning for the new uses, especially regarding activities within 200 feet of the shoreline. The Rhode Island Coastal Resources Management Council (CRMC) has designated Calf Pasture Point as a conservation area. Most of the Point is subject to CRMC jurisdiction and regulations.

---

Current environmental regulations also restrict the number of docked and moored vessels in the Harbor. Regulatory approval by the CRMC, Army Corps of Engineers, and other agencies may be required to change the number of vessels in the Harbor.

Additional constraints in planning for alternative uses include archeological sites, land features, local and adjacent land uses, and infrastructure conditions. For example, there are several archeological areas in the Complex. Some of them may have to be protected from intrusion by other uses and activities.

### **Planning Process and Involvement**

The Allen Harbor / Calf Pasture Point Master Plan was prepared for the Town of North Kingstown, Rhode Island. The Town was seeking to acquire over 200 acres of land that surround the Harbor through conveyances and a lease from the state and federal agencies. The Town wanted a master plan to identify the potential uses of the Complex.

The planning effort was guided by the Allen Harbor / Calf Pasture Point Master Plan Ad Hoc Committee, which consisted of 14 members who were appointed by the North Kingstown Town Council in June 1999. They guided the planning efforts throughout the process. A consultant team led by The Cecil Group, Inc., which includes several team members from Parsons Brinckerhoff Quade & Douglass, Inc., provided professional assistance.

The Rhode Island Economic Development Corporation (RIEDC) is managing the Quonset Davisville Port and Commerce Park, and is planning development options for future uses of the Park. The Allen Harbor Complex Master Plan considers the current planning efforts of the RIEDC in its recommendations for future use of the Park.

Public involvement was a key component of the planning process. Several public meetings, a workshop, and a questionnaire helped identify appropriate uses for the Complex and allowed for substantial public input into the process. The public planning process is described in detail in Appendix I: Community Involvement.

The Master Plan evolved through an iterative process involving public input and response at key points throughout the planning process. A set of guiding principles and goals were developed during the initial stages of the planning process to help direct and focus the master planning process. They also helped formulate a vision for the Master Plan.

### **Principles to Guide the Planning Process**

- Develop a vision through public input and community participation.
- Develop a plan through an environmental framework.

- 
- Identify how the Allen Harbor / Calf Pasture Point area fits in with the rest of the Town with special attention to the Mount View residential area.
  - Define existing and potential user groups.
  - Identify how Allen Harbor / Calf Pasture Point fits in with and can be integrated with the Quonset Point / Davisville Port and Commerce Park.
  - Work with commercial fishermen, the University of Rhode Island, the Narragansett Indian Tribe, and the Quonset Davisville Navy Yacht Club.
  - Determine revenue and expenditures associated with potential developments.
  - Create a 5-year and 10-year plan consistent with other existing Town plans.

### **Goals of the Master Plan**

- Achieve financial sustainability through identification of funding sources.
- Promote recreational uses.
- Balance economic development and the environment.
- Promote suitable public access.
- Preserve archeological resources.
- Promote educational, historical, and cultural uses.

A public meeting and workshop was held to present the existing conditions as well as the opportunities and constraints in the Complex. The public identified goals and uses for the Complex at this workshop. The opportunities and constraints are discussed in detail in Appendix II.

Three alternatives were developed with input from the public, the survey, and interviews with users of the Harbor, town, state and federal agencies, key stakeholder, and neighborhood residents. These alternatives presented different levels and intensities of uses and activities for the Complex over a ten-year period. They were presented at a public meeting and were described in an earlier report, *Description and Evaluation of Alternatives*. A summarized version of this report is in Appendix 3.

A final plan emerged from the three alternatives through public input and discussion with town and state agencies, and arose from the information base that provided an understanding of current harbor conditions.

---

## II. HISTORY

### Setting

The Town of North Kingstown is a coastal community located approximately 20 miles south of Providence. It had a population of approximately 24,000 according to the 1990 Census, and was estimated to be greater than 26,000 persons in 1998.

Allen Harbor is located in the Town of North Kingstown. It is situated on the western side of Narragansett Bay in areas formerly occupied by the Navy, known as Quonset / Davisville. The Harbor is connected to Narragansett Bay by a narrow, dredged channel. Two small marinas utilize the Harbor and adjacent land.

### Site History of the Complex

The Allen Harbor / Calf Pasture Point Complex has had a range of uses for thousands of years. Several prehistoric sites that date back to 5,000 B.P. were found in various locations around the Complex. Farmers altered portions of the area during the 17<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> Centuries. Over the past 50 years, extensive Navy Construction Battalion Center (NCBC) land operations disturbed much of the land surface.

The Navy opened the NCBC at Davisville in 1942. It was expanded to 1,200 acres which were utilized for fabrication and assembly areas, warehouses, piers, maintenance shops, administration buildings, ordnance magazines, and training areas. In the 1960s, Davisville was homeport for 10 fully staffed battalions, and approximately 8,500 military personnel plus 1,200 civilians (US Navy 1994). In 1974, the Navy withdrew from Quonset / Davisville, and decreased the population by approximately 10,000 people. After several years of relative inactivity, the state began to develop part of the NCBC as an industrial



*The Complex has many distinct features that are both natural and manmade.*

---

park, Quonset Point Port and Commerce Park. The Rhode Island Economic Development Corporation (RIEDC) is currently developing and managing this park. The park is currently named the Quonset Davisville Port and Commerce Park (QDPCP).

The NCBC operations made the most lasting and dramatic changes and impacts to the property: many acres of harbor and marsh areas were filled, much of the land was contaminated, and much of it remains unusable as a natural resource. Allen Harbor was utilized as a naval dredging school for the construction battalion between 1943 and 1971. The Navy SEABEES were responsible for a variety of equipment tests at the NCBC. These tests involved research and development of a wide variety of technologies and procedures ranging from construction equipment to laundry equipment to engines and pontoon assemblies. They disposed of hazardous wastes in various parts of the NCBC during their occupation as well. All this activity resulted in a dredged harbor, filled tidelands, and the contamination of many acres of land.

### **North Kingstown Marina History**

When the Navy withdrew from Quonset/Davisville in 1974, the US Department of Interior was given the responsibility to redistribute a large portion of the base. An application was made by the Town of North Kingstown in 1980 to acquire a parcel of land at Allen Harbor; the application included plans for a small boat marina, moorings, and a public boat-launching ramp. A total of 14.76 acres was conveyed to the Town from the Department of Interior in September 1980. The transfer of this property was conditional; the deed has several stipulations:

1. The property had to be used for recreational purposes and remain open to the public.
2. Any fees collected had to be used in the management of the recreational facility.
3. The Army Corps of Engineers required several sewage control measures before expansion in the Harbor could occur.
4. The Navy was guaranteed of continued naval access to the Harbor.

Since 1980, the Town has operated this area as a marina. Improvements made over the past 20 years have included demolition of several buildings, new floats and mooring systems, improved boat ramps, and a new recreational pavilion.

### **Allen Harbor Landfill History**

From 1946 to 1972, the Navy utilized land extending into the western portion of Allen Harbor as a landfill for wastes generated at both the Davisville and Quonset bases. The Navy may have utilized this site to dispose of both hazardous and non-hazardous wastes. Calf Pasture Point was also used to dispose small amounts of wastes from 1960 to 1974.

The landfill was placed on the EPA's Superfund list in 1989. It was investigated under the Navy's Investigation Restoration (IR) Program after that time. The Navy issued the

---

Proposed Plan for the site in 1997. It proposed a cover with several distinct layers of capping material, installation of a gas management system, stabilized shore revetment, wetlands restoration, a long-term monitoring program, and other remedial actions. The capping was completed in 1999.

### **Calf Pasture Point History**

Prior to 1940, Allen Harbor extended into the central portion of the Calf Pasture Point peninsula. This part of the Harbor was filled in by the Navy's dredging activities in 1942/1943. Calf Pasture Point was used as a field-training center and for depositing dredge materials from Allen Harbor. Between 1960 and 1982, the Navy disposed hazardous wastes at various locations around the Point. During the 1980s and 1990s, the area was investigated for contamination and remediation. A Proposed Plan, issued in 1998, recommended that the site have a long-term monitoring plan, provide deed restrictions that prohibit the use of ground water, and have 5-year reviews by the Navy, EPA, and RIDEM.

### **Western Allen Harbor**

This area was used for various NCBC activities during their occupation of the base. Heavy equipment, fire fighting, creosote wood dipping, and other operations contributed to the modification and contamination of this area. The US Navy is preparing a Remedial Investigation (RI) for the contaminated portion of Western Allen Harbor known as Site 16.



### III. EXISTING CONDITIONS

#### Land Uses and Activities

An understanding of current land uses and activities that take place on the Complex and in its surrounding area will help determine future uses. This section summarizes the uses within the four sub-areas and the adjacent properties. Some of the information in this section is presented in other sections of this document.

#### **North Kingstown Marina**

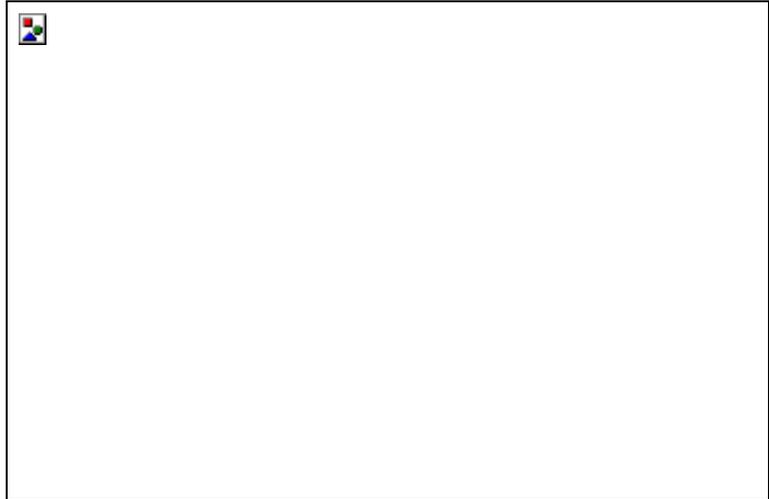
##### *Description*

The property contains 14.7 acres of vegetated and developed land. It is used as a marina with 55 slips, 70 moorings, and support facilities.

##### *Owners*

The Town of North Kingstown owns this property. The Navy, however, retains the right to transfer the rights, title, and interest of the property back to the United States if either:

- It is needed for national defense, or
- There is evidence of non-compliance with the terms and conditions of the disposal.



*Two ramps provide excellent access to Narragansett Bay*

Aside from recreational boaters at the marina, the Town has been accommodating several small commercial fishing vessels since the property was conveyed to them in 1981. The Town will continue to accommodate them, possibly at the marina on the western side of Allen Harbor.

##### *Property Features*

The property contains one small marina office, one maintenance building, restrooms, parking area, a small beach on the entrance channel, a small pavilion, and a grassed area used for recreation and parking. This property is not contaminated and has no wetlands.

---

### *Legal Use*

The National Park Service conveyed the property to the Town in 1980 for recreational purposes.

### *Deed Restrictions and Conditions*

The conveyance of the 14.7 acres of land to the Town requires specific conditions and restrictions:

- The property will be made available for the public.
- The property will not be sold, leased, assigned, or disposed.
- The Town can provide related recreational facilities and services through concession agreements with third parties.

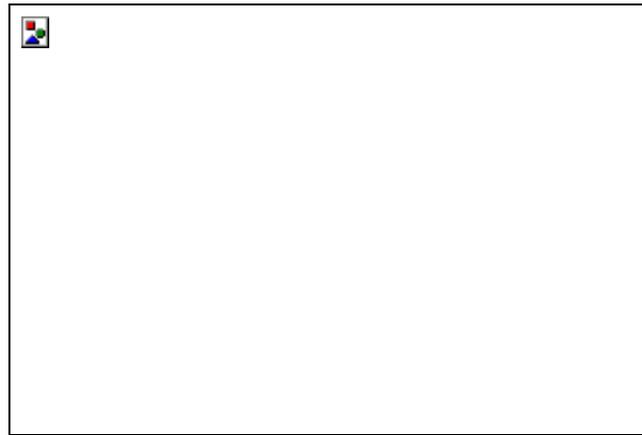
## **Allen Harbor Landfill**

### *Description*

The 15-acre Allen Harbor Landfill borders Allen Harbor and Sanford Road. The landfill was capped as part of the Navy Restoration Program in 1998.

### *Owners*

The US Navy currently owns the property. Its future use and ownership is currently being negotiated with the Town at this time. It may be conveyed to the Town of North Kingstown within the next few years.



*Allen Harbor Landfill, in the foreground, provides an excellent viewing location of the Harbor and Bay*

### *Property Features*

The property's most important physical feature is its relatively high elevation (approximately 30 feet), which provides a good viewing location. It is mostly vacant and contains several fenced gas vents. It borders the main access road (Sanford Road).

### *Legal Use*

Surplus property conveyed to Town will be restricted to recreational uses.

### *Deed Restrictions and Conditions*

Currently, there are no deed restrictions. A Record of Decision (ROD) was completed in September 1997. Deed restrictions are presently being negotiated between town, state, and federal agencies. They are most likely to include the following restrictions and constraints:

- 
- Soil depth of two feet limits use of property.
  - Maximum depth for park bench or post is approximately 18 inches.
  - No vehicles (except for maintenance purposes).
  - No erosion such as on footpaths.
  - No entrance over new wetlands.
  - Revetment installed to prevent erosion and shoreline stabilization.
  - Site must be maintained to ensure proper runoff and minimize erosion.
  - Site has landfill gas/venting management system that includes on-site gas vents and monitoring stations.
  - The site was recently planted with specific grasses and shrubs. Due to limited soil depth, the types of plants that can be used at this site are restricted.
  - EPA and RIDEM will provide a long-term monitoring plan for shellfish, landfill gas, groundwater, and sediments.

The entrance channel was dredged for two reasons:

- To improve access to the Harbor by dredging the channel from four to eight feet.
- To utilize dredge spoils to recreate wetlands near the landfill.

## **Calf Pasture Point**

### *Description*

Calf Pasture Point is a peninsula that encompasses 189 acres of mostly undeveloped, vegetated land. It is located on the north side of Allen Harbor and south of the high-density Mount View neighborhood.

### *Owners*

The US Navy owns this area, and is currently negotiating with the Town of North Kingstown for its conveyance. The Town expects it to be conveyed within the next year.

### *Property Features*

The property contains a variety of features that contribute to the aesthetic quality and assets as a natural resource for the community. It covers over one mile of beachfront, and includes such features as the Allen Harbor Rock Outcrop, archeological findings, over 30 monitoring wells (mostly in southern portion of the site), and two former munitions bunkers which will be removed by the US Navy. The area provides a natural habitat (marsh, wetlands, uplands) that supports many species of wildlife. Sanford and Magazine Roads allow access to the interior of the property as well.

### *Legal Use*

This property does not have public access. The shoreline, however, is designated as conservation area according to the Coastal Resources Management Program.

### *Deed Restrictions and Conditions*

---

A Record of Decision (ROD) was completed in September 1999. It provided the following recommendations:

- Prohibit use of ground water in order to prevent human contact with, or use of, impacted ground water from the site.
- Provide long-term monitoring program of ground water plume.
- The Navy, EPA, and RIDEM (the RI Department of Environmental Management) will conduct 5-year reviews to ensure continued protection of human health and environment.

#### *Property Conditions and Constraints*

The property borders the Mount View neighborhood and beach to the north, a residential area to the west, Allen Harbor to the south, and Narragansett Bay to the east. It contains over 30 monitoring wells. The roads are in poor condition, and should be cleared of plant growth, resurfaced, and rebuilt. The paths should be cleared and maintained.

In addition, the deed requirements are expected to restrict development in the southern portion of the site. Buildings in this area will have to be designed and constructed with adequate ventilation as approved by the Navy, EPA, and RIDEM due to the contaminated soil and groundwater.

### **Western Allen Harbor**

#### *Description*

This property is located on the southern side of the Complex. It is bounded by the landfill and Allen Harbor on the north side, Sanford Street on the west side, Allen Harbor on the east side, and a vacant vegetated parcel on the south side. Western Allen Harbor contains 47 acres of mostly vegetated land.

#### *Owners*

The Navy owns the property, and it will be conveyed along with the CED Area via a port conveyance through the Maritime Administration, under the US Department of Transportation. It is subject to a conveyance to RIEDC who will lease the area designated as Western Allen Harbor to the Town of North Kingstown.

#### *Property Features*

There are a wetland, open space, an old road system, waterfront access, promontory, archeological site, and a marina with two buildings.

#### *Legal Use*

The site is used as yacht club with public membership. The Town recently leased the property for use as a marina to the Allen Harbor Boating Association for ten years.

#### *Lease Restrictions and Conditions*

---

The lease requires a yearly rent. The property can be used only for a not-for-profit recreational boat club. The tenant is responsible for maintaining the property, increasing the number of docks, and other specific lease terms and conditions.

---

## **US Food and Drug Administration Property**

### *Description*

The property is located on the north side of the North Kingstown Marina, adjacent to Allen Harbor and the entrance channel. It contains approximately 1.6 acres of developed land.

### *Owners*

The owner of the property is the US Dept. of Health and Human Services, Food and Drug Administration (FDA). The FDA used the property as a shellfish-testing laboratory from 1970 to 1997. The Department of Ocean Engineering, University of Rhode Island (URI), is currently using the facility as a marine research station.

### *Property Attributes*

The site provides excellent views of Allen Harbor, Calf Pasture Point, and Narragansett Bay, and features a Quonset hut and a 200- foot berthing area. The Quonset hut provides a suitable work area for marine research and related facility operations and storage needs.

### *Legal Use*

A revocable license was granted in 1998 to URI. The license stipulated that the property be used as a marine experiment station to support its marine and educational research programs, and that the FDA can use it as a staging area on an as-needed basis. The length of the license was not specified. Any property disposition will have to go through the GSA/federal process.

### *License Conditions and Responsibilities*

URI is responsible for management and maintenance of the site and its facilities.

### *Property Constraints*

The Quonset hut limits views of Calf Pasture Point at many points in the North Kingstown Marina. The site could be improved with landscaping (e.g. fenced, lined with trees). The Town should pursue acquisition of this property even though it is licensed to URI.

## **Allen Harbor**

Allen Harbor is used mainly for recreational boating. Its configuration and depth allow many vessels to navigate its waters. The Harbor can accommodate large vessels with deep drafts, since the channel was dredged from 4 to 8 feet (mlw) in 1998. Several shallow areas in the Harbor restrict vessel navigation, but these do not present a major problem for boaters.

One of the Harbor's best assets, aside from its deep water and protection from storms and waves, is its location on Narragansett Bay. Vessels have direct access to the Bay, and have to travel only about 500 yards to get to open water. The open waters of Rhode Island Sound and the Atlantic Ocean are only several miles from the Harbor. These features are attractive for boaters transiting to and from the Harbor and open waters.

---

## **Environmental Conditions**

The section identifies the environmental conditions of the Allen Harbor / Calf Pasture Point Complex and adjacent land areas. It is based on information generated from assessor's records, GIS data, previous plans, and individuals that have specific knowledge of this area.

### **North Kingstown Marina- Environment**

The property contains 14.7 acres of vegetated and developed land. The area is mainly flat with an elevation of approximately 10 feet above mean sea level. This land area is not contaminated, and has no designated wetlands.

Most of the edge along the Harbor is made of either stone rip-rap or steel sheet pile. The main roads are bituminous, and parking areas totaling one-acre are gravel. These areas have an important role in water quality, especially when considering the need to control storm water runoff.

A portion of the property, which is used as small beach, borders the entrance channel. Northeast storms have undermined the stone rip-rap which needs to be repaired. The sheet pile is in poor and unstable condition due to surface runoff and marine corrosion, and needs to be replaced.

Two stands of pine trees totaling over 60,000 square feet exist on the property. At this time, these stands are not used for any specific purpose, and could make an attractive picnic area if they were thinned out.

Marina operations have stringent environment regulations. Marina-related activities such as pumping bilges, spray washing vessels, pumping out marine sanitation devices (MSDs), and ramp facilities should meet regulations to minimize environmental impacts. These activities will have various levels of environmental impacts to the land and waters depending on the level of safety and conformance to the regulations.

### **Allen Harbor Landfill - Environment**

The landfill is approximately 15 acres of land with a mostly vacant surface. Its elevation ranges from approximately zero to 30 feet above mean sea level. It is bracketed by wetlands on its north side in Calf Pasture Point and on its south side (see Figure 3). These wetlands are described below.

The Navy used the landfill to dispose municipal-type wastes, construction material, industrial wastes (e.g., paint, solvents, acid, waste oil, and asbestos), jet fuel, and sludge from 1946 to 1972. The landfill was capped, monitoring shafts were installed, and the area was re-vegetated in 1999.

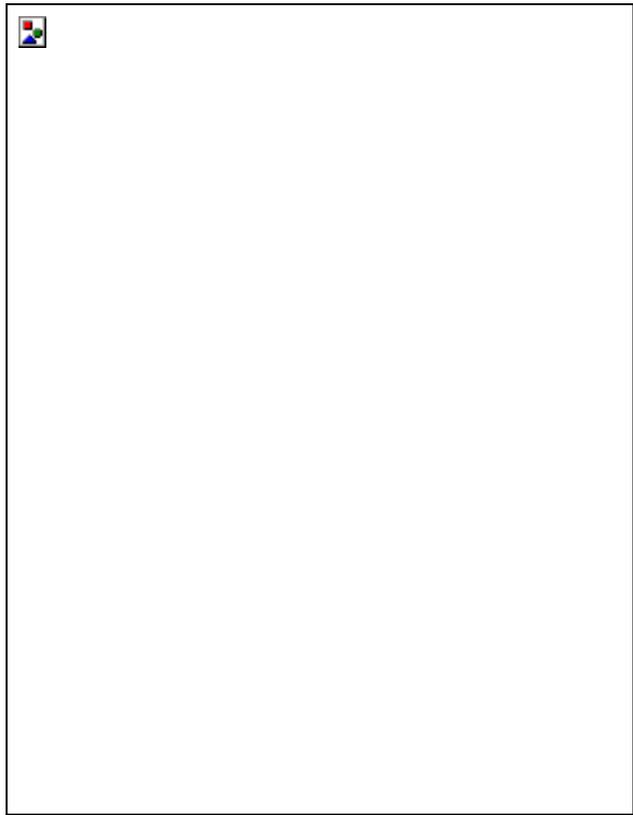
---

As of May 2000, public use of the landfill is not allowed until monitoring is completed and the land can be considered safe, which may occur this year or next. In 1992, the Navy, Rhode Island Department of Environmental Management (RIDEM) and the Environmental Protection Agency (EPA) signed a Federal Facilities Interagency Agreement (FFA) that ensures “that environmental impacts associated with the past activities at NCBC Davisville are thoroughly investigated and remediated, as necessary.”

**Western Allen Harbor – Environment**

This property is located on the southern side of the Complex. It is bounded by the landfill and Allen Harbor on the north side, Sanford Street on the west side, Allen Harbor on the east side, and a vacant vegetated parcel on the south side. Its main property features include two wetland areas, open space, a formerly developed road system, waterfront access, a promontory, an archeological site, and an active marina with two buildings.

A 9.5-acre estuarine emergent wetland (low salt content, connected to a saltwater source) is located in the northeastern part of area, extending from just south of the landfill eastward along the south shore of Allen Harbor. It occupies both the intertidal zone and the shoreline area. It is a coastal wetland bordering Type 3 (High-Intensity Boating) waters. Activities in this wetland are strictly regulated by the State. Another palustrine emergent (connected to a freshwater source) and scrub-shrub wetland, approximately 17 acres, is located south of Westcott Road. The area formerly served as a Navy construction training ground and is heavily disturbed. A narrow intermittent stream drains from the northwest portion of the wetland beneath Westcott Road into Allen Harbor.



*Figure 3. Wetland areas within the Complex*

---

### **Calf Pasture Point - Environment**

Calf Pasture Point is a peninsula that contains 189 acres of mostly undeveloped, vegetated land. This area supports many species of wildlife due to its many acres of natural habitat (marsh, wetlands, uplands). Other features include a one-mile beachfront, the Allen Harbor Rock Outcrop, archeological findings, wetlands, formerly paved roads, and various stands of deciduous and coniferous plants throughout the property. The outcrop is approximately 40 feet in elevation, and provides excellent views of the Point and distant views of Narragansett Bay.

The center of Calf Pasture Point was used for disposal of DANC, calcium hypochlorite, and chlorinated VOCs. Three munitions bunkers were also located in the center of the site. One of them has been removed, and the other two have been decontaminated and sealed.

There are five delineated wetlands in this sub-area, covering 22.5 acres. A 3.1-acre palustrine (freshwater, connected to a water source) forested and palustrine emergent wetland is located near the northern edge of the property. It is associated with a narrow intermittent stream that flows beneath Sanford Road from a small pond located off Navy property. A 3.5-acre estuarine (low salt content) emergent wetland is located near the shore of Narragansett Bay, close to the northern edge of the property. It is connected to the Bay by a narrow tidal channel and is partially flooded at high tide. A 6.7-acre palustrine emergent wetland is located near the junction of Sanford and Magazine Roads. The area was formerly an open water pond that through natural processes is being filled by sediment. A narrow drainage channel connects this wetland with Allen Harbor. A 6.7-acre estuarine emergent wetland is located along the northern shore of Allen Harbor, west of the terminus of Magazine Road. This wetland occupies most of the intertidal zone along Allen Harbor, and a narrow strip of adjacent shoreline. It is a coastal wetland bordering Type 3 (High-Intensity Boating) waters. Accordingly, it is designated for preservation under the Rhode Island Coastal Resources Management Program (CRMP) in 1990, and activities in this wetland are strictly regulated by the state. A 2.5-acre estuarine emergent wetland is located along the north shore of Allen Harbor, alongside the channel to the Bay and east of the terminus of Magazine Road farther inland. It is similar to the 6.7-acre wetland.

There are also five small isolated freshwater wetlands north of Allen Harbor and east of Magazine Road. They are primarily reed marshes ranging in size from 0.1 to 0.8 acres.

### **Water Quality of Allen Harbor and Adjacent Areas**

The Rhode Island Department of Environmental Management (RIDEM) classifies surface water according to the Rhode Island Water Quality Regulations for Water Pollution Control. These regulations designate the acceptable uses for a particular body of water *based on the intended use and quality*. Accordingly, the SA Water Quality Classification (see below) allows all seawater uses including shellfish harvesting for direct human consumption (approved shellfish areas), bathing, and other water contact sports.

---

The water quality of the northern half of Allen Harbor is designated SA {b} by RIDEM, suitable for all seawater uses including shellfish harvesting. The southern half of Allen Harbor is designated SB, suitable for shellfish harvesting after depuration, bathing, and wildlife habitat. Although Allen Harbor was designated SA {b} and SB in August 1997, it has been closed for shellfish harvesting for more than ten years.

Prior to the current remediation effort, the adjacent Allen Harbor Landfill was suspected of contaminating sediments within the Harbor. RIDEM has restricted dredging in the Harbor for two reasons: to minimize resuspension of the sediments, and not to hamper sediment condition studies by the Navy. In addition, the marinas operating in Allen Harbor are a nonconforming use under the SA classification, but were “grandfathered” at the initiation of the SA designation.

#### *CRMC Classification*

In addition to the above, the CRMC established development restrictions and permit requirements within the coastal zone and specified in the CRMP. CRMC’s jurisdiction extends three miles offshore to 200 feet inland from any coastal feature. The program classifies coastal waters and identifies land uses that are considered appropriate by the CRMC within each classification.

Allen Harbor and the lands around it are classified Type 3 under CRMP. Accordingly, Allen Harbor is appropriate for “High-Intensity Boating”. Program policies include preservation and enhancement of activities that support high intensity boating activities and services required for these activities. Priority uses include marinas, mooring areas, public launching ramps, boat yards and other businesses to service recreational boaters. Enhancement of public access to the water is encouraged.

Alterations to the coastal wetland area around Allen Harbor are prohibited, with the exception of minor disturbances associated with residential docks and walkways or approved shoreline protection facilities. All construction permitted must be in accordance with CRMP design criteria.

The channel area immediately outside Allen Harbor in Narragansett Bay and extending to the Davisville Piers Area is classified Type 6, “Industrial Waterfronts and Commercial Navigation Channels.” These areas support a wide variety of commercial and recreational activities.

RIDEM classified the shoreline waters of Calf Pasture Point as SA. Accordingly, the water quality goal is that the seawater be suitable for all seawater uses including shellfish harvesting.

The immediate water area off Calf Pasture Point in Narragansett Bay is classified by the CRMP as Type 1, “Conservation Area”. This Type includes relatively undisturbed areas

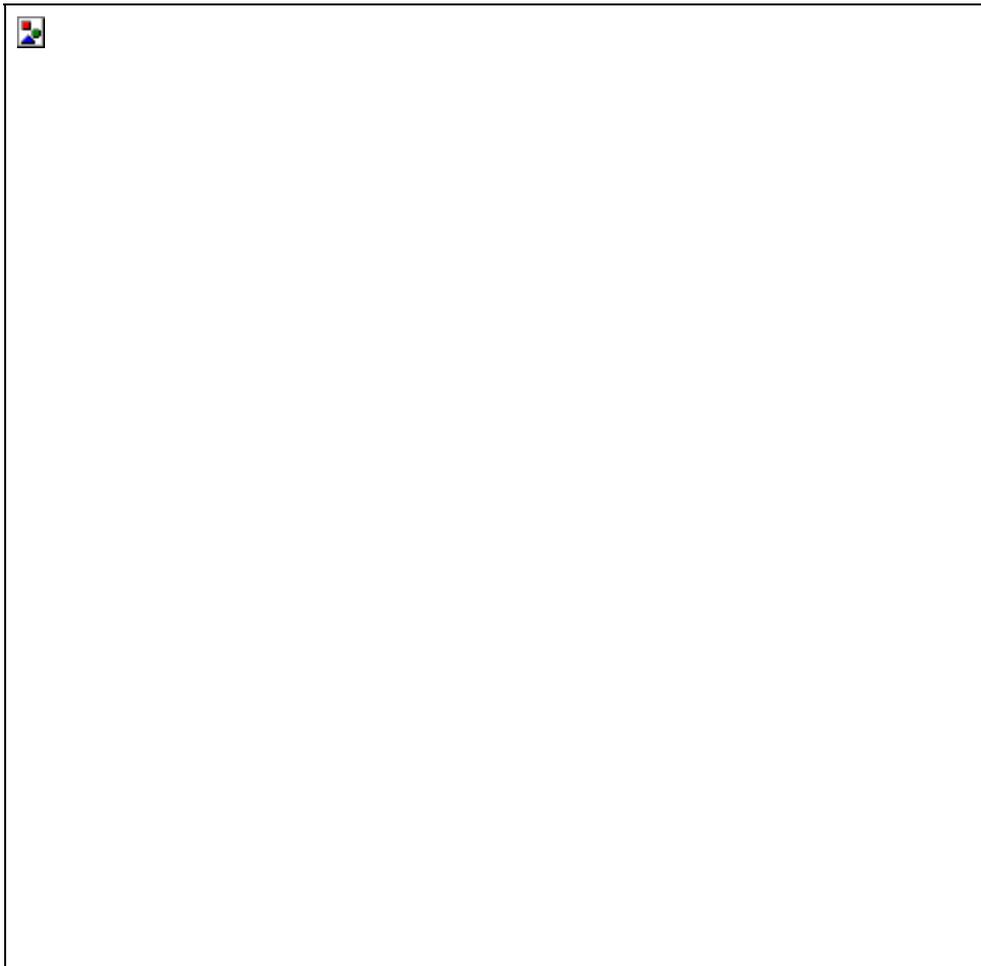
---

exhibiting unique natural habitat or scenic values. Policies prohibit activities that would potentially degrade scenic, wildlife, or plant values, or that would impact water quality or natural shoreline types.

The classification is Type 4, “Multipurpose Waters” further out into the Bay. These areas support commercial and recreational activities while maintaining important fish and wildlife habitat. Policies include maintaining a balance among diverse activities that must coexist in open waters, recognizing the importance of these areas as fishing grounds and fishery habitats.

### **Floodplains**

All of the property within the study area is in either Zone A or V except the northwest corner of Calf Pasture Point and the southwestern part of Western Allen Harbor (see



*Figure 4. Flood zones around the Allen Harbor Complex*

---

Figure 4). Since much of the Complex is below an elevation of 10 feet, the area would be inundated during a 100-year storm. The outer edges of Calf Pasture Point are mapped as Zone V, with base elevations of 18 and 19 feet above mean low water, indicating that the area is subject to battering wave action during the 100 year storm, with the water surface elevations (including waves) of 17 to 19 feet. The area between the shoreline and most the remaining part of the interior is mapped as Zone A.

There are numerous structures in the port area which pre-date current flood hazard regulations. Any new structures would have to be constructed in accordance with state flood hazard requirements. New or substantially improved non-residential buildings must either have the lowest floor elevated to or above the base flood elevation if it is in the V-zone or be flood proofed below the base flood elevation with solid walls if it is in the A-zone. The walls would have to be impermeable to the passage of water with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

### **Threatened Species**

There are no federally listed or proposed threatened or endangered species according to the US Fish and Wildlife Service (USFWS). There are substantial amounts of open space in the Complex that have not been utilized for over 20 years. In these areas, there have been occurrences of three bird species that are listed by the state as threatened (RIDEM Fish and Wildlife). They include: upland sand piper (*Bartramia longicauda*), grasshopper sparrow, (*Ammodramus savannarum*), and the least tern (*Sterna albifrons*).

These types of birds are generally found in open grasslands and beach habitats. However, since the NCBC ceased operations, much of the vegetation has given way to shrub land and forest through succession. Depending on which lands are utilized for recreation, some could be set aside and protected as habitat for specific bird species. Additional habitat protection areas for other animal species could also be investigated.

---

## **Transportation and Accessibility**

Sufficient access from both land and water is extremely important in order for users to enjoy the full benefits of a marina and park recreation area. Several modes of transportation could be expected to reasonably serve this area, including boats, cars, and bicycles. This section describes existing and potential transportation modes for the Complex for each sub-area. Areas with potential for visual access are also described.

### **North Kingstown Marina**

Vehicular access to the North Kingstown Marina is via Allen Harbor Road from Davisville Road. Allen Harbor Road leads into a loop road named Bruce Boyer Street, which provides access to parking areas at the site.

In addition, the loop road provides access to the north end of the adjacent Davisville Piers section of the Quonset Davisville Port and Commerce Park via a single-lane paved road called Patrol Road. It serves small industries and a gravel beach (Spinks Neck Beach) on Narragansett Bay. The beach is used for sun bathing, sail boarding, and fishing, although it is not now an official public recreation area. A large paved area traversed with active and inactive railroad tracks is located south of Patrol Road. This area is occasionally used for parking of imported automobiles that are off-loaded at Davisville Piers.

There is no identified pedestrian access to the North Kingstown Marina on the roadways. There are limited parking areas for automobiles and boats on tow trailers. Two boat ramps allow access to the Bay from Allen Harbor. There are no rights of ways other than roadways in this area. Bicycle access is possible using the roadways, although there is no designated bike path on the roadways.

### **Allen Harbor Landfill**

Vehicular access to the landfill from the south is from Davisville Road via Marine Road to Sanford Road. A locked gate and a chain link fence along Sanford Road on the south side of the landfill and the north side of Calf Pasture Point prevents pedestrian, bicycle, and vehicular access. There are no vehicular parking spaces at the entrances or on the property. There are no rights of way other than on Sanford Road. Although the Town is in the process of receiving constructive possession of the landfill, under existing conditions, the Navy prohibits pedestrian, bicycle, and vehicular access. At the time of this writing, both the Allen Harbor Landfill and Calf Pasture Point is off-limits to the public, and any encroachment on these properties by the public is considered trespassing.

### **Calf Pasture Point**

Access to the landfill and Calf Pasture Point from the south is from Davisville Road via Marine Road to Sanford Road. Access to Sanford Road is blocked at its south and north ends by locked gates and chain link fencing. The Mount View neighborhood is located

---

north and adjacent to Calf Pasture Point. Despite the fence, it is possible to access the site on foot or bicycle through openings in the fence along the Calf Pasture Point beach. This access is prohibited. There is no access from the residential area to the west of Sanford Road due to another fence. There are no parking areas, and there are no right-of-ways other than the roadways. While there is no constructed bikeway, bicycle access is possible on the unimproved roads during dry weather.

Currently, police and fire vehicles do not have access to Calf Pasture Point from either the south side (Davisville Road) or the north side (Mount View neighborhood). When the area is opened up to the public use, the police have indicated that they will need unlocked gate access for regular patrols from the south side. Access to the interior of the park should be through roads that are maintained and suitable for fire trucks in emergencies and for regular police patrols. Magazine Road could support this function if repaired to meet fire department standards.

Note: As of July 10, 2000, the Town of North Kingstown acquired constructive possession of Calf Pasture Point from the U.S. Department of Interior.

### **Western Allen Harbor**

Access to Western Allen Harbor is from Davisville Road to Westcott Road. This road leads to parking areas that serve the existing Yacht Club. There are no specified pedestrian walkways alongside the roadways. There is no right of way other than existing roadways.

---

## **Archeological and Cultural Resources**

There are various archeological and cultural resources in the Complex (see Figure 5). In Calf Pasture Point alone, there are over 70 acres of designated archeological areas. A small promontory in Western Allen Harbor is also designated as an archeological area.

These areas are known to have prehistoric deposits, and need to be protected based on the levels of recreational use in the area. The surface of these areas should not be disturbed i.e. with deep-root trees. A recreational management plan should consider the protection of these valuable resources. The following two areas are documented historical sites that affect the potential uses and types of activities of the Complex.

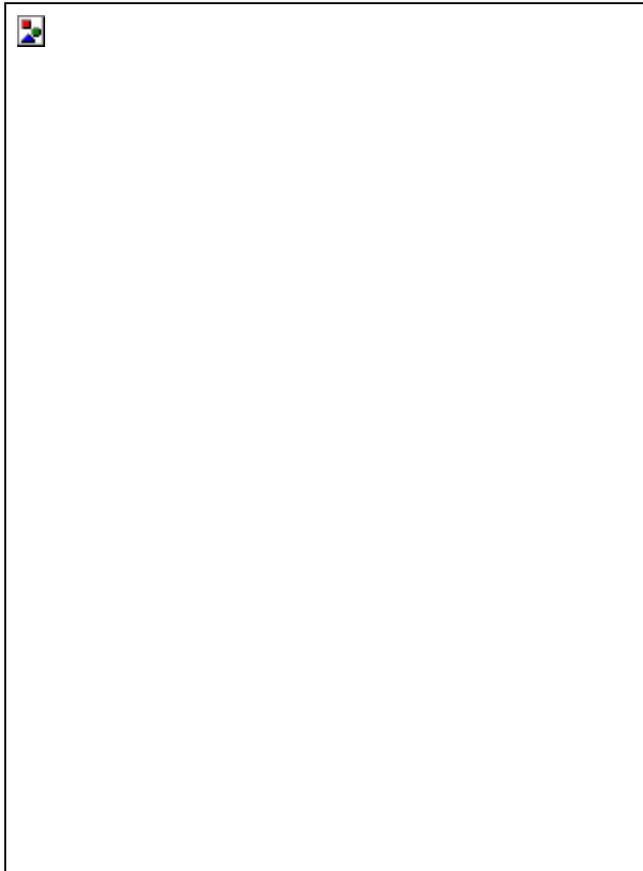
### **Allen Madison House**

The Allen Madison House is located outside the Complex on the west side of Marine Road on a two-acre wooded lot. The house is approximately 200 years old, and was used as officers' quarters in 1974. It is listed on both the National Register of Historic Places and the Rhode Island Historic Register (RI 2106).

The house is in very poor condition and needs immediate attention. The Town and RIEDC are currently assessing the cost of restoring the house, and addressing its use as a gateway and bicycling stop for the Complex.

### **Prehistoric Archeological Site**

A small, prehistoric archeological site was discovered several years ago in the Complex. It represents a remnant of a workshop for the manufacture of wampum – tubular shell beads. The site is eligible for listing on the National Register of Historic Places. The location of this site is not public information due to the possibility of people digging and disturbing



*Figure 5. Archeological areas within and around the*

---

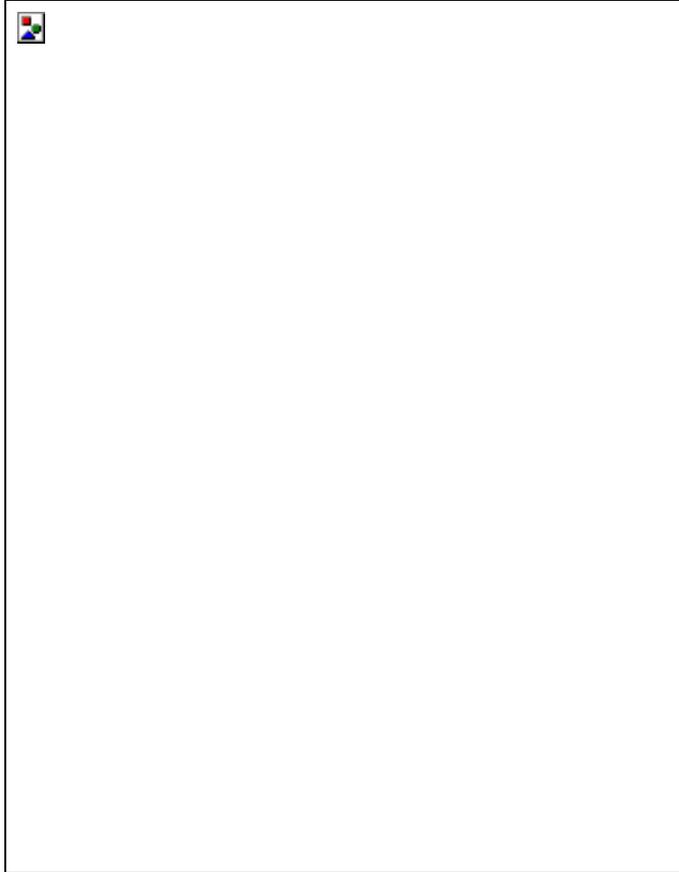
archeological and historic information.

---

## **Infrastructure**

### **Public Facilities**

Water supply facilities operated by the RIEDC at Quonset Davisville Port and Commerce Park (QD) service the North Kingstown Marina and the yacht club at Allen Harbor. Eight-inch diameter water lines serve these areas (see Figure 6). The lines are generally located under the roadways. The source of the water is the Hunt River aquifer located off site. In order to promote water conservation, RIEDC currently implements an environmental review process before water supply is delivered to new customers. There is no water supply service to the Allen Harbor Landfill or Calf Pasture Point. The Town of North Kingstown provides water supply service in the Mount View neighborhood, located north and adjacent to Calf Pasture Point.



*Figure 6. Water and Sewer Lines in the area*

### **Impacts of Site Development on Quonset Davisville Water and Sewer Systems**

There are sufficient existing capacities in both the water supply and waste treatment systems operated by the RIEDC at QD to satisfy future demand from the maximum development alternative (see Alternatives Report) for the Complex. Demand for both services will be for relatively small volumes. A connection with RIEDC water and sewer systems is an option for the Town to service new facilities at Allen Harbor. Installation of this new infrastructure will require coordination and negotiation with the RIEDC. The following is based on information in the Master Plan for QD, December 1997.

#### **Water Supply**

The total water pumping capacity to the RIEDC site is 4.60 million gallons per day (mgd). This amount does not take into consideration well management. The existing average

---

daily demand is 0.59 mgd (0.90 mgd peak). Total average daily demand in the future will be 3.17 mgd at total buildout of the industrial park. This leaves approximately 1.48 mgd of excess capacity. Water sources include three gravity-packed wells over the Hunt River Aquifer in East Greenwich and Warwick.

The marina facilities at Allen Harbor are connected to the RIEDC water supply system. There is no water service in Calf Pasture Point, and additional lines could be extended to this area from Mount View neighborhood, which is served by Town water. It would appear to be easier to connect to the Town system than the RIEDC system since the Point is closer to the Town water line system.

### Sewer

Sanitary sewage is treated by individual sewage disposal systems (ISDS) at both marinas in Allen Harbor. No sewage treatment facilities are at the other two study sub-areas. A RIEDC-operated sewage pumping station is located at the adjacent Davisville Piers area, near Pier 2, with a gravity main line extending close to the Recreation Area (see the following paragraphs). A force main extends from the pumping station under Davisville Road adjacent to the QD area.

### Sewage Treatment

The Quonset Davisville Management Corporation operates a wastewater collection system for QD. The industrial park is serviced by a gravity system in the Quonset Point section and a pump station and force main in the Davisville Piers area (adjacent to the Allen Harbor Complex), consisting of approximately 20 miles of pipes ranging in diameter from 4- to 20-inches. The system is composed of sewer lateral and trunk lines generally following natural ground contours. Wastewater is discharged from buildings into the sewer lines via service connections. These lines are equipped with manholes at regular intervals to allow inspection and cleaning. Wastewater flows by gravity to the Wastewater Treatment Facility located on Zarbo Avenue at the southeast edge of QD at Narragansett Bay.

The system includes 8-inch diameter force mains serving the Davisville Piers area. The closest force main is located approximately 700 feet southeast of and parallel to Allen Harbor Road; the force main parallels an abandoned railroad track. This force main flows from the pump station at Davisville Piers. The nearest gravity connection is at Manholes P-8 and P-9, approximately 800 feet southeast of the proposed restaurant site at Western Allen Harbor. The invert elevations of Manholes P-8 and P-9 are 1.56 feet and 3.25 feet (Mean Low Water), respectively. The manhole rim elevations are 15.2 feet for P-8 and 15.0 feet for P-9. If the grade elevation of the restaurant site is 12 to 15 feet, it would appear that a gravity service connection from the restaurant to the Manhole P-8 is feasible. In addition, the system is deep enough so that proposed developments at Allen Harbor can be connected to the gravity based sewer system without constructing another lift station.

---

Further, there is enough capacity at the Davisville Piers Pumping Station to service the flows from the proposed restaurant and toilets at the North Kingstown Marina. Sewage flows were estimated on the following assumptions:

Approximately 8,500 gallons per day (gpd) of wastewater would be generated from a mixed-use complex with a 100-seat restaurant, 5,000 square foot function hall, and the existing yacht club in Western Allen Harbor. An additional 4,000 gpd would be generated from a 100-slip marina and bath house, assuming 400 people at the existing North Kingstown Marina.

The pump station in Davisville has a current peak demand capacity of 0.475-MGD (330-GPM) and has not had operating issues. The future development in the Davisville Piers area, as proposed in the Quonset Davisville Port and Commerce Park Master Plan (December 1997/May 1998) will generate daily flows of 0.116-MGD and the peak daily flow will be 0.253-MGD -- well within the capacity of the Davisville Piers Pump Station. It is therefore possible to provide a sewer connection between the proposed developments at Allen Harbor. There is also sufficient capacity in the Quonset Davisville system, including the pump station at Davisville Piers, to accommodate flows from Allen Harbor.

#### Gas

Steam and gas services are not provided in the Study Area.

#### Electric

Electric power from Narragansett Electric serves facilities in Western Allen Harbor and the North Kingstown Marina. An inactive power line exists on Magazine Road in Calf Pasture Point.

#### Telephone

Telephone service is provided to the facilities at the North Kingstown Marina and Western Allen Harbor. None is provided to the Landfill or to Calf Pasture Point.

#### Storm Water Drainage

Storm water from the southern portion of the Complex collects in storm drains, and then discharges into Allen Harbor. Storm water from the QD area near the piers discharges into Narragansett Bay. There are no other storm water facilities or best management practices (BMPs) in the study area. A storm drain exists on east side of the fence along Allen Harbor Road and drains into Allen Harbor.

### **Building Inventory**

The Complex has a variety of building types in the marina areas. There are no buildings in Calf Pasture Point or on the Landfill. All the structures are described in the following paragraphs (see Figure 7).

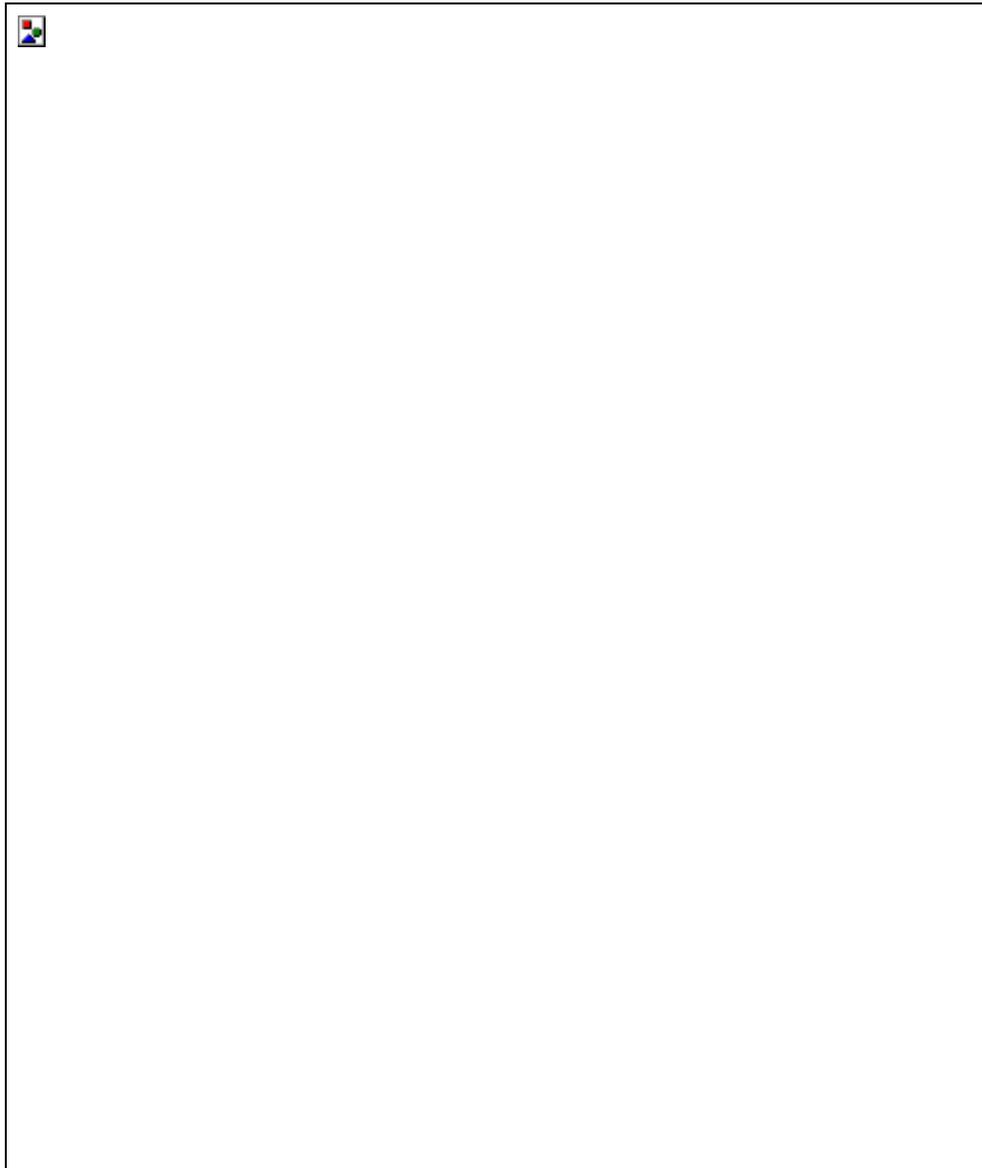
---

### North Kingstown Marina

This area contains three enclosed buildings and one open structure that support the marina operations.

#### *Marina Office*

A small wood-frame building (approximately 600 sf) serves as a superintendent's office and a small snack bar. This building is close to both the marina entrance and the main ramp and slips. The building appears to be in good condition.

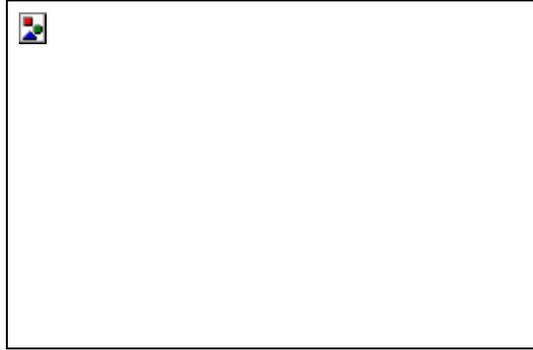


*Figure 7. Facilities in the Allen Harbor Complex*

---

*Maintenance Building*

A Quonset hut serves as a maintenance building (approximately 3,600 sf). It is partially heated and has a small loft for storage. All of the maintenance operations for the North Kingstown Marina are conducted in the facility. The building needs some repairs to the roof, vents, and exterior surfaces.



*Maintenance building for the North Kingstown Marina Operations*

*Restrooms*

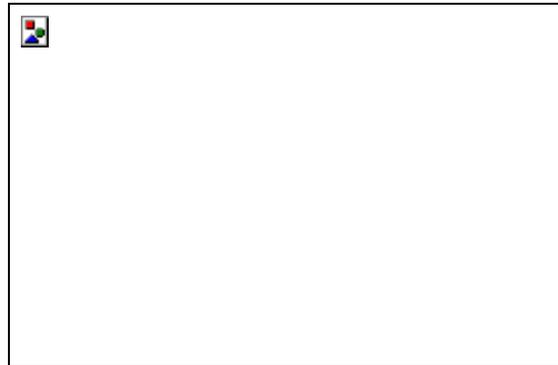
A small cinderblock restroom building (approximately 300 sf) has separate restrooms for men and women. There are no showers in this facility. Although this facility is functional, it is outdated and needs to be replaced.

*Pavilion*

A wood-framed recreational pavilion, approximately 1,500 sf, is fenced on two sides. It has six picnic tables, and can be rented for various organized functions during the boating season.

Western Allen Harbor

There are two buildings in Western Allen Harbor. Both of them support the current yacht club operations. One building (6,400 sf) has rooms for maintenance, offices, bathrooms, storage, and a function area. The other building is a 3,200 sf Quonset hut that is used for storage.



*Marina facility on the western side of Allen Harbor now used by the Allen Harbor Boating Association*

Calf Pasture Point

There are no buildings on Calf Pasture Point except two former munitions bunkers in the middle of the Point on Magazine Road. They have been decontaminated, and the doors have been welded shut to prevent intrusion. There are some safety concerns with the bunkers since there is a hole in the top of one bunker and a hole in one of the steel doors, and they need improved security.

Allen Harbor Landfill

The landfill does not have any buildings. However, there are several gas vents surrounded by small fences.

---

### **Adjacent Properties and Areas of Interest**

Several areas outside of the Allen Harbor Complex could be impacted by uses within the Complex. To the east of Allen Harbor is Little Allen Harbor and Spinks Neck Beach. The Little Allen Harbor property is managed by RIEDC, and is leased by several small boat operations. Spinks Neck Beach is approximately 1,100 feet long. Patrol Road directly borders the beach and provides excellent access to the Bay especially for users such as windsurfers.

### **Recreational Areas**

#### *Quonset Davisville Port and Commerce Park*

The Quonset Davisville Port and Commerce Park (QD) area provides excellent vehicular access to the Complex along Davisville Road. However, the public does not have vehicular access to Spinks Neck Beach, which is in the QD. Additional parking could be provided with an improved lot in the Allen Harbor Complex. Landscape improvements could also be made along some of the hard edges between the QD and the Complex, specifically along Allen Harbor Road.

Although there is potential for future expansion of QD, it is unknown how this will impact uses in the Complex. Increased businesses in the QD may increase the amount of people that use the Complex, and may support a new business such as a restaurant in the Complex.

There are also several areas in the QD that may influence uses at the Complex. They include Little Allen Harbor, Spinks Neck Beach, North Kingstown Municipal Golf Course, the Max Kiel Gymnasium, and a ball field.

#### *Little Allen Harbor and Spinks Neck Beach*

To the east of Allen Harbor are Little Allen Harbor and Spinks Neck Beach. Both areas are managed by RIEDC, and Little Allen Harbor is leased by several small commercial boat operations. Spinks Neck Beach is approximately 1,000 feet long, and has direct access from Patrol Road. Patrol Road ends at the edge of the beach and provides excellent access to the Bay, especially for users such as windsurfers. The public is not allowed to park on Patrol Road or the lot adjacent to the beach. There is an opportunity, however, for the Town to expand its parking lot to accommodate users of the beach.

#### *North Kingstown Municipal Golf Course*

The Town owns and operates the North Kingstown Municipal Golf Course. The 18-hole course is located in the Quonset Davisville Port and Commerce Park, and is within a five-minute drive from the Complex. The course is open to public, and has a clubhouse and a restaurant/lounge.

---

*Max Kiel Gymnasium*

The Max Kiel Gymnasium, located on Davisville Road, had potential to support additional Town recreation needs. The building, however, was determined to be structurally unsound and expensive to repair. The Town is debating whether to upgrade the facility or build a new one in the same or another location.

*Ball Field*

There is a ball field along Davisville road that is used by the Town and owned by the RIEDC. It is used extensively by the public throughout the summer season.

**Planning District**

The Allen Harbor Complex is in the Quonset Davisville planning district. It borders the Quidnesset Planning District, which includes the Mount View neighborhood. There is no legal vehicular or pedestrian access to the Complex from the Quidnesset District.

---

### **Harbor Management and Fees**

The North Kingstown Marina is operated by the North Kingstown Recreation Department. An operations manager and superintendent have specific duties: one manages the staff and the other manages the facilities. The facility is run as an enterprise, and the fees collected from the users remain in the marina's budget and support all operations. Some maintenance and operations resources are shared with the North Kingstown Municipal Golf Course (also operated by the Recreation Department) in order to reduce operational costs.

### **Fees**

Fees are collected from several sources and are deposited in a general operations fund. Sources of the fees include:

- Yearly mooring and dock fees (\$57/foot/length of slip, \$675/mooring)
- Transient vessels (\$2/foot/day)
- Pump out facility (\$5/boat)
- Pavilion rental (\$25 for all users)
- Parking fees for cars with trailers
  - Daily (\$3/resident, \$6/non-resident).
  - Yearly (\$35/resident, \$50/non-resident)

### **Mooring and Dock Demand**

Boaters must first sign up on a list to get a mooring or dock slip. They are then assigned spaces as they become available. Residents are given priority over non-residents for use of these facilities. As of this writing, the waiting list is as follows:

	<b>Residents</b>	<b>Non-residents</b>
<b>Slips</b>	31	65
<b>Moorings</b>	5	66

---

## **Current Proposals**

### **Quonset Davisville Port and Commerce Park Master Plan**

The Allen Harbor / Calf Pasture Point Study Area was part of the 3,000-acre Quonset Point / Davisville naval installation. The entire area was used by two US Navy installations. Subsequently, portions of the property have been turned over by the Navy to the State of Rhode Island, specifically to the RIEDC, for development as an industrial park. The Western Allen Harbor, Landfill and Calf Pasture Point areas are to be turned over by the Federal government to the Town of North Kingstown for development as recreation and conservation areas. The Town already owns the North Kingstown Marina, which has been developed into a marina and water oriented recreation area.

In 1997, the RIEDC retained Parsons Brinckerhoff Quade and Douglas, Inc. to develop a Master Plan for the area. The Master Plan focused on the industrial areas of the property. The following reflects the discussion in the Master Plan that was completed in December 1997, but not adopted.

In 1997, only 586 acres of the site were developed, and most of this developed land was located in Quonset Point. It was occupied by industrial and manufacturing uses employing 4,500 workers. The remainder of the land was vacant awaiting future development (900 acres), or was used as open space or for transportation/utilities (including Quonset State Airport). The draft Master Plan addressed RIEDC's major objectives for the property, which were:

- To develop a port and industrial park at the site; and
- To provide jobs and other economic benefits to the residents of Rhode Island.

The draft Master Plan proposed additional industrial development of 900 acres of vacant and developable land. The draft Plan included a proposal for a major seaport, and provides for expansion of roadway, rail and utility services in a compatible network that supports a first class industrial park. In addition, it assumed continued growth of Quonset State Airport.

The districts closest to the Study Area include North Davisville to the west and Davisville Waterfront to the south and east. Distribution and manufacturing industries were proposed for the North Davisville area (165 acres) on relatively large parcels. Space was set aside for the Town of North Kingstown at its request for the site of a future public works garage. Distribution and manufacturing uses were proposed for the Davisville Waterfront (68 acres). Both districts were proposed to provide supporting space for the seaport and other maritime uses at Piers 1 and 2

Most of the proposed infrastructure was designed to support the projected traffic from full buildout of the park and proposed seaport. Davisville Road, for example, is proposed to be

---

converted from a two-lane wide arterial road that is currently in poor condition, to a four-lane "Avenue" between a proposed new interchange at Route 403/Route 1 on the east and the port area south of the Davisville Waterfront. Sufficient right-of-way was to be provided for future widening, as needed, to serve the seaport. In addition, Davisville Avenue would be widened to four lanes east of the seaport turn-off into the Davisville Waterfront. Allen Harbor Road and Westcott Road would still connect to Davisville Avenue as they do today.

Public comments at the Master Plan public hearing, particularly regarding the proposed port, led Rhode Island Governor Lincoln Almond to convene a stakeholders' process to discuss the port proposed by a private developer. Stakeholder meetings were held for nearly a year, and led to: first, recommendations to the Governor; then a submittal by the developer; and then, in September 1999, a decision by the RIEDC not to accept the proposal.

The Quonset Davisville Management Corporation Board has committed to completing the Master Plan. At this writing of this report, the Board was in the process of selecting a consultant to assist them in developing a set of strategic guiding principles that will guide the completion of the Master Plan.

RIEDC staff is using the Quonset Davisville Port and Commerce Park Master Plan to help site new tenants and implement the capital improvement program including upgrading and building new roadways, rehabilitating railroad facilities and constructing new water supply facilities. Since 1997, employment at the park has risen to over 5,000 jobs.

### **USS Saratoga in Quonset Davisville**

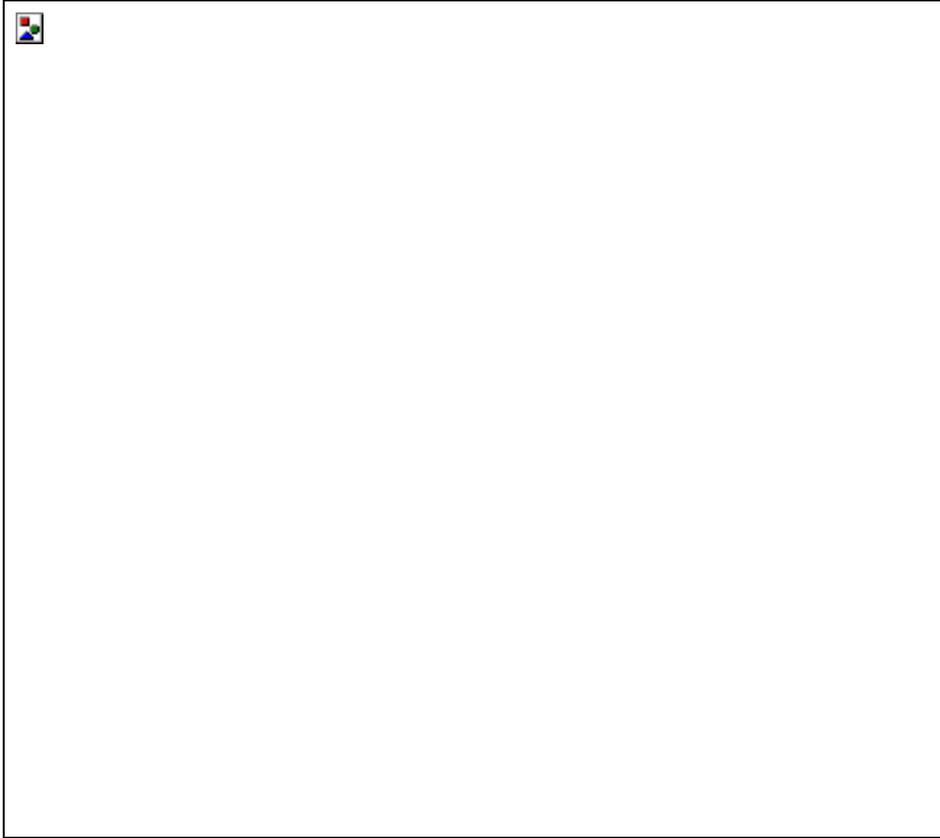
A new tourist attraction and educational facility, the Air, Land & Sea Heritage and Technology Park, is proposed for the southern part of Quonset Davisville. The organizers hope to open the facility in the summer, 2001. Its main attraction will be the decommissioned USS Saratoga, the first world's supercarrier opened to the public. The Saratoga has received conditional approval for the project with 16 conditions to be fulfilled. Other features of the facility will be formal educational programs and vocational training. This \$15-30 million facility has been projected to draw over 500,000 visitors per year. It is expected that this type of development will have a positive impact on Allen Harbor due to the recreational opportunities and mutual benefits that would be shared by visitors to both areas.

### **Bicycle Path**

The Quonset Davisville Master Plan recommended a new bike path along the northern edge of North Davisville District (along abandoned Perimeter Road) between the proposed West Bay Bike Path along Route 1 and the Allen Harbor / Calf Pasture Point area (see Figure 8). RIEDC is currently planning to implement this bikeway from Post Road to

---

West Allen Harbor. It would be a Class I 10-foot wide path, surrounded on both sides by a vegetated buffer.



*Figure 8: Proposed Bicycle Path to the Allen Harbor Complex*

## **IV. MASTER PLAN RECOMMENDATIONS**

### **Overview of the Plan's Recommendations**

This section describes the principal recommendations proposed in the Allen Harbor / Calf Pasture Point Master Plan. The recommendations are designed to achieve the Town's overall goals for use of the property, and have evolved in response to current conditions and concerns of the Complex. The recommendations are organized according to the sub-areas. In some cases, the discussion expands upon a specific use or activity. For most elements, a preferred path has emerged for phasing the Plan over two periods: years 1 to 5 and years 6 to 10.

Commercial development in the Complex was discussed throughout the planning process. Several types of businesses could potentially benefit the operations of the Complex. Any decisions to allow commercial development should be supported by a detailed financial plan that addresses the current market and economy of the proposed use.

The following recommendations and illustration provide a vision of the Complex (see Figure 9). Some of the recommendations, however, may change and some may be added during the proposed ten-year period. The phasing periods for each of the actions are provided in the Implementation Schedule section that follows.

### **General Area Recommendations**

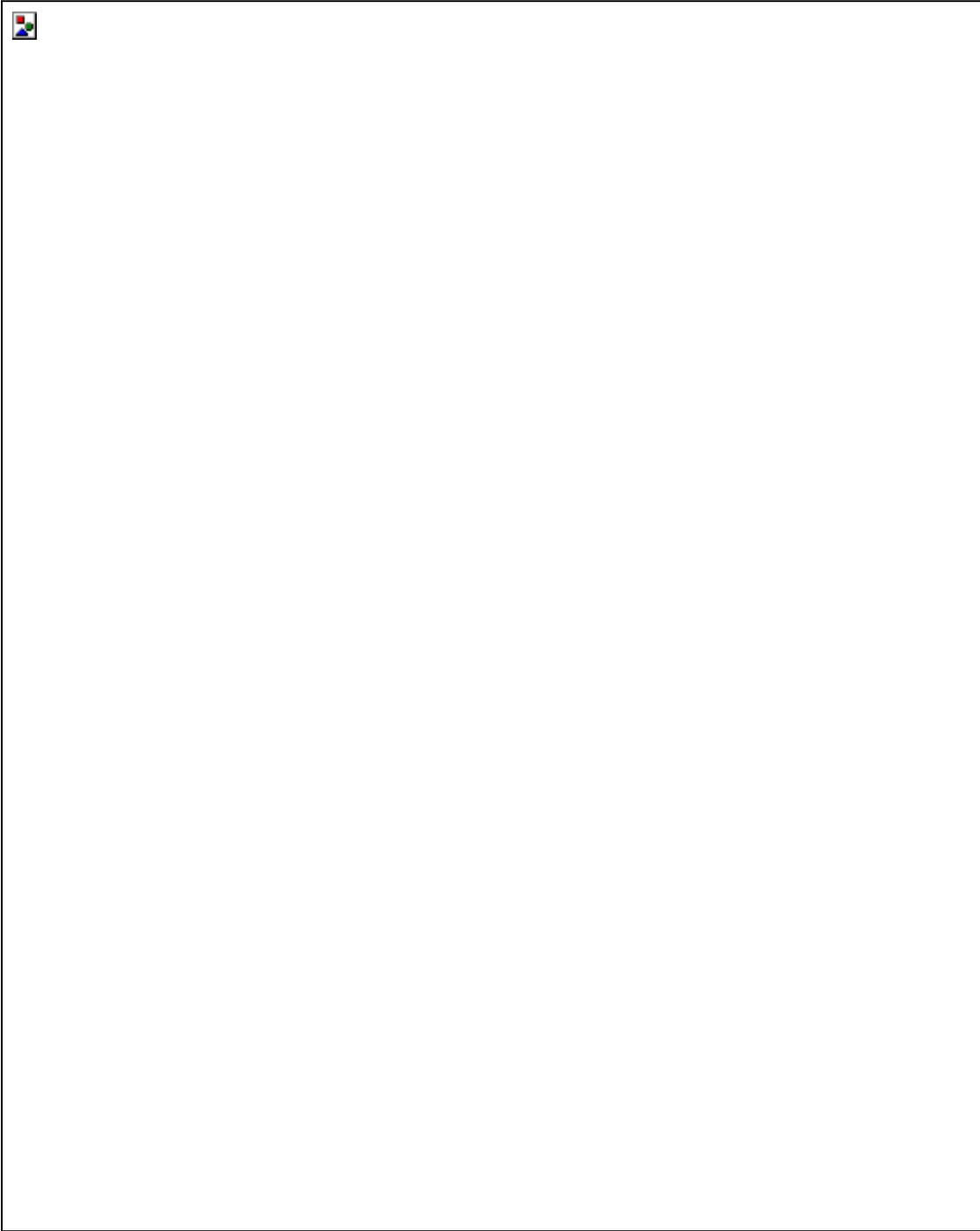
The Plan seeks to preserve the area's built and natural features by allowing only low-impact activities in the conservation areas, and by maintaining and enhancing the existing uses and facilities at the marinas on the west and east sides of the Harbor. A new revenue-generating business would help support park operations. Approximately two acres, less than one percent of the undeveloped area, is proposed for the new business. Some types of development may require storm water control and the use of best management practices (BMPs). These actions would help further one of the goals: to balance economic development with the environment.

The open space and developed areas of the Allen Harbor Complex provide suitable and compatible resources that support its development as a coastal park and marina. Of the four main land areas in the Complex, Western Allen Harbor has the most potential for marina and commercial development, and Calf Pasture Point provides the most opportunity for change to recreational and open space uses. The landfill would be used on a limited basis as a viewing area, and the marina on the east side of Allen Harbor would continue with its operations and support activities.

Boating and marina activities would be the primary uses of the Complex at the marinas on both the east and west sides of Allen Harbor. A new revenue-generating business could complement the existing activities at the Harbor.

---

*Figure 9. Illustration of the Complex in Ten Years*



---

## North Kingstown Marina

The uses at the marina on the east side of Allen Harbor, which is run by the Town's Recreation Department, would generally remain the same with boating and support activities as the primary uses. The facilities for docking, mooring, and launching boats would allow access to the Bay, provide recreational and boating opportunities, and other water-dependent activities. Recreational uses at the pavilion, lawn area, and the small beach at the harbor entrance channel would also be supported. Infrastructure, maintenance, and service improvements to make the marina area more functional and convenient for users include:

- A new dock extension at the southern side of the existing dock system
- A repaired beach/channel wall
- Public viewing areas and benches located on the bulkhead and other waterside edges
- Bathroom facilities with hot water and showers
- Reorganization and designation of trailer and non-trailer parking spaces
- Bicycle rack, and similar support services

### *New Dock Extension*

The Recreation Department plans to install a new dock extension. It will accommodate eight 30-foot slips and provide an additional 100-foot dock for transient vessels. The Department is currently applying to CRMC for a variance because the outermost slip may extend beyond the Marine Perimeter Line.

### *Bulkhead and Revetment Replacement*

The steel sheet pile bulkhead along the pumpout pier is in poor condition, requires constant maintenance, and poses a safety hazard. It should be replaced as soon as possible. The existing bulkhead could be replaced with either a sloped stone revetment or steel sheet pile. Composites are more expensive than steel and will deteriorate because of ultraviolet rays. A sloped revetment, similar to the revetment in front of the marina office would last longer but would require that the existing edge be set back another 20 feet from the edge of the water. Sheet pile would not have to be set back, and is expected to last 50 years. Regardless of which method is chosen, a new bulkhead would provide the following benefits:

- Prevent further washout of the soil from behind the bulkhead into the Harbor.
- Improve pedestrian and vehicular safety along the edge of the water.
- Provide a long-life, low-maintenance stable edge.
- Improve marine habitat.

The stone revetment at the beach on the entrance channel is also in poor condition. It should also be replaced.

---

### *New Benches and other Amenities*

Several benches and viewing areas should be installed to provide more opportunities to enjoy the scenic qualities of the Harbor. Potential areas for their location are along the bulkhead and near the beach on the channel. Other areas could be utilized depending upon the organization of the parking lot. A bicycle rack should also be installed to make the area more convenient for bicyclists, especially when the proposed bicycle path is completed.

### *New Restroom Facility and Sewer Line*

The existing restroom facility is outdated, and does not provide the level of service needed for users of the marina, especially during peak use periods. A new facility should have sufficient number of bathrooms, as well as hot water and a shower.

A new 1,000-foot sewer connection would be necessary to support the additional sewage flows. It would connect from the new facility to the main sewer line that is located on the south side of Little Allen Harbor.

### *Ten New Moorings*

Approximately ten additional moorings should be put in the Harbor. This would help increase mooring revenues as well as provide more boating opportunities.

### *Additional Staff During Phase II*

Preparation of trails, landscaping, trash, and similar park maintenance requirements would need to be managed by the Recreation Department. Additional staff from this department would be needed to help maintain the property, especially during the busy summer months. It is also possible to work with volunteer groups to help reduce park maintenance costs. There would also be some additional planning, managing, and maintaining requirements from several town departments as is done with the other town-managed park and recreation areas.

### *Additional Recommendations*

A study of comparable marinas was conducted early in the planning process (see Appendix IV). This study identified operations that managed moorings, slips, and marina facilities. Since there were no comparable marina operations in Rhode Island, the conclusions of the study are not presented in this section. These conclusions, however, provide insight and some options on how to manage the North Kingstown Marina more like a privately run organization than as a not-for-profit organization.

## **Western Allen Harbor**

The recreational boating opportunities at the marina in Western Allen Harbor should continue for the next ten years. Excellent vehicular access, views of the Harbor, deep water for berths, and adequate parking areas are just a few of the features that support its

---

use as a marina. The remaining area is vacant and mostly vegetated with both wetlands and upland areas, and has potential for recreational and commercial opportunities.

#### *New Entrance Facility to the Complex*

Western Allen Harbor could serve as a gateway into the Complex. A new entrance facility would provide interpretive information about the park including the trail system, history, and regulations. It would also provide a parking lot for visitors to Calf Pasture Point, the landfill, and other areas of the Complex. A kiosk or small building would be constructed at the southwest corner of Western Allen Harbor along Sanford Road. From this point, pedestrians and non-motorized vehicles would be allowed to enter the park. This entrance facility would be easily accessed from Davisville, Westcott, Marine, and Sanford roads or the proposed bicycle path, and would accommodate over 50 vehicles during peak use periods.

#### *Commercial Business in Western Allen Harbor*

The marina in Western Allen Harbor is currently operated as a yacht club, known as the Allen Harbor Boating Association. This facility has several buildings for recreation, maintenance, storage, functions, and for docking vessels in the adjacent water. It is located on approximately seven acres of mostly developed land.

Since the Town recently signed a ten-year lease with the Association, near-term options for its development are limited. Should the lease terminate, however, the Town could:

1. Combine the operations and management of both marinas on the Harbor and have the Town or a concessionaire operate them, or
2. Seek proposals from developers and/or marina operators to lease the property.

In either case, the new managers could utilize or expand the existing buildings, or they could demolish them and build a new facility. Appropriate and compatible uses could include an expanded marina with a ramp, haul-out, and storage facility or function hall and restaurant.

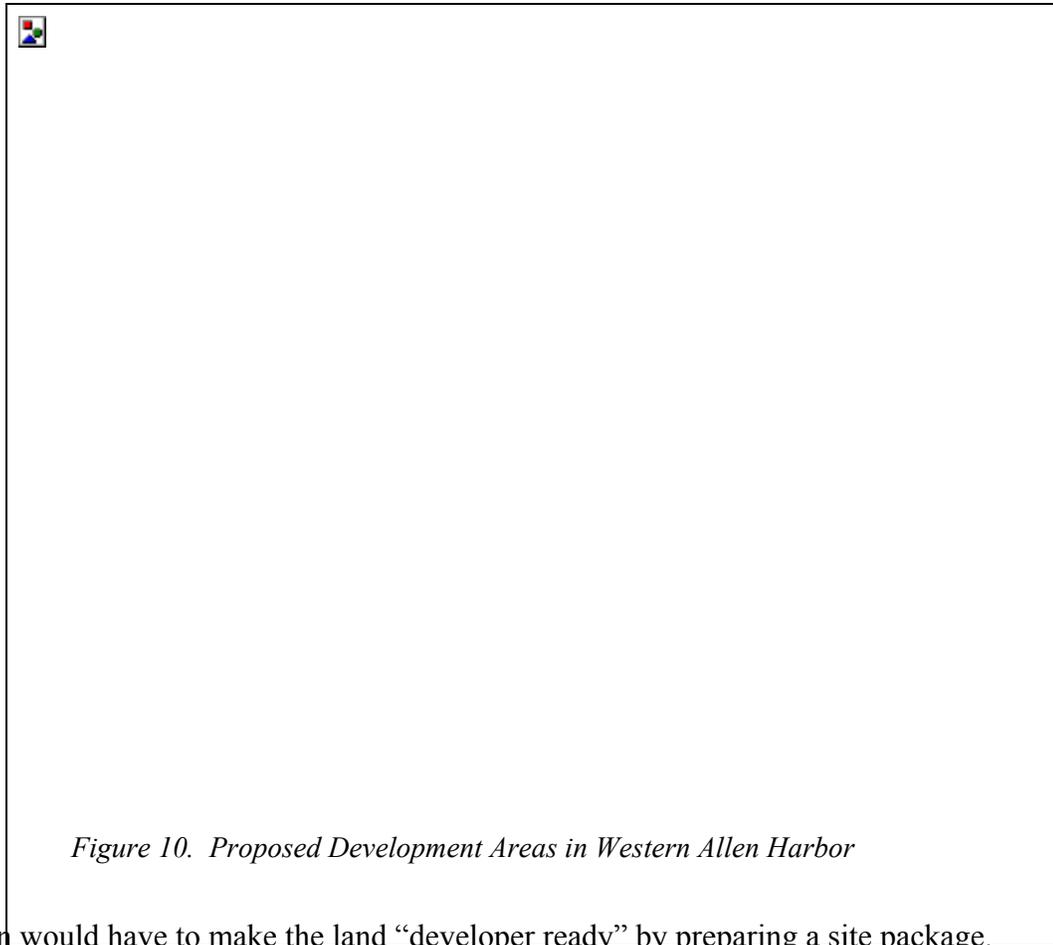
A new revenue-generating, commercial development could be built near the waterfront to help support the marina operations of the Complex. Two recommended areas are suitable for these types of developments are (see Figure 10):

1. Adjacent to or in place of the existing marina facilities on the west side of Allen Harbor.
2. At the intersection of Allen Harbor and Davisville roads, and along the harbor front.

---

This facility would generate different levels of revenue depending upon the lease arrangements with the owner/developer. Examples of potential businesses include a waterfront restaurant, function hall, new marina facility, and a yacht club. These businesses could:

1. Generate income through leases to help finance the operations and maintenance costs of the Complex.
2. Provide marina support services that complement the uses of both marina areas.
3. Provide a waterfront viewing area for users of the business.
4. Provide more opportunities for public access to the waterfront.
5. Compliment QD developments with new amenities for employees.



The Town would have to make the land “developer ready” by preparing a site package. This package would show that the parcel is permitted, the land is surveyed, and a completed master plan exists which includes the adjacent properties. The Town would then advertise a Request for Proposals to determine the level of interest by developers to lease and develop the parcel. Depending on their submittals and the current market

---

conditions, the Town could gauge the level of interest and development that could potentially occur at these locations.

A sewer connection would also be needed to support the new business since the marina in Western Allen Harbor presently uses a septic system.

### **Former Landfill**

The former landfill provides a unique opportunity to view Allen Harbor and Narragansett Bay from an elevated area. The top portion of the landfill would be a good location for a viewing area with several benches. Several trails in the landfill would connect it with Sanford Road and other parts of the Complex. The viewing area and shelter would make it a destination for visitors to the park. Interpretive signage would also provide viewers with information about the Bay and history of the various areas within the Complex.

The landfill would be utilized as a viewing area with no other uses or activities. Only pedestrians would be allowed to access this area due to the restrictions of a capped landfill that do not allow disturbance of the cap's soils.

### **Calf Pasture Point**

Calf Pasture Point has over 185 acres of open space including a one-mile long waterfront that would make an ideal low-impact, passive, recreation area. Activity areas would include the beach, nature trails throughout the Point, Allen Harbor Rock Outcrop, and several viewing areas. New uses would range from picnicking and hiking to fishing and biking.

Calf Pasture Point currently restricts public access by a fence that surrounds both the Point and the landfill. Access to the Point would be allowed for pedestrians and bicyclists from the south side of the Complex on Sanford Road, for boaters arriving from the Bay, and for pedestrians at Mount View neighborhood (although no public parking would be provided at the Mount View area). A gateway facility with an information booth or kiosk and designated parking area for the Complex would be located in Western Allen Harbor on Sanford Road.

Vehicular access by the public will not be allowed from the Mount View neighborhood. Narrow and restrictive road conditions in this neighborhood do not allow for increased motor vehicle traffic or parking.

There are several safety issues connected with some of the uses within Calf Pasture Point and the Landfill. These are discussed in detail in the section: Safety Concerns and Requirements.

---

## **Off-site Areas**

The Plan provides several recommendations to improve recreational opportunities at the Complex. They are consistent with the goals of making the area more accessible to the public and promoting more recreational uses. There are also additional opportunities outside of the Complex that can help support this Plan.

### *Bicycle Path to the Allen Harbor Complex*

A bicycle path currently being planned by the Rhode Island Economic Development Corporation is highly recommended. This path would connect Route 1 to Allen Harbor along several roads that border the Commerce Park (see Figure 8). It would provide a safe, alternative mode of transportation, and help relieve parking needs by reducing the number of cars accessing the Complex.

### *Allen Madison House Gateway*

The Allen Madison House, a vacant and old historic farmhouse on several acres near the Complex, could be utilized as a visitor destination along the bicycle path. It has tremendous potential as an entrance facility for the Complex, as well as part of a network of historic sites in the North Kingstown area. RIEDC currently manages the property. An agreement between the Town, RIEDC, and the state Historic Preservation and Heritage Commission could be reached to allow this property to become available for public use. A public/private partnership is one way of furthering this recommendation.

## **Safety Concerns and Requirements**

The following paragraphs summarize the general comments and specific recommendations of the North Kingstown police and fire departments regarding future development at the Complex. Additional discussions with these departments will be needed to clarify specific safety issues and procedures.

### **Police Safety**

The North Kingstown Police Department is adequately staffed to service a new park area at Calf Pasture Point as well as new uses in the marina areas. The Department has specific concerns with access, lighting, signage and the general safety of users in the park.

#### *Access to Calf Pasture Point*

The police need vehicular access to Calf Pasture Point. They prefer not to have a locked gate at the entrance since it will impede their regular patrols of the Point. Access to the interior of the park should be through roads that are maintained and suitable for police vehicles. Police vehicular access should be from the south side of the Complex (Davisville Road) and the north side of the Complex (Mount View neighborhood).

---

### *Lighting and Parking*

For safety concerns, parking lots should have lighting if the park remains open after dusk. It is expected, however, that the park will operate from dawn to dusk as with similar parks in North Kingstown.

### *Signage*

The park should have adequate signage that designates the hours of use, park restrictions, entrances and exits. There should also be other signs that help with the safety and use of the park.

### **Fire Safety**

The Allen Harbor and Quonset Davisville Port and Commerce Park areas are presently served by the North Kingstown Fire Department. The Town's Capital Improvement Program includes the construction of a new fire department within the Quonset Davisville Port and Commerce Park.

### *Access to Calf Pasture Point*

The width of access roads in Calf Pasture Point should be between 20 and 24 feet depending on the final uses with other transportation modes such as with a bicycle path. Fire truck access may also be required from the north (Mount View neighborhood) and south sides of the Complex. Fire departments usually break through gates in emergencies.

### *Signage*

Visitors as well as the Fire Department would need to have clearly designated signage and access points in Calf Pasture Point. These access points as well as hydrants and fire lanes should be appropriately marked to assure the safety of the park users.

### **Additional Safety Concerns**

There are several safety issues connected with some of the potential users and uses at the Point. Swimming is not a proposed use at Calf Pasture Point since the Town will not be promoting the beach as a public swimming area and will not be providing lifeguards. The Allen Harbor Rock Outcrop, also in Calf Pasture Point, is a steep area to walk, and poses a potentially dangerous area for climbers. It may need a safety device such as a walkway or appropriate signage to help prevent accidents.

The Landfill poses some safety concerns regarding disturbance and uses of the soil cap. If it is disturbed, it may not protect the underlying cap membrane. Therefore, use of bicycles or other vehicles could cause erosion and damage the integrity of the capping material.



## V. IMPLEMENTATION

The Master Plan for the Allen Harbor / Calf Pasture Point Complex is intended as a practical map for future actions. This document summarizes the implementation elements of the Plan, including construction phasing, costs, income and expense statement, and funding resources. For most of the elements, a preferred path has emerged for implementing the Plan over a ten-year period. The implementation schedule should include updates to the Master Plan as well as community meetings to provide input on the critical decisions concerning the future of the Complex.

The North Kingstown Recreation Department and the Allen Harbor Subcommittee (AHS) of the Leisure Services Advisory Committee will be responsible for overseeing the implementation process. Several town departments, state agencies, and other organizations will also help support the Plan's implementation. The AHS and the Recreation Department should review the implementation strategies annually to ensure that program goals and objectives are being met. Changes to these recommendations may necessitate additional public comment and town approvals, depending on the level of complexity and development.

### **Construction Phasing**

The construction phasing for this project would be dependent on the specific projects. Some projects may be expanded beyond the phasing periods due to permitting and project review or approval periods. Other projects are directly linked to each other and need to be coordinated and phased at appropriate times. For example, the new restroom facility at the North Kingstown Marina requires a new sewer connection to the QD sewer system. The following list outlines individual phased sections of the overall project that minimize interference with ongoing operations and activities of the Complex.

#### *I. Initial Phased Construction*

Initial development activities should include efforts to begin permitting, secure funding, and initialize Request for Proposals for necessary projects as specified in the Implementation Schedule (see Table 1). Specific projects that can be completed should be identified during this phase as well.

#### *II. Begin Critical Projects*

Depending upon funding, market conditions and demand, and developer response, construction could be phased for focused areas of the Complex. Specific projects include:

- Lease commercial area in Western Allen Harbor for revenue generating business.
- Repair bulkhead at the marina.
- Install sewer lines and connections.

- Build new restroom facility at the North Kingstown Marina.

*III. Projects that are not phase-sensitive*

Some projects are not phase-sensitive, and can be implemented at any time. They include:

- Maintain walking and bicycle trails.
- Create trail map and guide of the Complex.

**Implementation Schedule**

The following pages describe the implementation strategies for each sub-area of the Plan (see Table 1). The recommendations are organized according to five elements.

Action	Lists the actions necessary to achieve the objectives of the Plan
Purpose	Identifies the intent of that particular action
Timeframe	Establishes the end period in which the action will be implemented in years 1 to 5, and years 6 to 10.
Initiation Responsibility	Assigns the elected or appointed body, agency, group, individuals or volunteers principally responsible to initiate the implementation action
Resources	Lists the potential town, state, or federal agencies, and community resources necessary to achieve the implementation action.

Table 1. Implementation Schedule

**Planning, Coordination, and Programming**

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Coordinate short and long-term actions</b>	To ensure land use, resource protection, transportation, public safety and recreation activities are coordinated for the Allen Harbor Complex	+	+	Planning AHS	RIDEM CRMC RIEDC
<b>Develop Marketing Plan</b>	To determine the potential of Western Allen Harbor for a revenue generating business (see Economic table)	+		AHS	Planning
<b>Determine appropriate Access Plan</b>	To provide appropriate police and fire protection	+		AHS	Police Fire Planning RIEDC
<b>Develop Education Program</b>	To provide environmental education To utilize natural resource area To develop programs that will encourage environmental awareness	+		Planning	Audubon Schools
<b>Maintain liaison with Navy environmental coordinator</b>	To monitor contamination status of all areas especially with Site 16	+	+	Recreation AHS Planning	Navy EC Planning
<b>Maintain liaison with RIEDC</b>	To coordinate land use of adjacent industrial area and to coordinate bike path implementation	+	+	Recreation Planning	RIEDC Planning
<b>Maintain liaison with the Mt. View neighborhood</b>	To allow for community involvement of adjacent residential neighborhood to minimize impacts	+	+	Planning	Mt. View Recreation AHS
<b>Acquire permitting as needed</b>	To determine needs and requirements of all projects	+		Planning Recreation	Recreation
<b>Develop Management Plan</b>	To establish permissible uses, and manage and protect resources	+		Planning Recreation AHS	CRMC Conservation AHS RIEDC

## North Kingstown Marina

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Regrade and organize parking lot</b>	To provide public access to the water To allow convenient parking area for all users To provide a sufficient number of parking spaces	+	+	AHS NK Marina	Recreation CRMC Planning
<b>Repave boat ramp</b>	To provide safe and reliable ramp use and public access		+	NK Marina	RIDEM AHS Planning
<b>Connect sewer lines</b>	To provide a sewer connection for a new restroom facility	+		AHS NK Marina	Recreation RIDEM CRMC RIEDC
<b>Install new restroom facility</b>	To improve accessibility and convenience of restrooms	+		NK Marina	Recreation CRMC Planning
<b>Replace bulkhead</b>	To improve safety of waterfront	+		Recreation	NK Marina CRMC
<b>Repair revetment</b>	To ensure long term stabilization of beach and shorefront		+	Recreation	NK Marina CRMC
<b>Repair maintenance building</b>	To maintain infrastructure by fixing holes in roof		+	NK Marina	Recreation
<b>Build new slips and moorings</b>	To generate additional income and provide additional access to Narragansett Bay	+		NK Marina	Recreation CRMC
<b>Install benches and trash barrels, and landscape user areas</b>	To allow more users to enjoy the natural setting, and to beautify areas such as the pavilion and viewing locations	+		NK Marina	Recreation
<b>Install signage</b>	To facility and direct movement of vehicles and pedestrians	+		Recreation	NK Marina
<b>Install lighting</b>	To provide safety and security of the users and marina facilities	+		Recreation	CRMC RIDEM

## Western Allen Harbor

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Install lighting</b> <sup>1</sup>	To provide safety and security for the users of the marina facilities	+	+	Recreation AHBA	CRMC RIDEM AHS
<b>Connect sewer line to the west side marina</b> <sup>2</sup>	To improve water quality and minimize impact of the expected increase in use of the marina facility	+	+	Recreation	Planning CRMC AHBA RIEDC RIDEM
<b>Install signage</b>	To facilitate and direct movement of vehicles and pedestrians to the recreational areas	+		Recreation	AHBA AHS Planning
<b>Repave bicycle path</b>	To provide bicycle and pedestrian access from Western Allen Harbor to the Sanford Road entrance area		+	Recreation	AHBA AHS Planning RIEDC
<b>Build 25 new slips</b>	To generate additional income and provide additional access to Narragansett Bay	+		Recreation	Planning CRMC
<b>Install new gates at the entrance facility</b>	To provide security and management of the park area	+		Recreation	Police, Fire Planning RIEDC
<b>Landscape entrance facility</b>	To provide a high quality and aesthetically pleasing recreation park	+		Recreation	Planning
<b>Build new entrance facility and parking lot</b>	To provide information and direction about the recreational opportunities in the Complex	+		Recreation	Planning AHS RIEDC
<b>Prepare potential development of a revenue-generating business</b>	see Economic table		+	N/A	N/A

1. CRMC has strict guidelines on lighting near wetland areas

2. Check capacity of existing septic system and the need of replacement

## Landfill

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Build trails</b>	To guide users to the viewing area, and to minimize impacts and reduce traffic on the landfill's capped surface	+		Recreation AHS	Navy EC, Planning RIDEM, EPA
<b>Install park benches</b>	To provide a sitting area and viewing destination for users of the park	+		Recreation AHS	Navy EC, Planning RIDEM, EPA
<b>Install interpretive signage</b>	To provide visitors with a description of the Complex from the viewing area	+		Recreation AHS	Audubon, Planning USFWS Navy, EPA

## Calf Pasture Point

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Widen and repair main access roads</b>	To provide access for fire and police vehicles along Magazine and Sanford roads To provide bicycle and pedestrian access from Sanford Road to the interior and shorefront of Calf Pasture Point	+		Recreation AHS	CRMC, AHS Planning
<b>Upgrade gates and access area</b>	To allow police and fire access to the Complex and the Mt. View area	+		Recreation	Police, Fire Mt. View Planning AHS
<b>Install signage about park usage and regulations</b>	To facilitate and direct movement of pedestrians and vehicles for safety and informational purposes	+		AHS	Audubon USFWS Recreation
<b>Install pedestrian entrance<sup>1</sup></b>	To allow pedestrian access from the Mt. View area to Calf Pasture Point	+		AHS	Mt. View Recreation
<b>Reconstruct walking trails</b>	To provide pedestrian access through various parts of Calf Pasture Point	+		AHS	CRMC Planning
<b>Install benches</b>	To provide rest areas and destinations for park users		+	AHS	CRMC Recreation

1. Use bollards or similar devices that do not allow motorized vehicles to pass through them.

## Economic Development

Action	Purpose	Time Frame (years)		Initiation Responsibility	Resources
		1 – 5	6-10		
<b>Seek funds and grants for open space preservation and recreational uses</b>	To provide a mechanism to ensure capital improvements and costs of operations and maintenance are adequately funded	+		Recreation	Planning AHS
<b>Assess remediation impacts with Site 16</b>	To determine use restrictions of the land that could be leased for a revenue generating business	+		Recreation	Planning AHS Navy EC
<b>Send RFP on leasable land</b>	To determine the level of developer interest in commercial uses of the property in Western Allen Harbor		+	Recreation	Planning
<b>Maximize number of slips and moorings in the Harbor</b>	To maximize recreational opportunities for the communities To create additional revenue to help support maintenance and operational costs	+	+	AHS	Planning CRMC
<b>Lease land in Western Allen Harbor</b>	To generate income from a compatible, mixed-use development in Allen Harbor		+	Recreation	AHS Planning

---

Guide to Table 1 Names:

AHBA	Allen Harbor Boating Association
AHS	Allen Harbor Subcommittee
Audubon	Rhode Island Audubon Society
Conservation	North Kingstown Conservation Commission
CRMC	Rhode Island Coastal Resources Management Council
EPA	US Environmental Protection Agency
FDA	US Food and Drug Administration
Fire	North Kingstown Fire Department
Mt. View	Mount View Neighborhood Association
Navy	US Navy
Navy EC	Navy Environmental Coordinator
NK Marina	North Kingstown Marina
Planning	North Kingstown Department of Planning and Development
Police	North Kingstown Police Department
Recreation	North Kingstown Recreation Department
RIDEM	Rhode Island Department of Environmental Management
RIEDC	Rhode Island Economic Development Corporation
Schools	North Kingstown School Department
USFWS	US Fish and Wildlife Service

---

## **Construction Budgets and Income / Expense Statements**

### **Overview**

The Construction Budgets and Income/Expense statements reflect the recommendations of the Allen Harbor / Calf Pasture Point Master Plan. These statements were created to help compare the project costs with the benefit of two fundamental concepts. The first concept is making basic critical infrastructure improvements that support the marina operations and the basic recreational area needs. The second concept is taking advantage of the Complex's resources and maximizing the benefits.

### **Construction Budgets**

The cost estimates reflect a detailed cost breakdown of construction of all items recommended in this Master Plan (see Tables 2 and 3). The estimate is broken down by phase and by the four sub-areas: North Kingstown Marina, Western Allen Harbor, Allen Harbor Landfill, and Calf Pasture Point. Although the costs are divided between public and private, some of the costs may be reduced by grants and other funding sources as described in the next section.

### **Income/Expense Statements**

The income/expense statements are based on conservative estimates, and should be used to evaluate a potential outcome or scenario for the development of the Complex (see Tables 4 and 5). These scenarios depend on market and economic conditions, funding, approvals, and demand for specific services such as marina slips, moorings, and parking spaces over the next ten years. This type of activity will in turn affect the need for additional improvements, slips, parking, and similar uses.

There are two income/expense statements presented for this Plan. One potential income/expense scenario is that the development does not exceed Phase I during the ten-year period. This means that the Complex would be built out to the Phase I elements, and that no additional costs would be incurred during this period. Another potential scenario is that both Phase I and II are implemented over a ten-year period.

#### *Phase I Improvements over a Ten-year Period*

An investment of approximately \$0.8 million over 10 years would result in a deficit of about \$87,000 the first year, but which would reduce to \$14,000 by the 10<sup>th</sup> year. Additional slips would generate most of the new income during this phase, aside from increases in marina fees.

#### *Phase I and Phase II Improvements over a Ten-year Period*

An investment of approximately \$1 million over 10 years would result in a deficit of about \$142,000 the first year. Although this deficit reduces significantly to about \$42,000 by

---

year 10, it does not break even. Depending on market conditions, there is some flexibility in the fee and lease rates, which could significantly improve the net income.

Table 2. Costs for Phase I, Years 1 – 5

	Public	Private	
<b>Land Construction Costs</b>			
<b>A. North Kingstown Marina</b>			
	\$22,000		
Maintenance building (repair) (2,200sf @\$10/sf)			
Parking (regrade and gravel) (40,000sf @\$1/sf)	\$40,000		
Expansion parking (regrade and gravel) (20,000sf @\$1/sf)	\$20,000		
Slips (11 @\$1,000/slip)	\$11,000		
New moorings (10 @\$2,000 each)	\$20,000		
Replace marina bulkhead (steel sheet pile) (270 ft @\$750/lf)	\$210,000		
Sewer line extension (800 ft @\$90/lf)	\$72,000		
New restroom facility (400sf @\$80/sf)	\$32,000		
Benches (4 @\$500/bench)	\$2,000		
Trash receptacles (4 @\$500 each)	\$2,000		
Landscaping (2,000 sf @\$10/sf)	\$20,000		
1	<b>Subtotal: A</b>	<b>\$451,000</b>	<b>\$0</b>
<b>B. Western Allen Harbor</b>			
		\$25,000	
West side marina slips (25 @\$1,000/slip)			
Upgrade gates	\$1,000		
Signage (4 @\$250/sign)	\$1,000		
Sewer line extension (1,200 ft @\$90/lf)	\$108,000		
2	<b>Subtotal: B</b>	<b>\$110,000</b>	<b>\$25,000</b>
<b>C. Allen Harbor Landfill</b>			
	\$15,000		
Trails (1,500lf @\$10/lf)			
Benches (3 @\$500/bench)	\$1,500		
Landscaping (500sf @\$10/sf)	\$5,000		
Interpretive signage (2 @\$500/sign)	\$1,000		
3	<b>Subtotal: C</b>	<b>\$22,500</b>	<b>\$0</b>
<b>D. Calf Pasture Point</b>			
	\$20,000		
Trail reconstruction (4,000lf @\$5/lf)			
Signage	\$2,500		
Upgrade gates	\$1,000		
Road repair (2,500 ft @\$5/lf)	\$12,500		
4	<b>Subtotal: D</b>	<b>\$36,000</b>	<b>\$0</b>
<b>E. Offsite costs</b>			
	\$0		
None			
5	<b>Subtotal: E</b>	<b>\$0</b>	
6	<b>Total</b>	<b>\$619,500</b>	<b>\$25,000</b>
<b>F. Total Construction Costs</b>			
<b>Indirect Costs</b>			
	\$37,170	\$1,500	
Arch/Eng @6%			
Legal @1%	\$6,195	\$250	
Acct/Insur @1%	\$6,195	\$250	
Mkting/Mgt @1%	\$6,195	\$250	
Permit/Fees @0.5%	\$3,098	\$125	
Utilities @0.5 %	\$3,098	\$125	
Financing @1%	\$6,195	\$250	
Debt Service @7% on Total (#6)	\$43,365	\$1,750	
7 Subtotal	<b>\$111,510</b>	<b>\$4,500</b>	
8 Total	<b>\$731,010</b>	<b>\$29,500</b>	
Contingency @5% overall of Total (#8)	\$36,551	\$1,475	
9 Total Indirect Costs	\$148,061	\$5,975	
10 <b>TOTAL PHASE I PROJECT COSTS</b>	<b>\$767,561</b>	<b>\$30,975</b>	<b>\$798,536</b>
Total w/o Debt Service	\$722,027	\$29,138	

Table 3. Costs for Phase II, Years 6 – 10

	Public	Private	
<b>Land Construction Costs</b>			
<b>A. North Kingstown Marina</b>			
Ramp (resurface) (1,000sf @\$2/sf)	\$2,000		
Repair beach revetment (125 ft @\$500/lf)	\$62,500		
Signage (4 @\$500/sign)	\$2,000		
Lighting	\$22,000		
1	<b>Subtotal: A</b>	<b>\$88,500</b>	<b>\$0</b>
<b>B. Western Allen Harbor</b>			
<b>New business site</b>			
Revenue generating business (4,000 sf @\$100/sf)		\$400,000	
Site work (2 acres x \$5,000/acre)		\$10,000	
Lighting		\$28,000	
Parking (200sp x 325 sf/sp x \$5/sf)		\$325,000	
Landscaping (1,000 sf @\$10/sf)		\$10,000	
<b>West side marina (yacht club)</b>			
Lighting		\$16,000	
<b>Gateway Elements</b>			
Entrance facility (500 sf @\$100/sf)	\$50,000		
Parking (50sp x 325sf/sp x \$5/sf)	\$81,250		
Landscaping (1,000 sf @\$10/sf)	\$10,000		
Signage (2 @\$500/sign)	\$1,000		
Bike racks (2 @\$500)	\$1,000		
Bicycle trail (resurface) (1,800sf x 10ft wide @\$1/sf)	\$18,000		
2	<b>Subtotal: B</b>	<b>\$161,250</b>	<b>\$789,000</b>
<b>C. Allen Harbor Landfill</b>			
Trails (500lf @\$10/lf)	\$5,000		
3	<b>Subtotal: C</b>	<b>\$5,000</b>	<b>\$0</b>
<b>D. Calf Pasture Point</b>			
Road repair (2,500 lf @\$5/lf)	\$12,500		
Trail reconstruction (4,000lf @\$5/lf)	\$20,000		
Benches	\$2,500		
Signage	\$2,500		
4	<b>Subtotal: D</b>	<b>\$37,500</b>	<b>\$0</b>
<b>E. Offsite costs</b>			
None	\$0		
5	<b>Subtotal: E</b>	<b>\$0</b>	
6	<b>Total</b>	<b>\$292,250</b>	<b>\$789,000</b>
<b>F. Total Construction Costs</b>			
<b>Indirect Costs</b>			
Arch/Eng @6%	\$17,535	\$47,340	
Legal @1%	\$2,923	\$7,890	
Acct/Insur @1%	\$2,923	\$7,890	
Mkting/Mgt @1%	\$2,923	\$7,890	
Permit/Fees @0.5%	\$1,461	\$3,945	
Utilities @0.5%	\$1,461	\$3,945	
Financing @1%	\$2,923	\$7,890	
Debt Service @7% on Total (#6)	\$20,458	\$55,230	
7 Subtotal	<b>\$52,605</b>	<b>\$142,020</b>	
8 Total	<b>\$344,855</b>	<b>\$931,020</b>	
Contingency @5% overall of Total (#8)	\$17,243	\$46,551	
9 Total Indirect Costs	<b>\$69,848</b>	<b>\$188,571</b>	
10 <b>TOTAL PHASE II PROJECT COSTS</b>	<b>\$362,098</b>	<b>\$977,571</b>	<b>\$1,339,669</b>
Total w/o Debt Service	\$340,617	\$919,580	
<b>TOTAL PHASE I PROJECT COSTS w/o debt service</b>	<b>\$722,027</b>	<b>\$29,138</b>	
<b>TOTAL PROJECT COSTS w/o debt service</b>	<b>\$1,062,645</b>	<b>\$948,717</b>	<b>\$2,011,362</b>

Table 4. Income/Expense Statements for Development of Phase I over a Ten-year Period

Year	1	2	3	4	5	6	7	8	9	10	Totals
<b>INCOME:</b>											
Parking Fees	\$ 6,000	\$ 6,120	\$ 6,242	\$ 6,367	\$ 6,495	\$ 6,624	\$ 6,757	\$ 6,892	\$ 7,030	\$ 7,171	\$ 65,698
Mooring Fees	\$ 105,000	\$ 105,000	\$ 110,250	\$ 115,763	\$ 121,551	\$ 127,628	\$ 134,010	\$ 140,710	\$ 147,746	\$ 155,133	\$ 1,262,789
Lease (AHBA)	\$ 12,000	\$ 12,000	\$ 18,000	\$ 30,000	\$ 60,000	\$ 72,000	\$ 73,440	\$ 74,880	\$ 76,320	\$ 77,760	\$ 506,400
AH Merchandise	\$ 750	\$ 750	\$ 773	\$ 796	\$ 820	\$ 844	\$ 869	\$ 896	\$ 922	\$ 950	\$ 8,369
AH Misc	\$ 2,000	\$ 2,000	\$ 2,060	\$ 2,122	\$ 2,185	\$ 2,251	\$ 2,319	\$ 2,388	\$ 2,460	\$ 2,534	\$ 22,318
<b>GROSS INCOME</b>	\$ 125,750	\$ 125,870	\$ 137,325	\$ 155,047	\$ 191,050	\$ 209,348	\$ 217,395	\$ 225,766	\$ 234,478	\$ 243,547	\$ 1,865,575
<b>EXPENSES:</b>											
Salaries w/ Bene	\$ 83,255	\$ 83,255	\$ 85,753	\$ 88,325	\$ 90,975	\$ 93,704	\$ 96,515	\$ 99,411	\$ 102,393	\$ 105,465	\$ 929,051
Operating & Maintenance	\$ 61,831	\$ 61,831	\$ 63,686	\$ 65,597	\$ 67,564	\$ 69,591	\$ 71,679	\$ 73,829	\$ 76,044	\$ 78,326	\$ 689,979
Capital Exp	\$ 10,714	\$ 10,714	\$ 11,035	\$ 11,366	\$ 11,707	\$ 12,059	\$ 12,420	\$ 12,793	\$ 13,177	\$ 13,572	\$ 119,559
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL EXPENSE</b>	\$ 155,800	\$ 155,800	\$ 160,474	\$ 165,288	\$ 170,247	\$ 175,354	\$ 180,615	\$ 186,033	\$ 191,614	\$ 197,363	\$ 1,738,589
<b>NET INCOME</b>	\$ (30,050)	\$ (29,930)	\$ (23,149)	\$ (10,241)	\$ 20,803	\$ 33,994	\$ 36,780	\$ 39,732	\$ 42,863	\$ 46,184	\$ 126,986
<b>New Income:</b>											
Parking Fees	\$ -	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	\$ 20,250
Mooring/Dock Fees	\$ -	\$ 17,556	\$ 17,556	\$ 17,556	\$ 17,556	\$ 17,907	\$ 18,265	\$ 18,631	\$ 19,003	\$ 19,383	\$ 163,413
Pumpout	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL NEW INC</b>	\$ -	\$ 19,806	\$ 19,806	\$ 19,806	\$ 19,806	\$ 20,157	\$ 20,515	\$ 20,881	\$ 21,253	\$ 21,633	\$ 183,663
<b>New Expenses:</b>											
Salaries w/ Benefits	\$ -	\$ (2,000)	\$ (2,000)	\$ (2,000)	\$ (2,000)	\$ (2,040)	\$ (2,081)	\$ (2,122)	\$ (2,165)	\$ (2,208)	\$ (18,616)
Operating & Maintenance	\$ -	\$ (2,000)	\$ (2,000)	\$ (2,000)	\$ (2,000)	\$ (2,040)	\$ (2,081)	\$ (2,122)	\$ (2,165)	\$ (2,208)	\$ (18,616)
Capital Exp	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (77,257)	\$ (772,569)
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total New Expense</b>	\$ (77,257)	\$ (81,257)	\$ (81,257)	\$ (81,257)	\$ (81,257)	\$ (81,337)	\$ (81,419)	\$ (81,502)	\$ (81,587)	\$ (81,673)	\$ (809,802)
<b>NEW+OLD NET INC</b>	\$ (107,307)	\$ (91,381)	\$ (84,600)	\$ (71,692)	\$ (40,648)	\$ (27,186)	\$ (24,124)	\$ (20,889)	\$ (17,470)	\$ (13,856)	\$ (499,152)

Table 5. Income/Expense Statements for Development of Phases I and II over a Ten-year Period

	Year	1	2	3	4	5	6	7	8	9	10	Total
<b>COME:</b>												
Parking Fees	\$	6,000	\$ 6,120	\$ 6,242	\$ 6,367	\$ 6,495	\$ 6,624	\$ 6,757	\$ 6,892	\$ 7,030	\$ 7,171	\$ 65,698
Mooring Fees	\$	105,000	\$ 105,000	\$ 110,250	\$ 115,763	\$ 121,551	\$ 127,628	\$ 134,010	\$ 140,710	\$ 147,746	\$ 155,133	\$ 1,262,789
Lease (AHBA)	\$	12,000	\$ 12,000	\$ 18,000	\$ 30,000	\$ 60,000	\$ 72,000	\$ 73,440	\$ 74,880	\$ 76,320	\$ 77,760	\$ 506,400
AH Merchandise	\$	750	\$ 750	\$ 773	\$ 796	\$ 820	\$ 844	\$ 869	\$ 896	\$ 922	\$ 950	\$ 8,369
AH Misc	\$	2,000	\$ 2,000	\$ 2,060	\$ 2,122	\$ 2,185	\$ 2,251	\$ 2,319	\$ 2,388	\$ 2,460	\$ 2,534	\$ 22,318
<b>GROSS INCOME</b>	\$	125,750	\$ 125,870	\$ 137,325	\$ 155,047	\$ 191,050	\$ 209,348	\$ 217,395	\$ 225,766	\$ 234,478	\$ 243,547	\$ 1,865,575
<b>EXPENSES:</b>												
Salaries w/ Benefits	\$	83,255	\$ 83,255	\$ 85,753	\$ 88,325	\$ 90,975	\$ 93,704	\$ 96,515	\$ 99,411	\$ 102,393	\$ 105,465	\$ 929,051
Operating & Maintenance	\$	61,831	\$ 61,831	\$ 63,686	\$ 65,597	\$ 67,564	\$ 69,591	\$ 71,679	\$ 73,829	\$ 76,044	\$ 78,326	\$ 689,979
Capital Exp	\$	10,714	\$ 10,714	\$ 11,035	\$ 11,366	\$ 11,707	\$ 12,059	\$ 12,420	\$ 12,793	\$ 13,177	\$ 13,572	\$ 119,559
Other	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL EXPENSES</b>	\$	155,800	\$ 155,800	\$ 160,474	\$ 165,288	\$ 170,247	\$ 175,354	\$ 180,615	\$ 186,033	\$ 191,614	\$ 197,363	\$ 1,738,589
<b>NET INCOME</b>	\$	(30,050)	\$ (29,930)	\$ (23,149)	\$ (10,241)	\$ 20,803	\$ 33,994	\$ 36,780	\$ 39,732	\$ 42,863	\$ 46,184	\$ 126,986
<b>New Income</b>												
Parking Fees	\$	2,300	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 4,550	\$ 43,250
Mooring/Dock Fees	\$	-	\$ 17,556	\$ 17,556	\$ 17,556	\$ 17,556	\$ 17,907	\$ 18,265	\$ 18,631	\$ 19,003	\$ 19,383	\$ 163,413
Pumpout												\$ -
New Lease (4,000 sf)	\$	-	\$ -	\$ 32,000	\$ 32,000	\$ 32,000	\$ 32,640	\$ 33,293	\$ 33,959	\$ 34,638	\$ 35,331	\$ 265,860
<b>TOTAL NEW INC</b>	\$	2,300	\$ 22,106	\$ 54,106	\$ 54,106	\$ 54,106	\$ 55,097	\$ 56,108	\$ 57,139	\$ 58,191	\$ 59,264	\$ 472,523
<b>New Expenses:</b>												
Salaries w/ Benefits	\$	-	\$ (4,000)	\$ (4,000)	\$ (4,000)	\$ (10,000)	\$ (10,200)	\$ (10,404)	\$ (10,612)	\$ (10,824)	\$ (11,041)	\$ (75,081)
Operating & Maintenance	\$	-	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (15,000)	\$ (15,300)	\$ (15,606)	\$ (15,918)	\$ (16,236)	\$ (16,561)	\$ (124,622)
Capital Exp	\$	(113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (113,703)	\$ (1,137,030)
Other	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total New Expenses</b>	\$	(113,703)	\$ (127,703)	\$ (127,703)	\$ (127,703)	\$ (138,703)	\$ (139,203)	\$ (139,713)	\$ (140,233)	\$ (140,764)	\$ (141,305)	\$ (1,336,733)
<b>NEW+OLD NET INCOME</b>	\$	(141,453)	\$ (135,527)	\$ (96,746)	\$ (83,838)	\$ (63,794)	\$ (50,112)	\$ (46,825)	\$ (43,361)	\$ (39,709)	\$ (35,857)	\$ (737,223)

---

## *Notes for Tables 4 and 5*

### *Income*

- The income (except the new income) for the first year reflects the actual budget for year 2000.
- Parking fees reflect an increase of 5% each year starting in year 3.
- Mooring fees reflect an increase of 5% each year starting in year 3.
- Lease for the Allen Harbor Boating Association reflects actual lease amounts.
- AH Merchandise and Misc. reflect an increase of 3% each year starting in year 3.

### *Expenses*

- The expenses (except the new expenses) for in the first year reflect the actual budget for year 2000.
- Operating and maintenance expenses reflect the actual budget for 2000 in year in Years 1 - 3. The remaining years reflect a 3% increase per year. These expenses include utilities, insurance, fuel, supplies, and other typical costs to operate and maintain the North Kingstown Marina.
- Salaries w/Benefits and Capital expenses reflect an increase of 3% per year starting in year 3. Salary expenses are base on wage rates of \$10/hour for full and part time work during the summer in Years 1 – 10.

### *New Income*

- Parking fees reflect an increase of users in all the years, and additional fees from new expanded parking lot for every year starting in year 2.
- Mooring and docking fees are based on 11 new slips at 28 feet x \$57/foot with an increase of 2% per year after year 5.
- There are no expected increases in pump out fees between years 1 and 10.
- New lease reflects potential income for lease of a restaurant based on current comparable businesses in the southern RI area.
- The lease is based on \$8/sf until it is renewed in year 5 when it increases 2%/year.

### *New Expenses*

- Salaries w/benefits reflect estimated increase for expanded marina and recreation areas in the Complex, an increase in year 5, and an additional increase of 2% each year. Salary expenses are based on wage rates of \$10/hour for full and part time work during the summer in years 2 – 4. The additional amount in years 5 –10 is based on an increase in general maintenance of the whole Complex when it becomes used more over the ten-year period.
- Operating and Maintenance expenses reflect estimated increase for expanded marina and recreation areas in the Complex, an increase in year 5, and an additional increase of 2% each year thereafter. Salary expenses are based on wage rates of \$10/hour for full and part time work during the summer in years 2 – 4.
- Capital expenses reflect the total project costs as a bond at 7% over a 10-year period.

---

## **Summary of Resources**

A variety of both debt and equity (grants) sources may be appropriate to the implementation of the Allen Harbor / Calf Pasture Point Master Plan. The full range of state and federal sources will be explored as part of an implementation strategy for this Plan. The following summary represents a first step in this process, but is not intended to foreclose other options that may arise as the Town implements the Plan. There is also potential for private interest in projects recommended in the Plan.

The Town would be eligible for funds generally authorized for improvements to coastal facilities and recreational areas. Boating access to Narragansett Bay, improved handicap access, and increased open space are improvements that generally may qualify for some type of state or federal financial support. Funds may be available for construction, expansion, and improvement of public facilities, piers, boardwalks, bulkheads, and other harbor and waterfront facilities. Moneys may also become available for the hazardous waste mitigation, and for research, planning, and public infrastructure investments.

A brief description of public funding programs of potential relevance to the implementation of the Plan follows.

### **State Sources**

<b>Source:</b>	<b>RI Trails Improvement Grant Program, RIDEM</b>
<b>Amounts:</b>	\$100,000 maximum, 50% of project cost
<b>Uses:</b>	Grants are given to municipalities for public recreational trails.
<b>Timing:</b>	Annual
<b>Source:</b>	<b>RI Greenways Acquisition &amp; Development Grants, RIDEM</b>
<b>Amounts:</b>	\$2 million available, 50% of project cost
<b>Uses:</b>	Grants are given to municipalities, land trusts, or non-profit environmental agencies for acquisition and development of Recreational Greenways, Bikeways, and Trails.
<b>Timing:</b>	Annual
<b>Source:</b>	<b>Local Open Space and Recreation Development Grants, RIDEM</b>
<b>Amounts:</b>	\$2 million available, 50% of project cost
<b>Uses:</b>	Grants are given to municipalities, land trusts, or non-profit environmental agencies for acquisition and development of Recreational Greenways, Bikeways, and Trails.
<b>Timing:</b>	Annual
<b>Source:</b>	<b>RI Department of Environmental Management -</b>
<b>Amounts:</b>	\$50,000 maximum
<b>Uses:</b>	Grants are given to municipalities for historic parks, commons, public buildings
<b>Timing:</b>	Annual

---

## Federal Sources

<b>Source:</b>	<b>Federal Transportation Bond Discretionary Funds; Ferries and Terminals</b>
<b>Amounts:</b>	Discretionary.
<b>Uses:</b>	Piers, terminals, parking lots, acquisition, etc.
<b>Timing:</b>	Program was funded in ISTEA, the transportation bond bill which authorized spending for 1991-96. The Administration did not include this program in the next generation, TEA-21, however research is being conducted to determine flexibility in funding options in this regard.
<b>Source:</b>	<b>Transportation Equity Act for the 21st Century (TEA - 21)</b>
<b>Amounts:</b>	\$217 billion authorized for highway and transit programs
<b>Uses:</b>	A variety of programs including CMAQ, STP and infrastructure safety programs
<b>Timing:</b>	FY 1998 – 2003
<b>Note:</b>	TEA-21 continues and expands many of the provisions and programs initiated under ISTEA
<b>Source:</b>	<b>TEA-21: Surface Transportation Program (STP)</b>
<b>Amounts:</b>	\$33.3 billion authorized
<b>Uses:</b>	Safety improvements, sidewalk modifications to meet ADA, and transportation enhancements
<b>Timing:</b>	FY 1998 – 2003
<b>Notes</b>	STP is the broadest and most flexible component of TEA-21

Other funding options to be explored to assist in the implementation of handicap access, and other related recreational and Bay access public improvements might include community partnerships with other local businesses such as those in QD. The likelihood of acquiring funding under any of these or other sources depends on a variety of factors, including timing, eligibility and competing applications. At the same time, the inclusion in a Master Plan of a project seeking funding would undoubtedly strengthen its position in any competitive review process.



---

## **APPENDIX I: COMMUNITY INVOLVEMENT**

### **1. Overview of the Community Involvement Effort**

When initially designed, the public participation strategy for the Allen Harbor / Calf Pasture Point Master Plan was aimed at understanding the potential of the Complex as a marina and recreational area. The public would provide input on the uses that should be improved and added to the Complex.

In actual practice, the meaningful and effective involvement of the community was an integral and critical component of the process of developing the Plan. The public was involved in each step of the process, through public meetings and workshops, as well as through a questionnaire.

To a significant extent, the Plan represents the considerable input of North Kingstown's citizens. The Plan's overall vision to provide an improved marina and expanded recreation area, to create compatible development, and to meet the cultural, educational, and historic needs of the community came from the residents of the area. Community input is also reflected in specific recommendations found throughout the Plan. At the North Kingstown Marina, new restrooms and improved parking facilities will make its use more convenient. The Mount View neighborhood will be protected from an increase in traffic in Calf Pasture Point. Other concerns about the scale and types of uses in the Complex, the community's sensitivity to the environment, as well as the preservation of natural resources, underlie the Plan's entire approach to the area.

### **2. Public Outreach**

The public outreach component focused on informing the public of the basic issues at appropriate points of the planning process. Specifically, public workshops and meetings were advertised in two local newspapers, information was posted on the Town's website, and a questionnaire was distributed to solicit public input.

Reporters from the Standard Times and the Northeast Independent were briefed several times during the development of the Plan. Meeting notices were also distributed in these newspapers prior to each public meeting to promote participation in these events.

### **3. Public Input**

Residents, users of the marina, and key stakeholders provided a collective source of information, which was very helpful in forming the alternatives as well as reinforcing some of the proposed uses.

<b>Group or Method</b>	<b>Type of Involvement</b>
Ad Hoc Committee	Helped direct the planning process
Public Meetings and Workshop	Provided the community's views on Allen Harbor's existing and potential uses
Questionnaire	Provided representative community view of existing and potential uses
Interviews with key agencies and users	Provided direct input into specific needs, constraints, and opportunities

### Allen Harbor / Calf Pasture Point Master Plan Ad Hoc Committee

At the center of the community-based planning effort was the Ad Hoc Committee's commitment and active involvement. The Committee met almost every month during the planning process to provide direction to the Master Plan, insight to understanding the area, feedback on issues, and input from the various members who were also involved with other town committees. Members of the Committee also participated visibly in all the other meetings with the public and town officials. The Committee was comprised of representatives of various town committees and interest groups as shown in the following table.

<b>Committee Member</b>	<b>Affiliation</b>
Robert Holtzman, Chair	Leisure Services Advisory Committee
Beverly Brewer	At-Large Member
Lorimer C. Dunklee	Leisure Services Advisory Committee
Peter Elleman	At-Large Member
David Greenberg	Harbor Management Commission
Celia Humphreys	Harbor Management Commission
Suzanne Lussier	Conservation Commission
Susan Macy	Leisure Services Advisory Committee
Thomas Moakley	Conservation Commission
Amrita Roy	RIEDC representative (alternate).
Shirley Shehan	Mount View Neighborhood
Michael Simeone	North Kingstown Marina tenant
Greg Soder	Narragansett Indian Tribe
Katherine Trapani	RIEDC representative
William Waring	Conservation Commission

### Public Meetings and Workshops

A series of three public meetings and a workshop were held in the course of developing the Master Plan. The first public meeting was held to provide an overview of the existing conditions and the opportunities and constraints of the Complex. A workshop following the presentation solicited input to identify **potential uses** of the Complex and **goals** of the

---

Master Plan. Participants broke into small discussion groups to review and discuss their views. The most important goals discussed between all the groups are presented below.

Access	Marina
Ball field	Marina services
Beach	Moorings
Beach facility	Nature, bicycle, and walking paths
Boat storage	Parking
Boating (commercial and recreational)	Passive recreation
Buffer zone	Pavilion
Camping	Picnic
Education	Restaurant
Fishing	Security
Generate revenue	Swimming

A second public meeting was held to gather the community’s view of three alternatives for the future of the Complex. After a presentation of the alternatives, comments and suggestions were solicited from participants at the meeting in order to solidify a preferred alternative.

#### Town Meetings

A presentation of the three alternatives was given at separate meetings to the Leisure Services Advisory Committee and the Town Council. These meetings helped reinforce some the outcomes of the previous public meetings, as well as provide insight to the overall intent of the Master Plan by the Town’s representatives.

#### Questionnaire

A survey was conducted by the consultants to inform the public of the planning process and to generated feedback about the options for the Allen Harbor Complex. The primary purpose of the survey was to reach out to the community to take a “pulse” of public opinion on the potential uses of the land and facilities at the Complex over the next ten years. The Ad Hoc Committee and the consultant used the responses to formulate plans for future uses of the Allen Harbor Complex.

#### Interviews

Interviews both by phone and in person were held with key stakeholders, representatives, and agencies that are directly involved with using or planning Allen Harbor as well as those groups that could support the its development. Their valuable input helped determine the most appropriate and compatible uses within the Complex. They included:

---

Allen Harbor Boating Association
Mount View Neighborhood Association
Narragansett Indian Tribe
North Kingstown Department of Planning and Development
North Kingstown Fire Department
North Kingstown Marina
North Kingstown Police Department
North Kingstown Recreation Department
Rhode Island Coastal Resources Management Council
Rhode Island Department of Environmental Management
Rhode Island Economic Development Corporation
Rhode Island Historic Preservation and Heritage Commission
Rhode Island Statewide Planning
Save The Bay
Town of East Greenwich
Town of Narragansett
Town of Warwick
US Army Corps of Engineers
US Department of Transportation
US Environmental Protection Agency
US Fish and Wildlife Service
US Navy
USS Saratoga Museum Foundation

---

## **APPENDIX II: OPPORTUNITIES AND CONSTRAINTS**

This section identifies the potential opportunities and constraints of making the Allen Harbor Complex a new recreational area. This information represented a starting point in creating the Master Plan, and was used to help formulate three alternatives for the Complex. Portions of this appendix are also presented in various parts of the Master Plan.

The Allen Harbor / Calf Pasture Point Complex had a diverse range of users for many years. Several prehistoric sites that date back to 5,000 B.P. were found in various locations around the Complex. Farmers altered portions of the area during the 17<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> centuries. Over the past 50 years, extensive Navy Construction Battalion Center land operations disturbed much of the land surface. Remnants of these past uses, as well as existing regulatory and legal constraints create many opportunities and constraints for existing and new uses of the Complex (see Figure A).

New uses described in this Plan were considered within a framework that contained two basic conditions:

1. The uses of the area are controlled by the deeds and lease agreements of Calf Pasture Point, the landfill, and Western Allen Harbor.
2. Community input through a questionnaire, workshops, and meetings provide a base to determine the extent and types of uses that should be allowed in the Complex over the next 10 years.

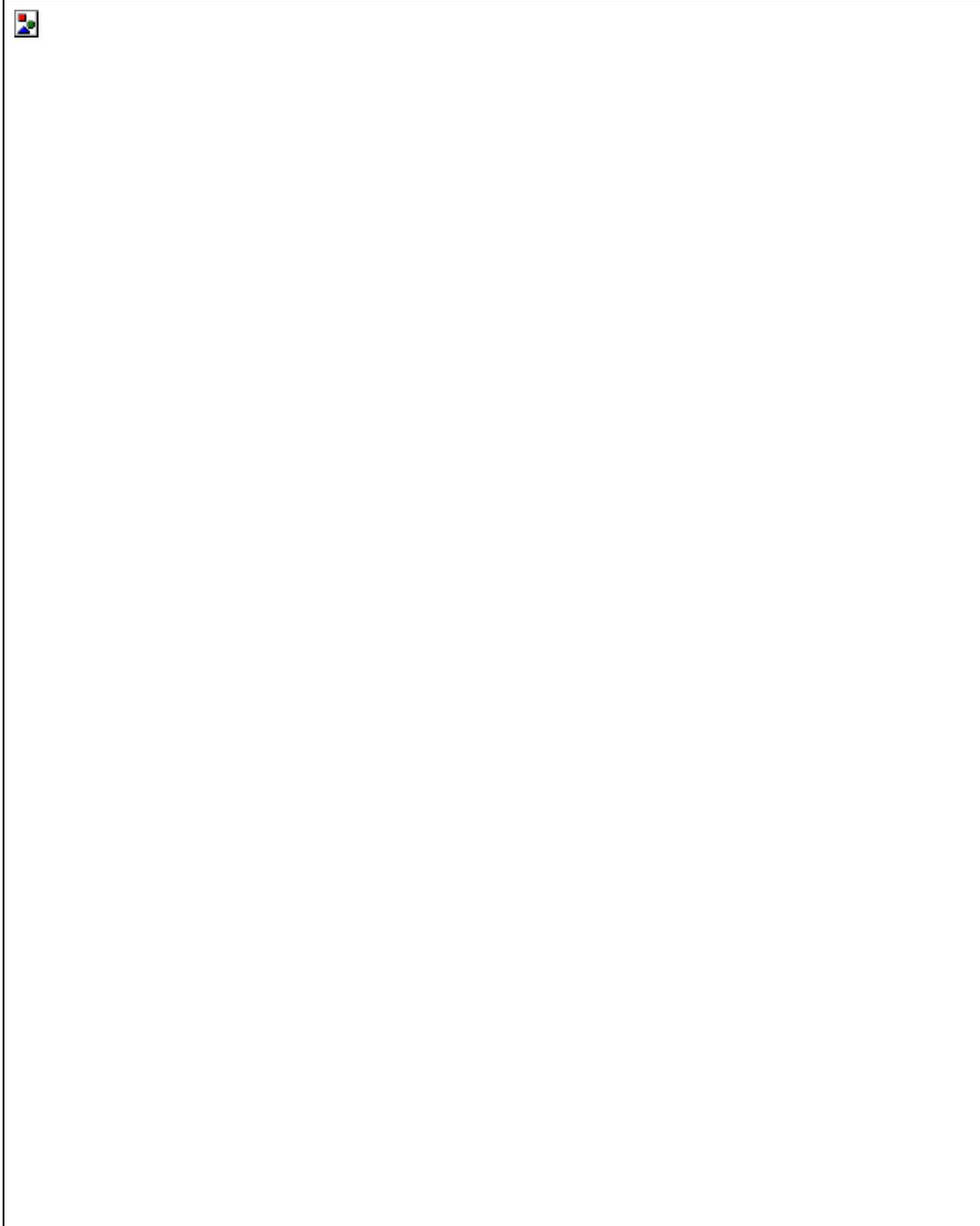
Most of the Complex is limited to mainly recreational and conservation activities according to the deeds and state regulations. These limitations provide an envelope in which to create new uses. The combination of allowable uses and users also creates additional opportunities and constraints. For example, the high elevation of the landfill makes it an appropriate location for a viewing platform, but since it is a capped landfill, severe building limitations restrict the type of structures allowed on the property. The following section identifies specific deed restrictions for each of the sub-areas.

### **General Area Opportunities and Constraints**

The Allen Harbor / Calf Pasture Point Complex is adjacent to the Quonset Davisville Port and Commerce Park industrial area to the south, a low-density residential area to the west, the Mount View neighborhood to the north, and Narragansett Bay to the east. Each of these adjacent uses creates opportunities and constraints for the Complex.

---

*Figure A. Opportunities and Constraints*



---

*Quonset Davisville Port and Commerce Park*

The Quonset Davisville Port and Commerce Park (QD) area provides excellent vehicular access to the Complex along Davisville Road. The public, however, does not have vehicular access to Spinks Neck Beach, which is in the QD. Additional parking could be provided with an improved lot in the Complex. Landscape improvements could also be made along some of the hard edges between the QD and the Complex, specifically along Allen Harbor Road.

Although there is potential for future expansion of the QD, it is unknown how this will impact uses in the Complex. Increased businesses in the QD may increase the amount of people that use the Complex, and may benefit a new business such as a restaurant in the Complex.

There are also several areas in the QD that may influence uses at the Complex. They include Little Allen Harbor, Spinks Neck Beach, North Kingstown Municipal Golf Course, the Max Kiel Gymnasium, and a ball field.

*Little Allen Harbor and Spinks Neck Beach*

To the east of Allen Harbor is Little Allen Harbor and Spinks Neck Beach. Both areas are managed by RIEDC, and Little Allen Harbor is leased by several small commercial boat operations. Spinks Neck Beach is approximately 1,000 feet long, and has direct access from Patrol Road. Patrol Road directly borders the beach and provides excellent access to the Bay especially for users such as windsurfers. The public is not allowed to park on Patrol Road or in the lot adjacent to the beach. There is an opportunity, however, for the Town to expand its parking lot in the Allen Harbor Complex to accommodate users of the beach.

*North Kingstown Municipal Golf Course*

The Town owns and operates the North Kingstown Municipal Golf Course. The 18-hole course is located in QD, and is within a five-minute drive from the Complex. The course is open to public, and has a clubhouse and a restaurant/lounge.

*Max Kiel Gymnasium*

The Max Kiel Gymnasium, located on Davisville Road, had potential to support additional Town recreation needs. The building, however, was determined to be structurally unsound, and expensive to repair. The Town is debating whether to upgrade the facility or build a new one in the same or another location.

*Ball Field*

There is one ball field along Davisville road that is run by the Town and owned by the RIEDC. It is used extensively by the public throughout the summer season.

---

### *Low-density Residential Area to the West*

The area to the west of Calf Pasture Point poses many constraints with the potential uses of the Complex. The mostly undeveloped setting of this low-density residential area fits with the natural setting of the adjacent Complex.

### *Mount View Neighborhood*

Vehicular access to the Mount View neighborhood is restricted because of its narrow streets and limited parking. Any additional traffic to the Calf Pasture Point area would only exacerbate the situation for this high-density residential area. Additional uses in Calf Pasture Point would also have to be compatible to a residential area.

### *Narragansett Bay*

Narragansett Bay provides an excellent opportunity for the boating public. The location of the Harbor and its marina facilities allows direct access to many points in the Bay. The open waters of Rhode Island Sound and the Atlantic Ocean are only several miles from the Harbor. These features are attractive for boaters transiting to and from the Harbor and open waters as well.

### **North Kingstown Marina**

The North Kingstown Marina provided marina opportunities to the public since it was conveyed to the Town in 1981. The 14.7-acre marina is comprised of 48 slips, 70 moorings, two boat ramps, a recreational pavilion, a small snack bar, several buildings, grassland, and a small stand of evergreen trees.

The property conveyance from the US Department of Interior requires specific conditions and restrictions:

- The Town will make the property available for use by the public.
- The property will not be sold, leased, assigned, or disposed.
- The Town can provide related recreational facilities and services through concession agreements with third parties.

Recreational uses at the pavilion, lawn area, and the small beach at the harbor entrance channel provide opportunities in addition to the marine uses. The marina, however, lacks some amenities such as a telephone, showers, and modern restrooms with hot water.

Should there be a significant increase in the use of the restroom facilities, they could not be expanded unless the type of septic system is known. A new sewer line may have to be built and connected to the main line near Parlor Road in the RIEDC property if the existing system cannot support the additional capacity.

---

## **Allen Harbor Landfill**

The Allen Harbor landfill is mostly vacant and contains several fenced gas vents. The property borders the main access road (Sanford Road). The property's most important physical feature is its relatively high elevation (approximately 30'), which provides a good close viewing location for Allen Harbor Calf Pasture Point, and distant views of Narragansett Bay.

The US Navy currently owns the Allen Harbor landfill. Its future use and ownership is being negotiated with the Town of North Kingstown. It may be conveyed to the Town within the next few years, and would likely be limited to recreational uses. The following conditions are most likely to result in specific restrictions and constraints:

### *Conditions*

- A soil depth of two feet limits use of the property.
- A revetment was installed to prevent erosion and shoreline stabilization.
- The site has a landfill gas/venting management system that includes on-site gas vents and monitoring stations.
- The site was recently planted with specific grasses and shrubs. Limited types of plants could be used at this site.
- EPA and RIDEM will have an established long-term monitoring plan for shellfish, landfill gas, groundwater, and sediments.

### *Restrictions and Constraints*

- No vehicles would be allowed on the site (except vehicles for maintenance purposes).
- The site must be maintained to ensure proper runoff and minimize erosion.
- No erosion should occur on the site such as could happen with footpaths.
- The maximum depth for park bench or post is about 18".
- There would be no entrance allowed over the new wetlands.

## **Calf Pasture Point**

Calf Pasture Point borders Mount View neighborhood and beach to the north, a residential area to the west, and Allen Harbor to the south, and Narragansett Bay to the east. Existing roads and paths are in poor condition, and would need to be cleared of plant growth, resurfaced, rebuilt, and maintained. Uses within the site would have to be compatible with the adjacent residential areas.

The property contains a variety of features that contribute to the aesthetic quality and assets as a natural resource for the community. It provides a natural habitat (marsh, wetlands, uplands) that supports many species of wildlife, as well as scenic viewing area. Other property features include a one-mile beachfront, the Allen Harbor Rock Outcrop, and archeological findings. The outcrop is approximately 40 feet in elevation, and

---

provides excellent views of the Point and distant views of the Bay. The beach provides many recreational uses and direct access to the Bay. However, the beach is not considered an excellent bathing area, and local residents use it mostly for walking.

Sanford and Magazine roads allow access to the interior of the property. Presently, the public does not have legal access to this property. It is, however, designated as conservation area according the Rhode Island Coastal Resources Management Council (CRMC) regulations.

The US Navy owns the property, and its uses are being negotiated with the Town. They expect to convey it to the Town within the next few years.

Significant constraints, due to its past uses by the Navy, place severe restrictions on the property. Recent environmental investigations by the Navy and the EPA necessitated a remedy of institutional controls and long-term monitoring. Most of the contamination was found in the southern portion of the site, as indicated by approximately 33 monitoring wells. Of the three former munitions bunkers, one was removed and the other two were decontaminated and sealed.

A Record of Decision (ROD) was completed in September 1999. It provided the following land-use recommendations:

- Prohibit use of ground water in order to prevent human contact with, or use of, impacted ground water from the site.
- Any construction of any building or structure shall be designed and constructed with adequate ventilation as approved by the Navy, EPA, and RIDEM.

Calf Pasture Point is also designated as a conservation area by CRMC, which restricts the property to low-impact recreational uses.

### **Western Allen Harbor**

The Western Allen Harbor area contains wetlands, open space, a formerly developed road system, waterfront access, a promontory, an archeological site, and a marina with two buildings on the site.

The marina portion of the site was used as a yacht club with private membership for the past 30 years. The Town, however, recently negotiated a ten-year lease for the property with the club managers. The club's membership will now be open to the public.

The Navy owns the property, and it will be conveyed along with other property via a port conveyance through the Maritime Administration, under the US Department of Transportation. It is subject to a conveyance to RIEDC who will lease the area designated as Western Allen Harbor to the Town of North Kingstown.

---

In the application for conveyance for the port facility property (portions of the NCBC Davisville), part of the terms and conditions required that the property *shall be used for development or operation of a Port Facility for the use and benefit of the public*. Structures or improved properties include *mixed waterfront complexes* and other uses that support the facility as a port. In essence, Western Allen Harbor can support commercial uses. A new business, such as a 2,000 sf restaurant in Western Allen Harbor, would complement the marinas on both the east and west sides of the Harbor. It could:

1. Provide financial support for the operations and maintenance of the Complex.
2. Provide marina support services that complement the uses of both marina areas.
3. Provide a waterfront viewing area for users of the business.

### **US Food and Drug Administration Property**

The owner of the property is the US Dept. of Health and Human Services, Food and Drug Administration (FDA). A revocable license was granted in 1998 to the University of Rhode Island (URI). The license stipulated that the property be used as a marine experiment station to support its marine and educational research programs. The length of the license was not specified, and it allows the FDA to use it as a staging area on an as-needed basis. Any disposition will have to go through the GSA federal process. URI is responsible for management and maintenance of the site and its facilities.

The site provides excellent views of the Harbor and Narragansett Bay. It has deep-water berths adjacent to a 200-foot bulkhead. The Quonset hut provides a suitable work area for marine research and related facility operations and storage needs.

The Quonset hut limits the view of Calf Pasture Point. The site could be improved with landscaping (e.g. fenced lined with trees).

### **Allen Harbor**

Allen Harbor is currently used for recreational boating purposes. Its configuration and depth allow many vessels to utilize its waters. The Harbor can now accommodate large vessels, especially sailboats with deep drafts, since the channel was dredged this past year to a depth of 8 feet (mlw). This will allow the management to plan for increased boat sizes and a safer passage through the channel. Several shallow areas in the Harbor restrict vessel navigation, but they do not present a major problem for boaters.

One of the Harbor's best assets, aside from its deep water and protection from storms and waves, is its location on Narragansett Bay. Vessels can have direct access to the Bay with only a hundred yards of channel length. The open waters of Rhode Island Sound and the Atlantic Ocean are only several miles from the Harbor. These features are attractive for boaters transiting to and from the Harbor and open waters.

---

### **Additional Regulatory Constraints**

The Rhode Island Coastal Resources Management Council (CRMC) designates Calf Pasture Point as a Type 1 conservation area, and much of it is subject to CRMC jurisdiction and regulations. This designation does not allow any alteration of the adjacent beach and wetland areas (Sections 210.1 and 210.3) or archeological areas (Section 220).

Current environmental regulations also restrict the number of docked and moored vessels in the Harbor. CRMC established a marina perimeter line that does not allow docks to extend beyond it. Regulatory approval by the CRMC, Army Corp of Engineers, and other agencies may be required to change the number of vessels in the Harbor or to extend float systems beyond the line.

---

## **APPENDIX III: SUMMARY OF ALTERNATIVE DEVELOPMENT SCENARIOS**

### **Introduction**

The following three alternatives were developed early in the planning process to assist in a detailed study and analysis of the site and to understand implications for development of the final Master Plan. These alternatives were compiled to see how local residents and town officials might address the goals and land uses proposed during the public workshop, interviews with key players, the survey, and meetings with the Master Plan Ad Hoc Committee for the Town of North Kingstown.

The section provides a summary of the three alternatives that were discussed in an earlier and more detailed document entitled: Alternatives Report. Each alternative will have substantially different implications for the Complex in terms of public policies and the decisions made over the next ten years.

All three alternatives include the same package of baseline improvements that should be implemented regardless of which alternative is chosen. The final planning approach(es) would be to combine the best features of each alternative and eliminate the least useful. This process is aimed at maximizing the match between resources and goals.

The proposed land uses within the three alternatives are based on the most suitable uses for the area regardless of the existing governance of the property. The Town presently manages the marina on the east side of Allen Harbor. The yacht club officials, who manage the club on the west side of the Harbor, have recently negotiated a ten-year lease with the Town.

### **Planning Considerations for the Alternatives**

Some of the recommendations within each of the alternatives are guided by existing and future regulatory constraints. The North Kingstown Marina is restricted to recreational uses for the public by its deed. Western Allen Harbor deed restrictions will allow commercial development that either is or supports a water-dependent activity. Draft deed restrictions for Calf Pasture Point currently limit land uses to recreational activities, require buildings to have adequate ventilation, and prevent use of its ground water. The landfill deed restriction does not allow disturbance of the soil except for plantings. Furthermore, the University of Rhode Island leases the property owned by the US Food and Drug Administration. Its use as a marine education facility was considered when planning other uses in the Complex.

---

Moreover, environment regulations have to be considered when planning for the new uses, especially regarding activities within 200 feet of the shoreline. The Rhode Island Coastal Resources Management Council (CRMC), for example, designates Calf Pasture Point as a conservation area, and much of it is subject to CRMC jurisdiction and regulations.

Current environmental regulations also restrict the number of docked and moored vessels in the Harbor. Regulatory approval by the CRMC, Army Corps of Engineers, and other agencies may be required to change the number of vessels in the Harbor.

Additional considerations for planning the alternative uses include archeological sites, land features, local and adjacent land uses, and infrastructure conditions. For example, there are several archeological areas in the Complex. Some them may have to be protected from intrusion by other uses and activities. A separate study was also conducted for this project regarding opportunities and constraints (see Appendix II).

### **Summary of Alternatives**

All three alternatives in this report consist of a description of the planning strategies accompanied by evaluations. An underlying theme was used in each case to generate specific potential actions and results. Each alternative is summarized below.

#### **Alternative One**

The first alternative recognizes that a minimal amount of change is needed to improve the existing marina uses over the next ten years. The intent of this alternative is to keep the marina facilities in operation with minor improvements so that they maintain the same scale, and allow only low-impact recreational uses in the open space areas. Infrastructure improvements would include repair of the bulkhead and maintenance of the existing facilities. The landfill would be used for passive viewing. Calf Pasture Point would be opened to the public with minor improvements to the existing roads and paths. Access to the landfill and Calf Pasture Point would be through Sanford Road by non-motorized vehicles. These improvements would correct existing deficiencies and provide for an improved recreation area over the next ten years. This low-cost alternative has been designated as “Alternative 1: Improvement of Existing Conditions”.

#### **Alternative Two**

Alternative Two proposes to substantially improve the recreational opportunities in the marina and open space areas. Central to this plan is the development of a gateway for users of the open space areas and new business to support the operations and maintenance of the Complex. Substantial infrastructure requirements such as water and sewer lines would be required. Investments to the marina facilities and in the open space areas would be needed to make the Complex into an enjoyable, aesthetically pleasing, and safe boating

---

complex and recreational park for the community of North Kingstown. This alternative has been designated as “Alternative Two: Moderate Development and Recreational Uses”.

### **Alternative Three**

The third alternative recommends that the Complex become a regional destination and maximize its potential for recreational uses of the harbor and open space areas, and commercial uses in Western Allen Harbor. It provides an opportunity to make the Complex a mixed-use boating facility. It would also capitalize on the addition of a new revenue-generating business, a new 200 to 250 slip marina complex to replace the existing marina and yacht club, as well as substantial recreation activities with the support of additional commercial uses and facilities to accommodate new users.

One main goal of the Plan is to allow a revenue-generating use that helps to finance the operations and maintenance costs of the Complex. The marina operations on both sides of the Harbor should be combined and expanded in order to maximize the efficiencies and utilization of the harbor and support facilities. Calf Pasture Point would have a new visitor/interpretive center to support the beach and other recreational areas.

This alternative would develop specific areas of the Complex by utilizing its natural resources for recreation. Proposed uses would range from beach activities and nature trails to bicycle paths and viewing areas. These uses would minimize user impacts as well as maintain the natural setting and aesthetics of the park. It has been designated as “Alternative 3: Development as a Mixed-use Marina and Recreation Park”.

---

## **APPENDIX IV: COMPARATIVE ANALYSIS FOR SIMILAR MARINA OPERATIONS**

### **Conclusions of Marina Operations Similar to the North Kingstown Marina**

The following is a list of conclusions about the comparison of operations similar to the North Kingstown Marina.

#### **Expand Services**

The management at the North Kingstown Marina should expand pumpout services, as well as provide a telephone, convenience items, and boat storage services in order to be competitive with similar marina operations in the Narragansett Bay area.

#### **Provide Competitive Slip and Mooring Rates**

Docking and mooring rates were higher at similar marinas than at North Kingstown Marina. The management should adjust mooring and docking rates to reflect the current prevailing rate structure and to remain competitive with other marinas.

#### **Accommodate Larger Vessels to Improve Revenues**

Mooring and slip fees for large vessels bring in more revenue per foot than small vessels. The management should add slips to accommodate larger vessels, especially since it has many deep-water berths.

### **Overview of Existing Operations and Uses at Allen Harbor**

#### **Harbor Uses**

Allen Harbor is currently used for recreational boating purposes. Its configuration and depth allow many vessels to utilize its waters. The Harbor can now accommodate large vessels, especially sailboats with deep drafts, since the channel was dredged in 1999 to a depth of 8 feet (mlw). This will allow the management to plan for increased boat sizes and a safer passage through the channel. Several shallow areas in the Harbor restrict vessel navigation, but they do not present a major problem for boaters.

One of the Harbor's best assets, aside from its deep water and protection from storms and waves, is its location on Narragansett Bay. Vessels can have direct access to the Bay with only a hundred yards of channel length. The open waters of Rhode Island Sound and the Atlantic Ocean are only several miles from the Harbor. These features are attractive for boaters transiting to and from the Harbor and open waters.

---

## Harbor Management

The North Kingstown Marina is operated by the North Kingstown Recreation Department. An operations manager and superintendent have specific duties: one manages the staff and the other manages the facilities. The facility is run as an enterprise, and the fees collected from the users remain in the marina's budget and support all operations. Some maintenance and operations resources are shared with the North Kingstown Municipal Golf Course (also operated by the Recreation Department) in order to reduce operational costs.

## Fees

Fees are collected from several sources and are deposited in a general operations fund. Sources of the fees include:

- Yearly mooring and dock fees (\$57/foot/length of slip, \$675/mooring)
- Transient vessels (\$2/foot/day)
- Pump out facility (\$5/boat)
- Pavilion rental (\$25 for all users)
- Parking fees for cars with trailers
  - Daily (\$3/resident, \$6/non-resident).
  - Yearly (\$35/resident, \$50/non-resident)

## Mooring and Dock Demand

Boaters must first sign up on a list to get a mooring or slip at the North Kingstown Marina. They are then assigned spaces as they become available. Residents are given priority over non-residents for use of these facilities. As of this writing, the waiting list is as follows:

	Residents	Non-residents
Slips	31	65
Moorings	5	66

## Current Short and Long-term Needs

### *Short Term*

Several short-term projects of the next few years are needed to maintain the facility so that it can meet the needs of the users, improve its appearance, and maintain the infrastructure to properly run the operations. They include:

- Installing new fence to enclose recently constructed horseshoe play area
- Repairing sheet pile near the pumpout dock
- Expanding docks.

### *Long-term*

Long-term improvements are needed to maintain the marina's appearance, increase revenues, as well as repair substantial portions of the marina's infrastructure. They include but are not limited to:

- 
- Constructing new revetment wall to stop and prevent erosion of beach and land on land near the mouth of the channel
  - Providing additional moorings
  - Maintaining the depth of the channel.

### **Overview of Comparable Marinas**

A review of marinas similar to the North Kingstown Marina was conducted to help improve its overall management and operations. The following elements were reviewed:

- **Marina Management and Organization**
- **Marina Locations**
- **Mooring and Slip Demand and Fees**
- **Pumpout Operations**

Only marinas that had between 25 and 125 slips were looked at for two reasons:

1. These marinas would have similar infrastructure needs based on their size; and
2. These marinas would provide similar marina services.

The next section of this report summarizes the existing marina conditions at the North Kingstown Marina, and the subsequent section provides an analysis of comparable marinas in Rhode Island. Information for this report was collected from marina operators, harbor masters, and the internet.

### **Marina Assessment**

We reviewed similar marina operations in Rhode Island. Large marinas, such as Conanicut Services in Jamestown, and Little Harbor Marine were not considered since their slip and mooring capacity was more than double the current capacity at North Kingstown Marina. We also contacted public officials (harbor masters) and privately-owned and operated marinas. Since there are no other town-managed marinas, it is difficult to compare fees and services, such as moorings, when the town only supplies a mooring, and the marina supplies many services.

### **Marina Management and Organization**

The management of the North Kingstown Marina is a unique situation in Rhode Island. Apparently, no other towns in the state provide similar marina services.

#### *Operations*

At most, some towns have boat ramps and provide parking for trailers for either a fee or by permit. They may also provide a service dock to help with unloading and loading vessels. Communities may provide a town dock or transient moorings where boaters tie their vessels for a short periods. However, no other community provides ramps, service docks, slips, moorings, water, a pumpout, parking, and similar marina services all in one location.

---

### *Management*

Harbormasters for most towns were responsible for managing moorings. The harbor master for Warwick, for example, only has an administrative function for its 600 moorings. This community does not provide public moorings or transient slips. They provide four docks and trailer parking for vessels less than 20 feet long. Many towns like Warwick leave it to the private sector to own the moorings, docks, slips, and provide other services.

Most harbor masters generally determine mooring locations, collect fees, and perform other police duties depending on the specific town regulations. Management and staff for the town-run ramps are usually limited to one person to collect ramp fees.

### **Marina Locations**

The location of the North Kingstown Marina relative to other marinas on Narragansett Bay has important implications for the demand of its services by users who access it from either land or water. Some users prefer to be in secluded areas and have minimal services, while other users prefer very active marina centers that have a wide range of marina services.

The nearest marinas to Allen Harbor by road are:

- To the North: Greenwich Bay Marina - 7 miles
- To the South: Wickford Yacht Club and Pleasant Street Wharf - 5.5 miles each

The nearest marinas to North Kingstown Marina by water are:

- To the North: Angel's Marina in Warwick Cove - 4.6 nautical miles
- To the South: Brewer's Wickford Cove Marina in Wickford Cove - 5.2 nautical miles
- To the East: Little Harbor Marine and East Passage Yachting Center (both in Portsmouth) - 6.8 nautical miles.

A major marina area north of Allen Harbor is Greenwich Bay, which has 19 marinas and yacht clubs with over 2,500 slips. Wickford Harbor, which is south of Allen Harbor, has 5 marinas and yacht clubs with 400 slips. The following is a summary of public and private marina services in Wickford Harbor.

**Wickford Harbor** - Anchorage is available at two town guest moorings inside the breakwater wall. These are on a first come basis with a 24-hour maximum stay.

**Gardiner Marine** - 125 Steamboat Avenue, Wickford, RI, 02852, 294-1000. Complete restoration and repair facility, all types.

**Johnson's Boat Yard** - 3 Esmond Avenue, North Kingstown, RI, 02852, 294-3700.

**Mill Cove Marina** - 1 Phillips Street, Wickford, RI, 02852, 295-8845. One guest slip, electricity, marine store, provisions, water, ice, bait, parking, restaurant and motel nearby, minor repairs, and boat sales.

**North Kingstown Town Wharf** - Foot of Main Street, Wickford, RI, 02852, 294-3331.

---

**Pleasant Street Wharf** - 160 Pleasant Street, North Kingstown, RI, 02852, 294-2791. One guest slip, two guest moorings, gas, diesel, electricity, marine store, water, ice, showers, telephone, toilets, beverages, parking, provisions, restaurant and motel nearby, minor to engine repairs.

**Wickford Cove Marina, Inc.** - Reynolds & Cove Streets, Wickford, RI, 02852, 884-7014. Slips for transients, gas, diesel, electricity, marine store, provisions, water, ice, showers, telephone, toilets, beverages, parking, restaurant and motel nearby, engine, hull rigging repairs.

**Wickford Marina** – 67 Esmond Avenue, Wickford, RI, 02852, 294-8160. Services include 62 permanent slips, 8 transient slips, electricity, winter storage (wet and dry), VHF, laundry, showers, and rest rooms.

**Wickford Shipyard** - 125 Steamboat Ave., Wickford, RI, 02852, 294-3361. 12 guest slips, gas, diesel, electricity, marine store, water, ice, laundry, showers, telephone, toilets, beverages, parking, provisions, restaurant and motel nearby, full service yard. Testing for FCC Radio Telephone license and classes for USCG license.

**Wickford Yacht Club**- 165 Pleasant St., North Kingstown, RI, 02852, 294-9010.

## **Mooring and Slip Demand and Fees**

### *Demand*

Many communities have a long waiting list for their moorings. Warwick, which manages 600 moorings, has about 100 people on a waiting list. This list has increased significantly over the past five years, according to the town's harbor master. East Greenwich has such a strong demand for its moorings, that residents must wait 3 years and non-residents must wait about four to five years to get a mooring. North Kingstown has 710 moorings including 382 moorings in Wickford. The waiting list in Wickford is 148 names.

### *Fees*

Towns that managed moorings provided relatively few, if any, services. Therefore, it is difficult to compare fees and services for moorings. As to be expected, most towns had lower fees for moorings than marinas. Mooring fees generally increased with the size of the marina facility and the amount of services that it provides. Furthermore, many marinas utilized the water sheet (the area of a water body that can be access by vessels) to accommodate vessel according to their size (i.e. they put shallow draft vessels in at shallow slips and moorings. Mooring and slip fees for large vessels net more revenue per foot than smaller vessels (i.e. larger vessels use more water, larger moorings, and require more services than smaller vessels. Therefore, this practice maximizes the revenues according to the physical constraints of the harbor depths. **The management at the North Kingstown Marina should add slips to accommodate larger vessels, especially since it has many deep-water berths.**

## **Pumpout Assessment**

Pumpout facilities have been increasing over the past ten years. There are presently over 20 pumpouts on Narragansett Bay. Most are located at facilities that provide other services (such as water and fuel) so that boaters only have to make one stop when using their vessels.

---

Pumpout management is different at various marinas, and usually depends on the demand for the service. Some large marinas, such as Conanicut Marina and the Town of Bristol, utilize pump out vessels that service moored vessels. Other marinas sell pre-paid cards that let boaters pump out their vessels either a specific number of times or a specific volume of liquid during a season.