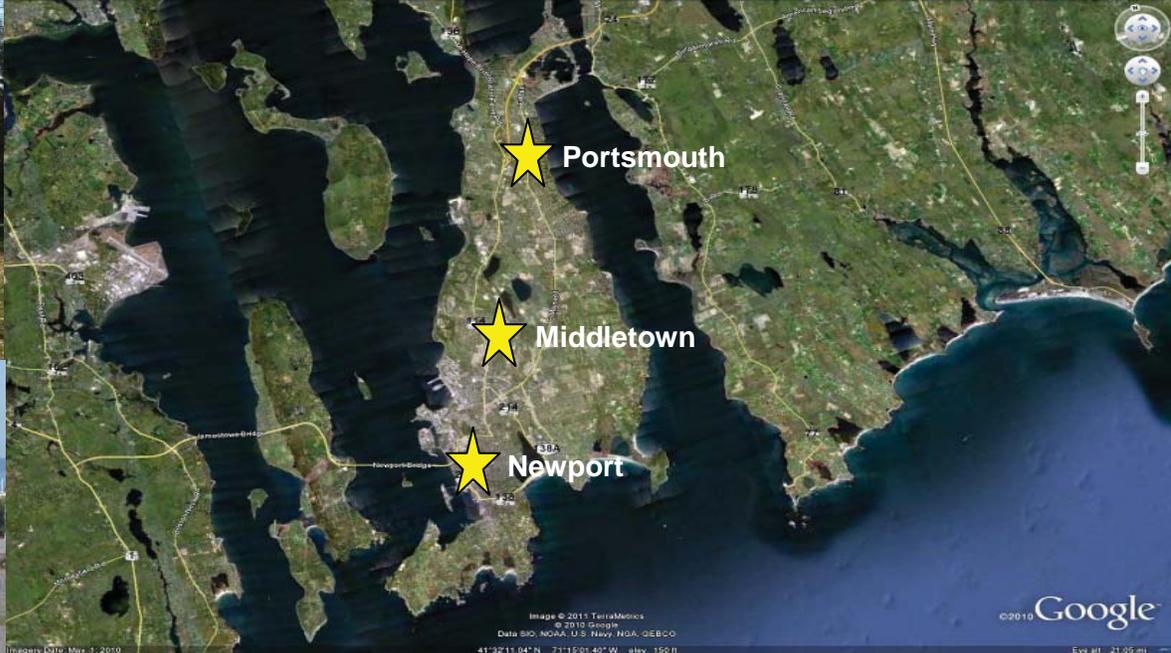


August 9, 2011

REDEVELOPMENT PLAN FOR SURPLUS PROPERTIES AT NAVSTA NEWPORT

AQUIDNECK ISLAND REUSE PLANNING AUTHORITY



RKG ASSOCIATES, INC.
Economic, Planning & Real Estate Consultants



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THIS STUDY WAS PREPARED UNDER CONTRACT WITH THE CITY OF NEWPORT, RHODE ISLAND, WITH FINANCIAL SUPPORT FROM THE OFFICE OF ECONOMIC ADJUSTMENT, DEPARTMENT OF DEFENSE. THE CONTENT REFLECTS THE VIEWS OF THE CITY OF NEWPORT AND DOES NOT NECESSARILY REFLECT THE VIEWS OF THE OFFICE OF ECONOMIC ADJUSTMENT.

PREPARED BY:

RKG ASSOCIATES, INC.

WESTON SOLUTIONS, INC.

VANASSE HANGEN BRUSTLIN, INC.

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I. EXECUTIVE SUMMARY

The Newport Naval Complex (Naval Station Newport or NAVSTA) has long played an important role in the economy and the sociology of Aquidneck Island (Island), Rhode Island (RI). As a “Navy town”, Newport was dominated for decades by the presence of the sailors and defense-related development that supported the base’s ship support, education and research missions. As the base grew, so too did the community, spreading into Middletown and Portsmouth. The Navy’s long-standing control of most of the Island’s western shorefront on Narragansett Bay, for mostly industrial uses, left these communities to serve primarily as suburbs for the employment bases in Newport, and increasingly, the metro Providence and Fall River markets. Over the past two or three decades, Newport and the rest of Aquidneck Island have transitioned away from a government-based employment base to towards a more diversified economy based on tourism, services, and to a lesser extent, non-government manufacturing and research and development (R&D). As one of the preeminent sailing capitals of the world and one-time summer playground for the rich and famous, Newport’s historic character and ocean-front location make it a highly desirable destination.

The Navy (and other branches of the military) is continuously evaluating their assets to ensure that they meet their future needs. The 2005 Base Realignment and Closure (BRAC) process refocused the Navy’s interests on the Island, which included transitioning from active ship-support functions to a greater participation in education and R&D. As a result, the infrastructure necessary to support fleet activities became redundant, and eventually led to the designation of large amounts of land and facilities as surplus.

In February 2010, approximately 225 acres of property at NAVSTA was declared as surplus under the 1990 Defense Base Closure and Realignment Act (Public Law 101-510, as amended). This set in motion a series of events and initiatives to plan and redevelop the property for higher and better uses.

The surplus Navy land and buildings are unique in that the properties are comprised of five non-contiguous parcels within three different municipalities – Newport, Middletown, and, Portsmouth, RI. The NAVSTA installation is situated on the western shore of Aquidneck Island along Narragansett Bay in southeastern RI. The following five non-contiguous parcels of land and facilities were declared as surplus and are the subject of this redevelopment plan.

A. Former Navy Hospital, Newport

The former Naval Health Care New England Newport is located at the south end of the Newport Naval Complex at 43 Smith Road, Newport. The excess property consists of approximately ten acres of government-owned property consisting of 7 acres of land and facilities and 3 acres of submerged land. The property is located in a coastal protection zone. The improvements include the former main hospital building (Building No. 1) which is a three-story concrete and brick H-plan structure containing approximately 147,500 square feet. The structure was constructed in 1913 and used as an inpatient hospital until 1997. The building is currently vacant. Also included on the premises are seven buildings (46,930

square feet) supporting administrative, storage and warehouse functions, and a 490 square yard concrete pier. The property is in a National Register Eligible District with four of the buildings, including Building No. 1, having determined to have contributing elements.

B. Former Navy Lodge, Middletown

The former Navy Lodge is located on West Main Road, State Route 114, in a commercial district in the Town of Middletown. The property consists of approximately 3 acres of government-owned land. The lodge has been demolished. A small utility (telephone) building will remain on the property.

C. Tank Farms 1 and 2, Portsmouth

Tank Farm 1 is located in the Town of Portsmouth near the Melville boat basin area. The site has been operated since the 1920s as a storage facility for various types of fuels used by the Navy and is approximately 50 acres in size. Tank Farm 1 consists of ten storage tanks (Tanks 9 through 18) and a total of six utility and pump house buildings (Buildings 30, 49, 199, 1156, B60, and S 63) that were used as part of the facility's former fuel distribution operations. The storage tanks are a combination of buried, or partially buried, concrete and steel underground storage tanks (USTs) and two steel above ground storage tanks (ASTs), all of which were built between the 1920s and 1940s. There is also a 1,000-gallon underground water reservoir located at Building 30.

The Navy used the Tank Farm until 1970. In 1974, the Navy licensed to the Defense Fuel Supply Center (DFSC), currently known as Defense Energy Supply Center (DESC), the tank farm and associated facilities to store and distribute petroleum fuel. The DESC ceased operations in 1998.

Directly adjacent to Tank Farm 1 is the Tank Farm 2 property which occupies approximately 96 acres of land. Tank Farm 2 consists of eleven USTs which were constructed, operated, and decommissioned on a similar timeline to Tank Farm 1. Between 1996 and 1997, all eleven tanks were cleaned and refilled with water to prevent groundwater intrusion. The surface of the site is similar to Tank Farm 1 in that it is a combination of largely scrub brush and wooded areas interspersed with paved roadways and two small vacant buildings (former fire station and electrical utility structure) along Bradford Avenue.

A portion of Tank Farm 1 is located within the Melville Fuel Depot and Net Depot Historic District, which has been determined eligible for the National Register of Historic Places. Tanks 9, 10, 11, 12, 13 and 14, which lie within this portion, are considered contributing structures to this district.

D. Defense Highway Properties, Middletown and Portsmouth

The Defense Highway surplus properties are comprised of roadway corridors and some adjoining land parcels located along the northwestern portion of the Naval Station property, on the western shoreline of Aquidneck Island. The properties include the following:

- Approximately 3.6 miles of Defense Highway (also known as the Burma Road), a two-lane asphalt roadway that spans the towns of Middletown and Portsmouth. The northern terminus is located at Stringham Road in Portsmouth with the southern extent at the Naval Undersea Warfare Center (NUWC) entrance gate in Middletown.
- Adjoining this segment of the Defense Highway right-of-way are several narrow ribbons of land that are located on both the upland and waterfront sides of the roadway. The exact boundaries and acreage of these parcels has not been determined.
- The Stringham Road corridor, from the southwestern corner of Tank Farm 1 to West Main Road (Route 114).
- A short segment of the Midway/Greene Lane road corridor. The Midway/Greene Lane Property includes the westernmost section of Greene Lane and the site of former Buildings 70, 71, 111, and the Midway Fueling Pier located alongside Defense Highway where it meets Greene Lane in Middletown.

In total, these properties consist of approximately 67 acres of land (subject to survey verification). An abandoned fuel pipeline runs along Defense Highway and additional utility lines still in use by the Navy are also extant at various locations. An operational rail line (owned by the Rhode Island Department of Transportation - RIDOT), used primarily for tourism uses, also parallels the Defense Highway corridor for its entire length (but is not included as part of the Navy surplus land).

E. Summary of Findings

Each of the sites contain varying degrees of environmental contamination ranging from no identified contamination issues (at the Navy Lodge site), to known issues related to soil, groundwater and buildings being contaminated with hazardous waste, petroleum, lead, lead paint, arsenic, asbestos and other contaminants at the other sites. Characterization of environmental issues is still on-going at some of the sites (including Tank Farms 1 and 2), and as such, there may be environmental contamination issues that are as of yet, unknown. Prior to transfer, the Navy must complete environmental studies to determine if there is any contamination that requires cleanup.

An analysis of current market conditions for the Aquidneck Island Region found that overall population and household growth has been in decline for the past two decades. While the residential market peaked in 2005/2006, median pricing and sales volume declined significantly through 2010. The residential market has recently shown signs of recovery. Market demand for non-residential development including retail, light industrial, hotel and office sectors remains limited with some opportunities for growth, but potentially at the expense of the existing supply (particularly so for the hotel sector).

BRAC regulations require the Local Redevelopment Authority (LRA) to undertake a public outreach process, with a particular focus on organizations serving the needs of the local homeless community. Outreach to area homeless service providers (obtained from the local U.S. Department of Housing and Urban Development [HUD] regional office), as well as

potential Public Benefit Conveyance (PBC) recipients, was provided through a combination of public notice postings, public informational meetings, follow-up email correspondence, and personal tours of the surplus properties. No Notices of Interest (NOIs), and subsequently no Legally Binding Agreements, were received by the LRA from Housing the Homeless service providers for consideration or action. The LRA received four viable requests for Public Benefit Conveyances (PBCs) of surplus property from local communities, the State of Rhode Island, and other interested parties which were included and analyzed as part of the planning process.

In order to provide the LRA with a range of potential redevelopments to consider for each of the surplus sites, the consultant team evaluated a wide variety of uses that would be considered technically feasible. Each of the alternatives evaluated considered the existing environmental, market and economic conditions, transportation considerations, and input from the Aquidneck Island Reuse Planning Authority (AIRPA) Board, residents and the three municipality's planning staff. Each community expressed a desire to improve economic development opportunities related to job and property tax base growth but not at the expense of community character or quality of life. The alternative developments that were evaluated for each site included the following:

- Navy Hospital: Hotel/residential/office mixed use, residential, and research and development space
- Tank Farms 1 and 2: Light industrial/office/flex mixed use, multi-modal transportation, non-intensive solar panel or other development
- Defense Highway: Public open space/recreation and two or four-lane highway
- Navy Lodge: Retail and office mixed use in conjunction with the development of civic and mixed commercial use on adjacent Town-owned property.

F. Preferred Reuse Plan

After review and discussion of the redevelopment alternatives for each of the sites including public AIRPA meetings and public meetings with each municipality, the LRA selected a development alternative for each site – referred to as the Preferred Reuse Plan. The Preferred Reuse Plan targets specific types of development on each site based on each site's physical, environmental, and locational attributes. In its most basic form, the Preferred Reuse targets the following types of development on site:

- Navy Hospital: Hotel and residential or office mixed use
- Navy Lodge: Retail and office mixed use in conjunction with civic and residential uses
- Tank Farms 1 and 2: Light industrial/office/flex mixed use, boat storage, multi-modal transportation, non-intensive solar panel or other development
- Defense Highway: Public open space/recreation and two-lane highway

1. Navy Hospital

The preferred plan includes a 3-story hotel (100 to 120 rooms) with additional space for retail space and/or restaurants over at-grade parking in the northeast corner of the site, a 3-story 36-unit residential building (or potential office use) over at-grade parking in the southeast corner of the site, and a waterfront park at the western edge of the site based on an NOI received from the City of Newport. The waterfront park may include amenities, such as a pier, a waterfront pedestrian path, a marine harbor shuttle station and recreational boat moorings. (Refer to Figure I-1).



Figure I-1

2. Navy Lodge

The preferred plan developed for the Navy Lodge site was generated through the planning process for the *West Main/Coddington Road Master Plan*. In addition to the Navy Lodge site, the Master plan included the redevelopment of three parcels (an additional 11 acres) to the north of the Navy Lodge site, which include the Town's Recreation Complex, Public Library and former JFK Elementary School. The Master Plan illustrates the goals for those sites and the surrounding area to redevelop into a mixed use center with office, retail, housing, and municipal uses.

As shown in Figure I-2, the preferred plan for this site is a mixed use development on the entire 14 acre site including 50,000 SF of civic uses, 80,000 SF of retail, 45,000 SF of office

space and 175 residential units. This development program is shown with retail uses in the southeast and northeast corners of the Navy Lodge site with other improvements within each of the other three sites, with primary access from Coddington Highway and West Main Road, and parking behind the buildings. This plan includes future roundabout transportation improvements at the West Main/Coddington and West Main/East Main intersections, if approved by the Town.



Figure I-2

The location attributes of the former Navy Lodge site, including traffic counts and visibility, are all favorable to development, most likely as a retail use. However, development build-out, or density, on the specific Navy Lodge site may be somewhat limited. This takes into account such elements as parking requirements, limited availability of curb-cuts, potential roadway improvements at West Main and Coddington and considerations for a “gateway”

element at this intersection, as examples. As such, developing this parcel in conjunction with the adjacent ball field (and additional northern parcels – library and JFK School) is required in order to attract private sector involvement, thereby allowing for a bigger site with more potential. This could also assist in assuring developer participation of future public use development of the northern parcels.

3. Tank Farms 1 and 2

Tank Farms 1 and 2 would be redeveloped as a combined 146 acre site with office space, light industrial/flex space, boat storage, multi-modal parking and possible non-intensive development (such as a solar array) (see Figure I-3). Within the plan, a 400-space (4 acre) parking facility would be located on the west side of the site, adjacent to the rail line, and is based on a NOI received from the Town of Portsmouth. Just to the north of the multi-modal parking facility, is an area for approximately 55,000 SF of light industrial/flex space along the rail line. North of that is another parcel indicated for additional light industrial development ($\pm 40\text{-}50,000$ SF) or for boat storage.

To the east of this area, light industrial/flex development ($\pm 90,000$ SF) and associated parking are proposed with access from Bradford Avenue to the east. The far south end of the site, with access from Stringham Avenue, is shown as potential redevelopment of $\pm 110,000$ SF of office space for small users and small business “start-ups”. This area of the site is separated by the areas to remain vacant due to the existing fuel tanks. This area has a small pocket in the center which could potentially be developed with a solar array or other non-intensive use, as indicated on the plan. Total uses for this plan include up to 190,000 SF of light industrial/flex space and 110,000 SF of office space, along with a 400-space parking facility. Within this plan, the partial USTs and ASTs on Tank Farm 1 would be demolished.



Figure I-3

4. Defense Highway

The preferred plan for the Defense Highway is similar to what was previously developed during the alternatives stage of the BRAC process. The combined acreage of the highway property totals approximately 67 acres, which include linear property “ribbons” located across from Greene Lane Intersection along the western shoreline of the island spanning the Towns of Middletown and Portsmouth. The Stringham Road portion is 1 mile long; and the Defense Highway portion is 3.6 miles long. With only two other major north-south transportation routes on the Island (Route 114 and Route 138), the Defense Highway represents a critical third transportation connection for north-south circulation on the island, with a high volume of traffic. Furthermore, the Defense Highway represents a key transportation element to support the core mission of NAVSTA Newport.

The RIDOT has submitted a NOI for the Defense Highway and Stringham Road. The preferred use for these existing roadways dovetails with the recently completed *Aquidneck Island Transportation Study* which recommends a two lane scenario. Figure I-4 illustrates the road in its existing (2-lane) configuration, with the addition of a multi-use pathway in a greenbelt on the opposite side of the railroad tracks, adjacent to the water. This plan assumes that the roadway will be environmentally remediated to enable the proposed uses and that zoning will be modified to enable the proposed uses (if necessary).

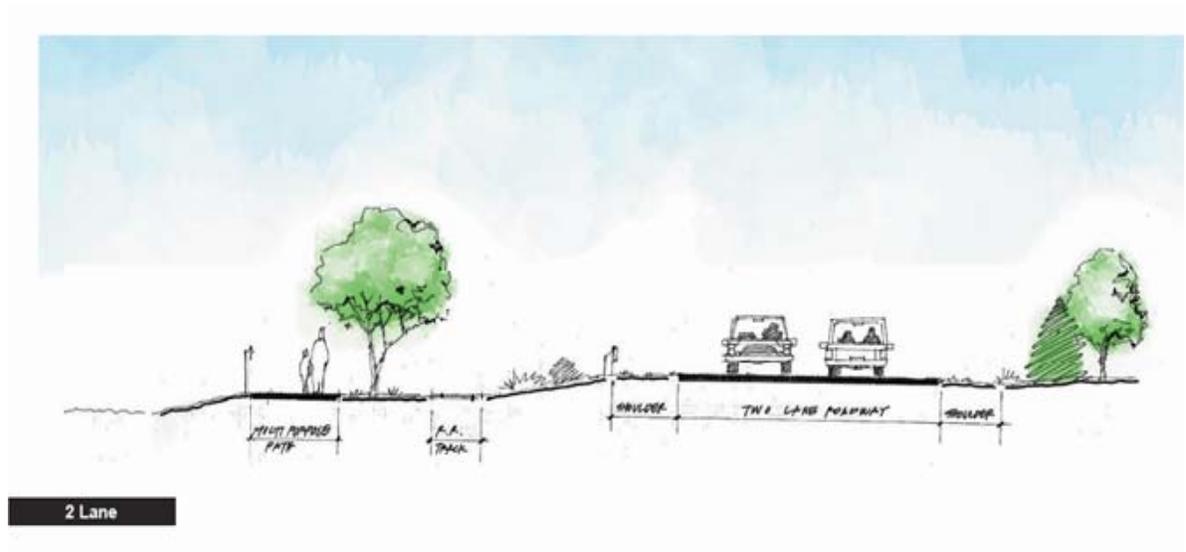


Figure I-4

The other aspect planned in this area is the concept of Open Space “Ribbons” as shown in Figure I-5. For this, a NOI has been received from the Town of Middletown for recreation/open space use for ±25 acres at the Midway Pier/Greene Lane. As shown in Figure I-6, the area included would encompass the Midway Pier and lands just to the north and to the south. A plan for a shoreline park prepared by the Town, including a fishing pier, kayak launch, restrooms, playgrounds, parking, picnic areas and pathways has been integrated into the plan for this site.



Figure I-5

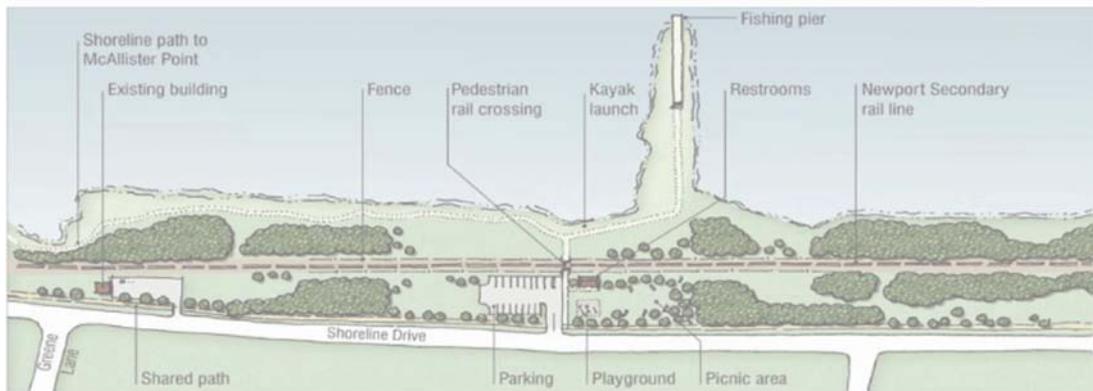


Figure I-6

5. Impacts and Implementation

A preliminary financial analysis of the Preferred Reuse Plan indicates that the estimated market value of the proposed improvements (\$116.9 million) and the estimated capital, development, site preparation and operating costs (\$116.756 million), the residual value of the sites is estimated to be approximately \$143,000 - or essentially a revenue neutral or financial “wash” situation where revenues equal development costs.

The implementation of the Preferred Reuse plan could add up to 980 new direct jobs to the regional economy at full build-out. This estimate does not include indirect jobs related to the construction or development activity related at each site, which may add 1,000 or more jobs. Because of the environmental liabilities and time needed to redevelop the sites, the LRA which jointly represents the City of Newport, Town of Middletown and Town of Portsmouth, seeks to retain its oversight role for the redevelopment of the surplus properties. To do so requires it to revise its current charter and authority and to become an Implementation LRA that has the legal powers to own property, borrow monies, receive grants, manage, lease or sell property, and other necessary functions to undertake the redevelopment of the properties. This can be accomplished by vote of each jurisdiction’s governing bodies.

The LRA may then seek to acquire any or all of the properties from the Navy utilizing a combination of conveyance mechanisms including an Economic Development Conveyance (EDC) and PBC as described under the BRAC rules and regulations. The properties may be held by the LRA until each site has been prepared for development and can then be transferred to the host community. For those properties with limited site constraints (like the Navy Lodge site), transfer to the host community (Town of Middletown) may be immediate. For other sites (such as Tank Farms 1 and 2), transfer from the Navy may not happen for many years. Those portions of properties earmarked for public use could be transferred at any time under EDC or PBC based on the needs of each host community.

II. INTRODUCTION

The Newport Naval Complex (Naval Station Newport - NAVSTA) has long played an important role in the economy and the sociology of Aquidneck Island (Island), Rhode Island (RI). As a “Navy town”, Newport was dominated for decades by the presence of the sailors and defense-related development that supported the base’s ship support, education and research missions. As the base grew, so too did the community, spreading into Middletown and Portsmouth. The Navy’s long-standing control of most of the Island’s western shorefront on Narragansett Bay, for mostly industrial uses, left these communities to serve primarily as suburbs for the employment bases in Newport, and increasingly, the metro Providence and Fall River markets. Over the past two or three decades, Newport and the rest of Aquidneck Island have transitioned away from a government-based employment base to towards a more diversified economy based on tourism, services, and to a lesser extent, non-government manufacturing and R&D. As one of the preeminent sailing capitals of the world and one-time summer playground for the rich and famous, Newport’s historic character and ocean-front location make it a highly desirable destination.

A. BRAC Action

The Navy (and other branches of the military) is continuously evaluating their assets to ensure that they meet their future needs. The 2005 Base Realignment and Closure (BRAC) process refocused the Navy’s interests on the Island, which included transitioning from active ship-support functions to a greater participation in education and R&D. As a result, the infrastructure necessary to support fleet activities became redundant, and eventually led to the designation of large amounts of land and facilities as surplus.

In February 2010, approximately 225 acres of property at Naval Station Newport (NAVSTA) was declared as surplus under the 1990 Defense Base Closure and Realignment Act (Public Law 101-510, as amended). This set in motion a series of events and initiatives to plan and redevelop the property for higher and better uses.

The surplus Navy land and buildings are unique in that the properties are comprised of five non-contiguous parcels within three different municipalities – Newport, Middletown, and Portsmouth, Rhode Island (RI). The NAVSTA installation is situated on the western shore of Aquidneck Island along Narragansett Bay in southeastern RI. The following five non-contiguous parcels of land and facilities were declared as surplus and are the subject of this redevelopment plan (see Figure II-1).



Figure II-1

1. Former Navy Hospital, Newport

The former Navy Health Care New England Newport is located at the south end of the Newport Naval Complex at 43 Smith Road, Newport. The excess property consists of approximately ten acres of government-owned property consisting of 7 acres of land and facilities and 3 acres of submerged land. The property is located in a coastal protection zone. The improvements include the former main hospital building (Building No. 1) which is a three-story concrete and brick H-plan structure containing approximately 147,500 square feet. The structure was constructed in 1913 and used as an inpatient hospital until 1997. The building is currently vacant. Also included on the premises are seven buildings (46,930 square feet) supporting administrative, storage and warehouse functions, and a 490 square yard concrete pier. The property is in a National Register Eligible District with four of the buildings, including Building No. 1, having determined to have contributing elements.

2. Former Navy Lodge, Middletown

The former Navy Lodge is located on West Main Road, State Route 114, in a commercial district in the Town of Middletown. The property consists of approximately 3 acres of

government-owned land. The lodge has been demolished. A small utility (telephone) building will remain on the property.

3. Tank Farms 1 and 2, Portsmouth

Tank Farm 1 is located in the Town of Portsmouth near the Melville boat basin area. The site has been operated since the 1920s as a storage facility for various types of fuels used by the Navy and is approximately 50 acres in size. Tank Farm 1 consists of ten storage tanks (Tanks 9 through 18) and a total of six utility and pump house buildings (Buildings 30, 49, 199, 1156, B60, and S 63) that were used as part of the facility's former fuel distribution operations. The storage tanks are a combination of buried, or partially buried, concrete and steel underground storage tanks (USTs) and two steel above ground storage tanks (ASTs), all of which were built between the 1920s and 1940s. There is also a 1,000-gallon underground water reservoir located at Building 30.

The Navy used the Tank Farm until 1970. In 1974, the Navy licensed to the Defense Fuel Supply Center (DFSC), currently known as Defense Energy Supply Center (DESC), the tank farm and associated facilities to store and distribute petroleum fuel. The DESC ceased operations in 1998.

Directly adjacent to Tank Farm 1 is the Tank Farm 2 property which occupies approximately 96 acres of land. Tank Farm 2 consists of eleven USTs which were constructed, operated, and decommissioned on a similar timeline to Tank Farm 1. Between 1996 and 1997, all eleven tanks were cleaned and refilled with water to prevent groundwater intrusion. The surface of the site is similar to Tank Farm 1 in that it is a combination of largely scrub brush and wooded areas interspersed with paved roadways and two small vacant buildings (former fire station and electrical utility structure) along Bradford Avenue.

4. Defense Highway Properties, Middletown and Portsmouth

The Defense Highway surplus properties are comprised of roadway corridors and some adjoining land parcels located along the northwestern portion of the Naval Station property, on the western shoreline of Aquidneck Island. The properties include the following:

- Approximately 3.6 miles of Defense Highway (also known as the Burma Road), a two-lane asphalt roadway that spans the towns of Middletown and Portsmouth. The northern terminus is located at Stringham Road in Portsmouth with the southern extent at the Naval Undersea Warfare Center (NUWC) entrance gate in Middletown.
- Adjoining this segment of the Defense Highway right-of-way are several narrow ribbons of land that are located on both the upland and waterfront sides of the roadway. The exact boundaries and acreage of these parcels has not been determined.
- The Stringham Road corridor, from the southwestern corner of Tank Farm 1 to West Main Road (Route 114).
- A short segment of the Midway/Greene Lane road corridor. The Midway/Greene Lane Property includes the westernmost section of Greene Lane and the site of former

Buildings 70, 71, 111, and the Midway Fueling Pier located alongside Defense Highway where it meets Greene Lane in Middletown.

In total, these properties consist of approximately 67 acres of land (subject to survey verification). An abandoned fuel pipeline runs along Defense Highway and additional utility lines still in use by the Navy are also extant at various locations. An operational rail line (owned by the Rhode Island Department of Transportation - RIDOT), used primarily for tourism uses, also parallels the Defense Highway corridor for its entire length (but is not included as part of the Navy surplus land).

B. Local Redevelopment Authority

The Defense Base Closure and Realignment Act of 1990, as amended, places responsibility for base reuse planning in the hands of the Local Redevelopment Authority (LRA).

The Department of Defense Office of Economic Adjustment (OEA) has recognized the Aquidneck Island Reuse Planning Authority (AIRPA) as the entity responsible for the planning the redevelopment of NAVSTA surplus property located on Aquidneck Island, RI. The AIRPA functions as a Local Redevelopment Authority (LRA) and represents the municipalities of Newport, Middletown and Portsmouth. The purpose of the organization is to develop a redevelopment plan and strategies for the reuse of properties to be disposed of by the Navy on Aquidneck Island.

As shown in Figure II-2, the AIRPA consists of a Board of Directors and Ex-Officio Members appointed through Council resolution of each of the municipalities of Newport, Middletown and Portsmouth. The Board has met in public session during regular meetings held on the first Tuesday of every month at the Middletown Police Station, and has reached out to the community seeking input on the redevelopment of the surplus properties. The AIRPA hired a full-time Property Reuse Coordinator, Ms. Julie Oakley, to manage day-to-day activities and oversee the consultant teams hired to undertake various studies.

The current AIRPA Board of Directors includes the following individuals:

Middletown

- Jan Eckhart – Secretary
- Richard Adams – Vice-Chairman
- Gladys Lavine – Alternate

Newport

- Bill Corcoran
- Naomi Neville

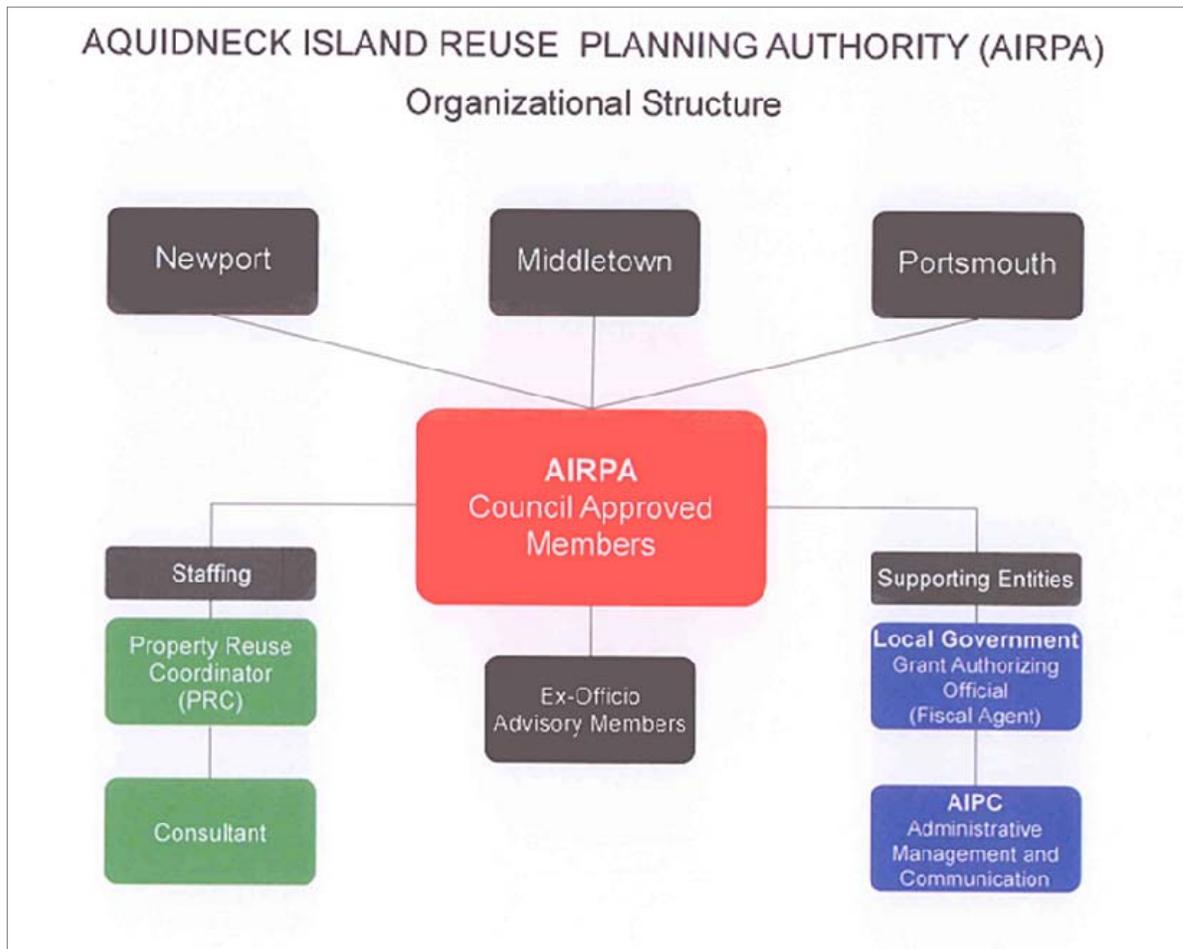


Figure II-2

Portsmouth

- Fred Faerber – Chairman
- Keith Humphreys
- Guy Bottari – Alternate
- David MacBain – Alternate

The Ex-Officio Members include the following:

- Shawn Brown – Town Administrator, Middletown
- Ed Lavalley – City Manager, Newport
- Robert Driscoll – Town Administrator, Portsmouth
- Robert Gilstein – Town Planner, Portsmouth
- Ronald Wolanski – Director of Planning and Economic Development, Middletown
- Tina Dolan – Executive Director, Aquidneck Island Planning Commission
- Ted Clement – Executive Director, Aquidneck Island Land Trust

- James Boyd – Costal Policy Analyst, RI Coastal Resources Management Council (RICRMC)
- Jared Rhodes – Chief, RI Department of Administration Statewide Planning Program (RIDOA-SPP)
- John Riendeau – Defense Industry Manager, RI Economic Development Corporation (RIEDC)
- Joe Dias – Chief Division of Planning and Development, RI Department of Environmental Management (RIDEM)
- Michael Lewis – Director, RI Department of Transportation (RIDOT)
- Steve Olson – University of Rhode Island (URI) Coastal Resource Center

The following presents a summary of meetings, workshops, and other public outreach sessions conducted by AIRPA for this planning process:

➤ Public Outreach Conducted by AIRPA

- *Monthly Board Meetings Open to the Public*
- *Public Workshop / Hearing*
 - ✓ July 28th
 - ✓ February 10th
 - ✓ April 7th
 - ✓ July 14th
- *Held an information sharing session on October 5th for the municipal officials of all three communities*
- *Participant in the Aquidneck Island Transportation Plan*

➤ Public Outreach to Municipalities by AIRPA

- *City of Newport*
 - ✓ Newport Redevelopment Agency Meetings
 - October 18th
 - November 1st
 - June 20th
 - ✓ City Council Meetings
 - September 29th
 - March 8th
 - June 29th
 - July 13th
- *Town of Middletown*
 - ✓ Planning Board Meetings
 - June 8th
 - ✓ Town Council Meetings
 - January 18th
 - June 20th
 - ✓ Participant in the West Main / Coddington Development Master Plan
- *Town of Portsmouth*
 - ✓ Portsmouth Redevelopment Agency Meetings
 - September 8th

- October 13th
- December 15th
- April 27th
- June 9th
- ✓ Town Council Meetings
 - October 25th / 26th
 - May 9th
 - July 11th

*All meetings listed were open to the public and documented through meeting minutes. Meeting minutes can be found at: <http://sos.ri.gov/publicinfo/openmeetings/>

C. Previously Completed or On-Going Planning Efforts

A substantial amount of planning has occurred on Aquidneck Island in recent years which directly impact the potential redevelopment of the five properties. The 2005 *West Side Master Plan* (The Cecil Group, et al), the 2007 *Shoreline Drive Gateway Feasibility Study* (Pare), the September 2008 *Portsmouth Tank Farm Redevelopment Plan Draft* (Town of Portsmouth) and the recently completed *Aquidneck Island Transportation Plan* (VHB) create a solid framework on which the redevelopment planning for the Navy parcels has been built. These efforts have clearly defined the goals and objectives which the three communities have expressed for the use of the Navy properties as well as surrounding areas. In addition, the results of the concurrent *West Main/Coddington Development Center Master Plan* (for the Town of Middletown) analyzed and developed a preferred Reuse Plan for the three acre former Navy Lodge parcel, contributing to this study. Members of AIRPA were involved in the development of all of these plans. In addition, the Navy's *Environmental Condition of Property* report for the five sites provides a good starting point for understanding some of the redevelopment issues with the parcels.

III. OVERVIEW OF SITES

A. Introduction

The following section provides a contextual overview of the Navy properties involved in this analysis, including the former Navy Hospital site, the Navy Lodge site, Tank Farms 1 and 2, and the Defense Highway properties. A description of each of the properties and their regional context is provided, along with applicable local land use plans and pertinent zoning regulations for each site. The section concludes with an inventory of natural resource conditions found at each of the sites.

B. Description of Surplus Property

1. Navy Hospital Site

The former Navy Hospital site is located at the southern end of Naval Station (NAVSTA) Newport, Newport, Rhode Island (RI). The property consists of approximately ten acres of land, seven of which are upland area and three acres of submerged land. This complex is located on the western shore of Aquidneck Island, on Narragansett Bay, just north of the Newport (Pell) Bridge. The complex is bordered by the active naval clinic buildings to the north, by residential and commercial areas to the east on Third Street and to the south on Cypress Street, and by Narragansett Bay to the west.

The former Navy Hospital site consists of the following seven buildings and one pier:

- Building 1- Hospital Building (including Buildings A72 and 1189)
- Building 7 - Housekeeping
- Building 45 - Drug and Alcohol Rehabilitation
- Building 62 – Chapel
- Building 63 - Detached Garages
- Building 993 - Emergency Generator
- Quarters A and B - Housing Unit
- Pier 71 - Berthing Pier

Building 1, the former main hospital building, is located in the center of the former Navy Hospital site and was constructed in 1913. This building is a three-story, concrete and brick structure, containing approximately 147,500 square feet of space. It is bordered by Building A-6 to the northeast, Buildings 7 and 993 to the east, Building 45 and Quarters A and B to the south, Building 62 and Pier 71 to the southwest, and Narragansett Bay to the west. Several paved parking areas surround Building 1. The entire site has been

determined eligible for the National Register of Historic Places and is also located in a coastal zone protection area.

2. Navy Lodge Site

The Navy Lodge site is located at the south eastern portion of NAVSTA Newport, on the eastern side of the Coddington Cove section of the station. The property consists of approximately three acres of land located on the corner of Coddington Highway and West Main Road (Route 114). The site is bordered by a municipal playground to the north, by West Main Road to the east, Coddington Highway to the south, and by a formerly Navy-owned but now private residential apartment complex to the west.

The site was formerly occupied by the Navy Lodge building, known as Building 685-CC, which was demolished around 2004. The property is currently a vacant grass-covered site. A small telephone utility shed exists in the southwest corner of the site and a water feed vent and concrete pad exists in the north east corner.

3. Tank Farms 1 and 2

Tank Farm 1 is located in the Town of Portsmouth near the Melville boat basin area. The site has been in operation since the 1920s as a storage facility for various types of fuels used by the Navy and is approximately 50 acres in size. Tank Farm 1 consists of ten storage tanks (Tanks 9 through 18) and a total of six utility and pump house buildings (Buildings 30, 49, 199, 1156, B60, and S 63) that were used as part of the facility's former fuel distribution operations. The storage tanks are a combination of buried, or partially buried, concrete and steel underground storage tanks (USTs) and two steel above ground storage tanks (ASTs), all of which were built between the 1920s and 1940s. There is also a 1,000-gallon underground water reservoir located at Building 30.

A portion of Tank Farm 1 is located within the Melville Fuel Depot and Net Depot Historic District, which has been determined eligible for the National Register of Historic Places. Tanks 9, 10, 11, 12, 13 and 14, which lie within this portion, are considered contributing structures to this district.

Aside from the buildings noted above, the surface area of Tank Farm 1 is generally covered by grassland and wooded areas, as well as paved access roads. Access to the site is gained via either Stringham Road, Defense Highway, Bradford Avenue or Alexander Road. The site is bordered by Melville Pond and the Melville Public Fishing and Camping Area to the north, the Melville Public Fishing and Camping Area and Tank Farm 2 to the east, Tank Farm 2 and the Navy-owned Defense Highway property to the south, and railroad tracks, the Melville maritime trades and marina area and Narragansett Bay to the west.

The Navy used the Tank Farm until 1970. In 1974, the Navy licensed to the Defense Fuel Supply Center (DFSC), currently known as Defense Energy Supply Center (DESC), the tank farm and associated facilities to store and distribute petroleum fuel. The DESC ceased operations in 1998.

Directly adjacent to Tank Farm 1 is the Tank Farm 2 property which occupies approximately 96 acres of land. Tank Farm 2 consists of eleven underground storage tanks (USTs) which were constructed, operated, and decommissioned on a similar timeline to Tank Farm 1. Between 1996 and 1997, all eleven tanks were cleaned and refilled with water to prevent groundwater intrusion. The surface of the site is similar to Tank Farm 1 in that it is a combination of largely scrub brush and wooded areas interspersed with paved roadways and two small vacant buildings (former fire station and electrical utility structure) along Bradford Avenue. Cox Communications also has an equipment storage area on the corner of Stringham Road and the access road to the Melville Campground.

4. Defense Highway Properties

The Defense Highway surplus properties are comprised of roadway corridors and some adjoining land parcels located along the northwestern portion of the Naval Station property, on the western shoreline of Aquidneck Island. The properties include the following:

- Approximately 3.6 miles of Defense Highway (also known as the Burma Road), a two-lane asphalt roadway that spans the towns of Middletown and Portsmouth. The northern terminus is located at Stringham Road in Portsmouth with the southern extent at the Naval Undersea Warfare Center (NUWC) entrance gate in Middletown.
- Adjoining this segment of the Defense Highway right-of-way are several narrow ribbons of land that are located on both the upland and waterfront sides of the roadway. The exact boundaries and acreage of these parcels has not been determined.
- The Stringham Road corridor, from the southwestern corner of Tank Farm 1 to West Main Road (Route 114).
- A short segment of the Midway/Greene Lane road corridor. The Midway/Greene Lane Property includes the westernmost section of Greene Lane and the site of former Buildings 70, 71, 111, and the Midway Fueling Pier located alongside Defense Highway where it meets Greene Lane in Middletown.

In total, these properties consist of approximately 67 acres of land (subject to survey verification). An abandoned fuel pipeline runs along Defense Highway and additional utility lines still in use by the Navy are also extant at various locations. An operational rail line (owned by the Rhode Island Department of Transportation - RIDOT), used primarily for tourism uses, also parallels the Defense Highway corridor for its entire length (but is not included as part of the Navy surplus land).

These Defense Highway Properties are bordered by the Melville Housing area and Tank Farms 1 and 2 to the north; by West Main Road, Tank Farms 3, 4 and 5, the Greene Lane Housing area, and private properties to the east; NUWC to the south; and by Carr Point Recreation Area, McAllister Point Landfill, privately owned property and Narragansett Bay to the west.

C. Regional Context

The surplus Navy properties being considered in this reuse plan are located within the Town of Portsmouth, the Town of Middletown, and the City of Newport, Rhode Island. Collectively, these communities represent the portion of Rhode Island known as Aquidneck Island. Aquidneck Island is located in Newport County which encompasses the primary regional study area used as the basis for much of the socioeconomic analysis presented in this plan.

Aquidneck Island is located in the southeast corner of the state on Narragansett Bay and is about 3 miles from the Massachusetts (MA) state line and the City of Fall River. It is also 30 miles south of Providence, the state's capital, and 67 miles south of Boston, MA. Access to Aquidneck Island is gained via one of three bridges including the Mt. Hope Bridge (to Bristol, RI) and the Sakonnet River Bridge (to Tiverton, RI) at the north end of the Island, and the Newport/Pell Bridge (to Jamestown/North Kingstown, RI) at the southwest end.

Aquidneck Island is approximately 38 square miles in size with over 30 miles of coastline. This maritime location is a primary reason for the presence of the NAVSTA Newport and the Naval Undersea Warfare Center (NUWC). This waterfront presence has also contributed to the Island's tourism-based economy, as well as a prominent maritime trades sector involved in boat building and servicing, and their use for commercial and recreational transportation.

The Island's estimated population as of 2010 was 56,500 while Newport County had a total population of approximately 80,000 with Rhode Island at just fewer than 1.1 million residents. The Island has a total employment base of approximately 34,000 jobs, much of which are related to the tourism, retail, and defense industry sectors. The Island's job base represents almost 90% of the total jobs within Newport County.

D. Local Land Use Plans

Each of the three Island communities has adopted a local comprehensive plan. Under the Rhode Island Comprehensive Planning and Land Use Regulation Act of the General Laws, each municipality must update its comprehensive plan at least once every five (5) years. In addition, two other studies have also been completed relatively recently that have a specific focus on the surplus Navy properties being considered in this reuse plan. These are the *Aquidneck Island West Side Master Plan* (2005) and the *North End Master Plan* (2006) for the City of Newport.

The West Side Master Plan was completed under the auspices of the Aquidneck Island Planning Commission with support and input from all three communities, as well as from the U.S. Navy and the State of Rhode Island. The study area for this plan was comprised of an 8-mile stretch of land and waterfront uses extending from the Mt. Hope Bridge in Portsmouth to the Newport Harbor, encompassing portions of all three towns and the Island's Naval complex. The plan included a comprehensive inventory of man-made and natural resources within the study area which culminated in the creation of a vision for the West Side and a detailed array of planning strategies for land use, economic development, transportation, and utilities. These strategies were supported by an implementation summary as well. The key objectives of the West Side Plan are noted below.

- Incorporate the four elements of *Aquidneck Island: Our Shared Vision* (1999) into the West Side Plan:
 - Ensure a livable landscape
 - Provide for social well-being
 - Secure a strong local economy
 - Support multiple modes of transportation
- Enhance NAVSTA Newport by planning surrounding land uses that are compatible with the base's mission and by planning for the reuse of public and private property
- Plan for economic development that complements surrounding land features and contributes to the local economy
- Provide more active and passive recreation for community members
- Increase vistas and access on public properties along Narragansett Bay

E. Zoning

This section of the report will describe the existing key zoning provisions pursuant to the underlying zoning district on which each site is located. Refer to Figures III-E-1, III-E-2, III-E-3, and III-E-4 (all in Appendix).

1. Navy Hospital Site

The Navy Hospital site in Newport currently includes the hospital, a dormitory for nursing students, other support buildings, and officer's quarters. This site is located in the Residential R-10 zoning district. Please refer to Figure III-E-1. The following uses are allowed by right in this district: single- and two-family dwellings (including with home occupations); places of worship; nursery schools and day care centers (including family day care); parks and playgrounds; and municipal service buildings and facilities.

With a special use permit, a number of uses are permitted including multi-family dwellings; guest houses; libraries; museums; cemeteries; religious, philanthropic, scientific, literary, historical, fraternal, and charitable institutions; agricultural and horticultural societies; schools of limited instruction; hospitals; convalescent homes and rest homes; undertaker's establishments; clubs for outdoor recreation; neighborhood parking lots; nonprofit multi-family housing facilities for the elderly and/or handicapped; and federal, state and municipal buildings.

The minimum lot size is 10,000 square feet with a lot coverage requirement that buildings not occupy more than 20 percent of the lot. Building height is limited to thirty feet. For multifamily housing, the maximum density is one unit per 2,500 square feet. Multi-family housing facilities for the elderly requires a minimum lot size of 40,000 square feet and the maximum density is one unit per 2,000 square feet.

2. Navy Lodge Site

The Navy Lodge site is located at the intersection of Coddington Highway and West Main Road in Middletown. It was the site of the former Navy Lodge which has since been demolished. This parcel is zoned as the Public Zoning District. Please refer to Figure III-E-2. The Public District was established for land which is owned by the federal, state or municipal government, or related public agencies. The only uses permitted in the Public zoning district are for governmental functions and certain agricultural uses. Specifically, this includes farms and nurseries; private school buildings, including dormitories and accessory buildings; conservation lands; public or private parks; and beaches.

Other uses are permitted by special use including livestock farms; family day care; community residences; commercial docks or piers; commercial off-street parking; electrical power substations; high voltage electric transmission towers; sewage treatment plant; solid waste transfer station; wind energy turbine; and wireless communication facilities.

There are no dimensional regulations that apply to the Public Zoning District in Middletown.

3. Tank Farms 1 and 2

Tank Farms 1 and 2 are located in Portsmouth within a newly created Redevelopment District, which specifically allows one of three types of planned unit developments – Planned Corporate Development, Planned Marine Trade Development, and Planned Retail/Service Development (this may include multi-family housing as long as 25 percent is set aside for low- and moderate-income households). A minimum land area of twenty acres is required. Please refer to Figure III-E-3.

Planned Corporate Developments allow for the following uses:

- Manufacturing
- Professional and medical offices, including laboratories
- Research and development facilities
- Radio, television, or recording studios
- Antennas and communications towers
- Public or private utilities
- Printing, binding, publishing, graphic arts
- Plumbing, electrical, carpentry shop or other similar service
- Day care centers
- Public or private trade schools
- Restaurants

- Indoor entertainment and recreational facilities
- Catering or food processing or preparation
- Wholesale storage in an enclosed and roofed structure

The minimum lot size for this type of development is 40,000 square feet with a 40 percent maximum lot building coverage requirement and a height limitation of 40 feet.

Planned Marine Trade Development includes the following:

- Manufacture, repair, or rebuilding of commercial, military, government or recreational boats
- Support industries for boat manufacture or repair, including all boating systems and accessories
- Marinas
- Stores for sale of marine supplies and associated items, including boats and trailers
- Restaurants
- Commercial parking structures
- Research and development facilities
- Antennas and communications towers
- Storage in an enclosed and roofed structure.
- Outdoor storage of boats, and related equipment
- Schools
- Day care centers

The minimum lot size for this type of development is 30,000 square feet with a 40 percent maximum lot building coverage requirement and a height limitation of 40 feet.

The following uses are permitted in Planned Retail/Service Developments:

- Retail businesses and consumer services
- Professional and medical offices, including laboratories
- Radio, television, or recording studios
- Printing, binding, publishing, graphic arts
- Plumbing, electrical, carpentry shop or other similar service
- Day care centers
- Public or private trade schools
- Restaurants

- Indoor entertainment and recreational facilities
- Catering or food processing or preparation
- Stores for sale of marine supplies and associated items, including boats and trailers
- Commercial parking structures
- Schools
- Multi-family housing

The minimum lot size for this type of development is 20,000 square feet with a 25 percent maximum lot building coverage requirement and a height limitation of 35 feet. For multi-family housing development, the residential component including the required parking, open space, and amenities cannot exceed 35 percent of the total developable land area.

4. Defense Highway Properties

These properties are located along the shoreline on Defense Highway in Middletown. Essentially the properties are along the roadway right-of-way and are within the Public Zoning District. As noted in the Navy Lodge section above, the Public District was established for land which is owned by the federal, state or municipal government, or related public agencies. The same provisions identified there would apply to the Defense Highway properties as well. Please refer to Figure III-E-4.

In Portsmouth, the Defense Highway properties area bisects the Open Space District, which allows the following uses: recreation; conservation; public uses; wildlife management; agriculture; forest management; historic monuments; and museums. Special use permits may be granted for any use that would not interfere with the primary purpose of the district, which is to promote open space, recreation, and conservation.

Defense Highway properties are also found in the Waterfront District. A number of uses are allowed by right in this district such as Planned Marina Village Developments; agricultural use; offices; marine supplies; plumbing, electrical, and carpentry businesses; trade schools; country clubs and outdoor recreation; indoor entertainment and recreation; retail; eating establishments; local service businesses; marinas; auto service stations; boat sales and repair; manufacturing; wholesale businesses; and Planned Corporate Developments. Other special uses are permitted including single- and two-family dwellings; hotels and motels; mixed-use developments; community residences; places of worship; parks and playgrounds; libraries and museums; utilities; day care centers; laboratory and research facilities; studios; building supplies; laundry/dry cleaning; auto body shop; multi-family dwellings; cemetery; schools; family day care; and outdoor trade shows.

F. Natural Resources

This section describes existing natural resources at each of the sites and provides a general overview of environmental permitting that may be required for the redevelopment of each

site. Natural resources present on each site were interpreted from the RI Geographic Information System (RIGIS) data, local mapping, information provided by the Navy, and limited field observations. Development of site specific information will require detailed on-site reconnaissance and delineation of resource area boundaries which is outside the scope of this investigation. Additionally, the discussion of regulatory requirements is general, and a more detailed permitting assessment should be performed once specific redevelopment plans are identified. Such permitting assessments are outside of the scope of this investigation.

1. Navy Hospital Site

The Navy Hospital site (see Figure III-F-1 in Appendix) is an existing, previously developed site adjacent to Newport Harbor and bounded by Cypress Street on the south, Third Street on the west and Dorsey Road on the north. Natural resources identified on the site include mapped Federal Emergency Management Agency (FEMA) 100-year frequency floodplain and coastal velocity zone, and estuarine habitat. The estuarine habitat is mapped as beach within the intertidal zone abutting the site. There are no freshwater wetlands or non-tidal surface waters at the site. No rare species were identified at the site.

Activity in tidal waters is subject to the authority of the United States Coast Guard (USCG), the Army Corps of Engineers (ACOE), the Rhode Island Department of Environmental Management (RIDEM), and the Coastal Resources Management Council (CRMC). Any proposed improvements to be constructed within on or adjacent to these tidal waters require review and approval of these agencies. Additionally, CRMC jurisdiction extends landward of the shoreline a minimum of 200 feet. If any portion of a project is to be located within the CRMC jurisdiction, the entire project is subject to CRMC authority. CRMC regulates impacts to floodplain. Projects proposing to disturb one acre or more of soil must receive approval from the RIDEM Pollutant Discharge Elimination System Program (RIPDES). Activities proposed within floodplain and certain land disturbing activities must receive approval from the City of Newport.

2. Navy Lodge Site

The Navy Lodge site (see Figure III-F-2 in Appendix) is an existing, previously developed site adjacent to West Main Road and bounded by Coddington Highway on the south, West Main Road on the east, recreational fields on the north and Lake Erie Street and residences on the west. No natural resources are identified at the site. There are no freshwater wetlands or surface waters at the site. No rare species were identified at the site.

Projects proposing to disturb one acre or more of soil must receive approval from the RIDEM RIPDES Program. Certain land disturbing activities must receive approval from the Town of Middletown.

3. Tank Farms 1 and 2

The Tank Farm sites (see Figure III-F-3 in Appendix) are existing, previously developed, former fuel storage tank farm sites at Melville. The Tank Farms are bounded on the south by Stringham Road, on the west by the former railroad, and on the north and east by the

Melville Ponds Reservation and residences. No significant natural resources were identified on the sites. No freshwater wetlands or surface waters are mapped at the site; however, the abutting Melville Ponds Reservation includes a series of streams and impoundments, and adjacent wetland areas that are mapped by RIGIS. No rare species were identified at the site.

Freshwater wetlands in the vicinity of the coast may be subject to CRMC jurisdiction or RIDEM jurisdiction, or in some cases dual jurisdiction may apply. The CRMC and RIDEM have published maps identifying the boundary line between their jurisdictions. Such boundaries generally follow major transportation corridors or railroads that provide a convenient and readily identifiable demarcation. In the vicinity of the Tank Farms site, the boundary line is the former railroad. The Tank Farms sites are within the RIDEM freshwater wetland jurisdiction.

Freshwater wetlands are subject to state and federal (ACOE) regulation, and activities proposed within these wetlands require authorization from the RIDEM and the ACOE. State jurisdiction is also imposed upon the area of land within 50 feet of any freshwater wetland edge, and within 100 feet of a stream less than 10 feet wide or 200 feet of a stream greater than 10 feet wide. Some of these wetland buffers may extend onto the Tank Farms site. Floodplain is defined as a freshwater wetland under the state wetland regulations. Activities within these areas must also receive approval.

Projects proposing to disturb one acre or more of soil must receive approval from the RIDEM RIPDES Program. Activities proposed within floodplain and certain land disturbing activities must receive approval from the Town of Portsmouth.

4. Defense Highway Properties

Defense Highway (see Figure III-F-4 in Appendix) is an existing, previously developed transportation corridor paralleling the coastline between Coddington Cove in Middletown and Melville in Portsmouth. The corridor includes some adjacent development parcels that are generally long narrow configurations. Natural resources identified on the site include mapped FEMA 100-year frequency floodplain and coastal velocity zone, freshwater wetlands, streams and estuarine habitat. The estuarine habitat consists of eel grass beds and beach areas along the shoreline. No rare species were identified at the site.

As noted above in subsection 1, activity in tidal waters is subject to the authority of the USCG, ACOE, RIDEM, and CRMC. Any proposed improvements to be constructed within on or adjacent to these tidal waters require review and approval of these agencies. Additionally, CRMC coastal jurisdiction extends landward of the shoreline a minimum of 200 feet. If any portion of a project is to be located within the CRMC jurisdiction, the entire project is subject to CRMC authority.

Freshwater wetlands in the vicinity of the coast may be subject to CRMC jurisdiction or RIDEM jurisdiction, or in some cases dual jurisdiction may apply. The CRMC and RIDEM have published maps identifying the boundary line between their jurisdictions.

Such boundaries generally follow major transportation corridors or railroads that provide a convenient and readily identifiable demarcation. In the vicinity of Defense Highway, the boundary line is the former railroad. For the purposes of the redevelopment assessment, it should be assumed that any projects along this corridor that may impact wetlands will be reviewed by both agencies.

Regardless of the state jurisdictional entity, freshwater wetlands are subject to state and federal (ACOE) regulation and activities proposed within these wetlands require authorization from the CRMC/RIDEM and the ACOE. State jurisdiction is also imposed upon the area of land within 50 feet of any freshwater wetland edge and within 100 feet of a stream less than ten feet wide or 200 feet of a stream greater than ten feet wide. Floodplain is defined as a freshwater wetland under the state wetland regulations. Activities within these areas must also receive approval.

Projects proposing to disturb one acre or more of soil must receive approval from the RIDEM RIPDES Program. Activities proposed within floodplain and certain land disturbing activities must receive approval from the Towns of Middletown and Portsmouth.

IV. INFRASTRUCTURE, BUILDINGS, AND ENVIRONMENTAL CONDITIONS

A. Introduction

The following provides an assessment of road and utility infrastructure systems at the subject properties, as well as a summary of buildings and improvements, environmental conditions, and historic and cultural resources.

B. Infrastructure

The following section provides an assessment of utility and road infrastructure for the subject properties. In all instances, public and private utility companies serving the sites were contacted to determine capacity issues, availability and accessibility of utility connections for the potential future development.

1. Infrastructure

a) Navy Hospital Site

The following section describes the existing utilities in the vicinity of the Navy Hospital site located off of Third Street in Newport based on the results of the Existing Utility Infrastructure assessment.

(1) Sanitary Sewer

The City of Newport Department of Public Works is the public entity having responsibility for sewer and water infrastructure within the City of Newport. The existing sewer service flows by gravity through the Newport NAVSTA sewer collection system (12 to 15-inch diameter pipes to Pump Station 68. The pump station consists of three 2,350 gallon per minute pumps that are in overall good condition. This pump station also handles the sanitary flow from Coasters Harbor Island, Cloyne Court area, the entire hospital area, and portions of the City of Newport system for Third Street and Cypress Street.

The City of Newport Wastewater Treatment Plant is located on J.T. Connell Highway and the design flow of the plant is 10.7 million gallons per day (MGD) with an average daily flow of approximately 8.4 MGD.

The Existing Conditions Utilities Figure (Figure IV-B-1 in Appendix) provides a graphic representation of the sewage collection infrastructure in the vicinity of the site.

(2) Stormwater Drainage

The site has an elevation ranging from approximately nineteen feet to sea level and generally slopes from the east to the west toward Narragansett Bay. Stormwater runoff generated by the site sheet flows to the onsite collection system and discharges via one of two outfalls at the seawall into Narragansett Bay

A stormwater analysis will need to be performed by any future development proponent to determine the size of any stormwater management systems. Stormwater detention systems are not anticipated based on the discharge to tidal waters, however, strong emphasis must be placed on Best Management Practices (BMP) to enhance stormwater quality from future developments. Based on the new Rhode Island Stormwater Design and Installation Standards Manual (RIDEM, 2010) (Stormwater Regulations), Low Impact Development (LID) techniques will need to be implemented on-site. Some LID techniques include rain gardens, biofiltration basins/swales and grass or stone swales with under drains.

The Existing Conditions Utilities Figure (Fig. IV-B-1 in Appendix) provides a graphic representation of the stormwater management system in the vicinity of the site.

(3) Steam

Steam services exist on the Navy Hospital site; however, these services have been abandoned for over ten years. Portions of the steam system at the site date back to the early 1900s. The system served Buildings 1 and 45 into the late 1990s until the hospital was shut down. Building 1 received domestic hot water and auto-clave steam via the central system in addition to service for heating.

(4) Water

Water service is currently provided from the NAVSTA Newport distribution system. Water service for future development may be provided from Third Street. The Existing Conditions Utilities Figure (Fig. IV-B-1 in Appendix) provides a graphic representation of the water distribution system in the vicinity of the site.

(5) Telecommunications

Verizon maintains telecommunications infrastructure surrounding the site. Service is available via overhead wires in Third Street.

(6) Cable Television

Cox Communications maintains cable infrastructure surrounding the site.

(7) Electric

National Grid maintains the electrical infrastructure along Third Street within the vicinity of the site. Three phase electrical service exists in the vicinity of the site along Third Street.

(8) Gas

National Grid Gas maintains the natural gas infrastructure in the vicinity of the site. Adequate service for any proposed future development will be confirmed when load information is supplied.

(9) Summary of Findings and Conclusions

Based on the information that was gathered, it is expected that adequate utility capacity exists for the site to serve various development scenarios, subject to confirmation from the utility companies noted above.

b) Navy Lodge Site

The following section describes the existing utilities in the vicinity of the Navy Lodge site located at the corner of Coddington Highway and West Main Road based on the results of an assessment of Existing Utility Infrastructure.

(1) Sanitary Sewer

The City of Newport Department of Public Works is the public entity having responsibility for sewer treatment for the Town of Middletown. The sanitary sewer distribution system in the Town of Middletown is owned and operated by the Town and discharges to the City of Newport Wastewater Treatment Plant via either the Wave Avenue or Coddington Highway pump stations.

A manhole with a 12 inch vitrified clay sanitary service exists on the northeast corner of the site that connects to the Wave Avenue Pump Station, however, portions of the existing collection system are currently operating at capacity. Future development on the Navy Lodge site will be required to connect to the 12 inch sanitary sewer main on the south side of Coddington Highway that connects to the Coddington Highway pump station. This system will require upgrades to accommodate additional flow.

The City of Newport Wastewater Treatment Plant is located on J.T. Connell Highway and the design flow of the plant is 10.7 MGD with an average daily flow of approximately 8.4 MGD.

The Existing Conditions Utilities Figure (Figure IV-B-2 in Appendix) provides a graphic representation of the sewage collection infrastructure in the vicinity of the site.

(2) Stormwater Drainage

The site has an elevation ranging from approximately 62 to 71 feet and generally slopes from the southwest corner toward West Main Road. Storm water runoff generated by the site sheet flows to the collection system in West Main Road and Coddington Highway, or collects into two catch basins located along the eastern property line of the Landings Apartment Community.

A stormwater analysis will need to be performed by any future development proponent to determine the size of any stormwater management systems for future development. Also, on-site soil classifications and percolation tests may need to be performed as part of that design process. These tests will provide elevations to ground water which will be used in the stormwater management design process. If there is limited space on site or if on-site constraints do not allow for above ground detention basins, then subsurface infiltration systems may be required. Best Management Practice systems will need to be provided throughout the site to promote stormwater quality prior to any subsurface system. Based on the new Stormwater Regulations, LID techniques will need to be implemented on-site for water quality and infiltration. Some LID techniques include rain gardens, biofiltration basins/swales and grass or stone swales with under drains.

The Existing Conditions Utilities Figure (Figure IV-B-2 in Appendix) provides a graphic representation of the stormwater management system in the vicinity of the site.

(3) Steam

No steam services exist on the site.

(4) Water

The City of Newport Water Department owns and maintains public water system infrastructure in the vicinity of the site. A 24 inch water main is located on the west side of West Main Road and an 18 inch water main is located on the east side of West Main Road. A 10 inch service and meter pit are located in a 15 foot wide easement on the northern end of the site to provide domestic and fire service to the Landings Apartment Community on the west side of the project site. Additionally, a 12 inch water service and chlorine/water meter pit are located on the southern end of the site, providing water service to NAVSTA Newport and is not available for a private service connection. A new water service from West Main Road will be required for future development on the site. The Existing Conditions Utilities Figure (Figure IV-B-2 in Appendix) provides a graphic representation of the water distribution system in the vicinity of the site.

(5) Telecommunications

Verizon maintains telecommunications infrastructure surrounding the site on West Main Road and Coddington Highway. Service is available via overhead wires. There is a 5 foot wide telecommunications easement located along a portion of the northern and eastern property line. Underground conduits and a generator for Verizon are located on the southern side of the former Navy Lodge parcel. These services are located immediately north of the Newport Naval Station 12-inch water service and must remain. These telecommunications services will need to be considered for future development of this parcel. Fiber optic service is also available on West Main Road.

(6) Cable Television

Cox Communications maintains cable infrastructure surrounding the site.

(7) Electric

National Grid maintains the electrical infrastructure along West Main Road and Coddington Highway within the vicinity of the site. Three phase overhead electric service exists in the along West Main Road and Coddington Highway.

(8) Gas

National Grid Gas maintains the natural gas infrastructure surrounding the site. There is a 4 inch main located in Coddington Highway. There is an abandoned 2 inch gas service to the site from this main that previously served the Navy Lodge. Adequate service for any proposed future development will be confirmed when load information is supplied.

(9) Summary of Findings and Conclusions

Based on the information that was gathered, it is expected that adequate utility capacity exists off-site to serve different development scenarios subject to confirmation from the utility companies noted above. The remaining capacity of 12 inch sewer on Coddington Highway should be reviewed by future development proponents based upon the proposed sewer flow from the site.

c) Tank Farms 1 and 2

The following section describes the existing utilities in the vicinity of the Tank Farms 1 and 2, located off of Stringham Road in Portsmouth, RI, based on the results of an assessment of existing utility infrastructure.

(1) Sanitary Sewer

The sanitary sewer distribution system for the Melville area in the Town of Portsmouth is provided through the Navy system via a series of pump stations and force mains located along Defense Highway. This system begins at Pump Station 1181 (consisting of two 175 gallons per minute (GPM) pumps), followed by Pump Station 988 (consisting of two 1,050 GPM pumps and 10 inch force main), followed by Pump Station 75 (consisting of two 1,100 GPM pumps and 14 inch force main), followed by Pump Station 48 (consisting of three 2,420 GPM pumps and 18 inch force main). However, this system was not designed to accommodate any additional capacity from new development in the Melville area, and any new development will need to provide a separate treatment facility for sanitary sewer service. There is additional demand for sanitary service in the Melville area that may warrant pursuit of a common treatment system to provide service for the area.

Individual sewage disposal systems could be investigated for development with smaller sewage flows, but these would be constrained by existing soils and environmental conditions. The soils in the area of Tank Farm 1 and 2 are classified as urban land by the Soil Conservation Service Soil Survey of Rhode Island and are surrounded by Newport Silt Loam soils. Soil testing would be required to determine if there are any suitable locations for smaller onsite sewage disposal, if required. The results of this analysis are not anticipated to yield high

capacity for development given the relatively poor soil characteristics in the surrounding area, and these onsite sewage disposal systems would need special design and installation to ensure adequate operation.

The City of Newport Wastewater Treatment Plant is located on J.T. Connell Highway and the design flow of the plant is 10.7 MGD with an average daily flow of approximately 8.4 MGD.

The Existing Conditions Utility Figure (Figure IV-B-3 in Appendix) provides a graphic representation of the sewage collection infrastructure in the vicinity of the site.

(2) Stormwater Drainage

The site has an elevation ranging from approximately 30 to 200 feet and generally slopes from the east to west toward Narragansett Bay. Storm water runoff generated by the site sheet flows toward Alexander Road and Stringham Road.

A stormwater analysis will need to be performed by any future development proponent to determine the size of any stormwater management systems for future development. Also, on-site soil classifications and percolation tests may need to be performed as part of that design process. These tests will provide elevations to ground water which will be used in the stormwater management design process. If there is limited space on-site or if on-site constraints do not allow for above ground detention basins, then subsurface infiltration systems may be required. Best Management Practice systems will need to be proposed throughout the site to promote stormwater quality prior to any stormwater infiltration. Based on the new Stormwater Regulations, LID techniques will need to be implemented on-site for water quality and infiltration. Some LID techniques include rain gardens, biofiltration basins/swales and grass or stone swales with under drains.

(3) Steam

The fuel farms used steam from the 1940s through the early 1970s. The steam was used to operate the pumps used to move the fuel throughout the fuel farms and to heat the very thick Bunker C Fuel Oil to make it viscous enough to pump. As such, heaters were located in the tanks and along the fuel pipe lines. As the Navy switched to a lighter grade fuel (Diesel Marine Fuel), the need for the extensive steam system diminished. By the mid-1970's when the fuel farms (1 through 3) transferred from Navy Supply Operations to Defense Logistics Agency, steam was only used at the fueling terminal area, also known as "Melville Backyard". The remaining system was abandoned in place with some environmental cleanup performed in the late 1990s/early 2000s.

(4) Water

The City of Newport Department of Public Works is the public entity having responsibility for water supply in the Melville area of Portsmouth in the vicinity of the two project sites. The water supply for the Melville area comes directly

from the Lawton Valley Treatment Plant. The Navy owns and maintains water distribution system infrastructure in the vicinity of the site. The Existing Conditions Utility Figure (Fig. IV-B-3 in Appendix) provides a graphic representation of the water distribution system in the vicinity of the site.

(5) Telecommunications

Verizon maintains telecommunications infrastructure surrounding the site. Service is available via overhead wires. Fiber optic service is available on Stringham Road in the vicinity of the site.

(6) Cable Television

Cox Communications maintains cable infrastructure surrounding the site

(7) Electric

National Grid maintains the electrical infrastructure along Stringham Road within the vicinity of the site.

(8) Gas

National Grid Gas maintains the natural gas infrastructure in the vicinity of the site. Gas service is available at the intersection of Stringham Road and Sullivan Drive. Adequate service for any proposed future development will be confirmed when load information is supplied.

(9) Summary of Findings and Conclusions

Based on the information that was gathered, it is expected that adequate utility capacity exists off-site to serve different development scenarios subject to confirmation from the utility companies, with the exception of sewer service. Any new development will need to provide treatment for sanitary sewage generated by the development.

d) Defense Highway Properties

The following section describes the existing utilities for the Defense Highway Corridor from Stringham Road in Portsmouth to Coddington Cove in Newport based on the results of the Existing Utility Infrastructure assessment.

(1) Sanitary Sewer

The City of Newport Department of Public Works is the public entity having responsibility for sewer infrastructure within the City of Newport and the Town of Middletown. The Sanitary Sewer in Defense Highway is operated and maintained by the NAVSTA Newport. This system begins at Pump Station 1181 (consisting of two 175 GPM pumps), followed by Pump Station 988 (consisting of two 1,050 GPM pumps and 10 inch force main), followed by Pump Station 75 (consisting of two 1,100 GPM pumps and 14 inch force main), followed by Pump Station 48 (consisting of three 2,420 GPM pumps and 18 inch force main). However, this system was not designed to accommodate any additional capacity from new development in the Melville area, and any new development along Defense

Highway will need to provide a separate treatment facility for sanitary sewer service.

The City of Newport Wastewater Treatment Plant is located on J.T. Connell Highway and the design flow of the plant is 10.7 MGD with an average daily flow of approximately 8.4 MGD.

The Existing Conditions Utilities Figure (Fig. IV-B-4) provides a graphic representation of the sewage collection infrastructure in the vicinity of the site.

(2) Stormwater Drainage

The site has an elevation ranging from approximately 210 feet at the intersection of Stringham Road and West Main Road to approximately fifteen feet and generally slopes from the west to the east toward Narragansett Bay. Storm water runoff generated by Defense Highway sheet flows to roadside swales and into the roadway drainage collection system and intermediate culverts along the length of the road convey stormwater towards Narragansett Bay. The capacity of the existing stormwater conveyance systems, including roadside swales and culverts, will require review by future development proponents if additional impervious surfaces or changes to drainage patterns are proposed.

A stormwater analysis will need to be performed by any future development proponent to determine the size of any stormwater management systems. Stormwater detention systems are not anticipated based on the discharge to tidal waters, however, strong emphasis must be placed on BMP to enhance stormwater quality from future developments. Based on the new Stormwater Regulations, LID techniques will need to be implemented on-site. Some LID techniques include rain gardens, biofiltration basins/swales and grass or stoned swales with under drains.

The Existing Conditions Utilities Figure (Figure IV-B-4 in Appendix) provides a graphic representation of the stormwater management system in the vicinity of the Corridor.

(3) Steam

No steam services exist in Defense Highway.

(4) Water

The City of Newport Department of Public Works is the public entity having responsibility for water supply in the Melville area of Portsmouth in the vicinity of Defense Highway. The water supply for the Melville area comes directly from the Lawton Valley Treatment Plant. A 12 inch service is in place along the length of Defense Highway in Newport, Middletown, and Portsmouth and an 8 inch service is available between Tank Farm 2 and West Main Road in Portsmouth. The Navy owns and maintains public water system infrastructure in the vicinity of the Corridor. The Existing Conditions Utilities Figure (Figure IV-B-4 in

Appendix) provides a graphic representation of the water services in the vicinity of the Corridor.

(5) Telecommunications

Verizon maintains telecommunications infrastructure in the area surrounding Defense Highway. Service is available via overhead wires. Fiber optic service is available near Greene Lane and down Stringham Road.

(6) Cable Television

Cox Communications maintains cable infrastructure in the area surrounding the site.

(7) Electric

National Grid maintains the electrical infrastructure along Defense Highway. Three phase overhead electrical service exists along Defense Highway via overhead wires.

(8) Gas

National Grid Gas provides gas service in the vicinity of Defense Highway. Gas service is not currently available in Defense Highway.

(9) Summary of Findings and Conclusions

Based on the information that was gathered, it is expected that adequate utility capacity exists through the Corridor to serve different development scenarios subject to confirmation from the utility companies, with the exception of sewer and gas service. Any new facilities developed within the Corridor will need to provide treatment for sanitary sewage generated by the development.

2. Road Infrastructure

This section provides an assessment of the existing traffic conditions along the surrounding roadways adjacent to the five sites. This assessment defines three general study areas which include roadways and intersections that are either adjacent to or influenced by the surplus property being evaluated in this plan.

a) Existing Transportation Infrastructure

This section includes a description of the physical conditions of the roadways immediately adjacent to the sites, as well as key intersections that would likely be influenced by traffic generated by the sites. This information is intended to identify current roadway design issues and help identify areas where improvements may need to be considered during the next stages of the project. Extensive data collected as part of the *Aquidneck Island Transportation Plan* was reviewed and field visits were conducted during this effort to verify existing conditions. The following study areas were included as part of this effort.

(1) Navy Hospital Site

The Navy Hospital site is located along the west side of Third Street, immediately north of the Pell Bridge. Existing access to the site is along Third Street, with one driveway located on Third Street, one driveway located on Dorsey Road, and one on Cypress Street. The following roadways and intersections (Figure IV-B-5 in Appendix) were included due to the potential impacts that could be associated with the redevelopment of the Navy Hospital site:

- Roadways
 - Third Street
 - Training Station Road/Admiral Kalbfus Road
- Intersections
 - Third Street at Training Station Road/Admiral Kalbfus Road
 - Admiral Kalbfus Road at JT Connell Highway

(a) Roadways**(i) Third Street**

Third Street is a two lane major/urban collector roadway under jurisdiction of the City of Newport. Third Street runs in a north-south direction, connecting the NAVSTA Newport Gate 1 entrance to the north with the Point neighborhood and Downtown Newport to the south.

Third Street consists of a single travel lane in each direction; with a continuous sidewalk along the west side and at various locations along the east side. It is also listed as a “suitable road” for bicyclists based on the 2009-10 map “*A Guide to Cycling in the Ocean State*”.

(ii) Training Station Road/Admiral Kalbfus Road

This roadway is known as Training Station Road to the west of Third Street and Admiral Kalbfus Road east of Third Street. Training Station Road is a local road while Admiral Kalbfus Road is a major collector under the jurisdiction of the Rhode Island Department of Transportation (RIDOT). Training Station Road/Admiral Kalbfus Road runs in an east/west direction, linking West Main Road, the Pell Bridge, and JT Connell Highway to the east and NAVSTA Newport Gate 1 to the west. Near Third Street, the roadway consists of one wide travel lane and a sidewalk in each direction. The posted speed limit is 25 mph within the study area. There is an active railroad crossing located between Third Street and JT Connell Highway. This rail line is currently used as a tourist attraction only.

(b) Intersections**(i) Third Street at Training Station Road/Admiral Kalbfus Road**

Training Station Road and Admiral Kalbfus Road intersect Third Street from the west and east, respectively to form a four legged signalized intersection. The Admiral Kalbfus Road westbound approach is wide and undelineated and generally operates as a left-turn lane and a shared through/right-turn lane. The Training Station Road eastbound approach consists of a general purpose lane with a channelized right-turn lane onto Third Street. The Third Street northbound approach consists of a shared left-turn/through lane and a right-turn lane. The Third Street southbound approach consists of a general purpose lane.

(ii) Admiral Kalbfus Road at JT Connell Highway

This intersection operates as a rotary with Admiral Kalbfus Road as the eastbound/westbound approaches and JT Connell Highway as the northbound/southbound approaches. The Admiral Kalbfus Road westbound approach consists of two lanes and all other approaches consist of one lane.

(2) Navy Lodge Site

The Navy Lodge site is located on the northwest corner of the West Main Road and Coddington Highway intersection. Currently, the land is undeveloped, but the site has frontage along both West Main Road and Coddington Highway, where access points are possible in the future. The following roadways and intersections, as shown in Figure IV-B-6 (in Appendix), were included due to the potential impacts that could be associated with the redevelopment of the Navy Lodge site:

- Roadways
 - West Main Road
 - Coddington Highway
- Intersections
 - West Main Road at Coddington Highway
 - West Main Road at East Main Road

(a) Roadways**(i) West Main Road**

West Main Road is a four-lane principal arterial under the jurisdiction of the RIDOT and is designated as Route 114. West Main Road serves as a major access roadway on Aquidneck Island running in a north/south direction linking Mount Hope Bridge to the north with Newport to the south. In each travel direction, West Main Road is a two lane roadway with narrow 1-foot shoulders for the majority of its length.

Sidewalks exist along both sides of West Main Road, from Greene Lane south to East Main Road. North of Greene Lane, sidewalks existing sporadically throughout the remainder of the corridor to Route 24. Under the RIDOT West Main Road Resurfacing Project, sidewalks have been or will be replaced and new sidewalks are proposed North of Greene Lane. However, between Union Street and Locust Avenue and north of Mill Lane, there are no sidewalks proposed.

The posted speed limit along West Main Road is the highest to the north in Portsmouth, and it decreases in Middletown and Newport. The northern segment of West Main Road is posted 45 mph in both travel directions from Bristol Ferry Road to Stringham Road. Moving south, from Stringham Road to Forest Avenue, the roadway is posted 35 mph in both directions. The segment of West Main Road between Forest Avenue and East Main Road is posted at 30 mph in both directions and the remaining segment from East Main Road to Admiral Kalbfus Road is posted at 25 mph. Observed travel speeds along West Main Road typically exceed the posted speed limits.

(ii) Coddington Highway

Coddington Highway is a principal arterial roadway under the jurisdiction of the RIDOT. Coddington Highway runs primarily in an east/west direction linking West Main Road with JT Connell Highway, and it serves as a major access point between West Main Road and NAVSTA Newport, the Pell Bridge, and Newport. Coddington Highway has two travel lanes and a shoulder in each direction within the study area and the posted speed limit is 25 mph. Sidewalks, most in poor condition, exist along the north side of Coddington Highway.

(b) Intersections

(i) West Main Road at Coddington Highway

Coddington Highway intersects West Main Road from the west to form a four-legged signalized intersection, with Rockwood Road serving as the east leg. The Coddington Highway eastbound approach consists of a left-turn lane and a general purpose lane, and the Rockwood Road westbound approach consists of a general purpose lane. The West Main Road northbound approach consists of a shared left-turn/through lane and a shared through lane/right-turn lane and the West Main Road southbound approach consists of a shared left-turn/through lane, a through lane, and a right-turn lane. There are crosswalks and pedestrian accommodations on the west and south legs of the intersection.

(ii) West Main Road at East Main Road

East Main Road intersects West Main Road from the east to form a four-legged signalized intersection, with the Bank Newport driveway serving as the west leg. This intersection is locally known as “Two-Mile Corner”. The

East Main Road westbound approach consists of a left-turn lane, and shared left-turn/through lane, and a channelized right-turn lane. The bank driveway eastbound approach consists of a general purpose lane. The West Main Road northbound approach consists of a shared left-turn/through lane, a through lane, and a channelized right-turn lane, while the West Main Road southbound approach consists of a shared left-turn/through lane and a shared through/right-turn lane. There are crosswalks and pedestrian accommodations on the east and south legs of the intersection.

(3) Tank Farms 1 and 2 & the Defense Highway Properties

Tank Farms 1 and 2 are located to the north of Stringham Road in Portsmouth. There are two access points that are currently gated, with one along Stringham Road, west of Cimarron Drive and the other at the intersection of Stringham Road and Defense Highway. The Defense Highway properties include the Defense Highway roadway as well as parcels at various locations abutting the roadway. The following roadways and intersections, as shown in Figure IV-B-7 (in Appendix), were included due to the influence the traffic generated by the redevelopment of Tank Farms 1 and 2 and the Defense Highway properties may have on them:

- Roadways
 - Defense Highway
 - Stringham Road
 - Greene Lane
 - Gate 17 Access Road
- Intersections
 - Stringham Road at Defense Highway
 - Stringham Road at West Main Road
 - Greene Lane at Defense Highway
 - Greene Lane at West Main Road
 - Gate 17 Access Road at Defense Highway
 - Gate 17 Access Road at West Main Road

(a) Roadways

(i) Defense Highway

Defense Highway (aka Burma Road) is a two-lane major/urban collector roadway under the jurisdiction of the Navy. Defense Highway runs in a north/south direction, linking Stringham Road with Gate 17 Access Road. Defense Highway serves as a major access point between the Navy operations and West Main Road. Defense Highway consists of one travel lane with a 4-foot shoulder in each direction and a posted speed limit of 35 mph. The shoulder is signed “Share the Road” for bicyclists for the entire length of the roadway and is listed as a “most suitable road” for bicyclists based on the 2009-10 map “*A Guide to Cycling in the Ocean State*”. There are no sidewalks along either side of Defense Highway.

For the majority of the roadway, the Newport Secondary Rail Corridor parallels Defense Highway to the west. There is an at-grade crossing in the vicinity of the Wanumetonomy Golf and Country Club (north of Gate 17 Access Road) where the railway then runs parallel along the east side of Defense Highway.

(ii) Stringham Road

Stringham Road is a two-lane major/urban collector under the jurisdiction of the Navy. Stringham Road runs in an east/west direction, linking West Main Road with Defense Highway and serves as a major access point between West Main Road and the NUWC. Stringham Road consists of one travel lane with a shoulder in each direction. The posted speed limit is 25 mph. There are sidewalks located along the north side of Stringham Road east of Cimarron Circle and along the south side between Cimarron Circle and Defense Highway.

(iii) Greene Lane

Greene Lane is a two lane roadway under the jurisdiction of the RIDOT, linking West Main Road to Defense Highway. The roadway consists of one travel lane with wide shoulders in each direction, with a sidewalk along the north side. The posted speed along Greene Lane is 40 mph.

(iv) Gate 17 Access Road

Gate 17 Access Road is a two-lane east/west roadway classified as a major/urban collector roadway, currently under the jurisdiction of the Navy west of Chase's Lane and under the jurisdiction of the RIDOT east of Chase's Lane. The roadway consists of one travel lane and shoulders in each direction, with a sidewalk along the south side between Gate 11 and Defense Highway. Gate 17 Access Road is also listed as a "suitable road" for bicyclists between Defense Highway and Chase's Lane based on the 2009-10 map "*A Guide to Cycling in the Ocean State*".

(b) Intersections

(i) Stringham Road at Defense Highway

Defense Highway intersects Stringham Road from the south to form a skewed three-legged unsignalized intersection with a "hairpin" turn between Defense Highway and Stringham Road east of the intersection. The Stringham Road eastbound approach consists of a shared thru lane/right-turn and the Stringham Road westbound approach consists of a shared left-turn/thru lane. The Defense Highway northbound approach consists of a wide left-turn/right-turn lane and is under stop-sign control.

(ii) Stringham Road at West Main Road

Stringham Road intersects West Main Road from the west to form a four-legged signalized intersection, with the east approach serving as the Dunkin

Donuts driveway. The Stringham Road eastbound approach consists of a left-turn lane and a general purpose lane. The Dunkin Donuts driveway approach consists of a left-turn lane and a shared through/right-turn lane. The West Main Road northbound approach consists of a left-turn lane, a through lane, and a shared through/right-turn lane, and the West Main Road southbound approach consists of a left-turn lane, two through lanes, and a right-turn lane. There are crosswalks and pedestrian accommodations on the west and south legs of the intersection.

(iii) Greene Lane at Defense Highway

Greene Lane intersects Defense Highway from the east to form a three-legged unsignalized intersection. All approaches consist of a general purpose lane, and the Greene Lane approach is under stop-sign control.

(iv) Greene Lane at West Main Road

Greene Lane intersects West Main Road from the east to form a four-legged signalized intersection, with the east approach serving Pasture Farm Drive. The Greene Lane eastbound approach consists of a left-turn lane and a shared through/right-turn lane. The Pasture Farm Drive approach consists of a general purpose lane. The West Main Road approaches consist of a shared left-turn/through lane and a shared through/right-turn lane. There are crosswalks and pedestrian accommodations on the east, west and south legs of the intersection.

(v) Gate 17 Access Road at Defense Highway

Defense Highway, Gate 17 Access Road, and Gate 17 intersect to form a three-legged signalized intersection. The Defense Highway southbound approach consists of a left-turn lane and a through lane. The Gate 17 Access Road westbound approach consists of a left-turn lane and a through lane, and the Gate 17 northbound approach consists of a through lane and a right-turn lane. There is also an unsignalized gated driveway on the west leg of the intersection. There are crosswalks and pedestrian accommodations on the north and west legs of the intersection.

(vi) Gate 17 Access Road at West Main Road

Gate 17 Access Road intersects West Main Road from the east to form a four-legged signalized intersection, with the east approach serving commercial developments. The Gate 17 Access Road eastbound approach consists of a left-turn lane and a shared through/right-turn lane. The driveway westbound approach consists of a general purpose lane. The West Main Road approaches consist of a left-turn lane, a through lane, and a shared through/right-turn lane. There are crosswalks and pedestrian accommodations on the west and south legs of the intersection.

b) Existing Traffic Conditions

This section includes an overview of the existing traffic volumes, analysis, and safety along the roadways and intersections within the study areas.

It should be noted that Aquidneck Island experiences significant fluctuations in traffic throughout the year, mostly due to tourist destinations such as Newport. Therefore, in order to provide a conservative analysis of traffic operations, the capacity analysis used to calculate operations uses higher than average conditions, as defined in the *Aquidneck Island Transportation Study (AITS)*.

To help determine any safety issues at the study area intersections, the AITS 50 highest crash locations (by frequency) have been researched to determine if any of the study area intersections are identified in this ranking.

(1) Navy Hospital Site

A summary of the existing daily traffic volumes along the roadways in the area of the Navy Hospital site is presented in Table IV-1.

Roadway (year collected)	ADT^[2]
Third Street ^[1]	-
Admiral Kalbfus Road, east of JT Connell Highway (2009)	21,400
JT Connell Highway, north of Admiral Kalbfus Road (2006)	19,200

^[1] Traffic data not available.
^[2] Expressed in vehicles per day.
 Source: Aquidneck Island Transportation Study, RIDOT

In addition to the daily traffic data, the Consultant compiled information on existing operations at the Navy Hospital site intersections from the AITS as summarized below.

(a) Third Street at Admiral Kalbfus Road

The Admiral Kalbfus Road westbound approach experiences high delays and queues during the morning peak period, mostly due to Navy employees entering the base. The security checkpoint to the west of Third Street was observed to back into this intersection during the morning peak period as well.

(b) Admiral Kalbfus Road at JT Connell Highway

Overall, the rotary operates with overall acceptable delays during both peak periods. However, it operates over capacity during the evening peak period on the Admiral Kalbfus Road eastbound approach. This is mainly due to the heavy movement from the J.T. Connell Highway southbound approach preventing vehicles from entering the rotary from the Admiral Kalbfus Road eastbound approach, resulting in a poor level of service with average delay over a minute and a half for vehicles on the approach. This intersection has

experienced 47 crashes during the latest three-year period, placing sixth in the 50 highest crashes on Aquidneck Island as ranked as part of the AITS.

(2) Navy Lodge Site

A summary of the daily traffic data along the roadways and intersections adjacent to and influenced by the Navy Lodge site follows below. Table IV-2 illustrates daily traffic volumes along the roadways.

Roadway (year collected)	ADT^[1]
West Main Road, north of Coddington Highway (2005)	32,200
Coddington Highway, west of West Main Road (2009)	18,600

^[1] Expressed in vehicles per day.
Source: Aquidneck Island Transportation Study, RIDOT

In addition to the daily traffic data, the Consultant compiled information on existing operations and safety issues at the Navy Lodge site study area intersections from the AITS, as summarized below.

(a) West Main Road at Coddington Highway

During the afternoon peak period, the queues on the West Main Road northbound approach extend into the adjacent intersection with East Main Road. Also, the Coddington Highway eastbound approach experiences long queues during this peak period. This intersection has experienced 45 crashes during the latest three-year period, placing seventh in the 50 highest crashes on Aquidneck Island as ranked as part of the AITS.

(b) West Main Road at East Main Road

During the afternoon peak period, the queues on the West Main Road southbound approach extend into the adjacent intersection with Coddington Highway. Also, the East Main Road westbound approach experiences long delays and queues during this peak period. This intersection has experienced 57 crashes during the latest three-year period, placing second in the 50 highest crashes on Aquidneck Island as ranked as part of the AITS.

(3) Tank Farms 1 and 2 & the Defense Highway Properties

A summary of the existing daily traffic data compiled along the roadways in the area of Tank Farms 1 & 2 and the Stringham Road/Defense Highway corridor is presented in Table IV-3.

**Table IV-3
Existing Average Daily Traffic Volumes (ADT)**

Roadway (year collected)	ADT ^[1]
Defense Highway, north of Greene Lane (2009)	6,000
Stringham Road, west of West Main Road (2009)	6,700
West Main Road, north of Cory's Lane (2009)	33,600
West Main Road, north of Coddington Highway (2005)	32,200
Greene Lane (2008)	3,100

^[1] Expressed in vehicles per day.

Source: Aquidneck Island Transportation Study, RIDOT

In addition to the daily traffic volume data, the Consultant compiled information on existing operations and safety issues at Tank Farms 1 and 2 and Defense Highway study area intersections from the AITS as summarized below.

(a) Stringham Road at Defense Highway

While the intersection operates with acceptable levels of service, there are several undesirable geometric features at this intersection, including substantial grade changes on the Stringham Road approaches to the intersection and the skewed angle at which Defense Highway intersects Stringham Road.

(b) Stringham Road at West Main Road

The Stringham Road eastbound approach provides a left-turn lane and a general-purpose lane for approximately 150 feet before tapering to one lane. The general-purpose lane often gets blocked during the evening peak period, causing the eastbound approach to operate over capacity with long delays and queues. This intersection has experienced 34 crashes during the latest three-year period, placing 13th in the 50 highest crashes on Aquidneck Island as ranked as part of the AITS.

(c) Greene Lane at Defense Highway

This intersection operates with acceptable delays and queues during both peak periods.

(d) Greene Lane at West Main Road

This intersection operates with acceptable delays and queues during both peak periods.

(e) Gate 17 Access Road at Defense Highway

This intersection operates with acceptable delays and queues during both peak periods.

(f) Gate 17 Access Road at West Main Road

During both peak periods, the queue in the left-turn lane along West Main Road onto Gate 17 Access Road often extends beyond the storage bay, resulting in northbound thru traffic being blocked. Also, during the evening peak period, the left-turn lane on the Gate 17 Access Road eastbound approach operates over capacity, resulting in the queue extending beyond the available storage bay. This intersection has experienced 25 crashes during the latest three-year period, placing 26th in the 50 highest crashes on Aquidneck Island as ranked as part of the AITS.

C. Buildings and Improvements

This section provides a summary of known information relative to buildings and other improvements at each of the sites, as provided by the Navy and other sources.

1. Navy Hospital Site

The Naval Hospital site now contains nine buildings and structures, when-contributing, mainly due to their date of construction after World War II. Only the buildings and structures within the study area are described below.

a) Main Hospital Building (1)

This three-story, elongated H-plan brick structure features projecting multi-sided end bays and distinctive low hipped roofs. The Italian Renaissance Revival styling is seen in the scrolled modillions under the wide eaves, projecting brick pilasters, and window headers. The original T-plan of the structure, erected in 1913, received two additional wings and a rear ell to form the current H-plan in 1940.

b) Nurses Home (45)

The 1942 two-story structure, built to replace one on the same site, is brick with Colonial Revival detailing. It features a hipped roof with regularly spaced side gable dormers and a round portico supported by Doric columns with a balustrade above at the central front entrance.

c) Garage/Morgue/Laundry Building (7)

The 1914 garage is a two-story, rectangular plan brick structure with a low hipped roof, with stylistic elements similar to the Main Hospital Building.

d) Quarters A/B

The 1923 house is a two-story Colonial Revival brick structure with a hipped roof and two-story wood sleeping porches on either end of the house.

e) Chapel (62)

This side gable, rectangular plan wood frame building dates to 1947. A small steeple is mounted in the roof ridgeline towards the north end of the building. Although this building was included in the analysis, it was demolished in 2011.

- f) Generator (993)
No information available.
- g) Pier
No information available.
- h) Garages (63)
No information available.
- i) Generator Building (A72)
No information available.
- j) Generator Building (1189)
No information available.

2. Tank Farm 1

This site occupies approximately 50 acres and contains eight USTs, two ASTs and seven buildings (Buildings 30, 49, 77, 199, 1156, B60 and S63). There are four fuel tanks (Fuel Tanks #11, #12, #13, and #14) which date to 1934 and 1942 and two partially buried tanks (9 and 10) which date to 1920.

3. Tank Farm 2

Tank Farm 2 occupies approximately 96 acres of land in the northeastern portion of NAVSTA Newport and is adjacent to Tank Farm 1 to the west. This property contains eleven large (2.5 million gallon capacity) concrete tanks, and two buildings (Building 48, the former Navy fire station and Building 219). There was a 1,000-gallon UST associated with Building 48.

D. Environmental Conditions

This section describes environmental conditions on the surplus properties. These descriptions are based on a review of the *Final Environmental Condition Property* (ECP) report for the properties dated November 2009, environmental reports prepared for Tank Farm 1 in 1995 and Tank Farm 2 in 1998 by GZA and the closeout Report for piping chamber remediation prepared in 2008 by Tetra Tech EC, Inc.

1. Environmental Setting

The surplus property is located along the eastern shoreline of Narragansett Bay and occupies portions of the area from just north of the Pell Bridge in the south to the Melville Boat Basin in the north. The topography of the southern portion of the area which contains the Navy Hospital is relatively level and is approximately ten to fifteen feet above mean low water (MLW). The topography along Defense Highway increases from south to north, with a low point of approximately 10 feet above MLW in the south to a high point of approximately 145 feet above MLW near Tank Farm 2.

Surficial geology of the area predominantly consists of medium dense to dense glacial till. Bedrock is a highly fractured Pennsylvanian-age shale with occasional strata's of siltstone, sandstone slate and conglomerate. Depth to bedrock is shallow in the vicinity of the Tank Farm 2, ranging from 0.3 to 19 feet below ground surface (bgs) and somewhat deeper in the vicinity of Tank Farm 1 ranging from 3 to 22 feet bgs. No information was available on the depth to bedrock at the Navy Hospital site, Navy Lodge site or the Defense Highway properties.

Groundwater flow is generally toward the west, in the direction of Narragansett Bay. Localized variation in groundwater flow directions are likely to occur in the vicinity of Lawton Valley Brook and Melville Pond. Groundwater flow direction at Tank Farm 1 is altered by the presence of ring drains around the tanks, which cause localized areas of groundwater depression. The groundwater table is three to four feet bgs near the Navy Hospital and 5 to 25 feet bgs in the vicinity of Tank Farms 1 and 2. The water table is below the bedrock surface within much of the tank farm area.

Groundwater is rated use class GB in the vicinity of Tank Farms 1 and 2 and the Naval Hospital. This designation is assigned to groundwater resources that are not suitable for use as a potable water supply because they are known or suspected to be degraded due to the urbanized nature of the area. Groundwater beneath portions of Defense Highway between the northern boundary of the NAVSTA Newport and Tank Farm 2 is classified GA, which is the designation for groundwater resources know or presumed to be suitable for use as a potable water supply without treatment.

2. Site Reconnaissance

A site reconnaissance of the surplus properties was conducted on October 27, 2010 which included a walk of the Navy Hospital grounds and a windshield inspection of the Defense Highway and former Navy Lodge site properties.

A subsequent site reconnaissance was performed on November 4, 2010 which involved a walk-through of the former hospital building, the chapel and the former nurse's quarters. During this reconnaissance widespread peeling paint, several areas of water damage, including pools of water on the floor in the operating room areas, and a noticeable, pervasive mold odor was identified inside the hospital building. Acoustic ceiling tiles had been removed from the hallways in several areas of the building; however adhesive mastic that held the tiles to the ceiling remained. In several areas the ceiling tiles remained in place above the suspended ceiling and were held in place by wire mesh. Vinyl floor tiles were noted throughout the building.

The former nurses' quarters (most recently used as a drug rehabilitation center) and the chapel did not exhibit the moisture problems observed in the hospital building. Vinyl floor tiles were observed throughout the nurses' quarters building. The chapel interior contained small piles of debris, primarily consisting of cushions from the pews, which had been removed from the building.

3. Summary of Major Findings

a) Navy Hospital Site

The Navy Hospital site is located in the southern portion of the NAVSTA Newport on approximately ten acres of land, three acres of which is submerged in Narragansett Bay. The facility was constructed in 1913 with subsequent expansions occurring during World War II. The complex consists of seven buildings including the main hospital building (Building 1, 147,500 square feet and also including Buildings A71 and 1189), a storage building (Building 7, 4,524 square feet) a drug and alcohol rehabilitation center (Building 45, 4,524 square feet, which was the former nurses, quarters), a chapel (Building 62, 3,000 square feet), an emergency generator building (Building 933, 1,874 square feet), and two officer housing units (Quarters A and Quarters B, each 1,900 square feet) and detached garages (Building 63). Waterfront facilities include a 490 square yard berthing pier. Environmental issues identified at the Navy Hospital site include the following.

Aboveground Storage Tanks: Two ASTs are located within the Navy Hospital site at Building 993 which houses the facility's emergency electrical power generator. One AST is a 2, 000-gallon single wall steel tank that is located outside the northern side of the building in a concrete containment area. The other tank is a single wall steel 275-gallon day tank located inside the building. Both ASTs were drained and closed on September 18, 1998.

Underground Storage Tanks: USTs were not identified at the Navy Hospital site.

Hazardous Waste: According to facility personnel, the facility generated, on average, between 800 and 1,500 pounds of hazardous waste per year until the facility closed in the mid 1990s. A 90-day hazardous waste storage area was located in Building I during its use as a hospital. The waste was accumulated and disposed of by a licensed contractor. The storage area was decommissioned in May 2003. Building 1 generated metal-laden (mostly silver) waste until late 1998 or early 1999, during development of the medical x-rays. The silver was removed and the remaining waste was collected by NAVSTA Newport hazardous waste personnel prior to being shipped to the Defense Reutilization and Marketing Office (DRMO) in Groton, Connecticut, for disposal.

Polychlorinated Biphenyls: Eight transformers are located within the Navy Hospital site. Six of the transformers located within the Navy Hospital site possess "Polychlorinated Biphenyl (PCB)-Free" stickers, while the remaining two transformers are suspected to be PCB-free (as all PCB-containing transformers at NAVSTA Newport have been removed or replaced). However, no stickers were observed. The PCB management and removal program will be requested from the Navy and reviewed.

Radiological Materials: Facility personnel indicated that Building 1 did have tritium exit signs at one time but personnel are unsure if the signs are still present. There are

no known radiological materials at any of the other buildings or Pier 71. X-ray equipment operated in the basement of Building 1 prior to the Hospital's closing. The Navy generally prepares Historical Risk Assessments (HRA) as part of hospital decommissioning/closing for facilities that had forms of nuclear medicine as part of treatment. The Navy has indicated that an HRA has not been prepared for this facility.

Solid Wastes: Solid waste at NAVSTA Newport was disposed of at an on-site landfill(s) (either at the Melville or McAllister Point landfills, neither of which are in the vicinity of the hospital site) up until the 1980's, at which time solid waste was no longer disposed of on-site but was picked up by station personnel and disposed of at a transfer station in Newport. Since 1995 or 1996, a contractor collects and disposes of all solid waste at NAVSTA Newport

Pesticides: Pesticides are applied by trained and certified Department of Defense (DoD) personnel and by RI certified contractors at family housing areas and for grounds maintenance (EFA Northeast, 2002). Currently, pesticides are stored at the NAVSTA Newport Pest Control Shop, Building 1298, which is not within the Navy Hospital site. According to the facility personnel, no pesticides are known to have been stored at any of the Navy Hospital site buildings or Pier 71.

Asbestos: Asbestos surveys have been conducted at Building 1, Building 45 and Quarters A and B. There are no records indicating that asbestos surveys have been performed on Buildings 62 and 993 or Pier 71. The 2005 *Environmental Baseline Survey for Transfer Report* checklist prepared by Malcolm Pirnie identified asbestos containing material (ACM) or suspected ACM in both Building 62 and Building 7. The ACM included floor tiles and ceiling tiles although details of what ACM may be present were unavailable. Suspected ACM was not observed in Building 993. The ECP indicated that ACM has been removed from Building 45.

ACM was identified in the following areas of Building 1:

- Basement Room B114;
- Basement Galley, many locations including wall plaster matrix;
- Basement inside and outside of Dietician Office;
- Second Floor, room adjacent to front desk, ceiling tiles;
- Third Floor between Rooms 3005 and 3007;
- Ward C: hall near Room 2014, Solarium End Room;
- Ward E between rooms 1408 and 1410;
- Ward F linen locker;
- Stairwells connecting first floor and basement;
- Nursing services;
- Hall near command master Chief;

- Office space outside Fax Room;
- Floor tiles.

ACM identified in Quarters A and Quarters B included:

- Quarters A: Two types of floor tiles and insulation beneath the kitchen sink.
- Quarters B: Floor tiles and ceiling tiles are suspected of containing

ACM was identified in 45 of 51 tested locations in Building 45. ACM included floor tiles, ceiling tiles and pipe insulation. Floor and ceiling tiles in Building 7 were also considered to be suspect ACM. It is unknown if ACM identified in these buildings has been removed and replaced since the 2005 *Environmental Baseline Survey for Transfer Report* was issued. The Navy is required to remediate any friable asbestos prior to relating the surplus property.

Lead-Based Paint: Lead-based paint (LBP) surveys were conducted at Building 1 and Quarters A and B between 1995 and 1996. LBP was identified in both buildings. Surveys have not been conducted within any of the other buildings; however, peeling paint was observed in Buildings 7, 45, and 62. Based on the age of these buildings, the paint is suspected to contain lead.

Groundwater: Groundwater at the Naval Hospital site is classified GB by the RIDEM. Class GB groundwater is considered to be unsuitable as a potable water supply source due to known or presumed sources of contamination and the urbanized character of the overlying land use. Currently, there are no known groundwater wells at the Navy Hospital site; therefore, there is no site specific information on the groundwater.

Medical Waste: Currently, there is no medical waste generated, stored, or disposed of at the Navy Hospital site. Prior to the closing of the hospital in 1993, Building 1 was the only building within the Navy Hospital site that generated medical waste. An incinerator located adjacent to Building A-33 (located outside of the Navy Hospital site and not believed to be on the surplus property) was used to destroy medical waste. The incinerator was demolished in 1998. No information regarding residual contamination of the incinerator area was available.

Hazardous Materials: Known hazardous materials stored in the chemical storage room of the Navy Hospital site Building 1 included 5-gallon containers and flammable materials stored in cabinets. Building 62 contained a utility closet where household chemicals were stored in small bottles (less than 0.5 gallons). No documentation of environmental concerns related to hazardous materials were available for Building 45, Quarters A and B, or Pier 71; however, it is suspected that household cleaning supplies were stored in Building 45 and Quarters A and B during its occupancy. The 2005 *Environmental Baseline Survey for Transfer Report* for the

facility identified 60 wet acid (possibly lead-acid) batteries within Building 993. No spills or fines associated with hazardous materials were reported for this parcel.

Munitions and Explosives of Concern: Munitions and explosives of concern (MEC) were not stored in any of the buildings of the Navy Hospital site or at Pier 71, and no MEC is known to be present on the site.

a) Navy Lodge Site

The Navy Lodge, which was demolished in 2004, occupied three acres of land located at the intersection of Coddington Highway and West Main Road (Route 114) in Middletown. A small telephone utility shed exists in the southwest corner of the site and a water feed vent and concrete pad is present in the northeast corner. Environmental issues at the Navy Lodge site include the following.

Aboveground Storage Tanks: There are no ASTs located on the Navy Lodge site

Underground Storage Tanks: There are no USTs at the site.

Hazardous Waste: No hazardous waste is known to have been generated or stored at the site.

Polychlorinated Biphenyls: There is no documentation regarding the transformer or electrical equipment type, condition, PCB content or maintenance. One transformer was located at the site. The ECP indicates that all PCB transformers removed from the site in the 1990s.

Radiological Materials: No issues were identified.

Pesticides: No pesticides are known to have been stored in the past at the Navy Lodge site.

Asbestos: No friable ACM is known to be present at the site.

Lead-based Paint: Two of six paint chip samples collected from the former building contained lead above the 0.06 percent standard. All demolition debris from the Navy Lodge building was disposed of offsite.

Groundwater: There are no groundwater wells located at the Navy Lodge site. Groundwater at the site is classified GB (not suitable for drinking water use without treatment due to presumed degradation).

Medical Waste: No issues were identified

Hazardous Materials: No issues were identified

Munitions and Explosives of Concern: There are no MEC at the site.

Radon: No issues were identified

Universal Waste: No issues were identified

b) Tank Farm 1

This site occupies approximately 50 acres and contains eight USTs, two ASTs and seven buildings (Buildings 30, 49, 77, 199, 1156, B60 and S63). The property also contains a closed tank bottom sediment/water treatment system. The tank farm surface is covered with grass lawns, paved access roads and miscellaneous features such as ground transfer pump and control chambers. An inactive tetraethyl lead blending plant is located in the southeastern portion of the site. An inactive fuel unloading area is located in the northeast portion of the site. An underground structure that was a former underground gasoline/water separator was located on the west side of the site. Petroleum distribution lines that interconnect the USTs and distributed fuel to and from the former Melville fuel terminal are buried approximately 4 feet below the ground surface.

Tank Farm 1 was constructed between the 1920's and the early 1940's and was used by the Navy until 1970 at which time it was turned over to the Defense Fuel Supply Center (DFSC) which operated the facility until 1998. The above ground tanks formerly stored JP-5, diesel fuel, and No. 5 and No.6 fuel oil. The USTs formerly stored aviation gasoline, diesel fuel and motor gasoline. Ring drains were installed around each of the USTs to relieve hydrostatic pressure on the tank bottoms. Approximately 30 percent of the ring drains are operational, and connect to a drainage pipe that gravity discharges to a low point from which drainage is pumped to the two ASTs (Tanks 9 and 10) which act as storage tanks. Water from the two tanks is discharged to a an outfall in Narragansett Bay via an oil water separator (OWS) located on the former Fuel Loading Area (FLA) parcel under National Pollution Discharge Elimination System (NPDES) permit RI0020150.

The DFSC has been conducting ongoing site investigations of Tank Farm 1 since 1983, including soil, groundwater, surface water and soil gas sampling, aquifer pump tests and passive free product removal. During the period between 1983 and 1999, DFSC installed more than 50 groundwater monitoring wells within the boundaries of Tank Farm 1. Environmental issues at Tank Form 1 include:

Above Ground and Underground Storage Tanks: Six steel 1.476 million gallon USTs (Tanks 13 to 18), two steel 2.35 million gallon ASTs (Tanks 11 and 12) and two 2.56 million gallon concrete partially buried USTs (Tanks 9 and 10) are located within Tank Farm 1. Tanks 13 through 18 are approximately 1,00 feet in diameter and twenty feet deep. Tanks 9 and 10 are approximately 127 feet in diameter and 22 feet deep. The two ASTs are 112 feet in diameter and 32 feet high.

The USTs are surrounded with ring drains that were installed in the bedrock surrounding each tank in order to relieve hydrostatic pressure on the tank bottoms. Tanks 9 and 10 formerly stored JP-5 jet fuel and are currently used as gross OWS for

the tank ring drains. The remaining USTs stored diesel, aviation gasoline, motor gasoline and JP-4 jet fuel. The two ASTs are surrounded by earthen containment berms, and formerly stored No. 2, No. 5 and No. 6 fuel oil and JP-5 and JP-8 jet fuel.

The ASTs, the six completely buried USTs, and underground distribution lines were inspected prior to 1998; numerous leaks were observed and severe infiltration of groundwater into the tanks had occurred. The leaks were repaired and the two ASTs, six USTs and associated underground distribution lines were cleaned, inspected and re-ballasted with water. The two partial USTs (Tanks 9 and 10) were not cleaned as they are used for storage of water collected from the ring drain system. Reportedly, no investigation has been conducted below the bottom of the USTs although observation of severe groundwater infiltration and fuel seeping into the tanks through cracks in the concrete floor was reported during tank cleaning operations.

In 2000 approximately six miles of fuel pipelines and 50 pipe chambers associated with the Tank Farms and the fuel transport system were cleaned, pressure tested and abandoned in place. Contamination identified during closure of the fuel pipeline and chambers is discussed under the Defense Highway subsection (subsection d).

Hazardous Waste: Tank Farm 1 was included in the EPA National Priority List (NPL) listing (USEPA ID# R16170085470) in 1989 due to reports from former Navy personnel of the existence of tank bottom sludge disposal pits at the tank farm area. Sludge that was reportedly removed from the tanks during cleaning operations was placed in shallow excavated pits within the tank farm area and burned. The trenches were reportedly marked with warning signs indicating the presence of material contaminated with tetraethyl lead. Three Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sites are located on private properties in the vicinity of Tank Farm 2 and include the Melville North Landfill (RID981064421), the STP Sludge Drying Beds (RID981064306) and Structure 214 (RID981064249).

A May 1986 *Confirmation Study* performed by Loureiro Engineering Associated (LEA) collected soil and groundwater samples from suspected sludge disposal areas. Analysis results indicate low levels of lead in the soil samples. Petroleum hydrocarbons similar to No. 6 oil were detected at concentrations of 1,300 parts per million (ppm) to 2,200 ppm. Petroleum hydrocarbon concentrations in groundwater ranged from 1.6 to 6.3 ppm. Benzene, ethyl benzene, toluene and xylenes (BTEX) compounds were detected in groundwater samples collected from one well and from an underground gasoline water separator (located near Tank 13) at concentrations ranging from 125 part per billion (ppb) to 1,440 ppb. The extent and impacts of former sludge disposal practices at Tank Farm 1 is not fully understood. The Navy is currently conducting surficial soil investigations at Tank Farm 1 to better determine soil impacts that may have resulted from these practices.

Nearby NPL sites include Tank Farm 2, (RID981065956), the Melville North Landfill (RID981064421), the STP Sludge Drying Beds (RID981064306) and Structure 214 (RID991064249).

The inactive tetraethyl lead blending plant is located within Tank Farm 1 south of Tank 17. This plant was used to blend aviation gasoline with tetraethyl lead (the tetraethyl lead was stored on-site in 55 and 100-gallon drums) to boost gasoline octane values.

The former bottom sediment and water system that consisted of an oil/water separator (OWS) and a sand filter was located 1,300 feet west of Tank Farm 1. This facility was decommissioned and closed in the 1980's.

Polychlorinated Biphenyls: No issues were identified.

Pesticides: No issues were identified.

Asbestos: No issues were identified.

Lead-based Paint: No issues were identified.

Groundwater: Groundwater at Tank Farm 1 is classified GB by RIDEM and is considered to be unsuitable for use as a potable water supply. Currently, there are no known groundwater wells for drinking water use within Tank Farm 1. Over 50 monitoring wells were installed at Tank Farm 1 from 1983 to 1999. The majority of these wells were installed in bedrock, as the groundwater table at this site lies within the bedrock aquifer.

Groundwater flow is generally to the west, toward Narragansett Bay. Localized variations in groundwater flow direction occur in close proximity to Melville Pond and in the vicinity of operational tank ring drains, which act to depress groundwater elevations in the immediate vicinity of certain tanks.

Free phase product was detected downgradient of Tanks 16 and 17, however due to irregular fracturing and low transmissivity of the bedrock, the free phase product is apparently immobile. Passive free product removal began in 1996. Groundwater monitoring conducted by Tetra Tech in 1999 did not detect free phase product in these wells.

In 1995 volatile organic compounds (VOCs) were detected in groundwater samples collected downgradient of Tank 18 (aggregate VOC concentrations of 239 ppb). However concentrations decreased to below the level of detection at a point 170 feet downgradient of the tank. A sampling event conducted in 1999 sampled nineteen monitoring wells and indicated that PCBs and pesticides were not present in groundwater. Concentrations of VOCs, semi volatile organic compounds (SVOCs), and metals detected in these samples were below the RIDEM standards for GB groundwater. Total petroleum hydrocarbons (TPH) were detected in all wells, with the highest two concentrations being 7,300 ppb and 16,000 ppb.

An additional round of groundwater sampling involving 16 monitoring wells was conducted in April and May 2009. Results of this investigation indicated that free product was not detected, although petroleum sheen was observed in four wells and a petroleum odor detected in two wells. Groundwater samples were collected from thirteen wells and analyzed for VOCs, SVOCs and total and dissolved lead. Samples collected from a subset of these wells were analyzed for TPH. Analysis results detected benzene and ethyl benzene and methyl tert-butyl ether (MTBE) (three detections), xylenes (two detections) and naphthalene (two detections). TPH was detected in seven samples, whereas total and dissolved lead had ten detections and five detections, respectively. Several of the TPH detections and one naphthalene detection exceeded RIDEM groundwater criteria.

Medical Waste: No medical waste was stored or disposed of at Tank Farm 1.

Hazardous Materials: No issues were identified

Munitions and Explosives of Concern: No known MEC have been stored at the Tank Farm 1, and no MEC is known to be present.

Radon: Radon surveys have not been conducted at any of the tanks, buildings or other structures located within Tank Farm 1.

Universal Waste: No universal waste has been reported from Tank Farm 1. According to the facility personnel, all universal waste generated at NAVSTA Newport, including Tank Farm 1, is collected and recycled by the NAVSTA Newport Environmental Department.

Stormwater: Tank Farm 1, as a whole, is identified within the current Stormwater Pollution Prevention Plan (SWPPP) as a location of potential source of pollutants. The possibility of hazardous materials being exposed to stormwater runoff is remote and in most cases may occur only during refueling and loading operations (which no longer occur). The ring drains of Tank Farm 1 discharge to Narragansett Bay and operate under RIPDES stormwater permit RI 0020150. The ring drain discharge system includes two of the USTs (Tanks 9 and 10) that act as storage and gross OWS. These tanks discharge to a third OWS located in the FLA. This OWS discharges to the Bay via Outfall No. 008 Tank Farm 2

c) Tank Farm 2

Tank Farm 2 occupies approximately 96 acres of land in the northeastern portion of NAVSTA Newport and is adjacent to Tank Farm 1 to the west. This property contains eleven large (2.5 million gallon capacity) concrete tanks, and two buildings (Building 48, the former Navy fire station and Building 219). There was a 1,000-gallon UST associated with Building 48.

The tank farm was constructed between 1941 and early 1943 and was used by the Navy until 1970 at which time it was turned over to the Defense Fuel Supply Center (DFSC) which operated the facility until 1998. The above ground tanks formerly stored No. 5 and No.6 fuel oil. Ring drains were installed around each of the USTs to relieve hydrostatic pressure on the tank bottoms. These ring drains were operated by pumps which are no longer functional.

The surface area of Tank Farm 2 is covered by grassland areas wooded areas, paved access roads, and contains the two previously mentioned buildings. Concrete vaults housing pump sump chambers are located adjacent to each UST. Topographic elevation at the site varies from approximately 160 feet above mean sea level (MSL) to 145 feet above MSL.

The DFSC conducted site investigations of Tank Farm 2 since 1983, including soil and groundwater investigations. During the period between 1983 and 1999, DFSC installed over 28 groundwater monitoring wells within the boundaries of Tank Farm 2. Environmental issues at Tank Farm 2 include:

Aboveground Storage Tanks: No ASTs are associated with Tank Farm 2.

Underground Storage Tanks: USTs include eleven 2.5 million gallon capacity USTs (Tanks 19 through 29) and a 1,000-gallon UST associated with Building 48 (this UST was removed on January 6, 2009). Tanks 19 through 29 stored No. 5 fuel oil from the 1940s to 1975, distillate fuels (transition from No. 5 to No 2 fuel oil between 1975 and 1988, and marine diesel from 1985 to the mid 1990s). These tanks are approximately 116 feet in diameter and 33.5 feet deep and are approximately 5 feet below grade. The pump sump chamber vaults are approximately thirteen feet deep. The fuel lines interconnecting the USTs and the fuel loading area are buried approximately 10 feet below grade.

These USTs were cleaned, certified gas-free, re-ballasted with water, and closed in 1998. All the pumps, interior pipelines, and vaults associated with the closed USTs were also cleaned, and the fuel distribution pipelines associated with each tank as well as the transfer pipe loop were cleaned and permanently decommissioned.

During cleaning operations, cracks were observed in the floor of all the tanks. Oil and water was observed seeping into Tanks 19 through 24 and Tank 27. Pumps, interior pipelines, and vaults associated with the USTs were cleaned and the fuel distribution lines decommissioned. The ring drain system was not cleaned or decommissioned. Unlike Tank Farm 1, which operated partially by gravity flow, the Tank Farm 2 ring drain system requires active pumping to function. The ring drain pumps are no longer active; therefore the ring drain system no longer functions. .

The 1,000-gallon UST located at Building 48 (former Fire Station) in Tank Farm 2 was removed in January 2009. Samples collected from the south sidewall of the tank excavation contained TPH concentrations exceeding the RIDEM leachability criteria.

Hazardous Wastes: Tank Farm 2 was listed on the NPL in 1989 (RI6170085470) as a Rhode Island Superfund Site in 1985 (RID981065956) due to the soil and groundwater contamination resulting from the USTs within Tank Farm 2. Three Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sites are located on private properties in the vicinity of Tank Farm 2 and include the Melville North Landfill (RID981064421), the STP Sludge Drying Beds (RID981064306) and Structure 214 (RID981064249).

Hazardous Waste generated at Tank Farm 2 was primarily associated with USTs. Approximately nine dump piles of petroleum contaminated soil were observed through photo documentation dated June 1981 approximately 300 feet west of Tank 28. According to the report, the contaminated soil appears to have originated from another area of the installation. Sometime prior to 1970, UST bottom sediment and water (BS&W) may have been discharged directly onto the ground surface at Tank Farm 2 within the vicinity of the USTs. Since the 1970s, the BS&W has reportedly been properly disposed of at an offsite facility.

An investigation of shallow soils conducted by DESC identified TPH concentrations exceeded RIDEM direct exposure criteria in 6 of 57 samples, with one sample exceeding the leachability criteria set by RIDEM for GB groundwater.

Polychlorinated Biphenyls: PCB concentrations above the residential direct exposure criteria (RDEC) were detected within the soil adjacent to Building 219. Remediation of the PCB-contaminated soil has not been conducted. Three PCB-containing transformers were removed from Tank Farm 2 in the 1980s.

Radiological Materials: Radiological materials are not known to have existed at Tank Farm 2 during its operation.

Pesticides: Pesticides are applied at the NAVSTA Newport by trained and certified DoD personnel and by Rhode Island state certified contractors for grounds maintenance activities. Pesticides were not stored in the past, and are not currently stored, at Tank Farm 2.

Asbestos: Due to the age of the USTs, buildings and other structures at Tank Farm 2, it is suspected that ACM are present. ACM insulation is likely to be present on the abandoned in place steam and condensate lines associated with the fuel transfer pipelines.

Lead-Based Paint: No LBP surveys have been conducted at any of the buildings at Tank Farm 2. Due to the age of the USTs, buildings and other structures at Tank Farm 2, it is suspected that they contain LBP.

Groundwater: Groundwater beneath Tank Farm 2 has been classified as GB by RIDEM. Groundwater flow is toward the west, toward Narragansett Bay. Localized groundwater flow is influenced by the UST ring drains that act to depress

groundwater levels in the vicinity of the tanks when the drains are operational. Depth to groundwater averages 14 feet bgs. The seasonal high water table is above the bedrock in 6 of the 28 monitoring wells. The seasonal low water table is below the bedrock surface in four of these 6 wells.

Free phase product was detected in four separate areas of Tank Farm 2 between the mid 1990's and 1999, including the area around Tank 19, Tank 20, Tank 26 and downgradient of Tank 29. Free product thickness ranged from less than 0.01 foot to 0.03 feet. TPH was detected in 12 out of 28 monitoring wells at concentrations ranging from 0.4 ppm to 1,600 ppm. Low levels of VOCs and polycyclic aromatic hydrocarbons (PAHs) were also detected.

Groundwater investigations conducted in 2009 involved collection of samples from 24 monitoring wells for analysis of VOCs, SVOCs, total and dissolved lead. Samples from a subset of these wells were analyzed for TPH. During this investigation free product was detected in two wells at thicknesses of 0.42 and 1.66 feet. Benzene and naphthalene were detected in only one sample, whereas TPH was detected in six samples. Total and dissolved lead was detected in seven samples. All detected VOC, SVOC, TPH and lead concentrations were below RIDEM GA and GB standards.

Medical Waste: Currently there is no medical waste generated, stored, or disposed of at Tank Farm 2. No medical waste is known to have existed on the property.

Hazardous Materials: No issues were identified

Munitions and Explosives of Concern: MECs have not been stored at the Tank Farm 2, and no MEC is known to be present at the site.

Universal Waste: According to the facility personnel, all universal waste generated at NAVSTA Newport, including Tank Farm 2, is collected and recycled by the NAVSTA Newport Environmental Department.

Radon: Radon surveys have not been conducted at any of the buildings located within Tank Farm 2.

Stormwater: Tank Farm 2, as a whole, is identified within the current SWPPP as a location of potential source of pollutants. The possibility of hazardous materials to be exposed to stormwater runoff is remote, and in most cases occurred during refueling and loading operations. The ring drains of Tank Farm 2 discharge to an OWS separator system that eventually discharges to Narragansett Bay. The discharge is monitored and permitted under RIPDES stormwater permit RI 0020150.

d) Defense Highway Properties

Portions of the Defense Highway addressed in the ECP include Stringham Road and Midway/Green Lane Segments and are collectively referenced as the Roadway Property in the ECP. The Defense Highway portion of the ECP Roadway Property is

approximately 6 miles in length and is located along the western side of Narragansett Bay in the towns of Portsmouth and Middletown between Stringham Road in the north to the NUWC in the south. In total the Defense Highway Properties occupy a total of 67 acres of land.

The Stringham Road portion of the property contains one building, (Building 105A). The Midway Fueling Pier portion formerly contained three additional buildings (Buildings 70, 71, 111) which were demolished prior to 1999. These buildings operated between the 1940's and approximately 1974 as the Midway Booster Pump House (Former Building 70), and Boiler House No. 3 (Former Building 71). The use of former Building 111 is not known. These buildings were associated with heating and pumping Navy Special No. 6 Fuel Oil from former Tank Farms 4 and 5 to the Midway Fueling Pier.

Building 105A was constructed prior to 1979 for the storage of fire fighting foam. The building was modified in 1979 to provide temporary storage of materials containing PCBs prior to transport to disposal facilities. The building is no longer in use.

A six mile fuel pipeline and 50 piping chambers run along Defense Highway portion of the property and were used to transfer various fuels from Tank Farms 1, 2, 3, 4 and 5 to ship fueling stations.

Aboveground Storage Tanks: No ASTs are located at the Defense Highway properties.

Underground Storage Tanks and Fuel Transport Pipelines: Several areas of remediation took place along the Defense Highway Properties in areas associated with the fuel transport pipeline system and related structures.

- Former Buildings 71 USTs - Two USTs associated with Former Building 71 (a 75,000-gallon No. 6 fuel oil UST and a 5,000-gallon diesel fuel UST) were removed from the Stringham Road portion of the property in 1995. During removal of the 75,000-gallon UST it was determined that a release of No. 6 oil has occurred that impacted the surrounding soil. Soil in the vicinity of the Midway Fueling Pier was contaminated with petroleum due to a release from an OWS discharge line. The Building 71 UST the OWS and associated contaminated soil were removed from this area between March 2005 and October 2008. The removal action involved approximately 4,770 tons of soil. There are no known remaining USTs associated with former Buildings 70, 111, or with current Building 105A.
- Midway Fueling Pier Approach Pipeline - In June 2000 the former Midway Fuel Pier Approach Pipe removal and cleaning operation took place. As part of this operation, TPH contaminated soil was identified during removal of a former OWS discharge line. Remedial efforts were undertaken to remediate this

contamination. A combined total of 4,770 tons of petroleum contaminated soil was removed and disposed of during the UST and OWS remedial activities.

- Pipeline and Piping Chambers - The pipeline system was cleaned, pressure tested and abandoned in place. The in-place abandonment of the chambers involved asbestos abatement of the steam line insulation within each chamber. Soils surrounding the chambers were sampled and those soils impacted by TPH at concentrations exceeding RIDEM criteria were removed by excavation in 2008. The piping chambers contain drains that discharge to the nearby ground surface. No information was available to determine the presence, nature and extent of soil and groundwater contamination at the drain outlet locations
 - Portions of the steam condensate return line were reportedly altered to transport fuel. Remedial actions were conducted in the vicinity of the Greene Lane site to remove petroleum contamination reportedly released from the steam condensate line. The Navy's cleanup standard was the RIDEM industrial use criteria. Soil contamination from this release may remain underneath the roadway at concentrations exceeding the industrial criteria.
 - Additional fuel pipelines are located outside the concrete pipeline conduit. However, no information was available from the Navy to determine if these fuel pipelines have been cleaned, pigged, and pressure tested for leaks.

Hazardous Waste: No hazardous waste is known to have been generated at the Defense Highway properties. Building 105A, located within the Stringham Road portion of the property, was a regulated 90-day hazardous waste storage facility used exclusively to store PCB items prior to transport to a contracted disposal facility. There have been minor spill incidents within Building 105A, but there has been no evidence that PCB materials have migrated from the building during its operation as a hazardous waste storage facility.

Polychlorinated Biphenyls: Building 105A in the Stringham Road portion of the Defense Highway properties was a regulated 90-day hazardous waste storage facility used exclusively to store PCB items prior to transport to a contracted disposal facility. Typical hazardous waste stored in Building 105A included fluids in 55 gallon drums or smaller containers, transformer carcasses with or without fluids, and PCB-residues from clean-up activities conducted at NAVSTA Newport. According to the facility closure plan, minor spills occurred at Building 105A, but there was no evidence that PCB material migrated from the building. According to facility personnel, the facility received closure certification from RIDEM.

Radiological Materials: There are no known radiological materials at the Defense Highway properties.

Pesticides: No pesticides have been stored in the past, or are currently stored at the Defense Highway properties.

Asbestos: ACM was known to be present within former Building 70 and the piping chambers, as well as suspected inside former Buildings 71 and 111 prior to demolition. Due to the age of Building 105A, it is suspected that ACM could be present. Asbestos was abated in Building 70 and in the piping chambers prior to their demolition. Asbestos insulation surrounding the six miles of steam and condensate lines that run from the storage tanks to the fueling piers along Defense Highway was left in place.

Lead-Based Paint: Building 105A was built prior to 1979 and therefore LBP is suspected to be present. No LBP surveys have been conducted at any of the remaining buildings within the Defense Highway properties.

Groundwater: Groundwater beneath the Defense Highway properties is classified GA by RIDEM, indicating that is suitable for use as a potable water source without treatment. Between October 2007 and March 2008, five groundwater monitoring wells were installed at the former Building 70 site to determine the impacts to groundwater, if any, as a result of the closure of the former 75,000-gallon UST. The results of the groundwater sampling determined that all of the samples collected contained levels of TPH above the RIDEM reporting limits of 50 ppb. *Groundwater* contaminated with petroleum compounds is present in the vicinity of Building 70, located in the Green Lane/Midway portion of the property. Contaminant concentrations exceed the Rhode Island Department of Environmental Protection GA groundwater criteria. The groundwater contamination is associated with the release of petroleum from the 75,000-gallon UST located in the vicinity of former Building 71.

Medical Waste: No issues were identified

Hazardous Materials: The Defense Highway properties were listed on the NPL in 1989 as part of the entire NAVSTA Newport listing, and are not considered to be an area impacted by CERCLA-related contamination. However, areas which are impacted by CERCLA contamination are located in close vicinity to the Defense Highway properties and include:

- McAllister Point Landfill (RI6170085470) located immediately adjacent to the Midway /Greene Lane portion of Defense Highway;
- Tank Farm 1 (RI8971524970), Tank Farm 2 (RID981065956) Tank Farm 3 (RID981066079), Tank Farm 4 (RID981065899), and Tank Farm 5 (RID981065832) all located north and east of the Defense Highway properties;
- Melville North Landfill located north of the NAVSTA Newport property and southwest of Defense Highway-Stringham Road junction.

Munitions and Explosives of Concern: No known munitions and explosives of concern have been stored at the Defense Highway properties, and none are known to be present on the properties.

Radon: Radon surveys have not been conducted at any of the current or former buildings located within the Defense Highway properties.

Universal Waste: No issues were identified

4. Suggested Actions Needed to Evaluate Environmental Conditions

As the environmental characterization of Tank Farms 1 and 2 and Defense Highway properties has not been fully completed by the Navy, there are several “next steps” or actions that will be needed to obtain the environmental information needed before the properties are transferred from the Navy’s ownership. These suggested actions are based on a review of information used by the consultant team to prepare the evaluation of environmental conditions for this Reuse Plan. Although environmental information about the sites exists, due to limitations beyond the control of the consultant team, complete environmental documentation was not available for analysis. Consequently, these suggested actions may not be sufficient to fill all environmental data gaps as new data gaps may be identified upon review of currently unavailable environmental information. Suggested actions are provided for Tank Farms 1 and 2 and the Defense Highway properties.

a) Suggested Actions for Tank Farm 1

- Complete the identification of Areas of Concern (AOCs), and investigate each AOC to either eliminate it as a potential source of contamination or to determine the nature and extent of associated soil and groundwater contamination.
- Conduct investigations to fully characterize the nature and extent of soil, groundwater and bedrock contamination below the bottom of each AST and UST.
- Characterize soil and groundwater contamination within the vicinity of the AST containment dike including the earthen berm of the dike and adjacent areas.
- Determine the extent of contamination associated with the two partial USTs that are acting as oil water separators for a portion of the Tank Farm 1 ring drain system (these partial USTs have not been cleaned).
- Characterize surficial soil contamination resulting from the reported disposal of tank bottom sludge in shallow pits located within the boundaries of Tank Farm 1.
- Investigate the presence, nature and extent of soil and groundwater contamination in the vicinity of the former tetraethyl lead blending facility.
- Investigate the presence, nature and extent of contamination associated with the fuel pipelines and pumping chambers located within the limits of Tank Farm 1.
- Characterize the extent of total petroleum hydrocarbon (TPH), volatile organic compound (VOC) and polycyclic aromatic hydrocarbon (PAH) contamination within the overburden soil and in bedrock.
- Characterize the extent of TPH, VOC and PAH contamination in groundwater within the overburden and bedrock aquifers.

- Characterize VOCs in soil vapor on the Tank Farm 1 property in order to evaluate potential impacts to future Site occupants.
- Develop a solution for discharge of groundwater collected by the Tank Farm 1 ring drains.

b) Suggested Actions for Tank Farm 2

- Fuel pipelines and pumping chambers located with the limits of Tank Farm 2.
- Characterize the extent of TPH, VOC and PAH contamination in over burden soil and bedrock.
- Characterize the extent of TPH, VOC and PAH contamination in groundwater within the over burden and bedrock aquifers.
- Characterize VOCs in soil vapor on the Tank Farm 2 property in order to evaluate potential impacts to future Site occupants.
- Characterize the extent of polychlorinated biphenyl (PCB) contamination in the vicinity of Building 219.
- Develop a solution for discharge of groundwater collected by the Tank Farm 2 ring drains.

c) Suggested Actions at Defense Highway Properties

- Review Navy documents pertaining to fuel pipelines located outside the concrete pipeline conduit to determine if documentation exists pertaining to fuel pipeline closure (have the lines been cleaned, pigged, and pressure tested for leaks). If leakage is documented, investigate the area in the vicinity of the leak(s) to determine the presence, nature and extent of soil or groundwater contamination.
- Characterize the extent of soil and ground water exceeding applicable RIDEM cleanup standards in the vicinity of former Buildings 70 and 71 and the Midway Fueling Pier Oil Water Separator.
- Verify the regulatory closure of Building 105A, and determine the extent of residual PCB contamination.
- On portions of the Defense Highway Property that may be in close proximity to the McAllister Point Landfill which will be used as a public park: Evaluate the potential for human receptor exposure, and impacts to human health from contaminated ground water and landfill gas migrating from the landfill.
- Investigate the areas in the vicinity of the piping chamber drain outlets to determine the presence, nature and extent of soil and groundwater contamination.

E. Historic and Cultural Resources

Cultural resources investigations of the entire NAVSTA Newport area were conducted in 1995 to comply with federal historic preservation regulations. These investigations included documentation and National Register eligibility evaluation of buildings and structures that were more than 50 years of age and a preliminary assessment of prehistoric and historic

archaeological potential and sensitivity. As a result of these investigations, three areas were recommended eligible as historic districts; a recommendation that was concurred with by the Navy and the RI Historical Preservation and Heritage Commission (RIHPHC). Subsequent archaeological investigations in 1996-1998 concluded that archaeological potential is limited due to extensive ground disturbance throughout most of the NAVSTA Newport area, although a small number of areas were determined to be archaeologically sensitive.

Two of the eligible historic districts, the Navy Hospital site and the Melville Fuel Depot and Naval Net Depot, are wholly or partially within the areas currently under study. The Naval Hospital Complex Historic District is composed of nine (9) existing buildings and structures which have been determined to be contributing resources to the National Register-eligible Naval Hospital Historic District and six (6) buildings and structures which are deemed non-contributing, mainly due to their date of construction after World War II. Nine of the buildings and structures in the Naval Hospital Historic District, which are described above in Section C, are within the surplus property area that was studied.

The eastern edge of the Melville Fuel Depot and Naval Net Depot Historic District lies within the Tank Farm No. 1 site. This eastern edge of the district within the site contains four tanks, Fuel Tanks #11, #12, #13 and #14, and the partially buried Tanks #9 and #10, which are all contributing resources within this district and are in the surplus property area that was studied.

There are no historic properties in the Tank Farm 2 or the Defense Highway sites. (See Figures IV-E-1, IV-E-2, IV-E-3, and IV-E-4 in Appendix).

Compliance with the Section 106 and 110 of the National Historic Preservation Act requires the Navy to consult with the RIHPHC upon their official disposal of their historic properties. It is anticipated that the RIHPHC will require protective easements on some of the buildings as a result of this disposal, as the RIHPHC considers the conveyance of these buildings to non-federal parties to be an adverse effect, if no protection is in place for a review of future actions towards them. The level of protection and which elements are protected with these easements has not been determined at this time. Consultation with RIHPHC on proposed future uses of the buildings and structures within these two districts or the infeasibility of their reuse will be required. Consultation will necessitate the preparation of feasibility studies which demonstrate whether or not individual buildings can be reused or not and the completion of mitigation measures in the event that demolition of buildings and structures is agreed upon.

V. DEMOGRAPHIC AND ECONOMIC ANALYSIS

A. Introduction

This chapter presents a review of historical demographic and economic conditions within the Aquidneck Island study area over the past few decades, as well as forecasts for key socioeconomic indicators. The study area includes Middletown, Newport, and Portsmouth, which are located in Newport County. Trends are presented regarding the dynamics of area population and households, as well as an overview of housing supply characteristics. This is followed by an examination of employment and industry trends within the Island’s economic base and labor force characteristics. Specific attention is given to the study area’s primary business clusters of tourism, marine trades, and the defense industry. The chapter concludes with an assessment of the potential for economic diversification within the region.

B. Population and Household Characteristics

Historic population growth trends for the study area, as illustrated in Table V-1, indicate a declining population base over last two decades (1990-2010). Local population levels have been declining at a slightly faster rate than the county and the state throughout this time period. Of the three island communities, Newport has sustained the largest continuous population losses since 1980. Overall, the study area population represents approximately 70% of total population within Newport County.

	Total Population						Percent Change					
				Estimate	Projections		80-90		90-00	00-10	10-20	20-30
	1980	1990	2000	2010	2020	2030						
Middletown	17,216	19,460	17,334	16,309	17,408	17,442	13%	-11%	-6%	7%	0.2%	
Newport	29,259	28,226	26,475	23,682	24,737	23,937	-4%	-6%	-11%	4%	-3%	
Portsmouth	14,257	16,857	17,149	16,532	18,954	19,785	18%	2%	-4%	15%	4%	
Study Area	60,732	64,543	60,958	56,523	61,099	61,164	6%	-6%	-7%	8%	0.1%	
Newport County	80,139	87,193	85,433	80,527	87,960	89,125	9%	-2%	-6%	9%	1%	
Rhode Island	947,154	1,003,463	1,048,319	1,058,412	1,111,464	1,140,543	6%	4%	1%	5%	2.6%	
	Population Change					Average Annual Change						
	80-90		90-00	00-10	10-20	20-30	80-90	90-00	00-10	10-20	20-30	
Middletown		2,244	-2,126	-1,025	1,099	34	1.2%	-1.2%	-0.7%	0.6%	0.0%	
Newport		-1,033	-1,751	-2,793	1,055	-800	-0.4%	-0.6%	-1.2%	0.4%	-0.3%	
Portsmouth		2,600	292	-617	2,422	831	1.7%	0.2%	-0.4%	1.3%	0.4%	
Study Area		3,811	-3,585	-4,435	4,576	65	0.6%	-0.6%	-0.8%	0.7%	0.0%	
Newport County		7,054	-1,760	-4,906	7,433	1,165	0.8%	-0.2%	-0.7%	0.8%	0.1%	
Rhode Island		56,309	44,856	10,093	53,052	29,079	0.6%	0.4%	0.1%	0.4%	0.3%	

Sources: US Census, Site To Do Business, and RI Office or Statewide Planning

State Planning Office projections for 2015 and 2020 are presented in Table V-1. Given that the base projection year for this forecast was 2005 it is likely that anticipated growth levels for 2020 do not reflect the current economic downturn and as a result, may not achieve the

population increase of 4,532 over the next five years (2010-2015). Instead, this level of growth may, in fact, take five to ten years to achieve as the economy recovers over the next five years. If so, study area growth, as well as state growth, may range between 1%-2% annually over the coming decade.

Despite population losses during the 1990s, the study area added 1,220 households during that time period (see Table V-2). However, the region's 5% increase still lagged behind the county's and state's 8% increase. Current estimates suggest that the total number of households in the study area declined between 2000-2010, despite an increased rate of housing construction during this time period (refer to Table V-8). These somewhat contradictory trends suggest the estimated decline in households is incorrect, or, much of the housing construction was for seasonal uses. Household size is also estimated to have continued declining as of 2010 but at a slower rate than previous decades.

Table V-2

Households and Household Size 1980 - 2010

	Households				Change			Percent Change		
	1980	1990	2000	2010 Est.	80-90	90-00	00-10	80-90	90-00	00-10
Middletown	5,425	6,578	6,993	6,662	1,153	415	-331	21%	6%	-5%
Newport	10,439	11,206	11,566	10,519	767	360	-1,047	7%	3%	-9%
Portsmouth	5,109	6,313	6,758	6,564	1,204	445	-194	24%	7%	-3%
Study Area	20,973	24,097	25,317	23,745	3,124	1,220	-1,572	15%	5%	-6%
Newport Cnty	28,185	32,688	35,228	33,533	4,503	2,540	-1,695	16%	8%	-5%
Rhode Island	337,695	377,977	408,424	411,325	40,282	30,447	2,901	12%	8%	1%
Average Household Size										
	1980	1990	2000	2010 Est.	80-90	90-00	00-10	80-90	90-00	00-10
Middletown	2.82	2.66	2.43	2.41	-0.16	-0.23	-0.02	-5.7%	-8.6%	-0.8%
Newport	2.50	2.31	2.11	2.09	-0.19	-0.20	-0.02	-7.6%	-8.7%	-0.9%
Portsmouth	2.96	2.67	2.53	2.51	-0.29	-0.14	-0.02	-9.8%	-5.2%	-0.8%
Study Area	2.69	2.50	2.31	2.30	-0.19	-0.19	-0.01	-7.1%	-7.6%	-0.4%
Newport Cnty	2.73	2.53	2.35	2.34	-0.20	-0.18	-0.01	-7.3%	-7.1%	-0.4%
Rhode Island	2.7	2.55	2.47	2.48	-0.15	-0.08	0.01	-5.6%	-3.1%	0.4%

Source: US Census & STDB

Table V-3 shows that 4% of the study area population resided in group quarters as of 2000. Newport had the largest proportion with almost 8% in said housing facilities. The majority were associated with college dormitories and other military quarters associated with the NAVSTA. Some of this population may be integrated into the community housing supply as privatization of the military housing occurs in the future.

Table V-3

Household and Group Quarters Population 2000

	Middletown	Newport	Portsmouth	Study Area	Newport Cnty	Rhode Island
Household Population	17,027	24,393	17,113	58,553	82,961	1,009,503
Group Quarters Population	307	2,082	36	2,425	2,472	38,816
GQ As % Total Population	1.8%	7.9%	0.2%	4.0%	2.9%	3.7%
In College Dormitories/Quarters	0	893	0	893	893	20,551
In Military Quarters	17	846	0	863	863	870
Other NonInstitutional	41	98	12	151	185	3,594
In Correctional Institutions	0	0	0	0	0	3,576
In Nursing Homes	249	245	24	518	531	9,222
In Other Institutions	0	0	0	0	0	1,003

Source: US Census

Median age of the population continues to climb and is slightly higher than the state median (see Table V-4). Portsmouth in particular exhibits higher population concentrations in the older age brackets. Newport has a somewhat younger profile which is probably partially attributable to students at the Naval facility.

Table V-4
Median Age 1990 - 2009

	Middletown	Newport	Portsmouth	Study Area	Rhode Island
1990	31.1	31.4	35.9	32.5	33.9
2000	37.9	34.9	39.9	37.3	36.8
2009	40.8	38.0	43.4	40.8	39.1
Change 90-00	22%	11%	11%	15%	9%
Change 00-09	8%	9%	9%	9%	6%

Source: US Census and DemographicsNOW

Figure V-1 shows that the only age brackets estimated to have increased in population between 2000-2010 were the near retirement and retirement cohorts of ages 55 and over. A steady decline the 25-34 age group over the last 20 years indicates a lack of new, younger households being formed in the study area. This is likely to result in a further decrease in the child and teenaged population cohorts under age 20 over the coming decades.

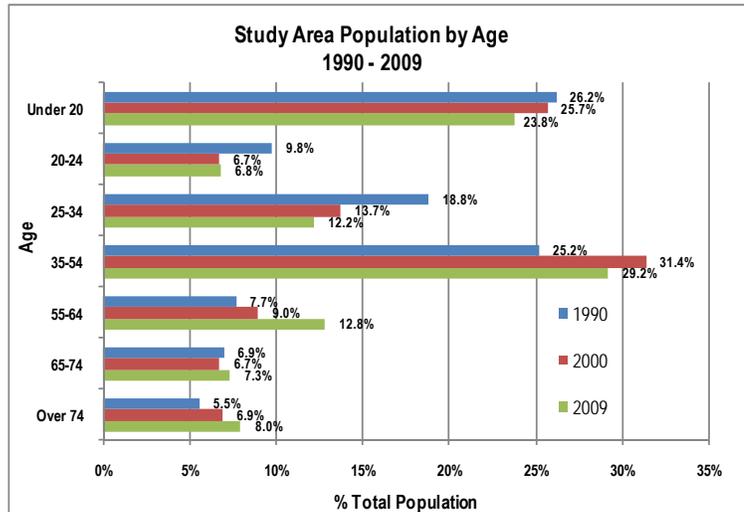


Figure V-1

The study area population is about as ethnically diverse as the state although with somewhat smaller percentages in some categories. The racial composition of the study area population was approximately 89% White as of 2000. The area's minority population is predominantly Black which represented 5% of the population, slightly exceeding the county and state in this category (see Table V-5).

Table V-5
Racial Composition of the Population in 2000 (Percent of Total Population)

	White	Black	American Indian, Eskimo, or Aleut	Asian or Pacific Islander	Other race	Hispanic or Latino
Middletown	89.1%	4.7%	0.4%	2.3%	3.5%	2.9%
Newport	84.1%	7.8%	0.8%	1.4%	5.9%	5.5%
Portsmouth	95.8%	1.2%	0.2%	1.4%	1.4%	1.5%
Study Area	88.8%	5.0%	0.5%	1.7%	3.9%	3.6%
Newport Cnty	91.5%	3.7%	0.4%	1.3%	3.1%	2.8%
Rhode Island	85.0%	4.5%	0.5%	2.3%	7.7%	8.7%
Change in Percentage 1990-2000						
Middletown	-2.9%	0.1%	0.0%	0.2%	2.5%	0.5%
Newport	-4.5%	-0.3%	0.1%	0.0%	4.7%	2.9%
Portsmouth	-1.8%	0.3%	-0.1%	0.3%	1.2%	0.4%
Study Area	-3.2%	-0.1%	0.0%	0.1%	3.1%	1.5%
Newport Cnty	-2.4%	-0.2%	0.0%	0.1%	2.5%	0.8%
Rhode Island	-6.4%	0.6%	0.1%	0.5%	5.2%	4.3%

Source: US Census

The second largest minority group was the Other category which includes people of mixed racial backgrounds. This category experienced the largest increase between 1990-2000, most

likely due to a change in the Census definition during this time period. The study area Hispanic population also saw a notable increase but not as much as the state.

C. Income

Household incomes in the study area tend to be higher than those of the state, on average. As of 2009, the estimated median household income in the study area was 16% higher than the state’s. Study area income growth during the 1990s outpaced the state’s increase with respective growth rates of 41% and 32% for the median household income (see Table V-6).

Table V-6

Median Household Income 1990-2009

	1990	2000	2009	Percent Change		% State
				90-00	00-09	
Middletown	\$35,243	\$51,205	\$63,214	45%	23%	119%
Newport	\$30,486	\$40,934	\$51,343	34%	25%	97%
Portsmouth	\$42,472	\$58,806	\$74,616	38%	27%	141%
Study Area	\$34,933	\$49,245	\$61,483	41%	25%	116%
Rhode Island	\$32,212	\$42,361	\$52,938	32%	25%	—

Source: US Census and DemographicsNOW

Portsmouth tends to have the highest income levels of the three study area communities while Newport has the lowest. Newport’s rate of income increase during the 1990s also lagged behind the other towns, but 2009 estimates suggest this may be changing. However, Newport’s 2009 median is still estimated to represent only 97% of the statewide median. A distribution of households by income is shown in Figure V-2.

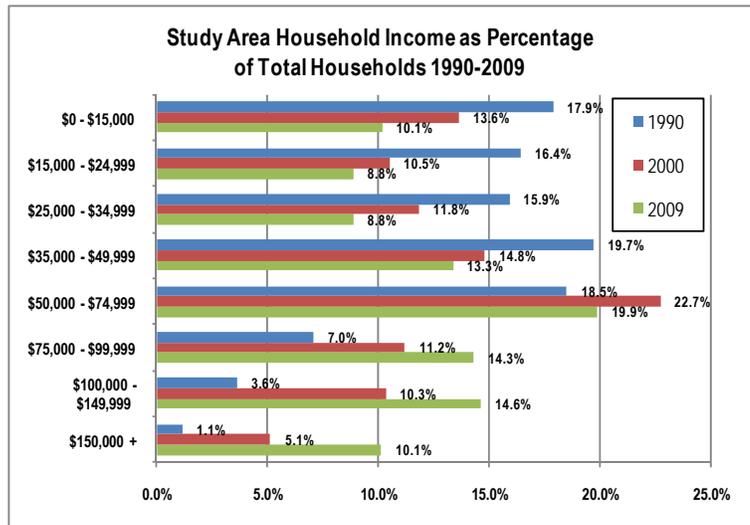


Figure V-2

As of 2000, study area households below the poverty level represent almost 9% of total households (see Table IV-7). This rate was about 3.5 percentage points below the statewide household poverty level of

Table V-7

Households Below Poverty Level by Household Type - 2000

	Middletown		Newport		Portsmouth		Study Area		Newport County		Rhode Island	
	Number	% Total	Number	% Total	Number	% Total	Number	% Total	Number	% Total	Number	% Total
Family households	174	2.5%	745	6.4%	97	1.4%	1,016	4.0%	1,212	3.4%	23,608	5.8%
Married-couple family	64	0.9%	102	0.9%	48	0.7%	214	0.8%	324	0.9%	7,124	1.7%
Other family	110	1.6%	643	5.6%	49	0.7%	802	3.2%	888	2.5%	16,484	4.0%
Male householder, no wife present	20	0.3%	55	0.5%	6	0.1%	81	0.3%	94	0.3%	1,873	0.5%
Female householder, no husband present	90	1.3%	588	5.1%	43	0.6%	721	2.8%	794	2.3%	14,611	3.6%
Nonfamily households	195	2.8%	825	7.1%	214	3.2%	1,234	4.9%	1,569	4.5%	26,897	6.6%
Male householder	55	0.8%	334	2.9%	86	1.3%	475	1.9%	596	1.7%	9,827	2.4%
Female householder	140	2.0%	491	4.2%	128	1.9%	759	3.0%	973	2.8%	17,070	4.2%
Total households below poverty level	369	5.3%	1,570	13.6%	311	4.6%	2,250	8.9%	2,781	7.9%	50,505	12.4%
Total Households	6,996	100.0%	11,562	100.0%	6,766	100.0%	25,324	100.0%	35,212	100.0%	408,412	100.0%

Source: US Census

12.4%. Female householders, both in family and non-family environments, represent a higher proportion of the area’s households below the poverty level with respective rates of 2.3% and 2.8%. From an individual perspective, Newport’s poverty rate of 13.6% far exceeded those of Middletown (5.3%) and Portsmouth (4.6%), as well as the state as a whole.

D. Housing Supply

As of 2009, study area communities had a total combined housing stock of approximately 29,470 units, as shown in Table V-8. About 45% of the units are located in Newport while Middletown and Portsmouth each contain approximately 27% of the island’s total stock. Overall, the study area’s housing supply accounts for 70% of the total housing within Newport County which has just over 42,000 units.

Table V-8
Total Housing Units 1990 - 2009

	1990	2000	2009*	Change		Percent Change		Avg. Annual	
				90-00	00-09	90-00	00-09	90-00	00-09
Middletown	7,095	7,603	7,871	508	268	7.2%	3.5%	51	27
Newport	13,103	13,226	13,438	123	212	0.9%	1.6%	12	21
Portsmouth	7,235	7,386	8,159	151	773	2.1%	10.5%	15	77
Study Area	27,433	28,215	29,468	782	1,253	2.9%	4.4%	78	125
Newport County	37,475	39,561	42,024	2,086	2,463	5.6%	6.2%	209	246

*Estimate based on residential building permits
Source: US Census Bureau

The rate of housing construction during the current decade (2000-09) considerably outpaced that which occurred during the 1990s. As of 2009, 1,253 residential units had been permitted as compared with 782 built during the prior decade, an increase of 470 units, or 60%. Average annual construction increased from 78 to 125 units, respectively, during these two time periods. It should be noted that the recent gains in housing reflected by building permits issued do not necessarily mean that all units have been constructed as of this time. They also do not reflect any potential demolition of units that may offset gains.

Portsmouth absorbed a considerably larger portion of the more recent housing construction adding over 770 units since 2000, a 10.5% increase, as compared with 268 units (3.5%) in Middletown and 212 units (1.6%) in Newport. Portsmouth’s growth accounted for over 30% of the total housing constructed in Newport County during this time period.

Table V-9 and Figure V-3 illustrate residential building permits issued since 2000 for the study area communities. The figure shows that construction activity was pretty steady through 2006 adding an average of 141 units annually. Since 2006, construction has dropped steadily in response, perhaps, to overbuilding, as well as effects of the economic downturn. The figure also highlights the fact that considerably more housing units were permitted in

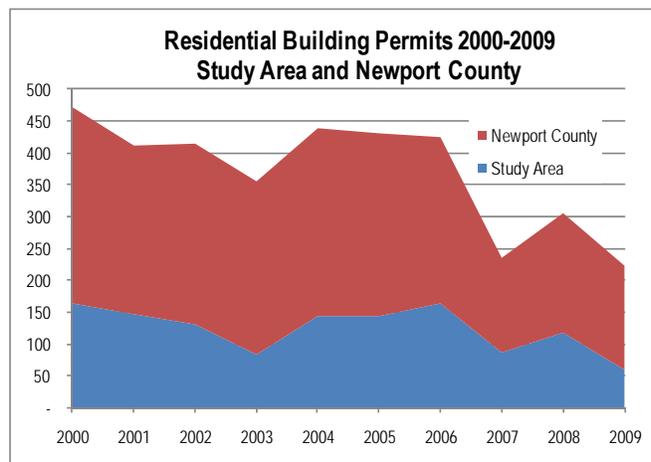


Figure V-3

Newport County outside of the study area communities. As shown in Table V-9, single family housing (which includes condominiums) accounted for 81% of total unit construction with two to four family structures representing 9%, and larger, multi-family structures, 10% of the total. Portsmouth absorbed the largest portion of single family construction with 643 units, or 63% of the total. However, the town also experienced the biggest increase in 5+ unit structures, adding 98 of these units in 7 buildings. Newport’s housing construction was also predominantly single family although the town did absorb the largest percentages of two to four family units as well. Housing construction in Middletown was almost exclusively single family during this time period.

Table V-9
Residential Building Permits 2000 - 2009

	Permits Issued (# Units)				Percent by Category			Percent Total
	Middletown	Newport	Portsmouth	Study Area	Middletown	Newport	Portsmouth	
Single Family	252	121	643	1,016	25%	12%	63%	81%
Two Family	6	58	14	78	8%	74%	18%	6%
Three and Four Family	-	19	18	37	0%	51%	49%	3%
Five or More Family	10	14	98	122	8%	11%	80%	10%
Total	268	212	773	1,253	21%	17%	62%	100%

Source: Census Bureau

Table V-10 illustrates the composition of the study area’s housing supply, by units contained in each structure, for 1990 and 2000. Single family dwellings represent the largest portion of the stock at 59% and given more recent building trends noted above, this percentage will have increased since 2000. However, the Census reported a decrease in condominium units (1, Attached) between 1990 and 2000, suggesting a saturation in this component of the market that may have lead to conversion for rental use (Note: it may also represent misreported information in the earlier census that was subsequently revised).

Table V-10
Study Area Housing by Units in Structure 1990 - 2000

	1990		2000		Change	% Change
	Units	% Total	Units	% Total		
1, Detached	13,544	49%	14,896	53%	1,352	10.0%
1, Attached	2,053	7%	1,772	6%	-281	-13.7%
Subtotal	15,597	57%	16,668	59%	1,071	6.9%
2	3,262	12%	3,459	12%	197	6.0%
3 to 4	3,516	13%	3,240	11%	-276	-7.8%
5 to 9	1,609	6%	1,605	6%	-4	-0.2%
10 to 19	1,215	4%	982	3%	-233	-19.2%
20 to 49	648	2%	772	3%	124	19.1%
50 or more	481	2%	889	3%	408	84.8%
Subtotal	10,731	39%	10,947	39%	216	2.0%
Mobile Home	732	3%	593	2%	-139	-19.0%
Other	373	1%	7	0%	-366	-98.1%
Total Units	27,433	100%	28,215	100%	782	2.9%

Source: US Census

For structures containing two or more units there was a net change of 216 over the course of the decade. The primary gains were recorded in duplex units, as well as structures with 20 or more units. These gains were offset by decreases in structures with 3 to 19 units which may have been absorbed into new housing projects, renovated into different unit configurations (e.g. 3 units converted to 2), or may also reflect the demolition of some units.

Table V-11 provides a further breakdown of housing units in structures by tenure. As shown, the study area had approximately 13,800 owner occupied units and 11,520 renter occupied units as of 2000, not including vacant for-sale or for-rent units. It is noteworthy that over 30% of the area's renter occupied units are comprised of single family detached and condominium type units. This suggests that the availability of multi-family housing is insufficient, or otherwise lacking in amenities (square footage, bedrooms, condition), to meet demand in the rental market. It is also likely to be an indication of the demand placed on the housing supply to support the influx of seasonal residents and tourists.

Table V-11
Tenure by Units in Structure as Percent of Total Units in Study Area - 2000

Units in Structure	Owner occupied		Renter occupied	
	Units	% Total	Units	% Total
Total	13,797	100.0%	11,520	100.0%
1, detached	11,347	82.2%	2,448	21.3%
1, attached	339	2.5%	1,164	10.1%
2	970	7.0%	2,067	17.9%
3 or 4	305	2.2%	2,477	21.5%
5 to 9	219	1.6%	1,109	9.6%
10 or more	176	1.3%	2,108	18.3%
Mobile home	434	3.1%	147	1.3%
Other	7	0.1%	0	0.0%

Source: US Census

The change in tenure and vacancy rates for the study area are presented in Table V-12 and Table V-13. Overall, the study area saw a 10% increase in owner occupied dwellings between 1990 and 2000, bringing the total at that time to approximately 54%. However, considerable disparity exists within the three communities where Newport's housing is only 41% owner occupied as compared with 56% and 73% respectively, for Middletown and Portsmouth.

Table V-12
Tenure of Occupied Housing Units 1990 - 2000

	1990		2000		Percent Change	
	Owner	Renter	Owner	Renter	Owner	Renter
Middletown	49.6%	50.4%	56.4%	43.6%		
Units	3,244	3,298	3,944	3,049	22%	-8%
Newport	41.7%	58.3%	41.9%	58.1%		
Units	4,685	6,556	4,843	6,723	3%	3%
Portsmouth	72.1%	27.9%	73.9%	26.1%		
Units	4,552	1,761	4,995	1,763	10%	0%
Study Area	51.8%	48.2%	54.3%	45.7%		
Units	12,481	11,615	13,728	11,535	10%	-1%
Newport County	58.6%	41.4%	61.6%	38.4%		
Units	19,416	13,721	21,688	13,540	12%	-1%

Source: US Census

The percentage of owner occupied housing grew more rapidly during the 1990s than renters (which actually appear to have declined), a trend which has apparently continued through 2009 since over 80% of units permitted since 2000 were single family dwellings, based on building permit data discussed previously. Estimates from the American Community Survey (ACS) for 2008 bear this out. The City of Newport's owner occupied units increased from 42% to 47% and Newport County's increased from 61% to 64%. Estimates for the other towns were not available but have presumably experienced similar changes.

Table V-13
Study Area Housing Stock by Year-round Use and Vacancy 1990 - 2000

	1990	2000	Change	% Change	Vacancy Rate	
					1990	2000
Total Housing Units	27,433	28,215	782	3%		
Year-round Housing	25,812	26,250	438	2%		
Year-round Vacant	1,717	933	(784)	-46%	6.7%	3.6%
For Rent	1,229	685	(544)	-44%	4.8%	2.6%
For Sale Only	259	128	(131)	-51%	1.0%	0.5%
Rented or Sold, Not Occup.	229	120	(109)	-48%	0.9%	0.5%
Vacant Seasonal	1,249	1,432	183	15%		
Vacant Other	372	533	161	43%		
Total Vacant Units	3,337	2,898	(439)	-13%		

Source: US Census

The study area's vacancy rate for year-round housing decreased by more than 50% between 1990 and 2000, dropping from an estimated 6.7% to 3.6%, with 685 vacant for rent and 128 for sale units. This is an indication of a relatively tight housing market where supply is being outpaced by demand. The rental market was particularly tight with a vacancy rate of only 2.6%. The Census identified an additional 1,432 units that were vacant and for seasonal use in 2000 which represents approximately 5% of the total housing stock. However, given the high demand for housing during peak tourist periods, it is likely that additional units from the island's year-round stock are used for seasonal activities. The "vacant other" is defined by the Census Bureau as held by the owner for special use and may include housing associated with the Naval installation.

Vacancy rates in the rental market have loosened to some degree over the past decade but still remain relatively tight. As of 2000, the overall vacancy rate for the study area was 3.6% and only 2.6% in the rental market. Individually, rental vacancy rates were 1.7% in Middletown, 3.8% in Newport, 1.1% in Portsmouth, and 2.2% for Newport County. Estimates from the Census Bureau for 2008 place the City of Newport's rental vacancy rates at 4.8% and 2.7% for the county as a whole. These estimates suggest vacancy rates have increased by only 0.5 to 1.0 percentage points over the decade. This assertion is plausible given the limited amount of multifamily housing construction that has occurred over the decade, as illustrated by building permit activity.

E. Historic Employment Trends

The ten-year change in employment for the study area is illustrated in Table V-14 and Figure V-4. This data is derived from the Quarterly Census of Employment and Wages (QCEW) compiled by the Bureau of Labor Statistics (BLS), in conjunction with the Rhode Island Department of Labor and Training, and includes only employees covered in the Unemployment Insurance (UI) program; it does not include part-time labor, military personnel, or self-employed proprietors. Between 1999 and 2009, employment in the study area, as well as Newport County, grew 10% overall representing a modest but steady rate of 1% annually. The study area outperformed the state during this time period which experienced a decrease of 2% in total employment with a net loss of approximately 7,900 covered jobs.

Table V-14

Average Annual Covered Employment 1999-2009						
	1999	% Total	2009	% Total	Change	% Change
Middletown						
Total Private & Government	9,255	—	10,718	—	1,463	16%
Government	611	7%	764	7%	153	25%
Total Private Only	8,644	93%	9,953	93%	1,309	15%
Newport						
Total Private & Government	16,473	—	17,516	—	1,043	6%
Government	4,523	27%	5,195	30%	672	15%
Total Private Only	11,950	73%	12,321	70%	371	3%
Portsmouth						
Total Private & Government	5,288	—	5,928	—	640	12%
Government	480	9%	732	12%	252	53%
Total Private Only	4,808	91%	5,194	88%	386	8%
Study Area						
Total Private & Government	31,016	—	34,162	—	3,146	10%
Government	5,614	18%	6,691	20%	1,077	19%
Total Private Only	25,402	82%	27,468	80%	2,066	8%
Newport County						
Total Private & Government	34,979	—	38,598	—	3,619	10%
Government	6,320	18%	7,656	20%	1,336	21%
Total Private Only	28,659	82%	30,942	80%	2,283	8%
Rhode Island						
Total Private & Government	456,392	—	448,475	—	(7,917)	-2%
Government	60,679	13%	60,652	14%	(27)	0%
Total Private Only	395,713	87%	387,824	86%	(7,889)	-2%

Source: QCEW

As of 2009, covered employment for the three towns totaled 34,162 which represented almost 89% of the total jobs in Newport County (38,598). Government employment accounted for 20% of total employment and grew more rapidly than private employment during the decade with respective growth rates of 19% and 8%. Overall, the study area added 2,066 private sector and 1,077 government sector jobs during this time period. Government employment levels are higher in the study area due to the jobs associated with the NAVSTA as reflected by the 30% employment in the City of Newport within this sector.

Of the three communities, Middletown experienced the highest growth rate at 16%, adding 1,463 jobs, 1,300 of which were in the private sector. Newport added just over 1,000 jobs, a 6% growth rate, with two-thirds of total jobs associated with government expansion. Portsmouth's employment increased by 12% adding 640 total jobs, almost 40% of which were government related.

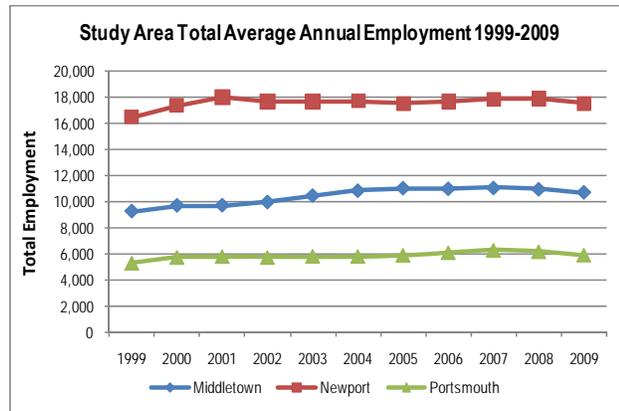


Figure V-4

Table V-15 provides a more detailed perspective on year-to-year changes in study area employment for the government and private sectors. As shown, 2000 saw the largest annual increase during this ten-year period with a 5.7% growth and 1,765 jobs added. Individually, the private sector added over 1,200 jobs and the government sector, 530 jobs that year.

However, in 2008-09, this sector lost approximately 1,500 jobs in a two-year period, thus negating about 40% of prior year gains. The government sector increased more modestly during the decade with annual growth averaging less than 0.5% through 2008 but ending with a significant uptick of 400 jobs in 2009 representing 6.4% growth for that year.

Study Area	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total Private & Government	31,016	32,781	33,515	33,358	33,935	34,370	34,458	34,777	35,191	35,033	34,162
Change	—	1,765	734	(157)	577	435	88	319	414	(158)	(871)
% Change	—	5.7%	2.2%	-0.5%	1.7%	1.3%	0.3%	0.9%	1.2%	-0.4%	-2.5%
Government	5,614	6,145	6,055	6,173	6,247	6,333	6,199	6,248	6,207	6,287	6,691
Change	—	531	(90)	118	74	86	(134)	49	(41)	80	404
% Change	—	9.5%	-1.5%	1.9%	1.2%	1.4%	-2.1%	0.8%	-0.7%	1.3%	6.4%
Total Private Only	25,402	26,636	27,460	27,185	27,688	28,037	28,259	28,529	28,984	28,746	27,468
Change	—	1,234	824	(275)	503	349	222	270	455	(238)	(1,278)
% Change	—	4.9%	3.1%	-1.0%	1.9%	1.3%	0.8%	1.0%	1.6%	-0.8%	-4.4%

Source: QCEW

As a comparison to the QCEW employment estimates discussed above, data compiled by the Bureau of Economic Analysis (BEA) is presented in Table V-16. The BEA's local area

estimates, which are available only to the county level, are based on data from QCEW as well as the Unemployment Compensation for Federal employees (UCFE). In order to provide complete coverage for all wages and salaries earned in the United States, the UI and UCFE data are adjusted for wages and salaries from employment not covered by UI and UCFE programs and for underreporting and misreporting under these programs. The resulting employment measure is of the total estimated number of jobs, full-time plus part-time.

Table V-16**Total Full-time and Part-time Employment 2001 - 2008****Newport County**

	2001	2008	Change	% Change	Avg Annual
Total employment	52,677	55,889	3,212	6.1%	0.8%
Wage and salary employment	44,197	44,525	328	0.7%	0.1%
Proprietors employment	8,480	11,364	2,884	34.0%	4.3%
Farm employment	344	280	-64	-18.6%	-2.9%
Nonfarm employment	52,333	55,609	3,276	6.3%	0.9%
Private employment	41,131	45,227	4,096	10.0%	1.4%
Government employment	11,202	10,382	-820	-7.3%	-1.1%
Federal, civilian	4,038	3,990	-48	-1.2%	-0.2%
Military	3,893	2,992	-901	-23.1%	-3.7%
State and local	3,271	3,400	129	3.9%	0.6%

Source: BEA

As shown, BEA estimates of full employment indicate total county employment of approximately 55,890 as of 2008. This represents an additional 17,290 jobs within the county above that which was reported by the covered employment data for 2009. The majority of this difference is accounted for by self-employed proprietors which totaled 11,364 representing 20% of the county's total employment. In addition, there were an estimated 5,900 part-time, military, or other types of employees who are not reflected in the UI program statistics. The change in government employment shown in the BEA estimates indicates that there was a decrease of approximately 900 military personnel stationed at the Newport facility during this time period. It also indicates that roughly 1,100 of the county's part-time jobs were in the government sector.

F. Detailed Industry Sector Growth and Employment Forecasts

Table V-17 provides a more detailed perspective on the strength of individual employment sectors within Newport County and the change that occurred between 2001 and 2009. These sectors are based on the North American Industry Classification System (NAICS). Based on the percentage of total employment in 2009, the county's dominant industry sectors are Accommodations and Food Services (19%), Retail Trade (13%), Health Care (14%), and Professional and Technical Services (10%). These four sectors account for 56% percent of the region's private sector jobs. Figure V-5 illustrates the change in Location Quotient (LQ) for Newport County, as compared to the State of Rhode Island, for 2001 and 2009. The LQ is a ratio that represents the proportion of employees in the local sector (Newport County) to a regional or national economy, which, in this case, is the state. An LQ of 1.0 means both economies have an equivalent percentage of employment in a given sector. An LQ above 1.0 means that the local economy is capturing a greater share of employment. An LQ above 1.0 that has increased between time periods is considered a strong, and growing sector, in comparison to the broader economy.

The county’s Business and Professional Services sectors exhibited the strongest performance over the decade adding 1,000 additional jobs, and well exceeded activity at the state level for these types of businesses. It’s LQ increased from 1.79 to 1.87, as illustrated in the figure. Projections prepared by the RI Department of Labor and Training (RIDL&T) through 2018 anticipate the addition of 6,300 jobs statewide in this sector,

Table V-17

Total Private Employment 2001-2009 Newport County							
NAICS	Industry	Employment				% Change	
		2001	2009	% Total	Change	% Change	Rhode Island
	Total, all industries	30,903	30,941	100%	38	0.1%	-4%
11	Agriculture, forestry, fishing and hunting	ND	ND	ND	ND	ND	ND
21	Mining, quarrying, and oil and gas extraction	ND	ND	ND	ND	ND	ND
22	Utilities	ND	43	0.1%	ND	ND	ND
23	Construction	1,721	1,543	5%	-178	-10.3%	-9%
31-33	Manufacturing	3,337	2,497	8%	-840	-25.2%	-38%
42	Wholesale trade	583	621	2%	38	6.5%	-1%
44-45	Retail trade	4,290	3,991	13%	-299	-7.0%	-9%
48-49	Transportation and warehousing	ND	548	2%	ND	ND	ND
51	Information	626	663	2%	37	5.9%	-7%
Financial Activities							
52	Finance and insurance	778	892	3%	114	14.7%	26%
53	Real estate and rental and leasing	469	635	2%	166	35.4%	16%
Business and Professional Services							
54	Professional and technical services	2,590	3,151	10%	561	21.7%	8%
55	Management of companies and enterprises	74	535	2%	461	623.0%	-4%
56	Administrative and waste services	1,021	1,082	3%	61	6.0%	-4%
Education and Health Care							
61	Educational services	1,144	1,170	4%	26	2.3%	11%
62	Health care and social assistance	4,287	4,252	14%	-35	-0.8%	41%
Leisure and Hospitality							
71	Arts, entertainment, and recreation	1,576	1,462	5%	-114	-7.2%	-9%
72	Accommodation and food services	5,919	5,962	19%	43	0.7%	5%
81	Other services, except public administration	1,614	1,659	5%	45	2.8%	3%

ND - Not Disclosable
Source: BLS

a 2.9% annual growth (see Table V-18), suggesting further growth potential within the study area. Employment in this sector is largely interrelated with the Island’s defense industry sector, as well as the marine trades cluster.

In contrast, the county’s Leisure and Hospitality sectors had relatively flat to declining employment levels and performed below statewide growth rates in the Accommodations and Food Services sector throughout the decade. These sectors had strong but declining LQs over the decade. County employment did actually expand in Food Services but gains were offset by losses in Accommodations (data not shown). State projections indicate that this sector is expected to add approximately 4,000 jobs (including Arts & Entertainment) with an annual growth rate of 0.8%. This may afford the study area opportunity to reverse its historic losses but may necessitate a repositioning or expansion of existing tourist amenities and services.

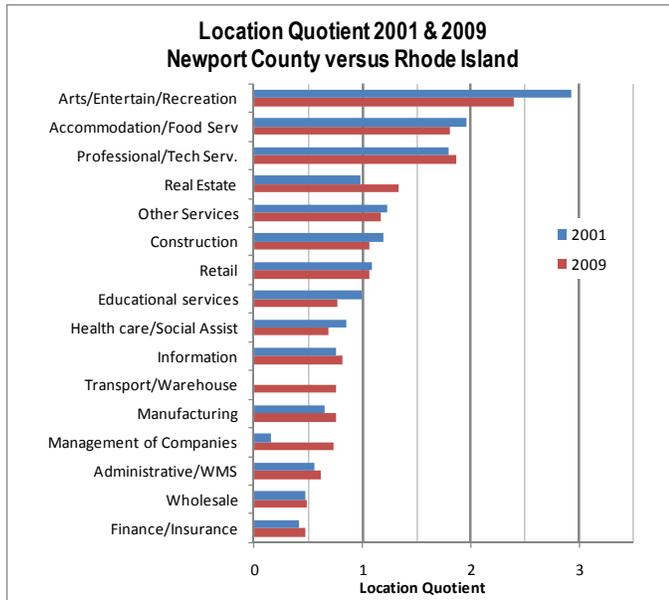


Figure V-5

Table V-18**Rhode Island Employment Projections by Major Sector 2008 - 2018**

NAICS	Industry Title	2008	2018	Change	% Change	Avg.
		Estimated	Projected			Annual
	Total All Industries	509,532	549,206	39,674	7.8%	0.8%
11	Agriculture, Forestry, Fishing & Hunting	782	778	-4	-0.5%	-0.1%
21	Mining	220	240	20	9.1%	0.9%
22	Utilities	1,111	995	-116	-10.4%	-1.1%
23	Construction	20,369	22,825	2,456	12.1%	1.1%
31-33	Manufacturing	47,943	41,400	-6,543	-13.7%	-1.5%
42	Wholesale Trade	16,883	17,400	517	3.1%	0.3%
44-45	Retail Trade	49,630	53,255	3,625	7.3%	0.7%
48-49	Transportation & Warehousing	9,698	10,670	972	10.0%	1.0%
51	Information	10,672	11,670	998	9.4%	0.9%
52	Finance & Insurance	25,080	26,805	1,725	6.9%	0.7%
53	Real Estate & Rental & Leasing	6,462	6,510	48	0.7%	0.1%
54	Professional, Scientific, & Technical Services	21,643	27,975	6,332	29.3%	2.6%
55	Management of Companies & Enterprises	9,299	10,500	1,201	12.9%	1.2%
56	Administrative/Support & WM Services	23,922	26,800	2,878	12.0%	1.1%
61	Educational Services	46,309	51,000	4,691	10.1%	1.0%
62	Health Care & Social Assistance	77,785	91,110	13,325	17.1%	1.6%
71	Arts, Entertainment, & Recreation	8,050	8,750	700	8.7%	0.8%
72	Accommodation & Food Services	42,833	46,300	3,467	8.1%	0.8%
81	Other Services (Except Government)	18,250	20,100	1,850	10.1%	1.0%
92	Government	32,978	32,340	-638	-1.9%	-0.2%
	Self-Employed & Unpaid Family Workers	39,575	41,708	2,133	5.4%	0.5%

SOURCE: RIDL&T

The Education and Health Care sectors showed strong growth at the state level, a trend that was not reflected at the county level where employment remained relatively unchanged between 2001-09. Location Quotients in these sectors were below 1.0 in 2001 and declined throughout the analysis period. Projections suggest that these sectors will continue to be top performers for the state adding an estimated 4,600 jobs and 13,300 jobs respectively, through 2018, representing annual growth rates of 1% and 1.6%. In light of this, further examination of the region's potential to capture a portion of this projected growth should be considered.

Of the county's top four sectors, Retail experienced the greatest losses throughout the decade, dropping approximately 300 jobs, or 7%, a rate that was slightly below the state's 9% decrease. Statewide projections indicate that this sector may begin to rebound in 2011 with a modest 0.7% annual growth through 2018. This may allow the study area to also regain some of its lost jobs over the next several years but the potential for more sustained, long-term growth is still uncertain at this time.

The Information sector represents only 2% of the county's total employment and its 6% growth represented an increase of only 37 jobs. However, this performance was considerably better than the statewide decrease of 7% and reflected in an increased LQ during the time period. Projections anticipate 1,000 additional jobs through 2014 which may offer moderate opportunity for continued expansion at the local level.

Individually, the Financial and Real Estate sectors also represent relatively small portions of the county's economy but they both exhibited strong growth through the decade that essentially mirrored the state's combined growth for these industries. The Finance sector's LQ was low in comparison to the state and increased only modestly. However, the Real Estate sector's LQ experienced a marked increase between 2001 and 2009 which may reflect the sharp increase in home sales that occurred on the Island during the decade. Projections anticipate little growth in Real Estate employment but a moderate annual increase of 0.7% in Finance which again, may offer potential for moderate job growth within the study area over the decade.

In the goods-producing sectors, both Construction and Manufacturing experienced net decreases in employment of 10% and 25%, respectively, within Newport County. Construction losses were comparable to those of the state (9%) while the local Manufacturing sector exhibited somewhat more stability declining more slowly than the state's 38% loss over the decade. Projections suggest that Construction will begin to see growth statewide in 2011 and will add over 2,400 jobs through 2018. Manufacturing losses are projected to continue with a statewide decrease of over 6,000 jobs through 2018.

G. Industry Clusters

Within Aquidneck Islands overall employment and industry indicators discussed above are several key "industry clusters" that warrant special consideration. An industry clusters represent a group of interconnected businesses and institutions that are concentrated in a geographic location and that are engaged in the production or provision of goods and services within a specialized sector of the economy. These clusters emerge because firms in the same, or a related economic sector, can gain a collective competitive advantage by locating near to each other. A close association with like firms allows businesses to learn about new developments, create an effectively trained labor pool, and reduce transaction costs. This close interaction can increase the productivity of the entire cluster, which, in turn, can significantly improve the local economy. In short, the drivers of business clusters tend to be competition, the benefits of agglomeration economies, workforce skills, technology and knowledge transfers, and the reinforcing social interactions. The industry clusters on Aquidneck Island are tourism (which includes hotels, restaurants, retail, and real estate), marine trades, and the defense industry.

1. Tourism

Perhaps the most obvious of the Island's clusters is the one associated with the area's tourism economy. As noted previously, the Leisure and Hospitality sectors are major components of the local employment base accounting for almost one quarter (24%) of the area's total jobs (7,400). The region employs two to three times as many workers in these sectors than the state as a whole. However, tourism also has a large impact on the Island's Retail sector which accounts for another 13% of total jobs in the region (3,990). Similarly, the Real Estate sector, which employs 630, is dependent on tourism due to the large number of seasonal rental units and second homes that are found on the Island. For example, second home sales and other residential investment properties accounted for an average of 16%-25% (depending on the town) of residential real estate sales over the last ten years. Although all of the Retail and Real Estate sector employment cannot be

directly attributed to tourism activities, it is reasonable to assume that a significant portion of their jobs and revenues are related and would be detrimentally affected by a drop in seasonal visitors to the Island.

Although tourism is a major component of the local economy its employment and wage growth have been relatively modest over the last decade. Growth in this sector has not kept pace with state and national trends suggesting that a carrying capacity may have been reached for the Island's establishments and infrastructure. Employment projections remain strong in these sectors which suggests that a repositioning and/or expansion of existing facilities and activities may be needed to attract a portion of this anticipated future growth to the Island. Eating and drinking establishments may continue to have modest growth but demand for additional hotel space will probably remain marginal for the foreseeable future. Some other possibilities for growing this sector may include offering more off-season activities, attracting more business travelers, and enhancing the resort-style development that is occurring, or planned for the Melville basin area in Portsmouth. This area could support growth in both the tourism and marine trades sectors, as discussed in the following section.

2. Marine Trades

The second specialized industry cluster is the marine trades. The marine trades in Rhode Island derive from boatbuilding and boating-related businesses. These include boat-related design shops, fiberglass and plastic fabrication, woodworking, sails/canvas and metalworking manufacturers, rigging, engine repair, as well as, marina/moorage and docking services, magazines and publishing businesses, yacht brokerage houses, chartering, marine-related retail businesses, yacht and sailing instruction and support services. In short, the marine trades include all the skills involved in building, repairing, selling, servicing, transporting and using sail and power boats. A recently completed study by the state found that Rhode Island has approximately 2,300 marine-trade related businesses that account for over \$1.6 billion in sales and provide over 6,600 jobs paying nearly \$260 million in wages.¹ These marine related businesses account for over 7% of all private employers in Rhode Island and the jobs and wages they provide account for over 2% of Rhode Island's total employment and payroll. The average salary for these jobs amounts to \$39,400, well above the \$38,100 average pay for all industries in the state.

On Aquidneck Island, the marine trades are estimated to include approximately 190 businesses that employ about 1,600 workers. These figures were derived from a commercial business database that does not necessarily reflect actual labor statistics, and therefore, are considered only approximations. In fact, the actual figures are presumed to be somewhat higher since some businesses that are involved in marine trades cannot always be readily identified by their NAICS code and may have some overlap with other industry sectors (e.g. a business may produce or sell plastics that are used for boats as well as other products).

¹ *The Marine Trades in Rhode Island: A Skills Gap Analysis*, For: The Rhode Island Marine Trades Association, by Planning Decisions Inc., 2008

Table V-19 presents a more detailed perspective on the individual business components of the Island's marine trades. As illustrated, a large portion of the activity in this sector is related to the actual manufacturing of boats and their components which account for about 40% of the employment and 27% of the businesses. A significant number of components manufacturers are involved in sail production, as well as electronic components.

Business Activity	Businesses	% Total	Employees	% Total
Shipbuilding and repairing	39	20.3%	588	36.2%
Recreation & Retail	37	19.3%	274	16.9%
Boat components manufacture	13	6.8%	267	16.4%
Professional services	41	21.4%	162	10.0%
Water passenger transportation	21	10.9%	149	9.2%
Boat dealers	22	11.5%	75	4.6%
Boat components sales	9	4.7%	56	3.4%
Marinas	10	5.2%	53	3.3%
Estimated Total	192	100.0%	1,624	100.0%

Source: Dunn & Bradstreet and RKG Associates

Recreation and retail activities are a large secondary component in the cluster if joined with water passenger transportation. This latter category is predominantly composed of charter vessel companies, while the former includes diving services, membership organizations, and marine-related retail goods, to name a few. This component of the cluster represents about 25% of total employment and 30% of the businesses. It should also be noted that these businesses have a strong interrelationship and dependency with the Island's tourism cluster.

Professional services, which, as noted previously, accounts for about 10% of the Island's overall employment base, also represents about 10% of the marine-related employment. Businesses in this component include architects, engineers, lawyers, and the like, who specialize in servicing marine businesses and boat owners.

Finally, the three remaining categories shown in the table include businesses engaged in the sale of boats, their components, and their berthing/storage at local marinas. These types of businesses account for the smallest portion of the cluster from an employment standpoint. However, it should be noted that a number of the categories presented in the table are, in many instances, closely integrated in actual operation. For example, a marina may be a component of a business conglomerate that also builds and repairs boats, and which may also provide on-site, professional design services. A good illustration of this is found at the Melville boat basin in Portsmouth which has some 30 marine-related businesses that employ an estimated 430 workers. Of the total marine-related businesses on the Island which are listed in Table IV-19, 115 are in Newport, 53 are in Portsmouth, and 24 are in Middletown.

Projections prepared by the RIDL&T and Training for marine-related businesses in the state call for growth of approximately 7% over the period 2004 to 2014, a relatively moderate rate of growth. The labor force skills gap analysis cited above found that there were approximately 450 unfilled job vacancies in the state's small and mid-sized marine trades businesses as of 2007 and that those businesses planned to grow by an additional 550 to 600 jobs over the next four years. Some of this planned expansion is expected to

occur in the Melville area where on-going plans to acquire surplus Navy land, referred to as the “Backyard”, would allow for growth of existing businesses in that area. The workforce gap analysis concluded that there is an insufficient supply of adequately trained labor to satisfy the existing labor demand, a fact that could hamper future growth if education in the required trades is not accelerated. Future efforts to support this cluster could involve establishing additional training facilities, either at existing educational institutions or at a new one, and reserving adequate land in key locations, such as the Melville basin area, for long-term expansion of marine-related businesses. It could also include support for tourism activities that cross over into the marine sector, such as marina operations, charter services, and the like.

3. Defense Industry

The defense industry has been a long-standing driver of the Rhode Island economy over the last several decades and represents 3% of the total employment base. Information compiled by the Rhode Island Economic Development Commission (RIEDC) estimate that the state’s defense industry is comprised of more than 100 companies, employs more than 13,000 people and generated \$1.75 billion in revenue in 2008. Underlying these figures is a collection of highly skilled manufacturing companies such as Electric Boat and Raytheon Integrated Defense Systems and numerous software engineering firms located throughout the state and Aquidneck Island.

Figure V-6 illustrates the change in total dollar amounts awarded to defense industry contractors in Rhode Island over the last 30 years. As shown, recent contract totals since 2004 have not returned to the peak 1990 levels but have remained relatively constant above the \$400 million mark after rebounding from the substantial drop-off which occurred in the late 1990s.

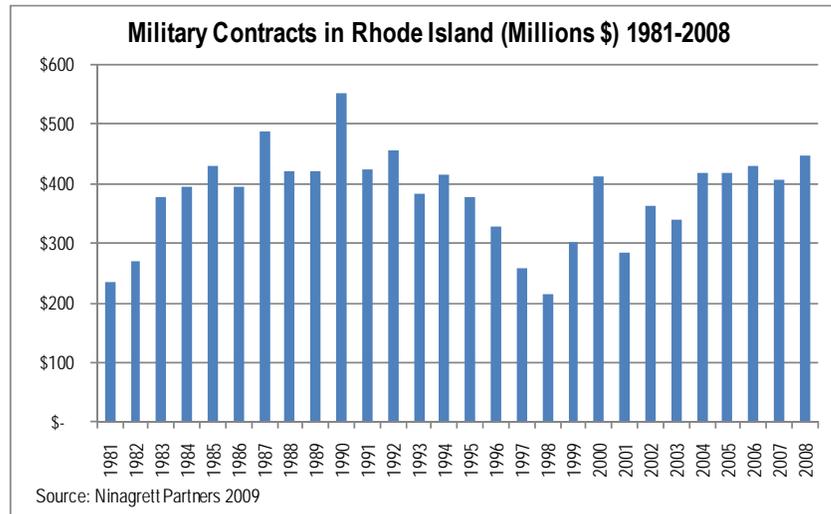


Figure V-6

The technologies that are integrated within the state’s defense industry involve a number of high-tech sectors related to computer hardware and software, communications systems, sonar technology, robotics, propulsion systems, computer simulation

technology, ship construction, and a variety of engineering and professional services. A list of the key industry sectors are presented below, many, but not all of which, are found within the Aquidneck Island's industry base.

- Research, Development ,Testing and Engineering professional services
- Computers systems and software development
- Program management and outsourced services
- Navigation equipment makers
- War game development
- Sonar and acoustics
- Submarine fabrication and outfitting
- Command and control systems development and integration
- Precision tooling
- High performance parts for aerospace applications
- Materials testing services
- Computer aided engineering software
- Language translation tools
- Security services
- Ship repairs

The Island's defense-related economic cluster centers around operations at NAVSTA and the NUWC, which includes the Naval War College and a total of 50 tenant commands and activities. These facilities reportedly engage a total of approximately 7,000 employees and train 15,000 students on an annual basis. The NUWC is involved in providing research, development, test evaluation, engineering and fleet support for submarines, autonomous underwater systems, and undersea weapon systems. The reported employment level for the NUWC in 2009 was approximately 2,400 full-time civilian employees and the equivalent of 2,900 full-time contract labor positions.

The NUWC reportedly had a funded program of \$1.03 billion in 2009. Of this total, more than \$330 million was awarded to private contractors in Rhode Island, Massachusetts and Connecticut, mostly for engineering services. Direct wages paid to civilian employees in Rhode Island was approximately \$190 million.

The presence of the NUWC and other components of this military establishment attract a well educated workforce, both on the base and at private firms located on the Island, which are engaged in contract labor that supports on-going research and development. This is evident in the fact that almost 16% of the regional labor force had Master's Degrees, Ph.D.'s or Doctorates, as compared with only 10% for the state as a whole. It is also reflected in the fact that about 2,600 residents in the area were occupied as computer and mathematical scientists as well as architects and engineers.

The Island's core sectors that comprise its defense industry cluster include the Professional, Technical and Scientific sector (NAICS 54), Computer and Electronics Manufacturing (NAICS 334), and the Information sector (NAICS) 51, where 100 selected firms have a combined total of approximately 3,800 employees. These figures represent only private sector businesses and do not include any Federal civilian employees accounted for in previously given employment figures. The Raytheon Company represents the largest anchor in this cluster with an estimated 1,600 employees. Other major companies include General Dynamics, Systems Engineering Associates (SEA), and Systems Application International Corporation (SAIC).

The 100 firms noted above represent the best estimation of businesses perceived as being directly involved in supporting defense-related activities. Conversely, there will be additional firms in these and other sectors that do support the defense cluster but which cannot be readily identified from available published information. For example, there are a total of 470 firms in the Professional/Technical Services and Information sectors alone. The fact that there is such a large agglomeration of businesses in these sectors located on the Island illustrates how the concept of clustering cuts across various industry sectors. The technology developed by these businesses have applications for not only defense and homeland security, but for the marine industry, ocean-related research, and video game technology, to name a few.

H. Establishments and Wages

Table V-20 illustrates the change in the number of private sector firms, by industry sector, between 2001 and 2009. As shown, the county experienced a net increase of just over 190

establishments during this time period, a 6% growth rate that represents an average of 24 firms each year. Overall, the average size of firms in the region was just about 10 employees as of 2009.

Strong expansion was shown in the Professional Services sector which added the largest amount of new firms at 61 and also saw the largest employment growth (561), as noted previously. The average size of these firms is relatively small with about seven employees, a factor that affects the local office market where the demand for office sizes is equally as small.

Other sectors that also experienced notable increases in establishments include Administrative Services and Waster Management (44), Real Estate (24), Construction (29), which added firms despite a net loss in employment, Finance and Insurance (14), and Management of Companies (16). The region's Leisure and Hospitality sectors (NAICS 71-72) experienced a combined,

Table V-20
Total Private Establishments 2001-2009
Newport County

NAICS	Industry	2001	2009	Change	% Change	Average Employees
	Total, All Industries	3,028	3,221	193	6.0%	9.6
11	Agriculture, Forestry, Fishing & Hunting	ND	44	ND	ND	5.1
21	Mining	ND	3	ND	ND	2.4
22	Utilities	4	4	0	0.0%	11.0
23	Construction	345	374	29	7.8%	4.1
31-33	Manufacturing	125	94	-31	-33.0%	26.6
42	Wholesale Trade	178	182	4	2.2%	3.4
44-45	Retail Trade	478	445	-33	-7.4%	9.0
48-49	Transportation & Warehousing	65	73	8	11.0%	7.5
51	Information	55	60	5	8.3%	11.0
52	Finance & Insurance	101	115	14	12.2%	7.8
53	Real Estate & Rental & Leasing	105	129	24	18.6%	4.9
54	Professional & Technical Services	352	413	61	14.8%	7.6
55	Management of Companies & Enterprises	7	23	16	69.6%	23.3
56	Administrative Support & Waste Mngmnt.	164	208	44	21.2%	5.2
61	Educational Services	42	52	10	19.2%	22.5
62	Health Care & Social Assistance	223	232	9	3.9%	18.3
71	Arts, Entertainment, & Recreation	84	97	13	13.4%	15.1
72	Accommodation & Food Services	348	350	2	0.6%	17.0
81	Other services	321	350	29	8.3%	4.7

ND - Not Disclosable
Source: BLS

moderate increase of 15 firms despite a net loss in employment. The Retail and Manufacturing sectors were the only two to experience an overall net loss in establishments during this time period losing 33 and 31 establishments respectively.

Table V-21 presents a comparison of weekly wage rates for Newport County and the state as well as total industry wages by sector for 2001 and 2009. The county's average weekly wage was \$734 which had increase by 27% over the decade slightly outpacing the state's 24% growth rate (data not shown). However, despite this increase the local wage rate still represented only 92% of the state's average. The county is competitive with the state in many of its key sectors as illustrated by those that exceed 100% although most sectors lag behind those available in the broader statewide economy. Local manufacturing firms were particularly competitive (156% of the state) indicating that, despite the loss of employment and businesses, the remaining firms have been able to increase wages more aggressively than elsewhere in the state in order to attract a quality labor force.

Table V-21

Weekly and Total Private Sector Wages 2001-2009

Newport County		Average Weekly Wage			% State	Total Wages			% Total
NAICS	Industry	2001	2009	% Change	2009	2001	2009	Change	2009
	Total, All Industries	\$ 577	\$ 734	27%	92%	\$ 926,748,000	\$ 1,181,768,922	\$ 255,020,922	100%
11	Agriculture, Forestry, Fishing & Hunting	ND	\$ 499	ND	103%	ND	\$ 5,861,457	ND	ND
21	Mining	ND	\$ 635	ND	70%	ND	\$ 240,889	ND	ND
22	Utilities	ND	\$ 1,494	ND	95%	\$ 3,832,000	\$ 3,418,317	\$ (413,683)	0.3%
23	Construction	\$ 675	\$ 840	24%	84%	\$ 60,407,000	\$ 67,373,544	\$ 6,966,544	6%
31-33	Manufacturing	\$ 1,014	\$ 1,418	40%	156%	\$ 175,925,000	\$ 183,980,861	\$ 8,055,861	16%
42	Wholesale Trade	\$ 786	\$ 1,081	38%	94%	\$ 23,837,000	\$ 34,916,658	\$ 11,079,658	3%
44-45	Retail Trade	\$ 426	\$ 519	22%	102%	\$ 94,946,000	\$ 107,736,356	\$ 12,790,356	9%
48-49	Transportation & Warehousing	ND	\$ 514	ND	75%	\$ 9,862,000	\$ 14,655,016	\$ 4,793,016	1%
51	Information	\$ 1,169	\$ 1,097	-6%	95%	\$ 38,044,000	\$ 37,748,374	\$ (295,626)	3%
52	Finance & Insurance	\$ 780	\$ 1,242	59%	95%	\$ 31,549,000	\$ 57,670,971	\$ 26,121,971	5%
53	Real Estate & Rental & Leasing	\$ 477	\$ 625	31%	90%	\$ 11,637,000	\$ 20,631,255	\$ 8,994,255	2%
54	Professional & Technical Services	\$ 970	\$ 1,270	31%	107%	\$ 130,590,000	\$ 208,083,511	\$ 77,493,511	18%
55	Management of Companies & Enterprises	\$ 840	\$ 781	-7%	44%	\$ 3,233,000	\$ 21,766,353	\$ 18,533,353	2%
56	Administrative Support & Waste Mngmnt.	\$ 543	\$ 666	23%	117%	\$ 28,826,000	\$ 37,478,099	\$ 8,652,099	3%
61	Educational Services	\$ 613	\$ 795	30%	93%	\$ 36,479,000	\$ 48,359,201	\$ 11,880,201	4%
62	Health Care & Social Assistance	\$ 495	\$ 642	30%	82%	\$ 110,325,000	\$ 141,867,897	\$ 31,542,897	12%
71	Arts, Entertainment, & Recreation	\$ 371	\$ 480	29%	107%	\$ 30,418,000	\$ 36,542,830	\$ 6,124,830	3%
72	Accommodation & Food Services	\$ 319	\$ 359	12%	117%	\$ 98,275,000	\$ 111,353,774	\$ 13,078,774	9%
81	Other services	\$ 365	\$ 488	33%	96%	\$ 30,658,000	\$ 42,083,559	\$ 11,425,559	4%

ND - Not Disclosable

Source: BLS

Total wages in the county increased by over \$255 million during this time period to a level of almost \$1.2 billion annually. Professional and Technical Services represents the largest portion of total revenues (18%), as well as the largest individual increase at \$77.4 million. A significant portion of wages in this sector are related to the Island's defense industry cluster. Manufacturing represents the second largest percentage of total regional wages with 16% but increased more modestly over the decade with the addition of just over \$8.0 million. Health Care is the third largest portion of total wages at 12% but appears to lag considerably behind the state in weekly wages at only 82% of the statewide average. This could partially explain why regional employment in this sector has also not kept pace growth in Rhode Island as a whole (i.e. -0.8% versus 41%).

I. Labor Force Characteristics

Changes in the labor force and unemployment rates between 1990 and 2010 for the study area, county, and state are presented in Table V-22 and Figure V-7. Over this 20-year time period, unemployment rates dipped from levels exceeding 8% in the early 1990s to rates that remained fairly consistent at 4%-5% for much of the current decade (2000-10). During this more recent period, study area and county rates were fairly comparable and slightly lower than the state's. In 2007, rates began to climb again in response to the national economic downturn and have exceeded those experienced during the recession of the early 1990s, reaching levels around 10% for the study area and county in July, 2010. The local rate continued to remain lower than the state's as of that time and showed some signs of leveling off.

The region’s civilian labor force has also fluctuated in response to changing economic conditions, as illustrated in Figure V-7. Total labor peaked around 31,000 in the study area and 45,000 for the county.

The study area’s current labor force of 30,180 accounts for approximately 68% of the total available county-wide, indicating that other portions of Newport County provide an additional 14,000 workers that potentially help to support businesses on Aquidneck Island². This conclusion is further illustrated by the fact that there are approximately 34,100 jobs (probably over 40,000 including part-time positions) on the Island, creating a demand that exceeds the local supply of available labor. Furthermore, the study area’s labor force increased more slowly than the county’s during the 1990s and decreased at a faster rate over the most recent decade, as shown in the table. These trends indicate that study area businesses are dependent on external labor, a factor that will affect the potential for further growth or diversification of the job base.

This dependency on regional labor is further illustrated by commuting patterns from the 2000 Census which are presented in Table V-23. Of the approximate 36,600 workers who indicated they commuted to work on Aquidneck Island, only 67% resided in either Middletown, Newport, or Portsmouth. The remaining 33% came predominantly from other

Figure V-7

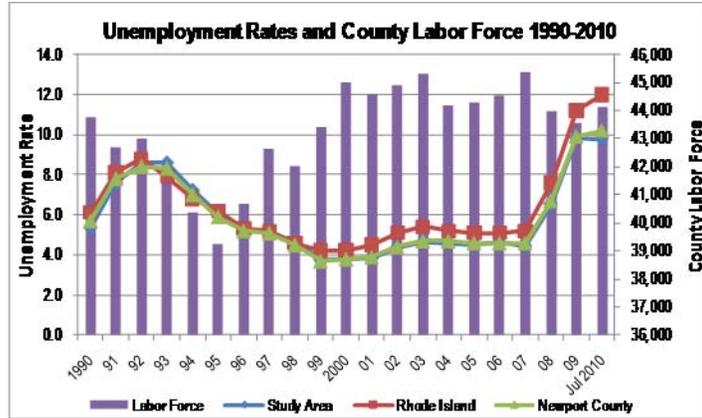


Table V-22

		Civilian Labor Force and Unemployment Rate 1990 - 2010			Change		% Change	
		1990	2000	Jul-10	90-00	00-10	90-00	00-10
Middletown	Labor Force	8,347	8,507	8,162	160	-345	1.9%	-4.1%
	Rate	5.4	3.7	9.5	-2	6	-31%	157%
Newport	Labor Force	14,024	13,679	12,573	-345	-1,106	-2.5%	-8.1%
	Rate	5.5	4.1	9.8	-1	6	-25%	139%
Portsmouth	Labor Force	8,876	9,212	9,449	336	237	3.8%	2.6%
	Rate	5.1	3.4	10.0	-2	7	-33%	194%
Study Area	Labor Force	31,247	31,398	30,184	151	-1,214	0.5%	-3.9%
	Rate	5.4	3.8	9.8	-2	6	-30%	159%
Newport County	Labor Force	43,776	44,980	44,134	1,204	-846	2.8%	-1.9%
	Rate	5.7	3.8	10.2	-2	6	-33%	168%
Rhode Island	Labor Force	525,851	543,404	579,053	17,553	35,649	3.3%	6.6%
	Rate	6.1	4.2	12.0	-2	8	-31%	186%

Source: RIDL&T

Table V-23

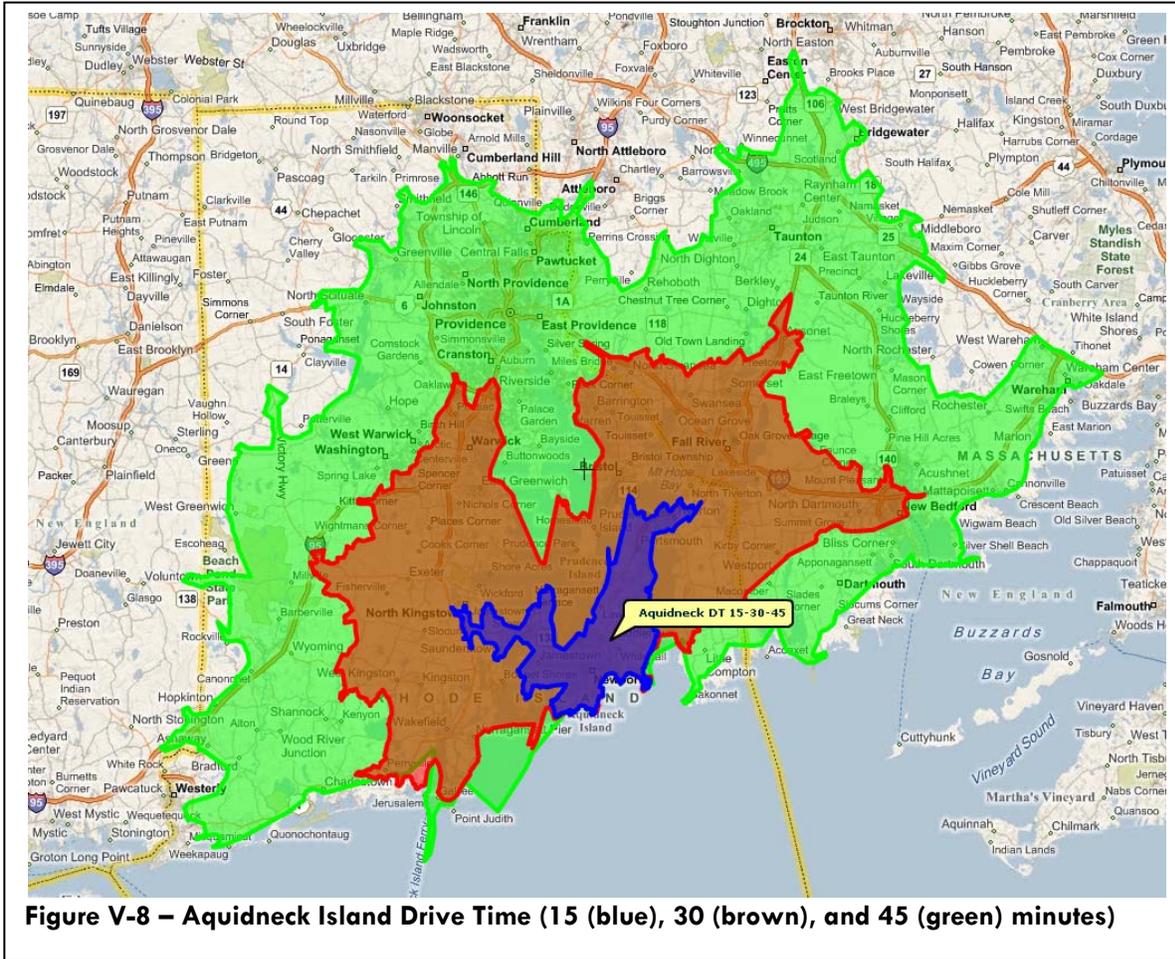
Study Area Commuting Patterns - 2000

Commuters to Aquidneck Island			Commuters from Aquidneck Island		
Origin	Total	% Total	Destination	Total	% Total
Bristol County	1,731	4.7%	Bristol County	610	1.9%
Kent County	900	2.5%	Kent County	484	1.5%
Aquidneck Island	24,399	66.7%	Aquidneck Island	24,399	77.9%
Other Newport County	2,464	6.7%	Other Newport County	632	2.0%
Providence County	1,342	3.7%	Providence County	1,976	6.3%
Washington County	1,942	5.3%	Washington County	669	2.1%
Subtotal Rhode Island	32,778	89.6%	Subtotal Rhode Island	28,770	91.9%
Bristol County, MA	2,389	6.5%	Bristol County, MA	1,161	3.7%
Other Massachusetts	425	1.2%	Other Massachusetts	797	2.5%
Connecticut	622	1.7%	Connecticut	162	0.5%
Other States	383	1.0%	Other States	432	1.4%
Total	36,597	100.0%	Total	31,322	100.0%

Source: US Census

² The remaining towns in Newport County include Tiverton, Little Compton, and Jamestown.

towns in Newport County (6.7%), Bristol County, MA, especially from the Fall River area (6.5%), from Washington County (5.3%) to the east, and from Bristol County (4.7%) and Providence County (3.7%) to the north. This data indicates that an estimated 75% of the Island’s workforce is drawn from within a 30-minute drive-time radius, as illustrated by the brown area in Figure V-8.



In comparison, the right side of **Error! Reference source not found.**²³ shows that of Aquidneck Island residents who commuted to work, almost 78% reported that they worked at locations on the Island. Conversely, about 22% of the study area labor force, approximately 6,900 workers, were drawn off the Island for purposes of employment. This net outflow of labor represents an opportunity to expand the local job base if appropriate employment opportunities can be created to retain these workers.

The second largest commuting destination for Island residents was the Providence County which attracted 6.3% of the Island’s labor force. In contrast, the Providence area provided only 3.7% of the Island’s workforce indicating that there is a net labor loss for the study area between the two destinations.

The occupational characteristics of the county labor force, based on 2006-08 estimates from the American Community Survey (ACS) compiled by the U.S. Census Bureau, are presented in Table V-24. As shown, the largest portion of the county’s labor force (28%) is employed in Professional and related occupations with concentrations in computers, architecture and engineering, education, health care, and creative positions. This percentage, combined with an additional 15% in management and financial positions, indicates that a significant portion of the area’s workforce is well educated and would appear to be well suited to support the professional and business industry sectors that play a large role in the islands economy, as discussed previously in this report.

This fact is further supported by the education attainment levels for study area communities illustrated in Table V-25. As shown, the region has a relatively well educated populace in comparison to the state as a whole. Over 40% of area residents have college degrees versus only 26% of state residents. The study area exceeded the state in both undergraduate and post-undergraduate degrees. However, the study area as a whole tended to have a slightly lower

percentage of Associate degree recipients, a figure that is likely to increase given the relatively new Community College of Rhode Island campus in Newport.

The second largest concentration of labor force occupations are found in sales and office positions which accounted for 24% of the total. These were fairly evenly distributed between sales and office-related positions and are a reflection of the study area’s job base in the real estate and financial sectors, as well as support positions for other sectors.

Table V-24

Occupations of Newport County Labor Force - 2008		
Civilian Labor Force 16 Years and Older		
Occupations	Estimated Resident	
	Labor Force	% Total
Management, business, and financial	6,249	15.4%
Management occupations	4,425	10.9%
Business and financial operations occupations	1,824	4.5%
Professional and related	11,356	28.0%
Computer and mathematical science occupations	1,342	3.3%
Architecture and engineering occupations	1,279	3.1%
Life, physical, and social science occupations	503	1.2%
Community and social services occupations	527	1.3%
Legal occupations	635	1.6%
Education, training, and library occupations	3,121	7.7%
Arts, design, entertainment, sports, and media occupations	1,526	3.8%
Healthcare practitioners and technical occupations	2,423	6.0%
Service	6,915	17.0%
Healthcare support occupations	862	2.1%
Protective service occupations	917	2.3%
Food preparation and serving related occupations	2,317	5.7%
Building and grounds cleaning and maintenance occupation:	1,576	3.9%
Personal care and service occupations	1,243	3.1%
Sales and office	9,772	24.1%
Sales and related occupations	4,538	11.2%
Office and administrative support occupations	5,234	12.9%
Farming, fishing, and forestry occupations	78	0.2%
Construction, extraction, maintenance, and repair	3,534	8.7%
Construction and extraction occupations	2,407	5.9%
Installation, maintenance, and repair occupations	1,127	2.8%
Production, transportation, and material moving	2,710	6.7%
Production occupations	1,376	3.4%
Transportation and material moving occupations	1,334	3.3%
Total	40,614	100.0%
Source: US Census Bureau American Community Survey 2006-08		

Table V-25

Population Age 25+ by Educational Attainment - 2000					
	Middletown	Newport	Portsmouth	Study Area	Rhode Island
Not Graduated High School	9.5%	12.9%	9.1%	10.8%	22.0%
High School Graduate	25.7%	21.4%	23.6%	23.3%	27.8%
Some College, No Degree	19.4%	18.7%	17.7%	18.6%	17.6%
Associate Degree	7.2%	5.5%	6.7%	6.3%	7.0%
Bachelor's Degree	22.6%	26.3%	25.9%	25.1%	15.9%
Master's/Professional/Doctoral	15.6%	15.1%	17.0%	15.8%	9.7%
Source: US Census					

Service occupations represented 17% of the positions held by area residents within the study area. The majority of these were related to leisure and hospitality sectors, as well as the health care industry. Construction and related occupations account for 8.7% of the jobs (3,500) held by local residents, a figure that exceeds the reported covered employment in this sector illustrating the part-time and seasonal nature of these jobs. Production and transportation occupations comprise the smallest component of local occupations at 6.7%.

J. Economic Diversification Strategy

As noted in the preceding section, as well as in other previously completed economic analyses that have focused on Aquidneck Island, the study area's employment base is largely concentrated in several key industry sectors. These include the defense industry, marine trades, and tourism/retail clusters. This type of economic structure has both advantages and disadvantages. The advantages center around the competitive strength that clustered businesses achieve from locating in proximity to similar businesses. This allows for an exchange of technology and information, can help to attract a qualified employment pool, and may serve to reduce costs for materials and other types of business transactions. For Aquidneck Island, its dependence on the defense industry sector in particular is also an advantage since these types of jobs generally offer higher wages that provide a substantial financial base for the local economy. The presence of jobs in this sector also means that the study area tends to have a better educated workforce than other locations in the state. Similarly, the Island's successful tourism economy is a reflection of its abundant natural resources that have a positive effect on the overall quality of life which also influences the entire economy in various ways. These natural resources also serve to support the marine trades cluster which is also interrelated with the tourism sectors.

The disadvantages that center around this type of narrowly clustered economy are largely related to the potential for declines in these sectors, either suddenly or over a prolonged period, that could result in substantial job and financial losses. The defense industry is susceptible to such shifts given the contract-driven nature of related civilian jobs and the ongoing restructuring that has been steadily occurring within the country's military operations. In addition, the tourism and retail sectors tend to have lower paying wages with more part-time jobs that can result in financial pressures for households tied to this cluster. This is particularly true for the study area where housing costs are pushed higher by demand for second homes and seasonal rentals.

Another issue for the study area is its stagnant population and labor force growth which will make it more challenging to attract new industry. Because of this factor, maintaining competitive wage rates will be all the more important. It also suggests that small business development may be the most feasible approach to economic diversification since it would allow the workforce to be increased more slowly as these businesses grow and expand.

In light of these conditions, it will be important for the study area communities to both support the existing industry sectors while also working to add more diversity to the local economic base. Encouraging such diversity can be achieved through two primary approaches. One would be to build upon labor skills and technology found in existing businesses to attract other types of industries that employ similar or related skills and

technology. The second is attempt to attract some “non-traditional” industries to the area that are not already present, or only marginally so, which are emerging and/or expanding. It is considered likely that the former method would offer the greatest opportunity for success on Aquidneck Island and therefore, is the primary focus of this analysis.

Other important factors that must be considered in this diversification strategy, as well as any economic development planning, are the provision of workforce training and education, maintaining well functioning transportation and infrastructure systems, the availability of workforce housing, protecting the Island’s quality of life, providing a good business climate, ensuring that there is an adequate supply of suitably zone land, and development regulations and a regulatory review process that do not adversely affect economic development efforts.

1. Target Industry Development

The identification of potential industry sectors that could be targeted as part of the Island’s economic diversification strategy considered four primary factors that are outlined below.

- **Identification of Regional Industry Clusters** – The first step in the target process involved an analysis of existing regional industry clusters. The industry cluster analysis identified industries that are prominent within the region and hold some regional competitive advantages due to their clustering. These findings were discussed previously in this chapter.
- **Positive Market Growth Trends and Projections** – The second level of screening identified industry groups that were either growing or reasonably stable in terms of recent trends in employment or output, positive or stable short-term economic outlook (1 to 5 years), and higher location quotients.
- **Regional Wage Competitiveness** – The wage rate comparison reveals those industries that will offer a better compensation for workers. When selecting target industries, it is important to investigate the income and benefits impact an industry will present to local residents to ensure that the locality is maximizing the earning potential of the labor force.
- **Compatible Presence and Fit in the Region** – Market compatibility is important for an industry group to succeed, especially if that industry improves output performance with clustering. If there is no existing presence of an industry, then businesses related to that industry would not be able to capitalize on cluster benefits. In addition, the Aquidneck Island region would not benefit from the addition of an industry if that industry upsets the market balance or adversely impacts the residents and natural resources.

Based on these factors, it is recommended that the diversification strategy focus its primary target industry development on several technology sectors, as well as some specialty materials manufacturing, as listed below. Other key components of the diversification strategy are also summarized here.

- Target Industry Sectors/Clusters
 - Computer and information technologies (software and hardware)
 - Electronics
 - Telecommunications
 - Homeland security
 - Undersea/ocean research technology (non-military)
 - Advanced Manufacturing
 - Composite materials manufacturing
 - Machine manufacturing
 - Renewable energy/“smart” green technology
- Establish coordinated regional marketing strategy and solicit support from existing businesses, educational institutions and the state to further diversification efforts
- Small business recruitment and development
 - Technology/Information transfer
 - Business incubator/accelerator
 - Mentorship/Ambassador program
- Provide adequate vocational and post-secondary training for targets
- Maintain/promote competitive wage structure
- Provide adequate supply of suitably zoned land supported by infrastructure

a) Target Industry Sectors

Much of the detail about the target industries is reflected in the employment and industry analysis presented earlier in this report. However, a review of the more detailed three-digit NAICS codes, for existing industries in the region, as well as a regional business database, reveals particular strengths in the following subsectors.

- NAICS 334 – Computer and electronic manufacturing
 - Communications equipment
 - Magnetic and optical devices
 - Circuit boards
 - Navigation equipment
 - Security equipment
 - Electronic testing and measuring instruments
 - Precision machinery manufacturing
- NAICS 314 and 336 – Transportation equipment manufacturing and Textile product mills
 - Ship building and repair
 - Sail manufacturing
- NAICS 517 – Telecommunications
- NAICS 541 – Professional and Technical Services
 - Computer programming and other services
 - Information Technology
 - Engineering Services

The concentration of firms and employees in these sectors attest to the Island’s prominent defense sector as well as the strong presence of the shipbuilding industry. Furthermore,

these sectors have an existing or potential interrelationship with one another through similar technologies that support their operations (for example, both use navigation, communication, remote sensing systems, as well as high-tech manufacturing). Although some of these subsectors have declined in employment over the past decade, their higher Location Quotients and combined, total jobs levels, present technology and manufacturing sectors that offer good opportunities for future economic diversification within the region (see Table V-26). These firms represent a workforce and knowledge base that can be readily transferred to numerous other non-defense sector businesses, and also serve to support further expansion of the maritime sector. The computer information services and manufacturing are readily transferrable to other non-defense applications such as gaming simulation, as well as “smart technology” for the green and renewable energy sectors. Similarly, composite materials manufacturing can be employed in renewable energies for making products such as wind turbines.

2. Adopt a Regional Diversification Strategy

The most important goal of this strategy may provide the greatest challenge to implement. However, the adoption and implementation of an economic diversification strategy needs to be done at the region level, and not by the individual communities on the Island. The foundation for all successful economic development and economic diversification strategies is having all stakeholders that influence business recruitment and retention be well organized and coordinated. Business attraction is an ultra-competitive field where every community, region and state is vying for the same companies. When incentive packages become very close, in terms of net benefit to the company, decision makers are forced to rely more on intangible assets than financial considerations. In these cases, one of these assets often noted by companies in selecting a location is the “consistency in message and enthusiasm” of all of the stakeholders from that community. There is great value in having a coordinated, consistent message throughout the Aquidneck Island and Newport County area in regards to economic diversification, where all the key stakeholders are involved and supportive of recruitment activities. Providing that “unified front” to a prospect gives confidence that any issues that may arise during construction or operation will be met with equal interest and diligence regardless of which stakeholder is involved.

In tandem with this regional diversification strategy, consideration should be given to consolidating economic development activity into a single entity, as opposed to the current method where each community acts independently. To maximize the effectiveness of implementing a business recruitment and retention strategy, there should be a single, non-governmental entity that acts as the clearinghouse for information that provides the marketing “face” of the region and coordinates the other key stakeholders to make the recruitment process seamless and consistent. The regional entity should be the recruitment and retention of businesses that bring primary jobs and/or have a regional impact

a) Target Industry Marketing Campaign

The target industry marketing campaign involves three basic steps: [1] target identification, [2] target communication, and [3] recruitment. Each step builds on the success of the previous step. However, the steps should be repeated on a regular basis as new companies locate into the region, leadership within companies change and the local, regional and national markets consistently shift.

Table V-26

Total Private Employment and Location Quotient 2001-2009 (LQ with Rhode Island)

Three-digit NAICS Level

Newport County

Industry	Employment				Location Quotient			
	2001	2009	Change	% Change	2001	2009	Change	% Change
114 Fishing, hunting and trapping	47	32	-15	-31.9%	7.6	6.69	-0.9	-12.0%
115 Agriculture and forestry support activities	20	ND	ND	ND	4.68	ND	ND	ND
221 Utilities	ND	43	ND	ND	ND	0.48	ND	ND
236 Construction of buildings	708	636	-72	-10.2%	1.98	1.96	0.0	-1.0%
237 Heavy and civil engineering construction	252	ND	ND	ND	1.81	ND	ND	ND
238 Specialty trade contractors	762	790	28	3.7%	0.81	0.87	0.1	7.4%
311 Food manufacturing	ND	70	ND	ND	ND	0.3	ND	ND
312 Beverage and tobacco product manufacturing	46	ND	ND	ND	0.87	ND	ND	ND
314 Textile product mills	189	138	-51	-27.0%	1.98	3.42	1.4	72.7%
321 Wood product manufacturing	ND	32	ND	ND	ND	0.67	ND	ND
323 Printing and related support activities	47	24	-23	-48.9%	0.21	0.19	0.0	-9.5%
327 Nonmetallic mineral product manufacturing	40	14	-26	-65.0%	0.56	0.31	-0.3	-44.6%
332 Fabricated metal product manufacturing	31	ND	ND	ND	0.04	ND	ND	ND
333 Machinery manufacturing	34	21	-13	-38.2%	0.14	0.15	0.0	7.1%
334 Computer and electronic product manufacturing	1,847	1,735	-112	-6.1%	4.02	5.65	1.6	40.5%
336 Transportation equipment manufacturing	609	328	-281	-46.1%	2.26	1.26	-1.0	-44.2%
337 Furniture and related product manufacturing	37	ND	ND	ND	0.26	ND	ND	ND
339 Miscellaneous manufacturing	233	ND	ND	ND	0.23	ND	ND	ND
423 Merchant wholesalers, durable goods	212	236	24	11.3%	0.31	0.36	0.1	16.1%
424 Merchant wholesalers, nondurable goods	300	219	-81	-27.0%	0.76	0.59	-0.2	-22.4%
425 Electronic markets and agents and brokers	71	166	95	133.8%	0.45	0.63	0.2	40.0%
441 Motor vehicle and parts dealers	661	569	-92	-13.9%	1.51	1.44	-0.1	-4.6%
442 Furniture and home furnishings stores	101	99	-2	-2.0%	0.87	1.07	0.2	23.0%
443 Electronics and appliance stores	69	115	46	66.7%	0.66	1.38	0.7	109.1%
444 Building material and garden supply stores	261	362	101	38.7%	1.2	1.29	0.1	7.5%
445 Food and beverage stores	795	972	177	22.3%	1.13	1.03	-0.1	-8.8%
446 Health and personal care stores	313	293	-20	-6.4%	0.72	0.65	-0.1	-9.7%
447 Gasoline stations	144	114	-30	-20.8%	0.96	0.78	-0.2	-18.8%
448 Clothing and clothing accessories stores	397	467	70	17.6%	0.98	1.25	0.3	27.6%
451 Sporting goods, hobby, book and music stores	232	223	-9	-3.9%	1.42	1.72	0.3	21.1%
452 General merchandise stores	630	278	-352	-55.9%	0.77	0.53	-0.2	-31.2%
453 Miscellaneous store retailers	431	338	-93	-21.6%	1.76	1.64	-0.1	-6.8%
454 Nonstore retailers	256	162	-94	-36.7%	1.67	1.24	-0.4	-25.7%
484 Truck transportation	ND	17	ND	ND	ND	0.11	ND	ND
485 Transit and ground passenger transportation	186	273	87	46.8%	1.22	1.4	0.2	14.8%
487 Scenic and sightseeing transportation	206	166	-40	-19.4%	8.82	9.34	0.5	5.9%
488 Support activities for transportation	50	68	18	36.0%	0.77	0.83	0.1	7.8%
511 Publishing industries, except Internet	341	288	-53	-15.5%	1.27	1.6	0.3	26.0%
512 Motion picture and sound recording industries	46	ND	ND	ND	1.07	ND	ND	ND
517 Telecommunications	124	241	117	94.4%	0.53	0.96	0.4	81.1%
518 Data processing, hosting and related services	ND	31	ND	ND	ND	0.14	ND	ND
519 Other information services	68	83	15	22.1%	1.52	1.94	0.4	27.6%
522 Credit intermediation and related activities	609	641	32	5.3%	0.68	0.76	0.1	11.8%
524 Insurance carriers and related activities	122	167	45	36.9%	0.18	0.23	0.1	27.8%
531 Real estate	275	490	215	78.2%	0.9	1.44	0.5	60.0%
532 Rental and leasing services	194	ND	ND	ND	1.14	ND	ND	ND
541 Professional and Technical Services	2,590	3,151	561	21.7%	1.79	1.87	0.1	4.5%
551 Management of companies and enterprises	74	535	461	623.0%	0.15	0.73	0.6	386.7%
561 Administrative and support services	743	895	152	20.5%	0.42	0.54	0.1	28.6%
562 Waste management and remediation services	278	188	-90	-32.4%	2.99	1.58	-1.4	-47.2%
611 Educational services	1,144	1,170	26	2.3%	0.99	0.77	-0.2	-22.2%
621 Ambulatory health care services	ND	1,153	ND	ND	ND	0.62	ND	ND
623 Nursing and residential care facilities	1,201	1,375	174	14.5%	0.94	0.95	0.0	1.1%
624 Social assistance	1,144	ND	ND	ND	1.61	ND	ND	ND
713 Amusements, gambling, and recreation	980	917	-63	-6.4%	2.53	2.03	-0.5	-19.8%
721 Accommodation	1,741	1,410	-331	-19.0%	5.33	4.57	-0.8	-14.3%
722 Food services and drinking places	4,178	4,552	374	9.0%	1.55	1.52	0.0	-1.9%
811 Repair and maintenance	357	235	-122	-34.2%	1.13	0.8	-0.3	-29.2%
812 Personal and laundry services	501	374	-127	-25.3%	1.32	0.9	-0.4	-31.8%
813 Membership associations and organizations	590	826	236	40.0%	1.02	1.38	0.4	35.3%
814 Private households	166	225	59	35.5%	4.12	2.05	-2.1	-50.2%

SOURCE: Bureau of Labor Statistics

Target Identification – Target identification involves developing, maintaining and expanding a list of businesses within the identified industry clusters to actively contact and recruit. It is recommended that the regional economic development entity utilize the following methods to identify potential leads for recruitment. Employ a business database company, such as Dun and Bradstreet, to collect contact information for all businesses within the targeted industries. These data vendors allow a client to input detailed screening criteria to ensure the resulting list best meets the client’s needs. In addition, the development entity should work with industry leaders in the community to gather information on companies they do business with, whether as clients or dealers. This list is most valuable, as these businesses already have some understanding of the region and have contact in the community.

Target Communication – Target communication includes all interaction between the key stakeholders in economic development and the prospects, from initial contacts and follow-ups to face-to-face meetings. The communication process should be initialized through a direct mailing campaign, using the target list developed in the proceeding step. The mailing should include information about the community, a target industry specific brochure and other pertinent documentation. The initial mailing should be followed up with a direct phone call within two to three weeks. This phone call should be made by either regional economic development entity staff or an existing industry leader. If this is a referral, then the person making the referral should be involved early in the process.

Recruitment - Communication beyond the initial phase of contact needs to be tailored based on the response of the prospect. The recruitment process may require several mailings and phone calls, meetings at professional trade shows and/or multiple attempts through the initial communication process. The ultimate goal should be to get the prospect to visit the community either on a one-on-one basis or as part of a recruitment/networking visit. Regardless of the timeline, continued contact is important in developing a rapport with the prospect. It is important to note that the person/persons in charge of working with a prospect should be consistent throughout the process, whenever possible.

b) Target Industry Marketing Materials

Marketing materials related to promoting economic development within the region already exist but will need to be updated and revised to present the diversification efforts. Consistently updating these materials, particularly those related to projects currently under development, is important because these materials not only promote new development in the region, but also provide a status of success for new growth. The regional economic development entity will need to create industry-specific marketing materials for each of the target industries.

c) Industry Roundtables

An industry “roundtable” should be created for the target industry group(s) within the region to participate in programs and services offered by the regional economic development entity. These roundtables should consist of representatives from the specific industry group, members of the economic development entity staff and other representatives from the various regional governments, as necessary. The group should meet on a regular basis (typically quarterly) to discuss issues related to the ability to do business on Aquidneck Island and be used to disseminate information about current projects and programs being developed and/or revamped, including how these changes will impact these businesses. This forum allows local businesses to participate in the

economic development process and be informed of current events while providing feedback on additional efforts that may be undertaken.

3. Small Business Recruitment and Development

As noted previously, small business development and growth is considered to be one of the best methods for diversifying the economic base on Aquidneck Island for several reasons. The Island's existing base is very largely comprised of small businesses and its inventory of commercial and industrial building space caters to this fact. Furthermore, businesses on the Island have been categorized as being very much entrepreneurial in nature which is an asset that would play well with the technology focus of the proposed diversification strategy. And finally, small business development would require less dependence on a large and growing labor force, which is not a historic strength of the region, and are likely to require smaller public investment in infrastructure. Some specific actions that should be considered to support this aspect of the diversification strategy are noted below.

a) Technology and Information Transfer

A key to the successful diversification strategy will be to foster an exchange of information and knowledge between existing business clusters and newly recruited, or "home grown" businesses. A means to foster such an exchange would be through the establishment of technology transfer center making use of the RI Economic Development Corporation's (REIDC) Business Innovation Factory (BIF). The BIF provides resources that are designed to assist existing businesses with new ventures, facilitate local industry partnerships, encourage entrepreneurship, and generally assist in an overall effort to diversify the focus of the existing business base. This initiative would play a major role in seeking cross-over opportunities from existing cluster industries to proposed target industries.

b) Ambassador Program

The ambassador program would function as a subcommittee within the industry roundtable. The ambassador group simply is a collection of business and industry leaders within a particular industry that is active in the marketing and recruitment of new businesses to the Island. Although they likely will have no formal authority within the recruitment process, they provide a "real life" vantage point about doing business in the area for prospects. Utilizing business leaders in the recruitment process legitimizes the recruitment effort through testimonials while leveraging the staff's time and effort.

c) Mentorship Program

A program can be developed to provide assistance in cultivating home-grown talent as well as recruiting talent from outside the region. In general, a mentorship program pairs an existing industry leader with a person interested in opening a business in that industry. These programs provide local entrepreneurs access to someone who has "been there" within their industry, adding confidence in the advice and direction provided. Having a local mentor also provides stability, as the relationship created can carry forward after the program has served its purpose. The mentor typically provides advice on creating a business plan, assistance in making contacts within the industry and technical and professional guidance, where appropriate.

4. Education and Workforce Training

Along with the target industry and marketing plan outlined above, the region's diversification strategy should also have an education and workforce training component. Although part of the proposed economic diversification will rely on the existing high-tech labor force, it will be equally important to expand this potential labor pool by providing appropriate educational opportunities for high school and college-aged students in the region, as well as retraining options for other residents who may be underemployed or seeking new employment opportunities.

There are presently a number of post-secondary educational institutions and vocational training centers both on Aquidneck Island or in close proximity. These include:

- Salve Regina University, Newport, RI
- Roger Williams University, Bristol, RI
- Community College of Rhode Island (CCRI), Newport, RI
- The International Yacht Restoration School (IYRS), Bristol and Newport, RI
- URI Center of Excellence in Undersea Technology (COEUT), Narragansett, RI
- New England Institute of Technology (NEIT), Warwick, RI
- Motoring Technical Training Institute (MTTI), Fall River, MA

These institutions offer not only training and education but also represent a marketing tool for attracting new employees, as well as the potential for creating business-to-education collaborative that can foster research and help bring new products to market. In addition, the State of Rhode Island and other quasi-governmental entities also offer career and targeted training programs that can be used by residents and businesses within the study area to broaden or expand workforce skills for existing or new employees.

Some of the institutions listed above offer two-year, four-year and advanced degrees in fields of study that are well-tailored to the objectives identified in this target industry diversification strategy. Others provide specialized technical and vocational training that is equally supportive of those objectives. A preliminary review of their coursework and training programs indicates that they provide a focus that is generally complimentary to the goals outlined in this plan. For example, the URI Center of Excellence is pursuing the following mission statement.

“The COEUT will perform both basic and applied research focused on the design, development, testing, and implementation of a wide variety of undersea technologies that support both military and civilian applications. Research areas will include distributed network systems for ocean and sea floor monitoring, ocean sensors and instrumentation, distributed sensor systems, autonomous and remotely operated underwater vehicles, and underwater communication, detection, and classification systems, among others. The center will also foster the education and development of the next generation of undersea technology engineers and scientists.”

Conversely, in a recently completed Workforce Commission³ study of the state's community college system, it was concluded that CCRI must increase enrollments in new areas of study, graduate more students with certificates and degrees in areas of industry demand, and offer more opportunities for students to gain work experience. It must also address the repeated call from employers for entry-level workers with soft skills. These include communicating in a professional manner and providing customer service. Finally, the Commission found that CCRI lacks the resources and flexibility demanded by employers competing in a global market – shortcomings that severely hamper the college's ability to expand its partnerships with employers, industry, and other state and educational institutions. This indicates that while the Island's community college campus represents a positive component for its overall economic development tools, more will need to be done to provide a specific focus on the objectives identified in the target industry strategy.

Ultimately, preparation of the Regional Diversification Strategy outlined in Section 2 above, will need to more specifically examine the offerings at each of these institutions to identify their strengths as they pertain to the region's goals, as well as any gaps that need to be filled to support the growth in the targeted industry sectors, as well as in existing business clusters.

³ *Community College of Rhode Island: building a 21st century workforce*, CCRI 21st Century Workforce Commission Report & Recommendations, April 2010

VI. HOUSING MARKET ANALYSIS

A. Introduction

This report provides an analysis of recent historical trends in the Aquidneck Island housing market with a particular focus on sales and costs. The first section presents a comparative overview of construction and pricing trends for the Island's three communities between 2000 - 2010. This is followed by a more detailed submarket analyses for Portsmouth, Middletown, and Newport over the same time period. The report concludes with an overview of the rental housing market and an estimate of current affordability levels based on pricing and incomes in the study area. It should be noted that some of the findings in this chapter are based on demographic and housing data presented in Chapter V.

B. Summary of Major Findings

A summary of the major findings and conclusions related to the Island's housing market are presented below.

- Aquidneck Island's population has been declining over the last 20 years (1990-2010) with respective population losses of 3,580 and 4,430 for each of these two decades. Since 2000, a majority of the estimated population loss has occurred in Newport (-2,793) with more moderate decreases in Middletown (-1,025) and Portsmouth (-617). Projections prepared by the state forecast population growth of 4,500 over the next ten years (2000-2010) for all three towns but these projections may not be achieved in light of current economic conditions.
- Average household size has also continued to shrink over the last decade from 2.5 to 2.3 persons per household for the study area as a whole. Estimates for 2010 suggest that even the *total* number of households on the Island may have *decreased* over the last decade (2000-10) by as much as 1,500.
- Island communities absorbed a combined average of 125 housing units per year over the course of the decade, 1,250 units in total. However, total building permits issued declined from a high of 165 per year in 2000 to a low of 61 in 2009, for all three towns combined. The vast majority of permitted housing was single family homes (81%) with very few multifamily projects added during this time period.
- If population projections for the next decade are realized, it could represent the addition of 1,000 – 1,500 housing units on the Island, depending on future trends in vacancy rates and household size. It is likely to be at least several years before construction trends begin to approach levels achieved during the earlier portion of the past decade.
- Vacancy rates for year-round housing were quite low as of 2000 with a 3.6% overall rate for the Island as a whole and 3% for Newport County. Census estimates for 2008 suggest a softening in the housing market with a 6%-7% vacancy rate for the county.

While the vacancy rate in the rental market has also eased somewhat over the decade it still remains relatively tight at an estimated 2%-3%.

- Sale prices of single family homes increased by 15%-20% annually on the Island between 2000 and 2007 with median prices peaking in the \$350,000-\$450,000 range. This rapid rise in values was followed by several years of decline averaging about 6.5% annually through 2009. Based on median pricing for the first three quarters of 2010, home sale prices on the Island may have reached their low point posting one-year gains of 1% to 3.5%, depending on the community.
- The number of single family homes sales over the decade experienced a similar rise and fall scenario. As of 2000, the number of units sold annually ranged between 175 and 275 in each community with Newport and Portsmouth having the most activity. By 2010, the number of sales for each town had dropped to approximately 75.
- The condominium market experienced similar trends over the decade but was subject to more volatility in pricing. Newport's condominium market had over three times as many sales (175) as Portsmouth and Middletown in 2000 but had declined to about 60 sales as of 2010. Sales in Portsmouth and Middletown seldom exceeded 50 throughout the decade illustrating the more minor role this housing represents in those two submarkets. Median condominium prices tend to be higher in these two towns but the average price per square foot is higher in Newport at \$280, versus \$116 in Portsmouth and \$109 in Middletown, with units also tending to be smaller in size in Newport.
- The sale of single family homes purchased for seasonal use or as investment properties have remained a consistent component of the Island's housing market over the decade averaging 16% of total sales in Middletown, 22% in Portsmouth, and 25% in Newport. In Newport, the percentage of condominium sales for seasonal/investment purposes averaged over 40% illustrating the higher demand in this portion of the market.
- The number of high-end home sales also rose and fell in unison with the overall market trends. During peak sale years earlier in the decade, home sales exceeding one million dollars numbered between 20-30 per year for the Island as a whole with sale prices regularly observed in the \$3-\$5 million range. By the end of the decade, the number of sales of high-end homes had been reduced by about half with prices typically in the \$1.5-\$2.5 million range.
- The number of land sales of residential property over the last several years were relatively limited with almost no sales of any sizeable acreage. Most of the qualified lot sales were less than three acres with an average price per acre of \$1.3 to \$2.5 million. The higher end of this range is generally reflective of value premiums related to water-view properties.
- In the Island's rental market, lease rates have increased by an estimated 50% over the decade. In contrast, rates had increased by only 11% over the previous decade (1990-2000). The average lease rate (including utilities) for a two-bedroom unit on the Island was \$1,311 with prices in Newport (\$1,424) typically higher than those in Portsmouth (\$1,219) and Middletown (\$1,095).

- Single family homes and condominiums play a large role in the Island’s rental market with over 30% of rental units represented by these housing types as of 2000. Given the lack of multifamily construction over the decade, pressure will continue to be placed on this component of the housing stock to support rental demand.
- The increase in housing costs in the study area have outpaced income growth over the decade, as exemplified by housing costs as a percentage of incomes. In 2000, 32% of renter occupied units in the county were paying in excess of 30% of their income for housing. This figure had increased to an estimated 40% as of 2008. For owner occupied units, the number of households spending over 30% increased from 26% to 36% during this time. Overall, an estimated 6,700-7,000 households on the Island exceed the 30% threshold.
- From a housing affordability standpoint, Middletown and Newport have met, or exceeded, the state’s 10% threshold for total units, but Portsmouth has not. An examination of current housing costs suggests that area rental rates tend to exceed reasonable financial burdens for households making up to 120% of the median income. For homeownership, households between 80%-100% of the median would have difficulty finding reasonably priced alternatives in the market. This indicates that the creation of additional “workforce housing” to support these middle-income households should be considered.

C. Housing Market Overview

The Island’s housing market has experienced some dramatic changes over the last two decades. Based on data reported by the decennial census, the median value of owner occupied housing in the study area changed very little between 1990 and 2000. As illustrated in Table VI-1, the estimated median home value increased by only 1.1% during this time period while the county as a whole experienced only a 2% increase. Values in Newport reportedly grew more rapidly increasing by 3.9% while values in Middletown and Portsmouth remained relatively unchanged. This trend is generally corroborated by the median home sales prices of single family homes presented in Figure VI-1. As shown, the sale prices achieved between 1990 and 1999 remained generally flat between \$100,000 and \$150,000. However, this stagnant period was followed by precipitous growth in prices beginning in 2000, and plateauing around 2006, with prices ranging between \$350,000 and \$450,000. This represents an average growth of 250% to 300% for the first half of the decade. In response to these price increases, home sales and building permits spiked in 1999-00 but then steadily tapered off through 2010 returning to 1990 levels, as shown in Figure V-2. The study area towns issued over 1,250 housing units in ten years, or 125 per year, most of which was permitted prior to 2007.

	Middletown	Newport	Portsmouth	Study Area	Newport Cnty
1990	\$ 159,878	\$ 154,806	\$ 168,157	\$ 161,325	\$ 160,292
2000	\$ 160,177	\$ 160,876	\$ 167,197	\$ 163,137	\$ 163,432
Change	\$ 299	\$ 6,070	\$ (960)	\$ 1,812	\$ 3,140
% Change	0.2%	3.9%	-0.6%	1.1%	2.0%

Source: US Census

The vast majority of these units (81%) were single family homes, which may include some detached condominiums. Larger, multifamily projects over the decade were limited to the

construction of only 122 units, much of which was located in one building in Portsmouth. Duplex construction also increased marginally with the addition of 78 units (Refer to Table V-9).

The last four to five years of this decade saw total home sales begin a downward slide (Figure VI-2) with prices declining by approximately 20%-30%, as shown in Figure VI-1, leaving future market expectations somewhat uncertain. However, median sales prices for January through August 2010 show a slight uptick that may indicate the low point in the market has been reached.

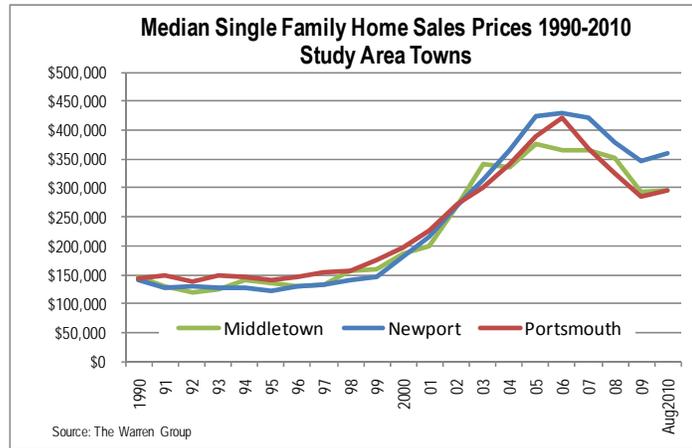


Figure VI-1

Error! Reference source not found. in the previous chapter illustrates that a large portion of the Island’s year-round housing stock has historically been renter occupied, particularly in Newport (58% renter) and Middletown (43% renter). Portsmouth’s stock was predominantly owner occupied as of 2000 at 74%. The preponderance of single family building permit issued since 2000 suggest that the percentage of owner occupied housing will have increased to some degree. Estimates from the ACS for 2008 bear this out. The City of Newport’s owner occupied units increased from 42% to 47% and Newport County’s increased from 61% to 64%. Estimates for the other towns were not available but have presumably experienced similar changes.

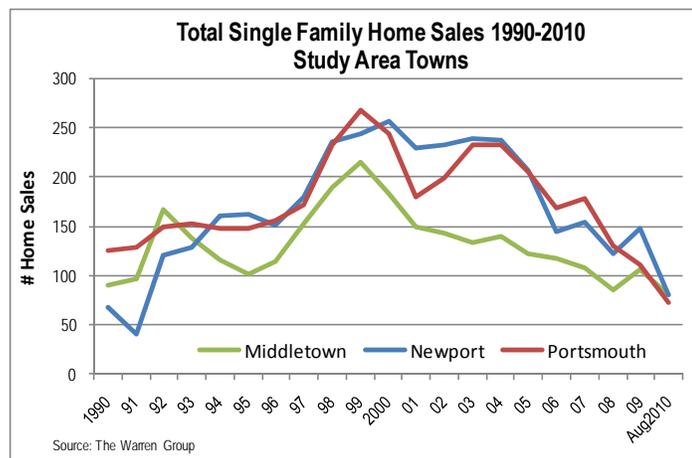


Figure VI-2

A significant percentage of the Island’s housing stock is owned by seasonal residents or other absentee landlords. For example, as of 2010, ownership of the 7,128 residential properties in Portsmouth was 81% year-round occupants (5,788 properties) with 19% owned by non-residents (1,340 properties), based on owner’s addresses in the assessment records. Almost 12% of these non-residents (837 properties) were from out-of-state with the largest concentration located in Massachusetts (362). Other predominant locations included Connecticut, Florida, New York, and Virginia. In the City of Newport, nonresidential ownership is somewhat higher at 26% (6,159 properties) with 18% (1,523 properties) of the

total living in out-of-state locations. In Middletown, 16% (787 properties) of residential properties were in nonresidential ownership with only 9% (450 properties) were owned by out-of-state owners.

The strength of the second home market is illustrated by single family home sales in Portsmouth over the past decade where, of the 1,860 homes sold between 2000-2010, 22% are owned by nonresidents. The percentage sold to nonresidents fluctuated over the course of the decade but the 22% average indicates that the demand for second homes, or other investment properties, has remained steady despite the considerable fluctuations in the Island’s overall housing market noted above. In the condominium market, 23% of the 260 sales during this time period went to nonresidents. In Newport, 25% (295) of the decade’s single family sales and 43% (388) of condominium sales were to nonresidents, illustrating stronger demand in the condominium market for seasonal or investment housing within the city. Middletown had the lowest percentage of homes purchased by nonresidents with just under 16% of single family homes sales over the decade generated by buyers residing outside the town.

Figure VI-3 and Figure VI-4 present median prices and units sold, from a comparative perspective for all three study area communities, over the current decade of 2000 to 2010. As shown in Figure VI-3, single family prices started the decade for all three locales in the \$180,000-\$200,000 range. At that time, the number of units sold were at their high point at roughly 250 in Portsmouth and Newport and 175 in Middletown. Prices rose fairly steadily through the first half of the decade averaging around 16% annual growth across all jurisdictions. Prices peaked between 2005-07 with medians in Newport and Portsmouth achieving levels around \$425,000 while Middletown’s median remained below the \$400,000 threshold. Following this growth period, prices declined at an average annual rate of 6.5% for three to four years with homes in Newport tending to hold a higher median than the other two towns. Concurrent with this rise and fall of prices was a fairly steady overall decline in the number of units sold, dropping by roughly 50%-60% of the levels experienced at the beginning of the decade. Sales for 2010 through August had reached only 75-80 units in each of the three communities. How quickly the number of sales will begin to approach previous levels is unclear but likely to take at least several years. However, median

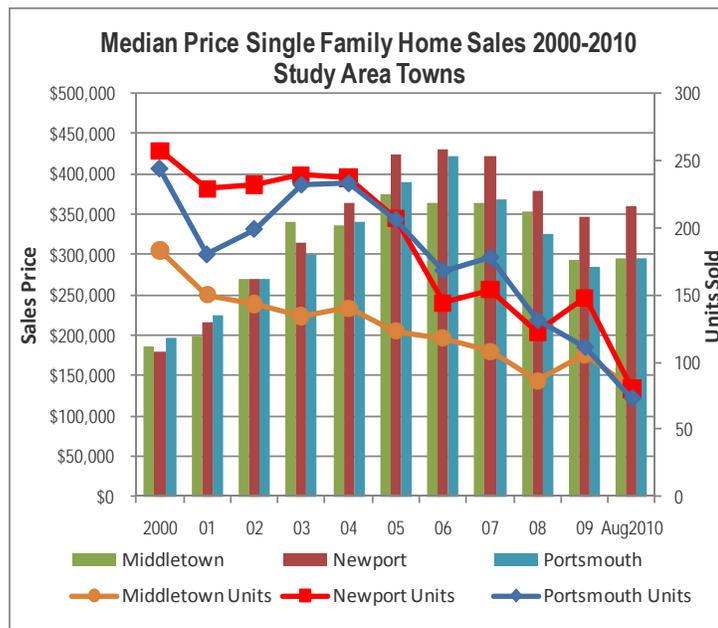


Figure VI-3

sales prices through these first three quarters of the year show some stabilizing, and even some increasing in prices, ranging from 1%-3.5% over the previous year.

Figure VI-4 portrays the trend in median prices and units sold for condominiums over the same time period. Although the overall trends were similar to those of single family homes there were some notable exceptions. There was considerably more volatility in the pricing for this segment of the market and considerable variation in the number of sales with Newport far exceeding the other towns. Historically, Newport has had a larger supply of condominium units in its housing stock but recent construction trends in the other towns have narrowed the gap somewhat.

The number of condominiums sold in Newport was more than three times the rate of Middletown and Portsmouth early on in the decade, but median prices in Newport were lower and increased at a slower rate. On an average annual basis, median sales prices were up about 13% in Newport between 2000-06, as compared with 16% in Middletown and 22% in Portsmouth. Portsmouth’s median peaked in 2007 at \$540,000, notably higher than Middletown’s \$420,000 and \$300,000 in Newport. The variation in pricing between Newport and the other towns is attributable to several factors. First, many more units were sold in Newport which means there is greater potential for price variation. Second, there is likely to be a greater variety in the types of condominium units sold in Newport with the city’s stock including many apartment and single family home conversions with less square footage and fewer amenities than some of the product being offered elsewhere in the market.

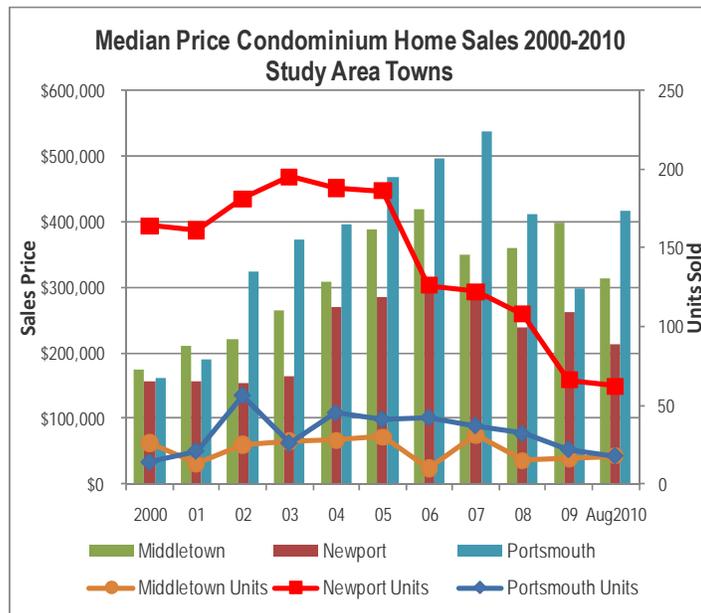


Figure VI-4

In the latter half of the decade the number of sales continued to decline, particularly in Newport, but showed some signs of leveling off between 2009-10, albeit at relatively low totals. This decrease in sales lead to considerable price volatility after 2007 resulting in median prices that offer no apparent emerging trend as of yet in the condominium market.

1. Portsmouth Housing Market

According to the town’s assessment records, there were approximately 6,075 single family homes and 430 condominium units in Portsmouth as of 2010. Single family housing has been the primary product added to the local market with 510 units constructed since 2000. As shown previously in Table V-9, the town absorbed a total of

773 housing units, based on building permits issued, or about 77 units per year. Of the total units permitted, 83% were single family dwellings (an average of 64 per year).

As illustrated in Figure VI-5, the median price for single family homes in Portsmouth rose steadily between 2000 and 2006 with average annual growth of 14.5%. Although this growth rate was substantial it lagged behind appreciation in the condominium market where the median increased at an average annual rate of about 20% over seven years. In 2007, single family median home prices began to decline about 12% per year through 2009. Total sales reached a high of 230-240 earlier in the decade and declined to 70 for the first three quarters of 2010. As of 2010, median prices appear to have leveled off with units selling for just under \$300,000 with a 3.5% growth rate over 2009 median pricing. Sale prices of new construction between 2008-10 was limited to only 13 sales which ranged in price from \$115,000 to \$2.4 million with square foot prices of \$39 to \$187 and an average of \$93.

Of the 50 single family home sales recorded in the assessment records for the first half of 2010, \$735,000 represented the highest price and \$115,000 the lowest. Only eight sales exceeded \$500,000 during this six-month period. In 2009, 22 sales exceeded this half million dollar threshold with three sales between \$1.2 and \$2.8 million. In 2008, there were 33 sales over half a million dollars including eight over one million ranging from \$1.0 to \$3.9 million. This historical trend in pricing was evident for much of the decade with the highest recorded sale price of a single family home at \$5.8 million in 2006.

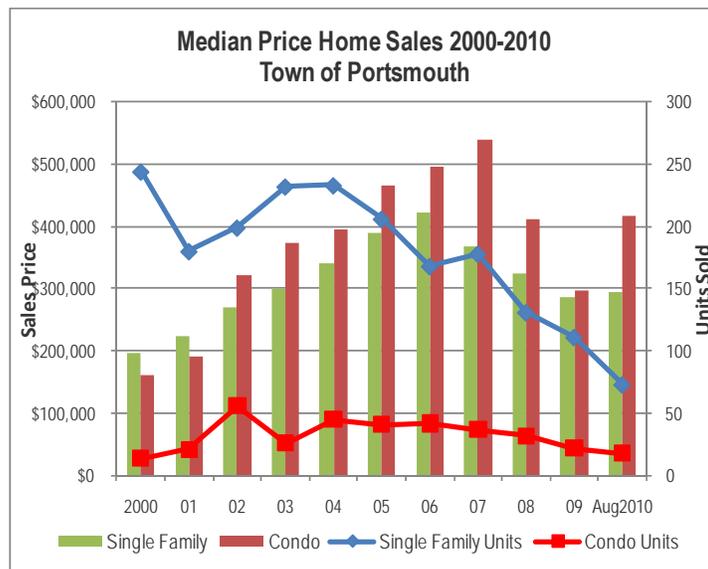


Figure VI-5

Many of these million dollar plus homes are located at the Carnegie Abbey development, which is perhaps the signature luxury development in Portsmouth. This mixed use project includes 54 house lots (both fee simple and condominium ownership), 22 clubhouse condominiums, and a 22-story condominium tower with 80 units. This resort-style development offers access to a number of amenities including club membership (which is mandatory), golf course, pool cabana ownership, marina access/boat slip ownership (27 of 41 slips are reportedly sold), among other facilities and services, as well as views of Narragansett Bay. Twenty-one (21) traditional cottages are planned for the condominium lots and eight have been sold since 2006 with prices ranging between \$1.8 and \$2.2 million. Of the remaining 33 house lots, all 21 “estate lots” have been sold and built since 2001 with initial prices between \$900,000 and \$2 million and sales after 2005

escalating to between \$2 million and \$5 million. These homes have square footage of 5,000 to almost 9,000. The other 12 fee simple lots have seven houses built with sale prices between \$1.9 and \$2.4 million.

Another luxury single family development that recorded sales prices over a million dollars include King's Grant, a 75 lot subdivision located just north of Melville, with views of the Bay. A previous market analysis estimated that a 25%-35% price premium can be attributed to water views while homes with actual water frontage can command premiums of 75%-100% over otherwise comparable properties⁴.

In the condominium market, assessment records indicate that about 140 condominiums have been built in Portsmouth since 2000, most of which were constructed prior to 2005. As illustrated in Figure VI-5, condominium sales prices rose steadily through 2007 while the number of units sold annually peaked in 2002 at 56 and then gradually declined to 18 as of August 2010, based on data gathered by the Warren Group, a commercial real estate firm. The most recent condominium development was the Ferry Landing subdivision, with initial sales beginning in 2004/05, which is comprised of 73 "luxury townhomes" constructed at the northern tip of the town overlooking the Mt. Hope Bridge area (most reportedly have water views). These attached units (3-6 units per building) have between 2,100-2,500 square feet of living space. The project has sold an average of 10-12 units per year with seven reportedly unsold as of 2010. Since 2005 there have been eight qualified sales reported in the assessment records for this development ranging in price from \$404,000 to \$705,000 with an average of \$536,000. The three most recent sales in 2010 have ranged from \$425,000 to \$635,000. For construction at the Ferry Landing development completed prior to that time the average sale price per square foot was \$116 with a range of \$84 to \$148. There was essentially no new construction in the condominium market after 2007 upon which a price per square foot could be reliably obtained.

Another project of note is Overlook Point, a 70 unit townhouse development constructed earlier in the decade, and which is situated between the Navy's Tank Farms 3 and 4 on the Bay. Initial sales of this project ranged between \$300,000 and \$450,000 with some later sales, or re-sales through 2007 pushing to the \$530,000 - \$620,000 range but then returning to their initial lower range by the end of the decade.

At the Carnegie Abbey, the 22 clubhouse condominiums range in size from 1,300 to 2,500 square feet with offering prices of \$895,000 - \$2.5 million. These units are purchased on a long-term lease basis (98 years) with all 22 sold since 2002. The 80 Tower condominiums at this development are unique products in the market offering units ranging from 1,500 to 2,800 square feet in size (with other configurations possible) and asking prices of \$950,000 to \$7 million, as well as a penthouse offered at \$14.5 million. These units have been available for occupancy since 2008 and as of October 2010, only two have been sold for \$1.9 and \$2.1 million. Reportedly, there was more interest in pre-sales of these units but development delays, followed by the market downturn, has apparently significantly curtailed sales volumes.

⁴ 2006 North End Master Plan, Newport, RI, Appendix B, Economics and Market Analyses – Working Paper

Full absorption of the remaining Tower units could take five or more years which would mean that complete absorption of all units at the Carnegie Abbey will have extended over roughly a 15-year time period. However, the project's developer has approved plans for two additional residential products on the site including 36 attached, 2½ story, townhouse condominiums and two, 12-unit condominium buildings with flats of 1,500-1,800 square feet. The townhouses are anticipated to be brought to market in 2011-12 for under \$1 million. Construction of the flats would be delayed until more Tower units are sold with an anticipated price range of \$900,000-\$1.6 million.

Two other mid-level to high-end housing projects have been proposed for introduction into the Portsmouth market by the developer of Carnegie Abbey which are in various stages of permit review and approval. These include Weaver Cove (aka The Hood property) and the Newport Club (aka the Weyerhaeuser property or Arnold Point), both of which will offer waterfront and water views of the Bay, as well as marina access and other amenities. The Weaver Cove property lies just south of the Melville marina on land formerly owned by the Navy on Narragansett Bay. The 43 acre site straddles Defense Highway with 35 acres of waterfront and 8 upland acres. The site has been approved for 988 housing units, 100,000 square feet of commercial space, a hotel, and a 1,400 slip marina. The housing would be a combination of 510 market-rate rental housing on the upland area, which may include 100 units priced for low/moderate income households, and 478 for-sale condominium flats along the waterfront. The flats would be situated above first-floor commercial space. The developer anticipates construction of the apartments in 2011, along with the hotel, boardwalk and some marina slips as the first phase. Apartments would be 900-1,400 square with rents starting around \$1,000/month. The condominiums would be 1,100-1,500 square feet with offering prices of \$400,000 to \$1 million. No operator has been identified as yet for the hotel but is anticipated to be a "boutique" style facility. Construction of the marina would also occur in several phases with a combination of owned/leased slips.

The Hood property has required remedial clean-up for a variety of hazardous materials, a process which is only partially completed. Complete remediation may take one to two years or more with additional project construction being phased as possible around this process, as well as changing market conditions. The developer estimates that clean-up has cost an average of \$70,000 per acre thus far.

The second partially approved project, the Newport Club, is a 126 acre site to the north of the Carnegie Abbey development with frontage on Narragansett Bay. This project is approved for 152 units including 106 single family lots and 48 condominium flats in a 2-3 story building. Lots are anticipated to sell for one to two million dollars, the high end being waterfront locations. Sale prices for homes on these lots are expected to be slightly lower than comparable units at the Abbey with construction beginning in 2011. Construction of the flats would be a future phase with prices ranging between \$900,000 - \$1.5 million. This facility would also include a 160 slip marina, equestrian center/riding trails, tennis and pool, in a membership environment.

2. Middletown Housing Market

Middletown’s housing stock is similar to Portsmouth’s in that a majority of the existing, and recently constructed supply, is single family units. The town’s housing supply consisted of an estimated 7,871 housing units as of 2009, reflecting the addition 268 units since 2000, based on building permit data. Of these additional units, 252 were single family homes, 6 were duplexes, and 10 were apartment units (Refer to Table V-9). Based on this permit data, the town has absorbed an average of 26 housing units per year over the past decade. This rate is comparable to Newport’s 21 units per year but well below the 77 units per year constructed in Portsmouth during that time period.

As of 2010, the town had 4,060 single family units (excluding mobile homes) and 300 condominium units. The town also has a fairly large concentration of duplex dwellings which contain approximately 850 units, as well as 150 triplex units. Assessment records indicate that the town had 15 apartment buildings containing 6 or more units.

Trends in home sale prices for Middletown between 2000 and 2010 are illustrated in Figure VI-6. Middletown’s housing market has experienced more “moderate” trends than the two other Island communities both in terms of pricing and number of sales. Middletown experienced significant increases in median pricing at the beginning of the decade as did the rest of the Island. From 2000 to 2005, the median sale price of a single family home increased by approximately 16% a year with growth as high as 25%-35% in some years. The total number of sales achieved a high of only 180 in 2000 (as opposed to 240 and 260 in the other towns) followed by a gradual and consistent decline to less than 100 through the third quarter of 2010. The median single family sale price in Middletown peaked at \$375,000, a level that was approximately 12% below the peak in Newport and Portsmouth. After 2005, prices decreased by an average of 4.4% per year through 2009 with a modest 1% increase in 2010 suggesting that, as noted for the other towns, pricing may have reached its low point.

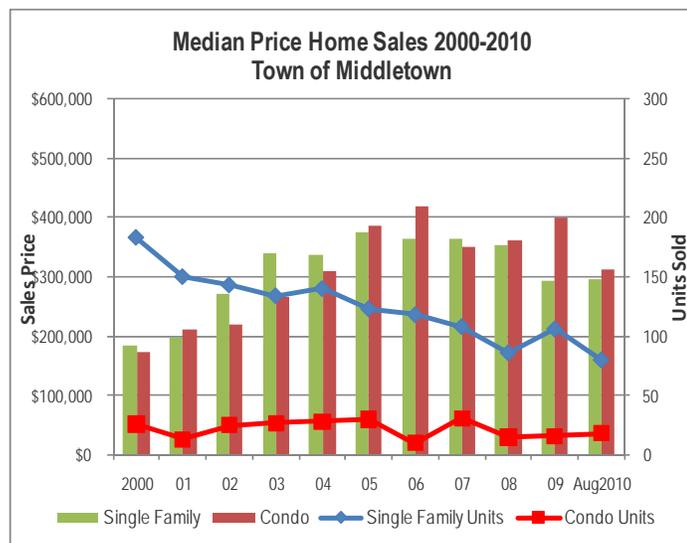


Figure VI-6

After 2005, prices decreased by an average of 4.4% per year through 2009 with a modest 1% increase in 2010 suggesting that, as noted for the other towns, pricing may have reached its low point.

The high end of the single family market in Middletown for 2010 was \$1.7 million with only four sales exceeding one million dollars (through July), according to the town’s assessment data. This number of high-end sales is fairly typical for this submarket (which generally average 4-6 million dollar plus sales in prior years) although top sales in prior years were observed in the \$3-\$5 million range. New construction sales prices for

2008-2010 were quite erratic ranging from \$115,000 to \$660,000 with an average of \$277,000 based on only six sales. The average construction cost for these units was \$67 per square foot with a range of \$35 to \$115.

The condominium market in Middletown represented a relatively small portion of the housing sales market over the last decade averaging only 11% of total annual sales, or, roughly 20 per year. Like single family homes, condominium prices rose sharply through the first half of the decade averaging 16% growth per year with a peak price of \$415,000 in 2006. Pricing over the last several years has been erratic, as shown in Figure VI-6, with an average decline of about 6%.

According to the town’s assessment records, only 32 condominiums have been constructed over the last decade, therefore, values for new construction are quite limited. The eight condominium sales recorded between 2008-2010 had an average sale price of \$413,000 with a high end of \$548,000. The units are typically townhouse style units with 1,700-2,000 square feet of living area and an average sale price of \$109 per square foot.

3. Newport Housing Market

The City of Newport’s housing stock included approximately 4,395 single family homes and 1,950 condominium units as of 2010, based on the city’s assessment records. Over the course of the last decade (2000-2010), residential building permits were issued for a total of 212 housing units, an absorption rate of about 21 units per year (Refer to Table V-9). This was a comparable rate of construction to Middletown’s 26 units per year but considerably below the 77 units absorbed annually in Portsmouth. Of the total units constructed in Newport during this time period only 57% were single family homes, a notably lower percentage that both Portsmouth (83%) and Middletown (94%), a fact that illustrates the attractiveness for multifamily housing within this submarket of the study area. In addition, the number of duplexes experienced a small surge in 2008/09 in Newport with the construction of 58 units. These units were related to the Newport Heights housing redevelopment project.

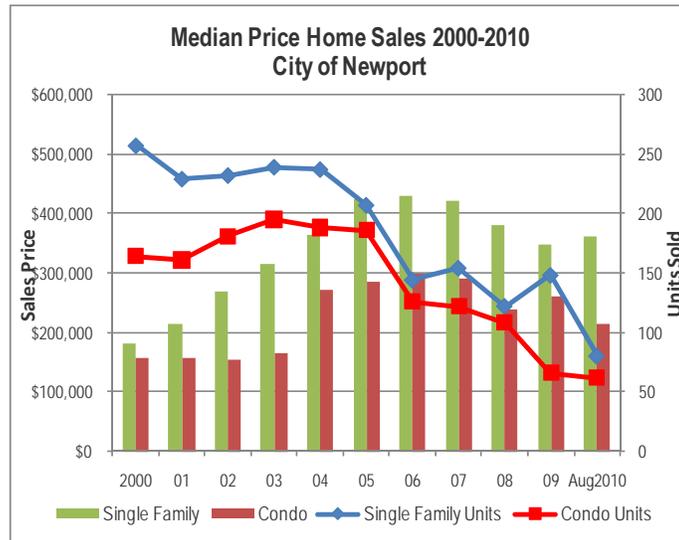


Figure VI-7

In addition, the number of duplexes experienced a small surge in 2008/09 in Newport with the construction of 58 units. These units were related to the Newport Heights housing redevelopment project.

The for-sale single family home sales market in Newport exhibited the most activity within the study area averaging 186 sales annually over ten years, slightly higher than Portsmouth’s 177 average and well above Middletown’s 124. Despite this higher activity, Newport, like the entire study area, experienced a dramatic decline in single

family sales over the decade, from a high of over 250 in 2000 to about 75 through the first three quarters of 2010, as shown in Figure VI-7.

The increase in the median price of single family homes in Newport averaged approximately 18% per year for 2000-2005, exceeding the growth rates in Portsmouth and Middletown, as illustrated in Figure VI-7. Home sales prices peaked around \$425,000 in 2005, remained flat for several years, then experienced an average annual loss of 6.8% through 2009. As of September 2010, median sales value increased 3.7% over 2009 to about \$350,000, against a return to declining sales.

The high end of the single family market for 2010 was \$2.1 million with only four sales exceeding one million dollars (through July), according to the city's assessment data. This is down from prior years when million dollar plus sales averaged 8-12 per year with top sales ranging between \$3-\$5.5 million. New construction sales prices for 2008-2010 were quite erratic ranging from \$48,000 to \$2.0 million with an average of \$640,000 based on only six sales. The average construction cost for these units was \$123 per square foot with a range of \$31 to \$273.

In Newport's condominium market, sales were relatively robust between 2000 and 2005 averaging around 180 per year. Median pricing surged between 2003-04 by over 60% but this represented an anomalous increase with annual growth in other years averaging 6% or less. This average annual growth rate continued through 2007 with sales ranging between \$270,000 and \$290,000. The last three years of the decade (2008-10) saw some erratic median pricing with an average annual decline of about 9% and a range of \$212,000 - \$240,000. The number of sales also dropped during this time but may have leveled off as of 2010.

High-end condominium sales in 2010 were relatively limited with one at \$7.6 million and one at \$1.8 million. However, condominiums in this submarket tend to be smaller in size and thus, have higher per square foot sales values than in Portsmouth and Middletown. The average square foot values in Newport were \$280 (for sales under \$1 million) as compared with \$116 in Portsmouth and \$109 in Middletown. Over the last five years, Newport condominium sales in this price range have averaged between \$260 and \$307 per square foot. Sales over the million dollar threshold have square foot values that are two and three times this range (\$500-\$900). There has been little in the way of new condominium construction in Newport over the past several years, according to assessment records. For the sale of seven new units recorded since 2008 the average per square foot cost was \$604.

D. Land Sales

Recent land sales in the Town of Portsmouth were comprised primarily of previously subdivided house lots with very few large land parcels being sold and/or purchased, according to assessment records. From 2008 to 2010 only 11 qualified residential lot sales were recorded, all of which were under three acres in size. The average value per acre of these sales was \$708,000. This price per acre is generally representative of values that were achieved through the peak of the market (2004-07) where per acre values ranged from

\$680,000 - \$890,000. In 2008, a single, half-acre water view lot sold at Carnegie Abbey for \$1.5 million representing a per acre value of approximately \$2.5 million. Waterfront lots of this size can reportedly sell for up to 25% more.

The only recently sold, unimproved residentially designated parcel in Portsmouth of any size was a 47 acre property which sold in 2007 for \$770,000, approximately \$16,000 per acre. This property is a back lot located in the central part of the Island off East Main Road with some frontage on St. Mary’s Pond.

Recorded residential land sales in Middletown also included only small lots of three acres or less. The 10 qualified sales over the last several years averaged 0.89 acres in size with an average sale price of approximately \$680,000. This represents an average price per acre of approximately \$1.3 million.

E. Rental Market

The change in median rental costs for the study area between 1990 and 2000 is illustrated in Table VI-3. The data indicates that rents increased by an estimated 10% during this time period, from \$561 to \$617 monthly. However, this overall average increase in the study

Table VI-3
Median Cash Rent 1990 - 2000

	Middletown	Newport	Portsmouth	Study Area	Newport Cnty
1990	\$615	\$525	\$606	\$561	\$551
2000	\$694	\$586	\$618	\$617	\$614
Change	\$79	\$61	\$12	\$56	\$63
% Change	12.8%	11.6%	2.0%	10.0%	11.4%

Source: US Census

area was depressed by Portsmouth’s marginal 2% growth rate, in comparison to increases of over 11% and 12% respectively, for Newport and Middletown. These increases were more commensurate with countywide growth rate of 11.4% during this time period. Portsmouth has the smallest rental market of all three communities and added few new units during this time period. This lack of new product was likely a major contributing factor to the more marginal increase in rents recorded by the census.

Table VI-2
Rental Property Lease Rates*

Study Area	Bedrooms#	Listings	Low	High	Average	% Study Area
Middletown						
	0	4	\$ 700	\$ 800	\$ 775	97%
	1	11	\$ 900	\$ 1,400	\$ 1,054	100%
	2	9	\$ 950	\$ 1,104	\$ 1,095	84%
	3	4	\$ 1,419	\$ 2,019	\$ 1,844	102%
Newport						
	0	7	\$ 700	\$ 878	\$ 809	101%
	1	19	\$ 800	\$ 1,904	\$ 1,060	101%
	2	20	\$ 914	\$ 2,754	\$ 1,424	109%
	3	20	\$ 1,054	\$ 2,519	\$ 1,692	94%
Portsmouth						
	0	4	\$ 700	\$ 903	\$ 802	101%
	1	18	\$ 700	\$ 1,304	\$ 1,020	97%
	2	10	\$ 849	\$ 1,554	\$ 1,219	93%
	3	8	\$ 1,519	\$ 2,919	\$ 2,057	114%
Study Area						
	0	15	\$ 700	\$ 903	\$ 798	—
	1	47	\$ 800	\$ 1,304	\$ 1,049	—
	2	34	\$ 849	\$ 2,754	\$ 1,311	—
	3	32	\$ 1,054	\$ 2,919	\$ 1,802	—

*Includes allowances for utilities
Source: HousingWorks RI

A summary of recent (2009-10) lease rates for rental properties in the study area is presented in Table VI-2. These rates were compiled by HousingWorks RI from various

listing sources and adjusted to include allowances for utilities. For the Island as a whole, there were a total of 128 property listings observed, almost half of which were located in Newport. There is quite a large variation in the lease rates from their low to high range. This reflects the fact that there is a broad variety of product available ranging from converted outbuildings, to garden apartments, to duplex and single family dwellings. Location will also affect price with units readily accessible to the waterfront commanding considerably higher rates.

The average lease rate for a two bedroom rental was \$1,311 for the study area with a broad range of \$849 to \$2,754. The highest observed rates for this size unit were found in Newport where the average adjusted lease rate was \$1,424.

Although there is no consistent variation in the lease rates between the three communities, Newport's rates do tend to be somewhat higher, on average, than those evident in Middletown and Portsmouth.

Rental rates in the study area have escalated considerably over the last decade, based on estimates from the Census Bureau. Median contract rent for Newport County increased by 52% between 2000 and 2008 from \$689 to \$1,045. In contrast, rents increased by only 11% over the prior decade of 1990-2000. Similarly, the City of Newport's median rental rate increased by 65% over the current decade (from \$646 to \$1,065), versus a comparable 11% increase during the previous decade, based on census estimates. Although estimates are not available for Middletown and Portsmouth it is reasonable to conclude that rental rates have increased at a commensurate percentage in these communities.

Vacancy rates in the rental market have loosened to some degree over the past decade but still remain relatively tight. As of 2000, the overall vacancy rate for study area town's was 3.6% and only 2.6% in the rental market. Individually, rental vacancy rates were 1.7% in Middletown, 3.8% in Newport, 1.1% in Portsmouth, and 2.2% for Newport County. Estimates from the Census Bureau for 2008 place the City of Newport's rental vacancy rates at 4.8% and 2.7% for the county as a whole. These estimates suggest vacancy rates have increased by only 0.5 to 1.0 percentage points over the decade. This assertion is plausible given the limited amount of multifamily housing construction that has occurred over the decade as illustrated by building permit activity.

F. Housing Costs and Affordability

The issue of housing affordability is one that is regularly raised amongst Aquidneck Island communities. Typically, the higher cost of rental units and home sale prices that have been found on the Island are attributed to the demand placed on the housing supply by affluent, out-of-state buyers who purchase second homes, as well as the seasonal tourist influx, that is created by the tourism and recreational components of the local economy. This has led to concerns that higher housing prices will limit economic development because Island businesses will not be able to attract employees who can afford the higher housing costs with local wage rates.

In Rhode Island, "Affordable Housing" means residential housing that has a sales price or rental amount that is within the means of a household that is moderate income or less. In the case of dwelling units for sale, housing that is affordable means housing in which principal, interest, taxes, and insurance constitute no more than thirty percent (30%) of the gross household income for a household with less than 120% of area median income, adjusted for family size. In the case of dwelling units for rent, housing that is affordable means housing for which the rent, heat, and utilities constitute no more than thirty percent (30%) of the gross annual household income for a household with eighty percent (80%) or less of area median income, adjusted for family size. The state has set a 10% threshold as the minimum amount of affordable housing each community should have as a proportion of its housing supply.

The cost of housing within the study area in relation to incomes is illustrated in Table VI-4. In 2000, the percentage of renter occupied units exceeding the 30% threshold was approximately 32% for both the study area and Newport County, but less than the state's (36.6%). In fact, the study area's overall rate was primarily a reflection of greater percentages of Newport households (34.5%) exceeding this threshold while Middletown and Portsmouth were considerably lower at approximately 28% of total households. However, households under 25 and over 65 years of age in particular, tended to exceed the 30% threshold in most locations.

Table VI-4

Housing Costs Exceeding 30% of Monthly Income by Age of Householder in 2000

	Gross Rental Costs							Total
	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+	
Middletown	18.6%	20.9%	24.8%	28.8%	35.1%	51.8%	49.7%	28.7%
Newport	46.2%	25.0%	33.3%	32.2%	41.4%	48.3%	34.3%	34.5%
Portsmouth	34.5%	24.0%	29.1%	15.6%	24.6%	54.4%	36.8%	28.5%
Study Area	40.7%	23.9%	29.8%	28.9%	36.5%	50.1%	40.1%	32.0%
Newport Cnty	42.9%	23.1%	28.7%	29.5%	33.0%	50.4%	40.2%	31.8%
Rhode Island	48.3%	31.7%	32.1%	30.9%	35.1%	43.7%	46.3%	36.6%
	Selected Mortgage Costs							Total
	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75+	
Middletown	0.0%	31.0%	31.4%	23.4%	23.3%	23.2%	28.4%	26.2%
Newport	0.0%	19.6%	27.0%	31.6%	25.7%	20.5%	36.3%	28.1%
Portsmouth	46.7%	49.9%	22.9%	23.8%	17.2%	23.4%	31.5%	25.3%
Study Area	14.6%	36.7%	26.9%	25.7%	21.4%	22.5%	32.7%	26.5%
Newport Cnty	37.3%	33.1%	26.8%	23.9%	23.2%	22.7%	32.2%	26.1%
Rhode Island	44.3%	27.9%	26.2%	19.6%	22.5%	24.1%	30.1%	24.5%

Source: US Census

For homeowners, 26.5% of study area households had housing costs exceeding the 30% of income level. Once again, this rate was equivalent with the county's (26.1%) but slightly above the state's (24.5%). Newport's homeowners also tended to pay more of their incomes toward mortgage costs (28.1%) but there was less disparity with Middletown (26.2%) and Portsmouth (25.3%) in comparison to the rental market. Younger households (25-34) were more likely to exceed the threshold, particularly in Portsmouth (49.9%), as well as the very elderly over age 75 (32.7%).

Recent estimates for 2008 from the Census suggest that the number of households paying in excess of 30% of their monthly incomes for housing has increased notably. ACS estimates for 2008 suggest that this indicator has increased to 40% of renters and 36% for owner occupied units within the county. Currently, it is estimated that approximately 6,700-7,000 households in the study area pay in excess of 30% of their income for housing costs. These findings indicate that growth in household income has not kept pace with increases in housing costs throughout the decade. These impacts may have been moderated to some

degree over the last several years, particularly in the for-sale housing market, given the drop in prices discussed previously in this analysis.

Table VI-5 presents a comparison of 2009 estimated household income for study area communities to the maximum rental or home purchase costs that would not exceed 30% of the median income for households. Purchase price costs are based on typical 30-year mortgage costs of principal, interest, taxes and insurance. Overall, the cost of rental housing appears to be more out of balance with incomes than owner occupied units - a condition which is likely a reflection of the demand created by the seasonal housing market.

Table VI-5
Estimated Housing Affordability Threshold

Study Area	Household Income 2009			2009 Median Sale Price		Housing Costs of 30% of Income					
	80%	Median	120%	Single Family	Condo	Max Rental Cost			Max Purchase Price		
						80%	Median	120%	80%	Median	120%
Middletown	\$ 50,571	\$ 63,214	\$ 75,857	\$ 293,500	\$ 398,750	\$ 1,264	\$ 1,580	\$ 1,896	\$ 200,000	\$ 250,000	\$ 305,000
Newport	\$ 41,074	\$ 51,343	\$ 61,612	\$ 347,000	\$ 261,250	\$ 1,027	\$ 1,284	\$ 1,540	\$ 170,000	\$ 215,000	\$ 260,000
Portsmouth	\$ 59,693	\$ 74,616	\$ 89,539	\$ 285,000	\$ 298,500	\$ 1,492	\$ 1,865	\$ 2,238	\$ 245,000	\$ 305,000	\$ 370,000

Source: DemographicsNOW and RKG Associates

From a homeownership perspective, this table illustrates that households in Middletown and Newport would have a more difficult time finding affordably priced housing, based on the 80%-120% thresholds established by the state. For example, households in Middletown making 80% of the median could afford a maximum purchase price of \$200,000 while the median price of single family home sales was \$293,500. Only households with incomes approaching the 120% threshold making \$305,000, could reasonably afford to purchase a house at this price. In Newport, the disparity is greater where even households with incomes at 120% of the median (\$61,612) could not afford the median priced single family home (\$347,000) while the median condominium price might just be within reach (\$261,250). In fact, households in Newport making the median income would have a difficult time finding reasonably affordable housing in any of the Island communities. In Portsmouth, where incomes are the highest on the Island, households between 100% - 120% of the median could reasonable afford both the median single family home and condominium price, but those between 80% - 100% would have fewer alternatives.

An analysis of rental costs and affordability is somewhat less conclusive since rental data provides only a limited perspective on potential availability of units by number of bedrooms. From a general perspective, households in Middletown and Newport that earn 80% of the median (\$1,264 and \$1,027 monthly) could not reasonably afford the average-priced two bedroom unit on the Island at \$1,311 per month (refer to Table VI-2). In other words, half of the households in these towns would have difficulty renting a two-bedroom unit within the study area. Households at 120% of the median in these towns should more reasonably be able to afford the average-priced rental unit of two bedrooms or smaller. Still, there appears to be a gap in affordability for households between 80% and 100% of the median in Newport. Households in Portsmouth should be reasonably able to accommodate the average rental costs for most sizes of units presented in this sample.

It should be noted that based on the state's most current estimate of affordable housing units as a percentage of total housing in 2009, Newport has the highest percentage at 16.5%. Middletown is just under the identified 10% threshold at 9.2%, while Portsmouth's proportion stands at 3%.

VII. COMMERCIAL/INDUSTRIAL MARKET ANALYSIS

A. Introduction

This chapter presents an analysis of the Island's non-residential real estate market with specific focus on the office, industrial, retail, and hotel components. The information presented includes a review of historical trends with regard to absorption, types of product that exist in the market, and lease rates for each of the three study area communities. A forecast for potential future demand is also provided for the study area as a whole, based on these historical trends combined with anticipated employment growth, as well as assumptions regarding when economic conditions may begin to improve from their current, atypical levels.

B. Summary of Major Findings

This section offers an overview of the major findings and conclusions gleaned from the analysis of the study area's commercial and industrial real estate markets.

a) Office & Industrial Markets

- The Aquidneck Island's market contains approximately 2.0 million square feet of private sector office space and 1.3 million square feet of industrially classified space, based on a review of local assessment data. These figures do not include the Raytheon facility in Portsmouth which contains an additional 400,000 square feet of office and 360,000 square feet of industrial/R&D space, nor any facilities located on Navy property.
- Over the past decade (2000-2010), the Island has added an estimated 53,000 square feet of office and 110,000 square feet of industrial/warehouse space. This represents an average annual absorption of 5,300 square feet of office and 11,000 square feet of industrial and warehouse space amongst all three communities. It is likely that additional space will have been added to the inventory through renovation of existing structures, particularly in the Newport submarket, but actual square footage cannot readily be determined.
- These figures, as well as discussions with area professionals, indicate relatively weak demand in both sectors, and little willingness to undertake speculative building. However, estimated vacancy in the office market is about 12%, a rate which is relatively healthy overall. In the industrial market, despite the absorption of 110,000 square feet of industrial space, area brokers indicate there is little demand for "true" manufacturing space. Anecdotal information suggests that a good portion of the industrial inventory has been transitioned by landlords to accommodate a variety of service, office, and other non-industrial users. This trend would also contribute to lower demand in the office market.

- Historical employment data for the region shows strong growth in the business and professional sectors, as well as the financial sectors, which are primary drivers of office market demand. However, average business size is relatively small which translates into demand for smaller user spaces. This is particularly true in the Newport office market with most offices less than 2,000 square feet in size and average office-related businesses having five employees. Middletown's office market offers larger spaces, although half are less than 10,000 square feet, and has an average business size of 18 employees in office-related businesses.
- Employment in the Professional and Business Services sectors in Rhode Island is projected to increase by 11.5% between 2009-2014, an average annual growth of 2.2%. However, positive gains in this sector may be delayed until 2012. Newport County has outperformed the state in terms of capturing employment in this sector which suggests that demand for office space on the Island should remain comparable with historic absorption trends for at least the next several years.
- Demand for office space in the study area is reportedly driven, to a large degree, by small, entrepreneurial start-up firms whose proprietors elect to establish a business on Aquidneck Island as part of a broader lifestyle choice.
- Office demand for defense-related businesses on the Island has apparently been tempered by the construction of new on-base facilities over the past decade. Figures are not readily available as to how much construction has occurred within the fenceline; however, area real estate brokers have indicated that these actions by the military have virtually eliminated the need for any larger office facilities for these types of firms, a conclusion that seems to be born out by historic absorption levels.
- There may be some latent demand for new medical office space in the market. However, if said space were available it would likely take tenants from existing, older office space for renters who might prefer to own, according to area brokers. This conclusion is supported by the lack of employment growth in the region's health care sector over the decade which lagged behind state level growth rates.
- The Island's marine trades sector remains a relatively small, but important component of the overall economy. Like many industry sectors, employment growth in the marine-related businesses has been tempered by recent economic conditions. Some expansion is still evident but has been reduced to 10%-15% of previously anticipated employment targets which may now take 5 or more years to achieve. In the Melville area, development of the "backyard" property will reportedly accommodate demand for the foreseeable future, according to business representatives. New building space constructed on this property may be as much as 40,000 square feet of 3-4 story structures for boat construction/repair with some ancillary office space. Present expectations are that this would support foreseeable expansion needs of area businesses, although additional boat storage may still be needed. This could include in-season, dry-boat storage (rack style), as well as winter storage.
- Aside from the expansion needs that will be accommodate on the backyard property, the ability to find suitably trained employees to fill existing job vacancies is a problem. This deficiency has been identified by the state and confirmed by area

businesses. There are a lack of training/education facilities to support the marine trades in Rhode Island, as well as elsewhere in New England.

- Lack of sewer capacity, or the inability to obtain higher flow rates in the existing infrastructure and treatment facilities, could be a significant limitation of future development at locations around the Melville marina area in Portsmouth.
- There may be some limited demand for small industrial space in the market place based on the lack of listed leasable properties. This space might be of the contractor/tradesmen variety for firms with a few employees that do repair or light manufacturing and also require some warehouse space. Development of this type in the Melville area could support ancillary businesses associated with the marine facilities but it may draw from existing tenants on the Island, located in older facilities, that want to upgrade or be in closer proximity to the marina.
- Recent demand for office space in the study area has largely been driven by smaller firms requiring limited square footage, typically less than 2,000 to 3,000 square feet. However, if a business requiring larger amounts of space (e.g. 15,000 square feet or more) were to express interest in locating within the study area, the options available to such a user would be limited.

b) Retail Market

- In the retail market, estimates suggest that local retailers are capturing 106% of the total demand indicating the county is a net importer or retail sales. However, a major factor in this capture rate is related to visitor and tourism activity which drives up demand in for food/beverage (186% capture) and eating/drinking establishments (156% capture).
- It is estimated that the Island could support an additional 70,000 square feet of retail development. The largest portions of this space could potentially include 10,500 square feet of department store space and 21,500 square feet of general merchandise retail. Additionally, if individual demand in the building materials and hardware-home improvement categories were combined, it could potentially support 15,500 square feet of development.

c) Hotel Market

- The greater Newport/Bristol County hotel market contains approximately 3,900 rooms in 184 lodging facilities. About 95% of these rooms (3,750) were located in Middletown and Newport.
- Based on a sampling of upscale lodging in the market, occupancy rates averaged around 62.3% between 2004-2007 but dipped to 57.6% in 2008-09. The average occupancy overall for this six year time period (2004-09) was about 60%. However, as of September, 2010, the year-to-date occupancy showed signs of improvement, having achieved 63%, which represented a 7.7% increase year-to-year (September to September).
- Revenues also showed some signs of rebounding from the recessionary conditions. Total revenues for this upscale segment averaged about \$51.4 million over six years,

having achieved a high-point of \$57.7 million in 2007. Despite declines in 2008-09, revenues as of September, 2010 had increased by 12.5% over the previous year's level. Some of this current year increase is related to increases in rates suggesting real growth in revenues was about 8%.

- Overall, this analysis indicates that the bottom of the market may have been reached and that occupancy appears to be returning to historic levels that preceded the recession. However, long-term occupancy rates do not achieve the 65%-70% threshold that typically signals a potential demand for new construction.
- Existing occupancy rates do not necessarily preclude reuse of the Navy hospital site for a new, high-end hotel if the facility offered something unique in the marketplace and was appropriately priced. This site would, perhaps, offer guests a more quiet environment than a location in downtown Newport. However, this location may also be just far enough removed from central tourism activities to warrant special development demands necessitating the creation of a full-service, resort facility that offers an array of on-site amenities.
- A mixed use development that combines an upscale hotel with higher-end condominium units could also serve to make redevelopment potential more enticing to private developers. These residential units, combined with the site's potential for construction of a marina, would make it an attractive for seasonal residential units and also help to support increased hotel occupancy levels from boaters.
- Future improvements proposed as part of the North End Master Plan, which include improved roadway and bridge access to the Pell Bridge, as well as the creation of new development sites around the reconfigured road network, would also help to support such reuse of the hospital site as a hotel. If these changes occur it could create more of a redevelopment catalyst in the future. However, unless tourism numbers grow in the future, construction of a new hotel would not be without risk and would likely result in the redistribution of visitors from existing facilities within the study area.

C. Portsmouth Office/Industrial Trends

Portsmouth is the smallest of the Island's three office submarkets but contains the largest supply of industrial building space. The town hosts the Raytheon facility which contains approximately 768,000 square feet, in six buildings, on 137 acres. This space includes 404,000 square feet of office, a 145,000 square feet R&D building, and 220,000 square feet of light manufacturing/pre-engineering space, based on the town's assessment records. These facilities were constructed during the 1960s and 1980s. Raytheon reportedly has available space within existing facilities due to employment downsizing that occurred earlier in the decade. Other concentrations of development are located at the town's business park situated at the junction of Route 24 and West Main Road, as well as the marine oriented businesses in the Melville area.

Construction of Portsmouth's business park was initiated in the late 1970s with its most recent building constructed in 2005. The park is 52 acres in size with only a few acres of developable land remaining. Presently, there are eight buildings in the park containing 21 tenant spaces in a total of 282,000 square feet. Buildings range in size from 6,000 square feet

to 84,000 square feet with an average tenanted space of approximately 14,000 square feet. There is an additional 44,000 square feet of self-storage warehouse buildings as well. The park’s building space is predominantly a combination of warehousing and light manufacturing with supporting office. The tenants at the park represent a mix of industry sectors with some clustering evident in several areas. Of the 19 occupied spaces, five are engaged in the production, sales and service of boats and/or other marine-related activities, several manufacture hardware and machinery, a few are high-tech involved in research or computer and electronics technologies, with the remainder involved in transportation and warehousing (see Table VII-1).

Table VII-1

Portsmouth Business Park			
Company	Estimated Employees	Company	Estimated Employees
A2B Tracking Solutions	13	Newport Tent Company	20
Belgravia Imports	7	Northeast Diving Services	2
bioprocessH2O	10	Northeast Manufacturing	4
Garda - Laser Performance	16	Park Place Holdings	3
Global BSI	2	Peak Fitness	6
High Point Styling Salon	5	Providence Journal - Circulation	6
Island Self Storage	2	Ronstan International, Inc.	7
MDF Powder Coating Systems	5	Techteam Government Solutions	7
Mikros Technologies	2	Vanguard Sailboats	59
Newport County Propane	1	Vulcan Catalytic Systems	5
		Weissenfels USA Inc	4

Source: RIEDC

In the Melville marina area there are approximately 30 businesses involved in the manufacturing, maintenance, operation, and sale of recreational boats and other marine related products and activities (see Table VII-2). In fact, marine-related businesses represent a major industry cluster in Portsmouth with some 45 businesses supporting approximately 570 employees, based on a recently conducted survey.⁵ This level of employment represents about 10% of the town’s total job base. Real estate and available building space is in short supply around the Melville basin

Table VII-2

Melville Marine Area			
Company	Estimated Employees	Company	Estimated Employees
Al Fresco Composites, LLC	4	Newport R & D, Inc. aka Garry Hoyt	2
Cay Electronics	11	Newport Yacht Management	2
Custom Navigation Systems	4	North Sails RI	15
De Paul Diesel Service, Inc.	10	Ocean Link, Inc.	7
East Coast Yacht Sales	3	Oyster Harbors Marine	1
East Passage Yachting Center	22	Perini Navi USA	4
Eastern Yacht Sales	3	Rig Pro & Southern Spars & Sparcraft	11
Fontaine Design Group	4	S & S Fabric Products	15
Friendship Yacht Company	1	Ship’s Store & Rigging	4
Hunt Boat Builders	26	Sonic Works	5
Kiwi Marine Services, Ltd.	1	Tartan C & C Yachts of RI	1
Life Raft & Survival Equipment, Inc.	11	Ted Hood Yachts & Portsmouth Marine Co. LLC	8
Loughborough Marine Interests	2	The Hinckley Company Lotloe Harbor Yachts	120
McMillen Yachts	15	US Sailing Association	35
Melville Grille	11	Waterline Systems, LLC US Watercraft	20
Naiad Inflatables of Newport	5	Wellington Yacht Partners	1
New England Boatworks	88		

Source: RIEDC

which has lead area businesses to pursue acquisition of land owned by the Navy that lies in the heart of the marina area. Acquisition of this “Backyard” area, a 30 acre parcel in the midst of the existing boat works, has been underway for the better part of a decade. Reportedly, only about 15 acres of the site will be readily useable due to parcel configuration and site contamination which will not be remediated. According to property representatives, this additional acreage will allow for planned expansion of existing businesses presently operating at the marina which might include two new buildings with as much as 40,000

⁵ Survey conducted by RIEDC for Town of Portsmouth, 2010

square feet of building space. These would likely be 3-4 story, steel warehouse-style buildings for boat manufacture and service, with loft space for office use. Additional site activities would include a travel-lift pier for moving boats in and out of the water, as well as some indoor/outdoor boat storage space. It was anticipated that this expansion would accommodate an additional 200-300 employees for area businesses which were expected to be hired relatively soon when the initial land acquisition process began around 2000. While this hiring level is still expected to be a long-term target, short-term hiring goals are presently at about 10%-15% of those levels. Initial construction is anticipated in 2011, according to property representatives, if final approvals can be obtained from federal and state agencies regarding remediation and property transfer proceedings.

Portsmouth’s office market is comprised of approximately 190,000 square feet of building space in some 45 buildings. This figure does not include Raytheon which, as noted above, supports an additional 404,000 square feet of office space at its secured, campus-style facility. Portsmouth’s office market is typified by smaller structures, including 14 office condominium spaces ranging in size from 500 to 24,000 square feet with a median of approximately 2,400 square feet. Over the past decade, new construction in the town’s office market has been moderate with approximately 34,000 square feet of absorption between 2000-2010 through the addition of six buildings. It has reportedly taken several years to obtain 85% occupancy in one new 10,000 square foot office building, indicating relatively low tenant demand with secured spaces typically less than 1,000 square feet in size.

The town has approximately 785,000 square feet of building space in some 80 buildings that are categorized as industrial structures in the assessment records. This total does not include the 360,000 square feet of comparable space located at the Raytheon facility. Almost 315,000 square feet (35%) of the town’s inventory is warehouse space, 410,000 square feet of manufacturing space (50%), 40,000 square feet of garage space, and 20,000 square feet of industrial condominiums which are largely dedicated to office uses. Since 2000, the town has absorbed approximately 133,000 square feet of new industrial space (in 14 buildings averaging 10,000 square feet), an average of 13,300 square feet per year, much of it being warehouse structures.

Table VII-3 presents a representative sample of available properties listed for lease in Portsmouth. As shown, only a little over 7,000 square feet of office space was offered at four property locations. The average

Location	Available Lease Rate		Type of Space
	Sq.Ft.	Sq.Ft./Year	
1676 East Main Road	325	\$12.50	Office Building
Old Almy House	550	\$16.36	Office Building
1676 East Main Road	580	\$12.41	Office Building
1676 East Main Road	590	\$12.20	Office Building
Old Almy House	650	\$18.46	Office Building
Old Almy House	719	\$16.69	Office Building
Old Almy House	776	\$18.56	Office Building
14 Regatta Way	900	\$13.33	Office Building
1676 East Main Road	905	\$8.95	Office Building
New Professional Office Space	1,200	\$15.00	Office Building
Subtotal Office	7,195	\$14.45	Average
207 High Point Avenue	2,812	\$9.50	Industrial Flex Space
207 High Point Avenue	2,788	\$9.50	Industrial Flex Space
207 High Point Avenue	5,412	\$9.50	Industrial Flex Space
Subtotal Industrial	11,012	\$9.50	Average
Source: Loopnet			

size of available space was about 700 square feet with an average lease rate of \$14.45/square foot. Only one industrial property was listed, a flex space building located at the business park where 11,000 square feet is available at \$9.50/square foot.

D. Middletown Office/Industrial Trends

Middletown has a substantial base of office and industrial space within the community, much of which is concentrated in the town’s three business parks. These parks were generally established in the 1980s and 1990s, the period when most of the existing buildings were constructed. The three parks include the Aquidneck Corporate Park, Newport Corporate Park, and Enterprise Center. The Aquidneck Park has recently undergone approximately \$1.3 million in infrastructure renovation that included upgraded roadways, drainage, utilities, and landscaping, in an effort to maintain competitiveness within the marketplace. Table VII-4 lists existing tenants at the park.

Presently, the town has approximately 1.2 million square feet of office space in 74 properties, which includes financial, professional, and R&D buildings, as identified in the assessment records. User-occupied spaces range in size from less than 1,000 square feet up to 155,000 square feet. The majority of properties have less than 10,000 square feet (55%), 20% have over 30,000 square feet, with the remaining 25% between 10,000-30,000 square feet.

Table VII-4

Aquidneck Corporate Park			
Company	Estimated Employees	Company	Estimated Employees
AG Edwards	5	Moore, Virgadamo & Lynch, LTD	9
Avid Airline Products of RI	10	Newport County Community Mental Health Center	150
BAE Systems	29	Newport County Regional YMCA	265
BBN Systems & Technology		Newport Hotel Group	15
BCR Diagnostics	2	Northeast Engineer & Consultants	5
Blackstone Caterers	150	PDQ Printing & Copying, Inc	4
Bonnier Marine Group		Plantation Catering of Newport, Inc	9
Child Family Services	280	Progeny Systems Corp	3
Computer Sciences Corp	20	Research Engineering & Manufacturing Inc	10
Digital Systems Sciences		Rite Solutions	120
DPS Sporting Club Development Co		SAIC Enterprise Solutions	
Harken East		SEA Research Center	
Hood Sailmakers	14	SEA Wave	20
Kahn, Litwin, Renza & Co, LTD	1	SeaView Inn	20
KVH Industries Inc	228	Smiths Detection-Live Wave Inc	11
Kyran Research Assoc., Inc	31	Systems Engineering Associates Corporation	300
Lang Naturals, Inc.	20	Telecom Installation Services	
Legal Management Services	6	TowerStream	10
Linear Title & Closing, Ltd.		Valley Community School	
Marine Safety International, Inc		Vectrix	10
Mc Laughlin Research Corp	240	Wilcox Crittenden	2

Source: RIEDC

Little new construction has occurred in recent years with 13,300 square recorded over the last decade and no new construction since 2005, based on assessment data.

Industrial building space totals approximately 477,000 square feet in 80 properties. More than half of these properties are smaller, industrial condominium spaces, many of which are located in the Tradesmen Center building situated at the airport, as well as the Aquidneck Park facility. Sixty-eight (68) of the town’s industrial businesses occupy spaces of less than 10,000 square feet utilizing approximately 156,000 square feet of available inventory. In fact, only five buildings contain over 30,000 square feet illustrating that primary demand from industrial users comes from smaller firms. Demand for additional industrial space has apparently been limited with only 43,000 square feet of new construction, in four buildings, absorbed over the last decade.

A build-out analysis conducted in 2005 for the town's business parks estimated that an additional 370,000 to 460,000 square feet of new construction could be supported on the town's undeveloped park land with the potential for an additional one million square feet of infill development at these facilities.⁶ As noted above, little construction has occurred since this report was completed indicating there is room for further expansion at this park.

Table VII-5 presents a representative inventory of office and industrial properties available for lease in Middletown. As shown, there was approximately 143,000 square feet of office space (about 12% of the town's inventory) available at 22 properties. The average asking lease rate was \$14.64/square foot. Very few large spaces were listed with the majority under 5,000 square feet. The exception were two Class A spaces of 50,000 square feet each for \$11.50/square foot available at Aquidneck Park in the Tech Plaza 4 building which contains a total of 150,000 square feet.

Table VII-5

Listed For-Lease Office and Industrial Space - October 2010
Town of Middletown

Location	Available Sq.Ft.	Lease Rate Sq.Ft./Year	Type of Space
82 Valley Road	124	\$29.03	Office Building
1100 Aquidneck Ave	300	\$20.00	Office
82 Valley Road	402	\$16.42	Office Building
42 Valley Road	781	\$16.90	Office Building
26 Valley Rd	924	\$15.58	Office Building
Iron Gate	1,000	\$10.80	Office Building
575 East Main Rd. Wyatt Sq.	1,126	\$14.92	Office Building
333 Valley Road	1,295	\$17.14	Medical Office
42 Valley Road	1,297	\$17.58	Office Building
936 Aquidneck Avenue	1,300	\$12.92	Office Creative/Loft
Easton Ponf Business Center	1,500	Negotiable	Office Building
401 West Main Road	1,525	\$14.01	Office Creative/Loft
2 Corporate Place	2,036	\$13.95	Office Building
1272 West Main Road	2,500	\$12.00	Office Building
28 Jacome Way	2,500	\$12.00	Office-R&D
1341 West Main Road	3,000	Negotiable	Office Building
OTP Building	3,100	\$13.00	Office Building
28 Jacome Way	5,680	\$12.00	Office-R&D
1038 Aquidneck Avenue	5,920	\$8.00	Medical Office
TECH 2	7,500	\$13.50	Office Building
Tech Plaza 4	50,000	\$11.50	Office
Tech Plaza 4	50,000	\$11.50	Office
Subtotal Office	143,810	\$14.64	Average
28 Jacome Way	800	\$12.00	Industrial Warehouse
28 Jacome Way	2,035	\$12.00	Industrial Warehouse
20 Silva Lane	4,000	\$8.00	Industrial Flex Space
28 Jacome Way	4,168	\$12.00	Industrial Warehouse
Subtotal Industrial	11,003	\$11.00	Average
Total	154,813		
Source: LoopNet			

Only four industrial properties (three of which were in one building) were identified on the listing service totaling 11,000 square feet and, once again, all less than 5,000 square feet. The average asking lease rate was \$11/square foot. Limited availability of these small user industrial spaces may indicate higher levels of demand.

E. Newport Office/Industrial Trends

Newport's office and industrial markets present a notable contrast to those found in the Middletown market. Newport's properties are not located in typical business parks nor does the city have a significant supply of conventional office buildings. Instead, the city's office space is largely comprised of in-town, smaller-scale professional buildings, converted residences, and space on the upper floors of street-level retail businesses. Properties classified as industrial are largely concentrated around the Pell Bridge interchange on Third Street, Halsey Street, and JT Connell Memorial Road. For the most part, industrial properties are comprised of older warehouse-style and manufacturing buildings.

⁶ *Corporate Build-out Analysis, Middletown, RI*, Ninigret Partners, December 2005

Existing office space totals approximately 730,000 square feet in 146 user spaces (i.e. offices/condominiums within a building), which are located in some 50-60 buildings. The office stock is comprised of three primary components. There are 30 buildings categorized as professional, financial, or other general office buildings which contain almost 300,000 square feet, about 40% of the inventory. These size of these buildings are fairly evenly divided into two categories; 10,000–34,000 square feet and less than 10,000 square feet. Another 105,000 square feet are contained 90 office condominiums (14%), almost all of which are less than 3,000 square feet in size. The remaining 325,000 square feet (45%) of inventory area is located in 26 offices over retail stores, also with two prominent size categories (10,000–45,000 and less than 10,000 square feet). Some portion of this last category will include the retail square footage.

Based on assessment records, there has been only 16,000 square feet of new construction over the past decade, located in three buildings constructed after 2005. However, Newport's office market cannot be evaluated solely on the rate of new construction since, as noted above, much of its existing office space is located in existing structures that have been adapted for office use. How much office conversion has occurred cannot be readily determined from available data sources.

Newport's industrial market includes approximately 320,000 square feet of inventory in some 25 buildings. Five of the structures contain 59 industrial condominium units which brings the total number of user spaces identified in assessment records to 76 (i.e. individual buildings plus condominiums). The 20 individual buildings range in size from 1,000 square feet to 25,000 square feet with 10,000 square feet as the median size. Individual condominiums are, with only a few exceptions, all less than 2,000 square feet in size.

New construction recorded over the past decade totals approximately 13,500 square feet of industrial condominiums built on Connell Memorial Road in 2008. The structure contains 12 units which have an average size of approximately 1,100 square feet each.

Table VII-6 presents a representative sample of recently listed office and industrial properties available for lease in Newport. As shown, there were some 30

Table VII-6

Listed For-Lease Office and Industrial Space - October 2010
City of Newport

Location	Available Sq.Ft.	Lease Rate Sq.Ft./Year	Type of Space
130 Bellevue Ave	325	\$25.85	Office Building
42 Spring St.	430	\$13.26	Office Building
42 Spring St.	430	\$13.26	Office Building
9-11 Bridge St.	465	\$26.17	Office Building
42 Spring St.	491	\$20.77	Office Building
580 Thames Street	570	\$16.84	Office Building
11 Touro Street	650	\$12.92	Office Building
7 Bowler Lane	650	\$12.46	Office Building
9-11 Bridge St.	690	\$25.13	Office Building
213 Goddard Row	748	\$28.88	Office Building
79 Thames Street	816	\$9.56	Office Building
Admirals Gate Tower	850	\$17.65	Office Building
130 Bellevue Ave	1,000	\$21.00	Office Building
304 Thames Street	1,200	Negotiable	Office Building
580 Thames Street	1,452	\$19.01	Office Building
9-11 Bridge St.	1,845	\$7.80	Office Building
240 Thames Street	2,800	Negotiable	Office Building
Admirals Gate Tower	4,500	\$12.00	Office Building
Office Subtotal	19,912	\$17.66	Average
494 Broadway	175	\$44.57	Office Creative/Loft
494 Broadway	175	\$44.57	Office Creative/Loft
494 Broadway	175	\$27.43	Office Creative/Loft
28 Pelham Street	200	\$19.50	Office Creative/Loft
28 Pelham Street	200	\$27.00	Office Creative/Loft
Music Hall	268	\$21.26	Office Creative/Loft
Music Hall	461	\$13.02	Office Creative/Loft
8 Freebody Street	750	\$12.80	Office Creative/Loft
110-112 William Street	800	\$26.25	Office Creative/Loft
8 Freebody Street	900	\$21.33	Office Creative/Loft
110-112 William Street	1,200	\$25.00	Office Creative/Loft
110-112 William Street	4,482	\$20.08	Office Creative/Loft
Office/Loft Subtotal	9,786	\$25.23	Average
295 Connell Highway	800	\$15.00	Industrial Flex Space
Total	30,498		
Source: Loopnet			

office properties listed, a portion of which were categorized as perhaps more unique office/creative loft space. Overall, there was almost 30,000 square feet of leasable space identified, which represents about 4% of the city's inventory. The available offerings reflect the smaller sizes typical of the market, as noted previously, with the majority under 1,000 square feet. The average lease rate for general office space was \$17.66/square foot with the specialty spaces, which tended to be even smaller in size, at a higher \$25.23 square foot average.

Only one small industrial flex space property, containing 800 square feet, was identified for lease in on-line listings. This suggests that demand is relatively strong in this component of the market, similar to what was observed in the Middletown industrial market as well.

F. Retail Market Trends

The study area communities have a combined total of approximately 4.0 million square feet of retail building space, based on a review of assessment records. The majority of this inventory is located in Newport which has 2.3 million, followed by Middletown's 1.3 million, and about 450,000 square feet in Portsmouth. Over the past decade, the Island has absorbed approximately 172,000 square feet of new construction in this sector which represents an annual average increase of 17,200 square feet.

In 2009, the approximate 31,000+ households in Newport County had a combined retail spending demand for selected goods and services of \$929.2 million which equates to a demand of \$29,800 per household. Retail sales in Newport County exceeded demand by \$53.3 million, most notably in the food, beverage and eating/drinking sectors. Unmet retail demand, or sales leakage, is most predominant in the general merchandise and hardware/building materials retail sectors. Overall, and for these selected merchandise lines, the retailers in Newport County are estimated to be capturing 106% of the local demand, suggesting that the county is a net importer of retailer sales. However, what is not factored into these sales is the amount of visitor and tourism activity most notably reflected in such categories as the 186% capture rate for food/beverages, or the 153% capture rate for eating/drinking establishments.

A previous study⁷ concluded that, in 2004, the estimated market capture rate for the communities of Newport,

Table VII-7

Estimated Retail Sales Leakage - 2009

Newport County

Major Merchandise Line (NAICS code)	Supportable New Retail Sq.Ft.	2009 Sales Leakage
Total Estimated Square Footage/Leakage	71,368	\$260,034,170
Motor Vehicle and Parts Dealers-441	4,712	\$12,487,508
Furniture and Home Furnishings Stores-442	4,870	\$14,611,301
Electronics and Appliance Stores-443	5,256	\$18,214,105
Radio, Television, Electronics Stores	3,279	\$11,474,931
Computer and Software Stores	1,570	\$5,417,784
Camera and Photographic Equipment Stores	407	\$1,321,390
Building Material, Garden Equip Stores -444	15,507	\$49,383,000
Food and Beverage Stores-445	0	\$0
Health and Personal Care Stores-446	1,531	\$4,752,425
Clothing and Clothing Accessories Stores-448	1,893	\$7,456,279
Sporting Goods, Hobby, Book, Music Stores-451	2,745	\$6,041,843
General Merchandise Stores-452	31,902	\$132,146,978
Department Stores Excl Leased Depts	10,452	\$52,782,161
All Other General Merchandise Stores	21,450	\$79,364,817
Miscellaneous Store Retailers-453	376	\$1,024,954
Foodservice and Drinking Places-722	2,577	\$13,915,777

Source : Claritas and RKG Associates, Inc.

⁷ The 2006 North End Master Plan – Appendix B Economics and Market Analyses, Bonz & Company, April 2006.

Middletown and Portsmouth (not necessarily county-wide) was 181% of the local demand. The 2004 study also suggested that the potential for additional retail development to capture sales leakage in those categories where the local market was underserved, amounted to approximately 70,000 square feet. Assuming a 100% capture of the \$260 million in leaked sales, the market could presently support approximately 71,000 square feet of additional development, as presented in Table VII-7.

Notable among the estimated additional supportable square footage of retail is the 10,500 square feet for department store(s) and 21,500 square feet for other general merchandise, as well as 2,600 square feet of limited service restaurants, such as fast food. Also, if the building materials and hardware/home improvement categories (three-digit NAICS of 444) were combined into a single project, a potential 15,500 square feet development may be supported. Potential recapture of sales leakage for most other retail categories present a small and fragmented opportunity, such as 450 square feet for a bookstore, or 650 square feet for a shoe store.

G. Hotel Market Trends

The hotel and lodging market for the greater Newport County area is largely concentrated in the City of Newport and the Town of Middletown. Data compiled by the Newport Convention Center and Visitor's Bureau (NCC&VB) indicates that, as of July, 2010, there were a total of approximately 3,930 hotel rooms in Newport and Bristol Counties located at 184 lodging establishments. Of this total, about 95% of the rooms were located in Middletown and Newport, as illustrated in Table VII-8. The Town of Portsmouth contains an additional 48 rooms at 8 establishments, according to this inventory.

	Middletown		Newport City		Other Locations		Total	
	Rooms	Properties	Rooms	Properties	Rooms	Properties	Rooms	Properties
Hotels/Motels	1,303	18	1,409	15	71	2	2,783	35
Inn/B&B	70	15	536	101	115	24	721	140
Timeshare	-	-	374	7	51	2	425	9
Total	1,373	33	2,319	123	237	28	3,929	184
% Total	35%	18%	59%	67%	6%	15%	100%	100%

Source: NCC&VB

The data in Table VII-5 illustrates that the supply of hotel/motel rooms in Middletown (1,303) has expanded over the years to a level that is almost equivalent to the Island's prime tourist destination in Newport which has just over 1,400 rooms. The average size of hotel/motel facilities is larger in Newport at 93 rooms while Middletown's establishments have 72 rooms on average. However, Newport has a secondary supply of additional rooms at specialty and niche establishments such as Inns/Bed & Breakfasts and timeshare condominiums that far exceeds what is available at other locations on the Island or elsewhere in the region.

The most recent additions to the lodging inventory include several mid-priced establishments constructed in Middletown over the past decade. These properties are as follows with a combined total of 352 rooms.

<u>Rooms</u>	<u>Year Built</u>	
117	2000	Holiday Inn Express
95	2003	Hampton Inn Suites
43	2006	Quality Inn & Suites Atlantic Beach Hotel
97	2009	Marriott Residence Inn

Tourism is the primary driver for hotel room demand with an estimated 70% of hotel visitors traveling for leisure purposes.⁸ However, business travelers, military-related clients, and visitors to area post-secondary educational institutions also contribute to occupancy of lodging facilities. In fact, according to area professionals, a key reason for the expansion of mid-priced hotel rooms in Middletown has been due to this non-leisure component of the market.

In order to ascertain the market potential for additional lodging facilities in the study area, data gathered by Smith Travel Research (STR), an industry analytical firm, was examined. This data is based on regular surveys conducted by STR with a variety of facilities on the Island and across the country. Some of the key trend indicators used to understand the dynamics of the lodging market include:

- Occupancy Rate – Rooms sold divided by rooms available.
- Average Daily Rate (ADR) – the actual dollar amount paid for rooms
- Revenue Per Available Room Night (RevPar) – total room revenue divided by the number of rooms available (rented or vacant)
- Room Supply and Room Demand – the total room nights available for the year (or other time period) versus number of rooms actually rented
- Revenues – Total room revenue generated from the sale or rental of rooms

There are several categories of lodging facilities available on the Island which include upper upscale, upscale, mid-priced, economy, and independent (which can vary in price range). As denoted by their names, these categories reflect room rates at the various facilities which are relative to property design, amenities and services, location, etc., that are available at a given property. [Given that the Navy hospital site offers a waterfront location that is not too distant from downtown Newport, which typically captures the high-end of the lodging market, it has been assumed that an upscale hotel is most likely the type of facility that would be constructed if this site were used for lodging.] Based on this assumption, the data examined here is derived from a sampling of eight higher-end hotels that currently operate in the market. These facilities contain approximately 1,240 rooms in total which represents approximately one-third of the Island's total supply.

⁸ Ibid

The data in Table VII-9 and Figure VII-1 illustrates the economic downturn’s effect on the lodging market where indicators show a marked change before and after 2007. Prior to this date, occupancy rates for these upscale establishments averaged around 62.3% but dipped to 57.6% in 2008-09. The average occupancy for this six year time period (2004-09) was about 60%. However, as of September, 2010, the year-to-date occupancy showed signs of improvement having achieved 63% which represented a 7.7% increase year-to-year (September to September). The market analysis conducted for the Newport North End Master Plan reported a similar occupancy rate of 63% between 2000 and 2004 indicating that this has been a consistent ceiling for occupancy in the market over the past decade. Only in 2000 did occupancy rates reach higher to 68.3% (data not shown). General industry standards typically consider occupancy rates of 60%-65% to be normal conditions capable of sustaining operations. However, rates in excess of 65%-70% usually need to be achieved before developers will consider demand strong enough to warrant new construction of additional facilities.

Table VII-9
Market Indicators for Upscale Hotels 2004-2010

Study Area	Occupancy (%)	% Change	ADR (\$)	RevPAR (\$)	Room Nights		Revenue (\$)	% Change
					Supply	Demand		
2004	62.8	—	\$169	\$106	441,285	276,921	\$46,901,042	—
2005	61.4	-2.1%	\$180	\$110	440,065	270,384	\$48,587,540	3.6%
2006	61.4	-0.1%	\$192	\$118	439,775	269,850	\$51,679,447	6.4%
2007	63.5	3.6%	\$204	\$130	445,094	282,852	\$57,708,220	11.7%
2008	59.2	-6.8%	\$204	\$121	471,945	279,594	\$56,913,086	-1.4%
2009	55.9	-5.6%	\$178	\$100	471,945	263,933	\$47,090,663	-17.3%
Avg 04-09	60.6	—	\$188	\$114	451,685	273,922	\$51,480,000	—
2010 Year-to-Date (Jan-Sep)								
Average	63.0		\$194	\$122	352,989	222,218	\$43,085,416	
September to September (2009-10)								
% Change	7.7		4.4	12.5	0.0	7.7	12.5	

Source: Smith Travel Research

There is also considerable variation in the seasonality of occupancy rates. The high season for these upscale facilities, as well as the Island as a whole, is June through August. During that period, average occupancy reached about 84% for this six year time period, even exceeding 90% in August (data not shown). The Fall shoulder season also does well with average rates of about 75% in September and October. However, the remaining off-season periods can experience rates as low as low as 25%-30% and averaged about 43% during this time period.

Along with occupancy rates, revenues also indicate some signs of rebounding from the recessionary conditions. Total revenues for this upscale segment averaged about \$51.4 million over six years having achieved a high-

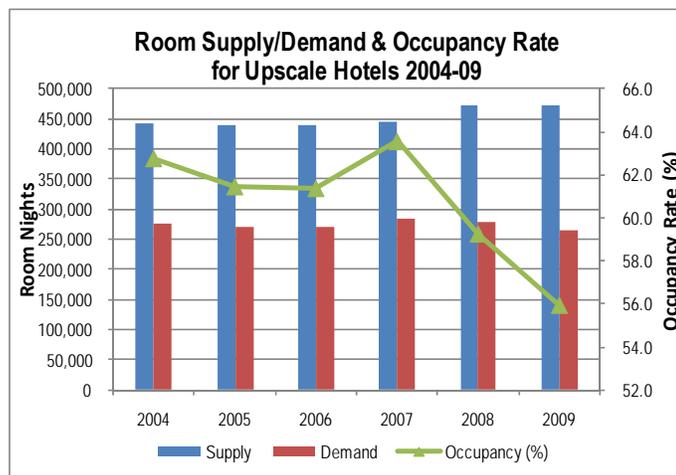


Figure VII-1

point of \$57.7 million in 2007. Despite declines in 2008-09, revenues as of September, 2010, have increased by 12.5% over the previous year's level. Some of this current year increase is related to increases in rental rates, as represented by the ADR, which grew by 4.4%, suggesting real growth in revenues was about 8%.

Overall, the analysis of this upscale sample of study area lodging facilities indicates that the bottom of the market may have been reached and that occupancy appears to be returning to historic levels that preceded the recession. However, long-term occupancy rates do not indicate that there is a strong demand in the market to add additional rooms. This is not to say that the Navy hospital site could not support a new, high-end hotel if the facility offered something unique in the marketplace and was appropriately priced. Future improvements proposed as part of the North End Master Plan would also help to support such a reuse of the site if access were improved and additional supporting land uses were also developed in the area. However, unless tourism numbers grow in the future, construction of a new hotel would not be without risk and would likely result in the redistribution of visitors from existing facilities in the study area.

H. Conclusions

This analysis has presented an overview of the changes that have occurred in the office and industrial markets on Aquidneck Island over the past decade. It also presented an estimate of retail sales leakage and the potential additional square footage that could be supported based on current consumer spending patterns, as well as hotel occupancy trends and future indicators for the Island's upscale lodging market.

Overall demand in the office and industrial markets has been relatively modest in terms of total square footage absorbed over the last decade. The size of leased space is typically relatively small for both market segments. However, the historic absorption data may understate actual demand since the assessment data on which it is based would not necessarily include existing space that was converted to office use. Furthermore, space in existing industrial/warehouse buildings is often being used by atypical tenants which makes forecasting future demand somewhat less clear. Growth in industry sectors that drive office demand is expected to remain relatively strong over the next five years which suggests that absorption will be at levels that, at least, match historic trends. Industrial demand may also remain comparable but new construction could occur at the expense of existing properties by attracting tenants from older facilities. As discussed previously, demand for true industrial manufacturing space has been limited and therefore, this category has been grouped as industrial/flex/warehouse space given the uncertainty surrounding potential types of users.

The retail analysis indicates there is existing, unmet demand in the market but absorption would probably be more successful if phased in over a number of years. As the economy improves beyond the five-year horizon demand is also likely to increase somewhat across these sectors. Based on this potential, as well as other factors examined as part of this economic base analysis, Table VII-10 illustrates the estimated potential for short-term and long-term absorption of building space within these real estate sectors.

Table VII-10
Historic and Projected Building Absorption (Sq. Ft.)

Study Area	Historic Absorption 2000-2009					Projected 10-Year Absorption		
	Middletown	Newport	Portsmouth	Total	Annl Avg	Average Sq.Ft. Per Year		Total
						1-5 yrs.	6-10 yrs.	
Office	13,300	16,000	34,000	63,300	6,330	7,500	10,000	87,500
Industrial/Flex/Warehouse	43,000	13,500	133,000	189,500	18,950	10,000	15,000	125,000
Retail	148,446	24,258	-	172,704	17,270	15,000	15,000	150,000

Source: Local Assessment Data and RKG Associates

VIII. PROPERTY TRANSFER PROCESS

This chapter describes the various methods of transfer available to the Navy under the BRAC legislation and regulations⁹. BRAC is “the process that the Department of Defense (DoD) uses to reorganize its installation infrastructure to more efficiently and effectively support its forces, increase operational readiness, and facilitate new ways of doing business.”¹⁰

Generally, these conveyance methods fall into two major categories that involve options for transferring the property, or portions of the property, at no cost or reduced cost, as well as others that involve acquisition at fair market value. Other options discussed in this chapter involve the potential for early transfer of the facility for civilian use prior to full closure and environmental cleanup by the military.

All of the options available are reflective of the military’s criteria for disposal of surplus property emanating from the 2005 BRAC evaluation process. These criteria emphasize, among other factors, DoD’s intent to expedite the transfer process and to maximize a return on investment for the federal government as part of that process. This indicated desire to accelerate the closure process and transfer the facility to community use means that the military may be more flexible in applying a variety of approaches to hasten this conveyance. However, it is also an indication that the military will “rely on and leverage market forces” to the greatest extent possible, as noted in the Base Realignment and Closure Manual (BRRM). All of these factors have ramifications for the AIRPA’s preparation of a final reuse plan, which will be discussed in this and subsequent chapters of the redevelopment plan.

A. Property Transfer Alternatives

Once the decision has been made through the BRAC process to close a military installation, federal law provides for a number of alternative transfer methods that can be employed by the DoD to dispose of the property. The primary methods of transfer most likely to be considered by the Navy for the facility are outlined in Table VIII-1 and discussed in more detail in the subsequent portions of this chapter. These methods are based on information presented in the BRRM, which contains the DoD’s primary guidelines for reuse of BRAC facilities. Additional transfer methods not included in the table are also discussed in the following sections.

One of the first steps in the disposal process is the “screening” of the property to determine if other federal agencies have use for any or all of the facility. In the case of the five surplus properties, no other federal users identified an interest in the facility within the allotted

⁹ The Federal law governing the BRAC process is contained in provisions of Title II of the Defense Authorization Amendments and Base Closure and Realignment Act (Public Law 100-526, 102 Stat. 2623, 10 U.S.C. 2687 note), and the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510, Part A of Title XXIX of 104 Stat. 1808 U.S.C. 2687 note)(reference (c)).

¹⁰ *Base Redevelopment and Realignment Manual (BRRM)*, Office of the Deputy Under Secretary of Defense (Installations and Environment), March 1, 2006.

timeframe, which resulted in its designation by the DoD as “surplus” property. In light of this fact, disposal of the property can potentially occur under one or more alternative methods of transfer that will be dependent upon the type of end user (i.e. public or private) and the intended use.

Table VIII-1 Primary Property Transfer Alternatives

Conveyance Method	Conditions	Community Planning Considerations
Public Benefit Conveyance (PBC)	<ul style="list-style-type: none"> • The property is conveyed at market value unless a sponsoring agency determines a discount is warranted. • The property must be used for public purposes (schools, airports, healthcare, recreation, etc.) • Sponsoring agencies may impose additional land use controls 	<ul style="list-style-type: none"> • Market value is an objective of the sponsoring agency – an appraisal will most likely be needed • Consideration should be given to how the reuse plan will affect market value and ultimately the price paid to the sponsoring agency
Economic Development Conveyance (EDC)	<ul style="list-style-type: none"> • Conveyance can only be made to an approved Implementation LRA. • The military department may seek market value but is not required to under proposed rule changes. However, the military can grant an EDC without consideration if proceeds support economic development for 7 years • Proceeds not used for economic development can be recouped by the military 	<ul style="list-style-type: none"> • Market value may need to be determined – if so, an appraisal must be completed • If LRA develops property it must determine there are enough qualified investments (e.g. new infrastructure) to warrant a discount
Negotiated Sale to Public Entities	<ul style="list-style-type: none"> • Property can only be conveyed to public entity for a public benefit • Same benefit cannot be obtained from sale or PBC conveyance • Congress must approve transaction • If property is sold within 3 years all profits revert to the military 	<ul style="list-style-type: none"> • Market value will determine final sale price for LRA or other public body – an appraisal must be completed
Advertised Public Sale	<ul style="list-style-type: none"> • Property is conveyed by the military through a public bidding process • Military must <u>consult</u> with LRA before taking this approach • The military’s objective will be to seek sale to highest responsible bidder 	<ul style="list-style-type: none"> • Because this process requires a bid process, market value is assumed to be part of this process • The establishment of minimal land use controls in the reuse plan may encourage more rapid, market-driven redevelopment, if so desired by the LRA

Source: *Understanding Key Issues in DoD’s Base Redevelopment & Realignment Manual*, An Infobrief from the Association of Defense Communities, May 2006 (abridged)

1. Public Benefit Conveyance

One of the more useful methods of property transfer for a variety of public uses is the Public Benefit Conveyance (PBC). A PBC can be used to convey real or personal property to state and local governments, and certain non-profit organizations, for public purposes at no cost or reduced cost. These purposes include schools, parks, public health facilities, law enforcement, emergency management response, correctional facilities, historic monuments, self-help housing, and wildlife conservation. If this method is selected by the LRA, and approved by the DoD, a federal sponsoring agency may request assignment of the property for purposes of conveying the property to a designated eligible recipient. The sponsoring agencies are responsible for selecting qualified applicants and determining the amount of the discount (if any) from the fair market value of the property. It should be noted that some uses, such as law enforcement, emergency management response, correctional facilities, historic monuments, and wildlife conservation, do not require a sponsoring agency and can be directly transferred from the DoD to an approved recipient. The applicable PBC approaches that are potentially useful in redeveloping the property are summarized below.

Public Safety – Water and sewer systems, as well as medical facilities, can be transferred without cost as a PBC through the endorsement of the U.S. Department of Health and Human Services. Property for use by law enforcement or fire protection may be transferred through the Department of Justice or the Department of Homeland Security.

Education – The U.S. Department of Education can convey land and facilities to public and private non-profit educational institutions on a discounted basis over thirty years. The educational entity actually fulfills the obligation to the Federal Government for the property at the rate of three and one-third percent annually through constructive educational use. Title to the property is conveyed up front, subject to educational use restrictions, and reverter or buy-out provisions.

Open Space/Parkland – The U.S. Department of the Interior is the sponsoring agency for PBC of open space and outdoor recreational facilities including state and national parks, historic sites and other related properties.

2. Disposal of Property for Use by Homeless

As part of the initial screening process for reuse and disposal of a BRAC property, consideration must be given to potential use of the property to provide housing and/or service for the homeless. Property that has been identified for potential use to the homeless can then be conveyed to either an organization that is a representative homeless provider, as approved by the U.S. Department of Housing and Urban Development (HUD), or the LRA. If the property is conveyed to the LRA, it must then make it available to the homeless provider for no cost. The LRA would be responsible for monitoring the use of the property and ensuring that the homeless provider complies with the legally binding agreement that must accompany all such conveyances.

In accordance with base closure law, the LRA must solicit Notices of Interest (NOI) from state and local governments, representatives of the homeless, and other interested parties in the vicinity of the installation that may be eligible for a Public Benefit Conveyance related to the property. The LRA must give notice as to the timeframe in which NOIs will be accepted for submittal and hold hearings to allow interested parties to provide input into the reuse planning process.

The interests of homeless providers in surplus military property plays an important role in the BRAC process. The Federal Department of Housing and Urban Development must approve the LRA's reuse plan, which must demonstrate that these interests were taken into account throughout the planning process. The LRA published the required notice and proactively contacted homeless providers in the two county region and made them aware of the BRAC process. No providers came forward with a Notice of Interest in the surplus properties.

3. Economic Development Conveyance

Transfer of all or portions of the property could potentially occur by means of an Economic Development Conveyance (EDC) from the Navy. Only the LRA is eligible to acquire property under an EDC. The LRA must demonstrate that the proposed uses for the property will generate sufficient jobs to justify an EDC conveyance, and that the proposed land uses are realistically achievable given current and projected market conditions. Based on existing regulations, the Navy is required to seek fair market value consideration for the EDC conveyance, although it is authorized on a case-by-case basis to grant an EDC for no consideration (typically only used in economically distressed and/or rural areas). However, pending proposed rule changes would revise a number of criteria and requirements that the DoD has historically been required to follow for granting an EDC, which are outlined below.

- The most significant change is that the Department of Defense (the Department) will no longer be required to seek to obtain fair market value for an EDC
- Transfer may be made below estimated market value, or without consideration, if the LRA agrees to reinvest sale or lease proceeds for not less than seven years and to take title to the property within a reasonable timeframe
- The Department does not need to obtain an appraisal of the property as part of the EDC conveyance which should result in an expedited transfer process
- The Department will have more flexibility regarding the form of consideration it can accept including the authority to accept consideration in the form of revenue sharing, or so-called "back-end" funding, which may include proceeds from leases, sale of property, in-kind goods and services, or real property improvements that accrue to the LRA
- The determination of consideration accepted may now take into account the economic conditions of the local affected community and the estimated costs to redevelop the property

The LRA is responsible for preparing and application, including development of a business plan, to support their conveyance request under the EDC alternative.

4. Negotiated Sale

A negotiated sale can only be transacted with a public body if a public benefit, which would not be realized from a competitive advertised sale or authorized PBC, will result from the negotiated sale. The grantee may not pay less than fair market value based upon a highest and best use appraisal of the property. In addition, final approval of the sale must be authorized by Congress. If the property is sold within three years following a negotiated sale, the grantee will be required to remit all proceeds in excess of its initial acquisition costs and allowable holding and improvement costs.

5. Public Sale

If the LRA, after preparing a reuse plan, determines it is in the best interest of the community not to be directly involved in redeveloping the site, it can recommend that the Navy dispose of the property through a public sale. The actual method of sale could include sealed bid, Internet auction, or on-site auction to the highest bidder. Under such an approach, the DoD would make a determination whether to sell the entire site or as subdivided parcels. Property acquired by a private organization or individual is subject to local land use and zoning controls. The LRA's reuse plan would recommend any necessary changes to these ordinances to support the type of development desired.

6. MILCON Exchange

This relatively recent transfer authority allows the military department to convey a BRAC property to a third party in exchange for the construction of equally valued facilities at some other location(s). The acquiring entity can either do the construction itself (or through agreement with other firms) or arrange for the money to be available for another Navy project, without the need to go through the MILCON process. The value of the exchange is at the property's fair market value (based on an appraisal). The reuse of the property will be guided by market forces and by the land use regulations (zoning) that come out of the reuse plan or that are already in place.

7. Interim Use Leases

The ultimate goal of the military, with regard to BRAC facilities, is to dispose of any surplus property as promptly as possible. One means of facilitating an early or expedited transfer is through execution of an interim lease. Prior to deed transfer there may be opportunities for the LRA to obtain access to certain land parcels or facilities on an interim use basis that could allow economic development to proceed prior to actual installation closure and transfer. There are many examples from previous BRAC rounds where the LRA assumed responsibility for operation of the base's infrastructure in order to facilitate establishment of a master lease agreement that allowed for subleases of specific structures or sites, for civilian uses. This, in turn, created short-term revenue-generating activities and/or helped to minimize the operating and maintenance costs of the properties.

If the Navy determines that the interim use of the property would facilitate state and local economic efforts, and not interfere or delay the final property disposal, it may be inclined to grant such a lease. Further, the Navy may accept less than fair market value if it

determines that such acceptance would be in the public interest and fair market rent unobtainable or not compatible with such public benefit. Before entering into a lease, the military must consult with the Environmental Protection Agency (EPA) and the State of Rhode Island on environmental quality to determine whether environmental conditions on the property are acceptable, as discussed subsequently under Section C, related to early transfer authority, for execution of such an agreement.

8. Other Issues

The Federal Coastal Zone Management Act (CZMA) encourages states to take a leading role in the management of their coastal regions. Section 307 of the CZMA requires that various federal activities that are reasonably likely to affect any land or water use or natural resource of the coastal zone be consistent with a state's approved coastal zone management program. Before certain activities can take place, federal agencies or applicants for federal approvals or assistance must submit a consistency determination or certification to the state coastal management agency that the activity will be conducted consistent with the state's federally approved coastal management program. Through this process, the state has the opportunity to evaluate those federal activities which affect the state's coastal zone and ensure that the activities meet state coastal management policies.

Rhode Island has a federally approved coastal zone management program under the authority of the Coastal Resources Management Council (CRMC). For purposes of administering federal consistency in Rhode Island, the state's coastal zone contains the 21 coastal communities in their entirety. In this case, the entire geographic area of the three Aquidneck Island communities are included in the state's coastal zone. Land acquisition, transfer, and disposal by a federal agency are a direct federal activity of the CRMC's Federal Consistency regulations. Accordingly, the proposed disposal of land through the BRAC process by the Navy within the municipalities of Portsmouth, Middletown, or Newport would require a federal consistency review and determination by the CRMC to ensure that such land disposal activity would be consistent to the maximum extent practicable with the state's coastal zone management program, including any applicable Special Area Management Program provisions.

B. Appraisals and Fair Market Value

As noted under Section A-3 (Economic Development Conveyance) above, proposed rule changes would no longer require that the Department of Defense obtain an appraisal of fair market value prior to granting of an EDC. However, the regulations do not preclude the Secretary of the Secretary of Defense, or a designee such as the Secretary of the Navy, from gathering such information to insure that the property disposal process is appropriately informed. Therefore, any transfer of property by means of an EDC, as well as a negotiated sale, public sale, certain PBCs, may necessitate preparation of an appraisal. Appraisals must be based on the highest and best use of the property, taking account of all property conditions that are relevant to fair market value. The final determination of fair market value is made by the Secretary of Department and cannot be negotiated by the LRA. Appraisals obtained by the seller (DoD) are typically not shared with the buyer (LRA), sometimes leading to the need for the LRA to obtain its own independent appraisal as a basis for conveyance negotiations to establish the value.

Determining market value can often appear to be a rather subjective judgment since arriving at a highest and best use for a property is dependent upon a number of assumptions that reflect *potential* future conditions that may exist at the property. Market value is heavily dependent upon assumptions related to market conditions, availability of resources, tenants, environmental contamination, capital costs, building code violations and zoning regulations. An analysis of highest and best use is required to determine the highest economic return that is typically based on the four following tests.

- What uses are *physically possible* for the site in that they could function adequately for their intended purpose?
- What uses are *legally possible* based on compliance with all applicable land use regulations and laws?
- Which uses are *financially feasible* in terms of their ability to provide an adequate return on investment?
- What is the *maximum productivity* of the physically, legally, and financially feasible uses, in terms of generating the highest return?

Based on these criteria, it is evident that the local reuse planning process can have a significant impact on determining highest and best use and ultimately market value. The final reuse plan will address issues such as zoning and other land use controls, estimated infrastructure improvements, public land uses, and redevelopment incentives. Detailed plans that provide proposals for high-density development, for example, may result in higher market value than less detailed or lower density redevelopment plans. While this possibility should not necessarily preclude planning for more intensive land use, it is important that any plan accurately reflect redevelopment potential from an economic perspective, since this planning is likely to affect the purchase price that will have to be recovered by either the community or a private developer.

C. Early Transfer of Property

Under certain circumstances, the military may have environmental remediation responsibilities regarding a BRAC installation that could preclude immediate transfer of property or otherwise affect the clear-title status of the facility. In the case of NAVSTA Newport, including the five sites under consideration, such a situation will exist with regard to remediation of any contaminated sites at the facility where final cleanup and long-term monitoring by the Navy is expected to continue into the future.¹¹ Initial analysis of the environmental data for the five sites indicates that various levels of contamination exist that may permit early transfer to be utilized if so desired.

Provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) require federal agencies to complete all environmental remediation actions for contaminated sites before transferring property by deed to a nonfederal entity. Baseline environmental conditions at the property are described elsewhere in the reuse plan. An amendment to CERCLA in 1996 provided an alternative approach that allows for early

¹¹ The Navy's clean-up schedule will be based on the results of the Environmental Assessment (EA) that will be completed, once the reuse plan is done, such that future land uses are identified.

transfer of contaminated sites prior to full remediation. Furthermore, through the course of the last several BRAC rounds, the DoD has made significant efforts to expedite the transfer of such sites, including approaches that involve privatization of all or portions of the environmental cleanup process. An early transfer of a military base with privatized environmental remediation typically requires the following interrelated agreements.

- An environmental services cooperative agreement (ESCA)
- A guaranteed fixed-price (GFP) contract
- Environmental insurance
- Enforceable agreement(s) with the state environmental regulatory agency and/or the EPA

As part of the transfer agreement, the DoD can oversee the entire cleanup process or enact a subsidiary agreement with either a local, county or state government agency, as well as a private entity that represents the interest of a BRAC installation, to oversee cleanup and restoration activities. This agreement is referred to as a Covenant Deferral Request which would take the form of a deed provision warranting that "all remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of transfer" and that "any additional remedial action found to be necessary after the date of the transfer shall be conducted by the United States." The governor of the state in which the facility is located, would be the party responsible for accepting such an agreement. For facilities listed on the Non-Priority List (NPL), the EPA, with the concurrence of the governor, may defer this CERCLA-authorized covenant for parcels of real property.

D. Implementation LRA

Once the reuse plan is adopted, the types of issues confronting the LRA will typically change from consensus building and preparation of a land use plan to implementation and management of a redevelopment effort. If the LRA decides to pursue a more active role in the redevelopment of the surplus properties by utilizing an EDC then it will need to become what is known as an "Implementation LRA." This new entity would need additional powers and authority in order to take actions relative to owning property, borrowing funds, and entering into legally binding agreements to facilitate a direct role in redeveloping the property, to name a few. Establishment of this new LRA would require approval from the DoD.

The organizational structure of this new entity will be influenced by the nature of the property to be managed. In essence, an implementation LRA should be established so that it has the capability, in terms of staff, skills and authority, to best manage redevelopment efforts directed by the preferred reuse alternatives established for the surplus NAVSTA properties. In light of these long-term needs, it is very likely that the composition of the implementation LRA board members will be different than the planning LRA since the new focus will be on selling and leasing property, maintaining the utilities, roadways and common property; and providing for the business-like operations and financing of a major real estate holding. Furthermore, broader representation on the implementation LRA may be

sought outside the communities from public or quasi-public agencies, or other groups that have expertise that would be beneficial in supporting the redevelopment planning efforts.

If the LRA plays a larger role, or if there is property that will take a long time to redevelop and there is a need for interim management and caretaker responsibilities, then the staffing requirements will be proportionally greater. This would include property management specialists and crews (unless contracted out), legal expertise, marketing and sales people, etc. Typical LRA's that take on the implementation "in house" have annual budgets ranging from a few hundred thousand dollars to a few million dollars. Conversely, an implementation LRA may decide to maintain a small staff and contract out various marketing, financing and development tasks to a private sector master developer. In such instances an outside firm is retained, through a competitive bid process, to provide a range of maintenance, engineering, marketing and management functions for a fee ("development advisor"), but does not take actual title to the undeveloped property (although it may be able to also be the developer of specific parcels within the overall plan).

IX. PUBLIC OUTREACH

A. Property Screening

Outreach to area homeless service providers, as well as PBC recipients, was provided through a combination of public notice postings, public informational meetings, follow-up email correspondence, and personal tours of the surplus properties. The list of area providers that were contacted was obtained from the local HUD regional field office. In addition to the five local homeless assistance providers¹², a number of other agencies that support the homeless, as well as other populations in need within the region and state, were also on this list and as such, were contacted by the LRA. They include the following.

1. Crossroads Rhode Island
2. Rhode Island Housing
3. Family Service of Rhode Island
4. Rhode Island Housing Hotline
5. Housing Authorities of Portsmouth and Newport
6. Church Community Housing Corp
7. Amos House
8. Eastbay CAP
9. Westbay CAP
10. New Hope
11. McAuley Village
12. Domestic Violence Resource Center
13. Mental Health Consumer Advocates of Rhode Island
14. Providence Community Action
15. Family Resources Community Action
16. Blackstone Valley Advocacy Center

1. Public Notice

A Notice of Availability of Surplus Federal Property to State and Local Eligible Parties, Including Homeless Service Providers was published on June 22, 2010 in the Newport Daily News, the largest circulation newspaper on Aquidneck Island (see Figure IX-1). The advertisements and supporting documentation indicated that a workshop would be held on July 28, 2010. The advertisements also explained the Notice of Interest process and indicated that NOIs would be received by the LRA until 5:00 pm on November 22, 2010. This allowed a total of 153 days from the newspaper publication date for responses to be received.

¹² Child and Family, Lucy's Hearth, McKinney Shelter, Women's Resource Center, and Housing Hotline.

In addition to this initial public notice, two reminder advertisements were also run in the Daily News within a week of the public meeting on Friday, July 23, and Monday, July 26, 2010.

their own price to get into the museum for the day.

♦ Associated Press

For fast results ... Try a Classified ad. 849-3300

Availability of Surplus Federal Property to State and Local Eligible Parties, Including Homeless Service Providers Aquidneck Island Reuse Planning Authority

As required by the Base Closure Community Redevelopment and Homeless Assistance Act of 1994, as amended (the Redevelopment Act) and its implementing regulations, the Aquidneck Island Reuse Planning Authority (the LRA) for Naval Station Newport is seeking notices of interest (NOIs) for surplus property at the installation.

State and local governments, homeless service providers and other interested parties may submit NOIs no later than 5 p.m. on November 22, 2010. A listing of surplus property at Naval Station Newport was published by the Department of the Navy in the Federal Register on February 9, 2010. The complete listing can be obtained by calling the LRA contact person identified below.

NOIs for homeless assistance may be submitted by any State or local government agency or private nonprofit organization that provides or proposes to provide services to homeless persons and/or families residing in the Newport County communities of Portsmouth, Middletown and/or Newport, Rhode Island.

A workshop will be held on July 28, 2010 at the Community College of Rhode Island Auditorium - Newport -located at One John H. Chafee Boulevard, Newport RI beginning at 3pm, which will include an overview of the base redevelopment planning process, a tour of the surplus property, information on any land use constraints known at the time, and information on the NOI and Public Benefit Conveyance (PBC) process. To register for this workshop, please call the LRA contact person identified below before July 19, 2010. Attendance at this workshop is not required to submit an NOI, but is highly encouraged.

NOIs from homeless service providers must include: (a) a description of the homeless assistance program that the homeless service provider proposes to carry out at surplus properties located in Middletown, Portsmouth and/or Newport; (b) a description of the need for the program; (c) a description of the extent to which the program is or will be coordinated with other homeless assistance programs in the communities in the vicinity of Naval Station Newport; (d) information about the physical requirements necessary to carry out the program, including a description of the surplus buildings and property at Naval Station Newport that are necessary in order to carry out the program; (e) a description of the financial plan, the organizational structure and capacity, prior experience, and qualifications of the organization to carry out the program; and (f) an assessment of the time required to commence carrying out the program.

Entities interested in obtaining property through a public benefit conveyance (PBC), other than a homeless assistance conveyance, are invited to contact the following Federal agency offices to find out more about each agency's PBC program and to discuss with the agency the entity's potential for qualifying for a conveyance of property. Federal agencies sponsoring PBCs include the Department of the Interior for parks, recreation, wildlife conservation, light-houses, and historic monuments uses; the Department of Education for educational uses; the Department of Health and Human Services for public health uses; the Department of Justice for correctional facilities and law enforcement uses; the Department of Housing and Urban Development for Self-Help Programs; the Department of Transportation for airports and seaports; the Veterans Administration for cemeteries; and the Federal Emergency Management Agency for emergency management responses. A complete listing of the Federal agencies with PBC programs and specific points of contact is available from the LRA.

NOIs for PBCs must include: (a) a description of the eligibility for the proposed transfer; (b) the proposed use of the property, including a description of the buildings and property necessary to carry out such proposed use; (c) time frame for occupation; and (d) the benefit to the community from such proposed use, including the number of jobs the use would generate.

For additional information or to register for the workshop, contact Tina Dolen at Aquidneck Island Planning Commission at 401-845-9299.

Figure IX-1

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2. Information Meetings

On July 28, 2010, the aforementioned public informational meeting was held at the Community College of Rhode Island campus in Newport. This meeting was attended by 60-70 members of the community, including a number of homeless providers and other social service advocates.

A presentation was given at the public informational meeting that addressed the following topics and points of information¹³.

- Summary of BRAC Process and Planning
- Available Surplus Property Background
- AIRPA's Role
- HUD Guidance and Procedure
- Public Benefit Conveyance Guidance
- Property Disposal Mechanisms

Attendees of the informational session were provided with a *Notice of Interest (NOI) Application Packet For Homeless Service Providers and Public Benefit Users*. This packet contained the following items.

1. Declaration of Surplus Property
2. OEA AIRPA Recognition
3. AIRPA NOI Solicitation
4. NOI Instructions
5. Public Benefit Conveyance Information
 - a. GSA PBC Matrix
 - b. Contact Information
6. HUD Guidance Information (partial)
7. Environmental Condition of Property

Upon completion of the public information meeting a tour of the surplus properties was offered to all interested attendees of the session. There were approximately 40 individuals who went on the tour.

B. Evaluation of Notices of Interest (NOI)

In order for a state/local agency to acquire property via a PBC, the LRA must carefully evaluate the intended use and weigh the proposed benefits against the broader goals and objectives of the redevelopment. Due to the special focus placed on applications from homeless service providers under the BRAC laws, these "Notices of Interest" (NOI) require a somewhat different approach than other potential users.

¹³ Assistance on the public informational meeting presentation was provided by representatives from OEA, HUD, and BRAC PMO.

Based on the experience of other LRA's around the country, the following criteria were suggested for evaluating all NOI's for a PBC transfer:

- Each submittal should contain all the required information requested in the published Notice of Interest Application.
- Degree to which the proposed use is compatible with and supports the overall civilian reuse plan for the property, as expressed in the LRA's goals and objectives statement.
- Extent to which the proposed use(s) involve a cooperative regional and/or multi-agency approach.
- Organizational and financial capacity of the applicant(s) to carry out the proposed proposal.

Additional criteria identified for evaluating NOI applications submitted by housing-the-homeless providers concerning potential reuse of the property include:

- Extent to which the proposal includes the necessary "legally binding agreement" commitments that will ensure the property will benefit the homeless in the future on a permanent basis.
- Degree to which the proposed housing-the-homeless use is compatible with and supports the overall reuse plan for the property.
- Degree to which the application achieves the local needs-objectives identified in the "Continuum of Care" and Consolidated Plan.
- Degree to which the proposed housing-the-homeless application can be "co-located" with other related uses on the site.
- Extent to which the proposed program serves to "ensures a balance between economic redevelopment, other development, and homeless assistance."
- Things that must be kept in mind during this discussion include:
 - Site location and neighborhood
 - Interim and Long-term uses
 - Other possible methods of conveyance
 - Special requirements of certain uses (i.e. security).

C. Housing the Homeless NOI

No NOIs, and subsequently no Legally Binding Agreements, were received by the LRA from Housing the Homeless service providers for consideration or action.

D. Other NOIs

The LRA received four viable requests for PBCs of surplus property from local communities and the State of Rhode Island. A fifth application (Solaris Power, LLC) was received but

only four were able to secure the required federal sponsorship in time for the November submittal deadline, as illustrated in Table IX-1.

Table IX-1

Public Benefit Conveyance Notices of Interest Submitted				
	Applicant Name	Proposed Use	Property Sought	Federal Sponsor
1	City of Newport	Recreation/Open Space	Portion of Naval Hospital Complex (approx. 2 acres of upland and 3 acres of submerged land)	Dept. of Interior/National Park Service
2	Town of Middletown	Recreation/Open Space	Midway Pier/Green Lane (approx. 25 acres)	Dept. of Interior/National Park Service
3	Town of Portsmouth	Transportation	Portion of Tank Farm 1 (approx. 4 acres)	Dept. of Federal Highways
4	Rhode Island Dept. of Transportation	Transportation	Defense Highway and Stringham Rd.	Dept. of Federal Highways
5	Solaris Power, LLC	Green Energy	Tank Farm 2 (96 acres)	None

E. Public Outreach Sessions

The LRA has attempted to make the reuse planning process as transparent and inclusive as possible from its earliest inception. In fact, the three communities in the jurisdiction area, Portsmouth, Middletown, and Newport, had begun soliciting input from the public even prior to the actual formation of the LRA.

In addition to the introductory public information session held by the AIRPA on July 28, 2010 in Newport, the LRA held three total public participation workshops in order to involve residents and other stakeholders in the planning process.

The first public workshop was held on February 10, 2011 at the Middletown Town Hall. The AIRPA and its consultants conducted this meeting, which included a presentation followed by question and answer period for the public. The purpose of this first meeting was to inform the public of the existing conditions of the sites, present project issues and obtain public comment. The agenda for this meeting included a description of the AIRPA's role in the process, an overview of the project status at that time, a summary of the Baseline Conditions Report, a summary of the NOIs received to date, and next steps. The Baseline Conditions Report summary presentation addressed not only transportation and environmental conditions of the sites (including hazardous materials, fuel tanks, and cultural resources) but also the market and economic analyses that were conducted, as well as economic diversification strategies. Approximately 40 people attended this first public workshop.

The second public workshop was held on April 7, 2011, at the CCRI Newport Campus. The meeting consisted of a presentation by AIRPA and its consultants, followed by smaller group "break out" discussions (facilitated by the LRA's consultant team), and concluding with a question and answer period. The presentation included a project overview, a review of the site characteristics, a review of the preliminary redevelopment scenarios that had been

generated, and next steps. The primary purpose of this meeting was to present to the public the alternatives for redevelopment and to inform the public about the project status. Redevelopment scenarios were presented for each of the sites (Navy Hospital, Navy Lodge, Defense Highway Properties, Tank Farm 1 and Tank Farm 2), including discussion of site constraints and assumptions made for each conceptual plan. Approximately 50 people attended this second public workshop.

Several ideas related to the reuse concepts proposed within the redevelopment scenarios for each of the five sites were raised in the “break out” discussion groups, and included the following major “themes” (in no order of priority):

Navy Hospital

- Job creation and economic development should be a priority
- The chapel building footprint should be maintained if possible
- Ensure future uses on the site do not negatively impact traffic volume or flow
- A waterfront public park (with good pedestrian access) component should be considered

Navy Lodge

- A mixed use (retail/office) development is supported

Tank Farms 1 and 2

- Site location (transportation access) may limit commercial and industrial development potential
- The proposed north and south Defense Highway connectors present an opportunity for the sites
- Wind power generation should be considered

Defense Highway

- Ensure Navy remediates environmental issues

The third and final public workshop was held in July, 2011 at the CCRI Newport Campus. The primary purpose of this final public workshop was to present the final results of the redevelopment plan, and inform the public of what will occur in the future as the process continues. There were no public comments received for Navy Lodge, Tank Farm sites or Defense Highway properties. Relative to the Navy Hospital site, a Newport resident requested that the City of Newport evaluate neighborhood impacts related to any transportation improvements made in the Newport Point area.

X. REDEVELOPMENT ALTERNATIVES

This chapter provides the results of an analysis of different redevelopment options for each of the five surplus Navy sites, based on the public input received during the many public outreach sessions, the goals of each of each individual community, and on current and anticipated local and regional market conditions. Each community expressed a desire to improve economic development opportunities related to job and property tax base growth but not at the expense of community character or quality of life. Each of the alternatives analyzed are considered conceptual and flexible and were developed for planning purposes.

A. Alternatives Evaluated

In order to provide the AIRPA with a range of potential redevelopments to consider for each of the surplus sites, the consultant team evaluated a wide variety of uses that would be considered technically feasible. Each of the alternatives evaluated considered the existing environmental conditions, market and economic conditions, transportation considerations, and input from the AIRPA Board, residents and the three municipalities' planning staff.

1. Navy Hospital

The City of Newport submitted an NOI for approximately five acres (two acres of upland, three acres submerged) of land at this site with the intent of redeveloping this area for recreation, open space, marine related recreation and parkland. Considering this NOI request, four different alternative development scenarios were generated for the hospital site – all of which incorporate the NOI request for recreation, open space and parkland. The assumptions used to generate the alternatives were identical and included:

- The site will be environmentally remediated to enable the proposed uses;
- The setbacks for parking and buildings will meet the Navy's force protection requirements;
- Zoning will be modified to enable the proposed uses;
- All buildings (with potential exception for Building 45) are functionally obsolete and cannot be feasibly reused¹⁴.

The Navy Hospital site includes approximately 3 acres of submerged land and 7 acres of upland, according to the Navy's surplus property declaration. The exact location and bounds of this property is not certain, as the Navy has not surveyed it yet.

¹⁴ The Rhode Island State Historic Preservation Office (SHPO) requires a development feasibility study should any future development plan suggest demolition of any buildings at the site. Facades or elements of existing buildings should be considered as part of any future development plan.

A new owner of the submerged property, after it has conveyed, is very limited in what can be done with it. In Rhode Island, almost all submerged land is publicly owned. Land beneath the high-tide line is subject to the Public Trust Doctrine, a set of rules whose lineage can be traced from Roman to English law. As one of the original colonies, Rhode Island received title to its lands initially as a charter from King Charles II. In 1663, Roger Williams secured from the king a charter for "Rhode Island and Providence Plantations," which held a land grant and included title to tidal lands. This was based upon English common law, in which the title and the dominion in lands flowed by the tide were held by the king for the benefit of the nation.

The Public Trust Doctrine protects the rights of the public to use submerged lands in certain ways, even if those lands are sold to a private entity. These protected uses generally include fishing, fowling, and navigation. In the Rhode Island Constitution, protected activities include fishing from the shore, leaving the shore to swim in the sea, passage along the shore, and the now somewhat anachronistic activity of gathering seaweed from the shore. However, the constitution also provides that it shall be the duty of the General Assembly to provide for the preservation, regeneration, and restoration of the natural environment of the state. In Rhode Island, it is the General Assembly that is the ultimate arbitrator between competing uses of submerged lands.

The legislature, in turn, created the Rhode Island Coastal Resources Management Council (CRMC) to oversee and manage state waters, giving it "exclusive jurisdiction below mean high water for all development, operations, and dredging, consistent with the requirements of chapter 6.1 of this title and except as necessary for the department of environmental management to exercise its powers and duties and to fulfill its responsibilities."¹⁵ The CRMC is the primary permitting agency for most activities involving coastal waters, public or private and its jurisdiction is carried 200 feet inland from the high water mark. The use of the waterfront is also under local jurisdiction (City of Newport) and state environmental laws through the Department of Environmental Management.

As a result, the 3 acres of submerged property that is included in the Navy's parcel adds little value from a market perspective, because of the high level of state (and local) regulations.

The four alternatives developed for the Navy Hospital site include:

- Scenario 1 (Mixed Use): This conceptual plan (see Figure X-1) indicates a waterfront park, as per the City of Newport's NOI, with a pier, trails and open space for public use. The foundation of the former chapel is indicated to remain, with a future use for that building within the park to remain flexible¹⁶. The eastern portion of the site contains access from Third Street, including public access for the site and waterfront park. Also indicated is a new 3-story building for mixed use development, including a hotel (100-120 rooms) and retail shops over at-grade parking. The existing building

¹⁵ See - R.I.G.L. 46 23 6(2)(ii)(A)

¹⁶ It should be noted that since the time of evaluation of each of the development alternatives, the chapel building has been demolished by the Navy. As discussion of each alternative included the chapel footprint, the chapel footprint reuse concept was included as part of the evaluation process.

in the southeast corner of the site is proposed to remain and be reused as a 2-story office/commercial building (24,000 SF). Parking for that building is shown behind the structures (4 spaces per 1,000 SF). The water and pier were identified for boat moorings, marina and a marine harbor shuttle. Depending on the end-uses at this site, it is estimated that up to 114 jobs would be created.



Figure X-1

- Scenario 2 (Mixed Use): This conceptual plan (see Figure X-2) indicates a waterfront park and chapel foundation to remain as described in Scenario 1. Also, the proposed 3-story hotel with retail shops and restaurant is the same as in Scenario 1. The difference with this plan is a new building proposed in the southeast corner of the site. This building would be a 3-story over at-grade parking, with 36 residential units (or potential office). The water and pier were identified for boat moorings, marina and a marine harbor shuttle. It is estimated that up to 42 jobs would be created under this scenario.
- Scenario 3 (Residential): This conceptual plan (see Figure X-3) indicates a waterfront park and chapel foundation to remain as described in Scenarios 1 and 2. However, this plan includes two residential buildings, both 3-story over at-grade parking. The northern building would contain 54 units, and the other building would contain 36 units, for a total of 90 units on the site. Parking is provided at 2 spaces per unit. The water and pier were identified for boat moorings, marina and a marine harbor shuttle. As this scenario contains only residential uses, no permanent jobs would be created.
- Scenario 4 (Research/Office): This conceptual plan (see Figure X-4) indicates a waterfront park and chapel foundation to remain as described in the plans above. The use on the remainder of the site in this scenario is research and development, along with office use. In this plan, the parking is indicated internal to the site, along



Figure X-4

Under each of these scenarios the entire Hospital site would be transferred to the LRA under an economic development conveyance with the waterfront open space park area earmarked (and subsequently transferred through a PBC) to the City of Newport. The LRA would need to incur capital costs for demolishing the existing buildings, improvements to utilities and infrastructure serving the site. Order of magnitude costs for these capital improvements are estimated at approximately \$4.7 million.

2. Navy Lodge

The redevelopment scenarios developed for the Navy Lodge site were generated through the planning process for the *West Main/Coddington Development Center Master Plan*, in which AIRPA was an active participant. In addition to the Navy Lodge site (3 acres), the Master plan included the redevelopment of three parcels (an additional 11 acres) to the north of the Navy Lodge site, which include the Town's Recreation Complex, Public Library and former JFK Elementary School. The Master Plan illustrates the goals for those sites and the surrounding area to redevelop into a mixed use center with office, retail, housing, and municipal uses.

Two Conceptual Plans (Scenarios 1 and 2) were created for redevelopment of the Navy Lodge site, as shown in Figures X-5 and X-6. Key assumptions for redevelopment of either of these scenarios include:

- The potential need for upgrades to Town sewage system;
- That the site will be environmentally remediated to enable the proposed uses;
- That the zoning will be modified to enable proposed uses;
- That the access point shown will align with Maplewood Road;

- That portions of the site are to be used for transportation improvements; and,
- That redevelopment of this site may be in coordination with redevelopment of adjacent municipal and/or private properties.

Scenario 1 suggests a potential mixed use development on the entire 14 acre site including 28,000 SF of civic uses, 94,000 SF of retail, and 82,000 SF of office space. This development program is shown in structures in the southeast and northeast corners of the Navy Lodge site with other improvements within each of the other three sites, with primary access from Coddington Highway, and parking behind the buildings. This scenario includes future signalized transportation improvements at the West Main/Coddington and West Main/East Main intersections. Permanent employment is estimated at over 480 jobs for Scenario 1.

Scenario 2 includes a larger mix of uses within the 14 acre area including 75,000 of civic uses, 106,000 SF of retail, 56,000 SF of office, and 175 residential units (apartments). Another difference compared to Scenario 1 is that this scenario includes future roundabout transportation improvements at the West Main/Coddington and West Main/East Main intersections. This configuration requires more land to be taken from the corner of the site, and therefore, building configuration is somewhat different from Scenario 1. Permanent employment is estimated at over 430 jobs for Scenario 2.

The location attributes of the former Navy Lodge site, including traffic counts and visibility, are all favorable to development, most likely as a retail use. However, development build-out, or density, on the specific Navy Lodge site may be somewhat limited. This takes into account such elements as parking requirements, limited availability of curb-cuts, potential roadway improvements at West Main and Coddington and considerations for a “gateway” element at this intersection, as examples. As such, developing this parcel in conjunction with the adjacent ball field (and additional northern parcels – library and JFK School) is required in order to attract private sector involvement, thereby allowing for a bigger site with more potential. This could also assist in assuring developer participation of future public use development of the northern parcels.

The development time frame for the Navy Lodge site and these northern parcels is considered to be speculative and longer term, perhaps three to five years at a minimum. On one hand this allows for additional studies and issues to be addressed, such as the library relocation (if that is the decision) and the school acquisition for redevelopment.

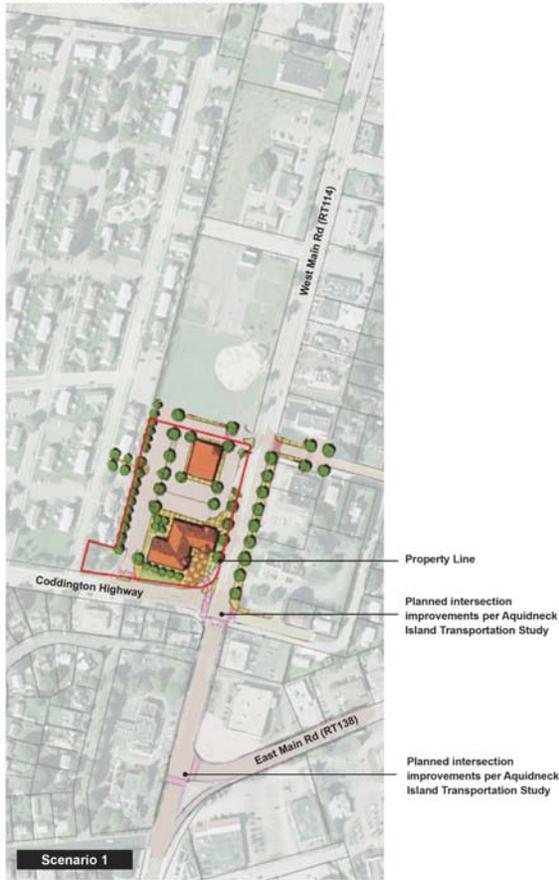


Figure X-5 Scenario 1



Figure X-6 Scenario 2

Note: Uses are flexible and conceptual.

In either scenario, the Navy Lodge site is transferred to the LRA “as-is” who would be responsible for any capital or infrastructure improvements. The transfer, through an EDC, would coincide with the development of the three other northern parcels (additional 11 acres) whereby one or more developers would redevelop the entire 14-acre site. Order of magnitude capital costs and infrastructure upgrades are estimated to be over \$500,000.

3. Tank Farms 1 and 2

A Conceptual Plan was created for redevelopment of Tank Farms 1 and 2, as a combined ±146 acre site, as shown in Figure X-7. Environmental characterization is not complete at this time, but known environmental issues include: underground and above ground storage tanks, soils and groundwater contamination, fuel lines, and asbestos. The redevelopment plan for this site assumes that the Tank Farm sites will be environmentally remediated to accommodate the proposed uses and sewage treatment capacity is available. Even with this assumption, a 300-foot setback was assumed from the existing tank locations, since site investigation is not complete. These setbacks are represented by the dashed circles on the plan, where intensive development is assumed to be unfeasible due to the potential structural instability of the underground tanks and surrounding soils.

The consultant team considered a range of potential options for reuse of the tanks at Tank Farms 1 and 2, including for solid or liquid material storage. Based on an analysis of the information provided, the reuse of the tanks at Tank Farms 1 and 2 for solid or liquid material storage does not appear feasible for the following reasons:

- The USTs at both tank farms are beyond the end of their service life and should not be used for storage of liquids of any kind (other than ballast water to preserve the integrity of the tank bottoms and sides). Many of the steel tanks in Tank Farm 1 were found to have leaks which are likely due to corrosion and indicate the USTs deteriorating condition. Many of the concrete tanks in Tank Farm 2 have cracks in their floors which allow entry of groundwater.
- The tanks cannot be used for dry storage as they have to be ballasted with water to prevent implosion of the tank bottoms due to hydraulic pressure from groundwater.
- Storage of water or other liquids (other than ballast water) is not feasible. Although the tanks have been cleaned, concrete is a porous material and as such has absorbed petroleum substances from previously stored fuels. These substances may leach from the concrete into water or other liquid contained in the tanks, thereby contaminating it.
- Additionally, the tanks may contain vapors, gasses or low oxygen conditions which are harmful to human health. The tanks are confined spaces. State and federal law requires special training and equipment and a formal permit procedure for entry into a confined space.



Figure X-7

Proposed uses on other areas of the concept plan include: office space, light industrial, boat storage, and multi-modal parking. The 400-space parking facility is located on the west side of the site, adjacent to the rail line, and is based on a NOI received from the Town of Portsmouth. This NOI indicates a request for a portion (approximately 4 acres) of Tank Farm 1 to be proposed to be used as a Park and Ride facility. Just to the north of the multi-modal parking facility on the concept plan, is an area for approximately 55,000 SF of light industrial space along the rail line. North of that is another parcel indicated for additional light industrial development ($\pm 40\text{-}50,000$ SF) or for boat storage. Boat storage is indicated as a potential use due to the related uses to the west, with boat manufacturing and marinas in this immediate area.

To the east of this area, another three buildings on the concept plan are shown, also proposed as light industrial development ($\pm 90,000$ SF) and associated parking, with access from Bradford Avenue to the east. The far south end of the site, with access from Stringham Avenue, is shown as potential redevelopment of $\pm 110,000$ SF of office space for small users and small business “start-ups”. This area of the site is separated by the areas to remain vacant due to the existing fuel tanks. This area has a small pocket in the center which could potentially be developed with a solar array or other non-intensive use, as indicated on the plan. Total uses on this concept plan, therefore, include up to 190,000 SF of light industrial; 110,000 SF of office space; along with a 400-space parking facility.

As previously stated, the environmental characterization of the Tank Farms has not been completed and may not be completed until 2013. Based on the environmental issues identified in the characterization, clean-up efforts by the Navy may take up to ten years (or more) in order to render the sites developable. Once the site has been remediated, under this scenario, the site would be transferred to the LRA (through an EDC) who would be responsible for capital improvements and upgrades to the infrastructure serving the site. The area identified as the Park and Ride facility would be earmarked (and subsequently transferred) to the Town of Portsmouth. Order to magnitude costs for the capital improvements and infrastructure upgrades are estimated at about \$5.5 million (net of proceeds from the sale of scrap metal and other materials from the site). The total number jobs created under this scenario would depend on the specific end-users, however, at full build-out (which may take 10 years or more), this scenario may generate up to 600 jobs.

4. Defense Highway Properties

The combined acreage of the highway property totals approximately 67 acres, which include linear property “ribbons” located across from Greene Lane Intersection along the western shoreline of the island spanning the Towns of Middletown and Portsmouth. The Stringham Road portion is 1 mile long and the Defense Highway portion is 3.6 miles long. The Defense Highway is a critical connection for the north-south circulation on the island, with a high volume of traffic, as well as provides key linkages to the properties within NAVSTA Newport which supports the base’s core mission. Although environmental characterization is incomplete, known environmental issues on various portions of the site include: pipelines and piping chambers, underground storage tanks, asbestos, contaminated groundwater, PCBs,

hazardous materials. Other environmental constraints include floodplains and CRMC 200-foot contiguous areas.

For this set of linear properties, several scenarios have been envisioned as part of the *Aquidneck Island Transportation Plan*. The RIDOT has submitted a NOI for transportation along Defense Highway and Stringham Road. Due to the on-going nature of the Aquidneck Island Transportation Plan which ran concurrent with this study, two alternative scenarios were explored for the configuration of Defense Highway. The Defense Highway two-lane scenario illustrates the road in its existing (2-lane) configuration, with the addition of a multi-use pathway in a greenbelt on the opposite side of the railroad tracks, adjacent to the water. This plan assumes that the roadway will be environmentally remediated to enable the proposed uses; and that zoning will be modified to enable the proposed uses (if necessary). These scenarios are described below. In general, the goal of the *Aquidneck Island Transportation Plan* is to connect the northern end of the Defense Highway directly to West Main Road, and the southern end to Coddington Highway through, or adjacent to, the Navy base.

The Defense Highway four-lane scenario illustrates the roadway expanded to four lanes (two lanes in each direction) along with the multipurpose path described above. This plan also assumes that the roadway will be environmentally remediated to enable the proposed uses; and that zoning will be modified to enable the proposed uses (if necessary), and that East Main Road would need to be two lanes, with a bike path. Both the two-lane and four-lane scenarios described above were drafted as part of the *Aquidneck Island Transportation Plan* process. Planning for the Defense Highway properties will be conducted in consideration of the Transportation Plan. However, the *Aquidneck Island Transportation Plan* did not recommend the four lane cross section along Burma Road (and has not been included as a preferred reuse option for this Redevelopment Plan). Figure X-8 shows the Defense Highway two and four-lane scenarios.

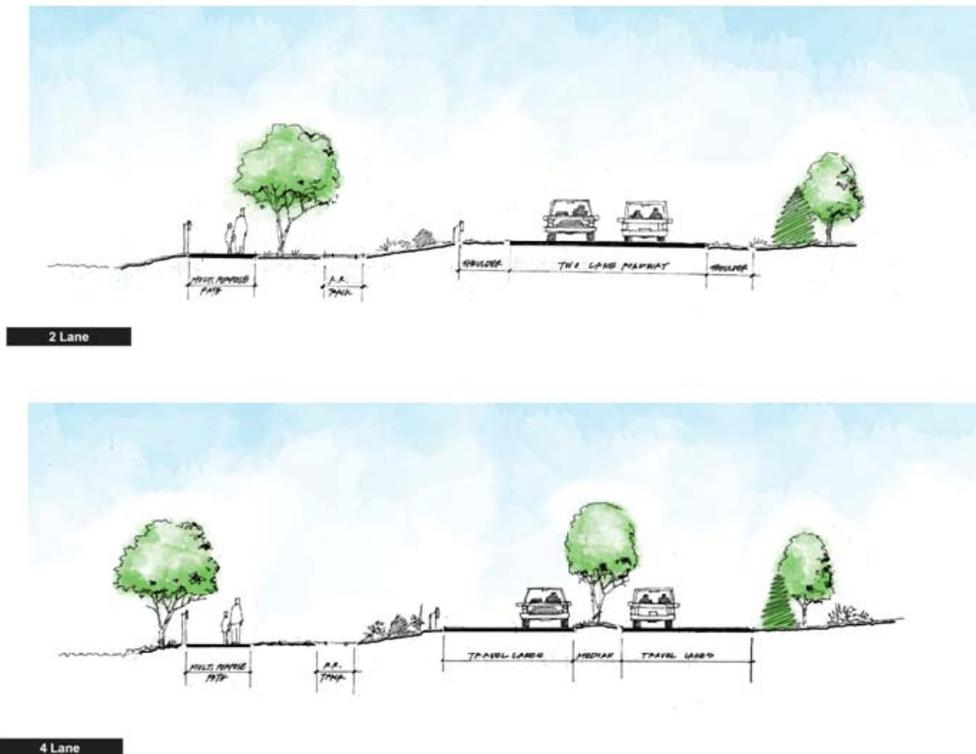


Figure X-8

The other aspect being considered in this area is the concept of Open Space “Ribbons”. For this, a NOI has been received from the Town of Middletown for recreation/open space use for ± 25 acres at the Midway Pier/Greene Lane. As shown in Figure X-9, the area included would encompass the Midway Pier and lands just to the north and to the south. A plan for a shoreline park prepared by the Town and the AIPC, including a fishing pier, kayak launch, restrooms, playgrounds, parking, picnic areas and pathways has been integrated into the conceptual plans for this overall site.

Under this scenario, the property would be conveyed through a PBC to RI DOT (for the Defense Highway) and the Town of Middletown (for the parkland) who would be responsible for any improvements. Order of magnitude capital improvement and infrastructure upgrades for both the Defense Highway and park are estimated at approximately \$2 million. No new permanent jobs would be created within the proposed Defense Highway and Midway Pier/Greene Lane Park concepts.



Figure X-9

XI. PREFERRED REUSE PLAN

A. Preferred Reuse Plan

After review and discussion of the redevelopment alternatives for each of the sites including public AIRPA meetings and public meetings with each municipality, the AIRPA selected a development alternative for each site – referred to as the Preferred Reuse Plan. The Preferred Reuse Plan targets specific types of development on each site based on each site’s physical, environmental, and locational attributes. In its most basic form, the Preferred Reuse targets the following types of development on site:

- Navy Hospital: Mixed consisting of hotel, residential and/or office use
- Navy Lodge: Mixed use consisting of retail and/or office mixed use in conjunction with civic and residential uses on adjacent parcels
- Tank Farms 1 and 2: Mixed use consisting of light industrial, office and flex space use, boat storage, multi-modal transportation, non-intensive solar panel or other development approved in the Town of Portsmouth’s Planned Unit Development
- Defense Highway: Public open space and two-lane highway transportation corridor.

1. Navy Hospital

Scenario 2 was selected as the preferred plan for redevelopment of this site. Since creating the scenarios, the chapel building has been demolished and is no longer part of the reuse plan for the site. The preferred plan includes a 3-story hotel (100 to 120 rooms) with additional space for retail space and/or restaurants over at-grade parking in the northeast corner of the site, a 3-story 36-unit residential building (or potential office use) over at-grade parking in the southeast corner of the site, and a waterfront park at the western edge of the site based on an NOI received from the City of Newport. The waterfront park may include amenities, such as a pier, a waterfront pedestrian path, a marine harbor shuttle station and recreational boat moorings. (Refer to Figure XI-1).

Key assumptions:

- Assumes the Navy Hospital Site will be environmentally remediated to enable the proposed uses
- Assumes the setbacks for parking and buildings will meet the Navy’s force protection requirements
- Zoning will be modified to enable the proposed uses

- Assumes all buildings are functionally obsolete and cannot be feasibly reused¹⁷



Figure XI-1

2. Navy Lodge

The preferred plan developed for the Navy Lodge site was generated through the planning process for the *West Main/Coddington Development Center Master Plan* in which AIRPA participated. In addition to the Navy Lodge site, the Master plan included the redevelopment of three parcels (an additional 11 acres) to the north of the Navy Lodge site, which include the Town's Recreation Complex, Public Library and former JFK Elementary School. The Master Plan illustrates the goals for those sites and the surrounding area to redevelop into a mixed use center with office, retail, housing, and municipal uses.

¹⁷ Pending development feasibility analysis as required by the SHPO – facades or elements of buildings should be considered as part of any future development plan. The preferred alternative does not assume the reuse of any buildings in the Navy Hospital Complex Historic District. The use of federal tax credits for the rehabilitation of the historic buildings in this district would, therefore, not be applicable in the context of economic feasibility for this project. Even if only portions of one or more of the historic buildings were retained, such as the hospital building façade, it would not be able to take advantage of this historic tax credit program, due to the requirement that the Secretary of the Interior's Standards for Rehabilitation must be met in order to receive the credit. Removing the majority of the building would not meet these standards.

As shown in Figure XI-2, the preferred plan for this site is a mixed use development on the entire 14 acre site including 50,000 SF of civic uses, 80,000 SF of retail, 45,000 SF of office space and 175 residential units. This development program is shown with retail uses in the southeast and northeast corners of the Navy Lodge site with other improvements within each of the other three sites, with primary access from Coddington Highway and West Main Road, and parking behind the buildings. This plan includes future roundabout transportation improvements at the West Main/Coddington and West Main/East Main intersections, if approved by the Town.



Figure XI-2

The location attributes of the former Navy Lodge site, including traffic counts and visibility, are all favorable to development, most likely as a retail use. However, development build-out, or density, on the specific Navy Lodge site may be somewhat limited. This takes into account such elements as parking requirements, limited availability of curb-cuts, potential

roadway improvements at West Main and Coddington and considerations for a “gateway” element at this intersection, as examples. As such, developing this parcel in conjunction with the adjacent ball field (and additional northern parcels – library and JFK School) is required in order to attract private sector involvement, thereby allowing for a bigger site with more potential. This could also assist in assuring developer participation of future public use development of the northern parcels.

The development time frame for the Navy Lodge site and these northern parcels is considered to be speculative and longer term, perhaps three to five years at a minimum. On one hand this allows for additional studies and issues to be addressed, such as the library relocation (if that is the decision) and the school acquisition for redevelopment.

3. Tank Farms 1 and 2

Tank Farms 1 and 2 would be redeveloped as a combined 146 acre site with office space, light industrial/flex space, boat storage, multi-modal parking and possible non-intensive development (such as a solar array) (see Figure XI-3). Within the plan, a 400-space (4 acre) parking facility would be located on the west side of the site, adjacent to the rail line, and is based on a NOI received from the Town of Portsmouth. Just to the north of the multi-modal parking facility, is an area for approximately 55,000 SF of light industrial/flex space along the rail line. North of that is another parcel indicated for additional light industrial development ($\pm 40\text{-}50,000$ SF) or for boat storage.

To the east of this area, light industrial/flex development ($\pm 90,000$ SF) and associated parking are proposed with access from Bradford Avenue to the east. The far south end of the site, with access from Stringham Avenue, is shown as potential redevelopment of $\pm 110,000$ SF of office space for small users and small business “start-ups”. This area of the site is separated by the areas to remain vacant due to the existing fuel tanks. This area has a small pocket in the center which could potentially be developed with a solar array or other non-intensive use, as indicated on the plan. Total uses for this plan include up to 190,000 SF of light industrial/flex space and 110,000 SF of office space, along with a 400-space parking facility. Within this plan, the partial USTs and ASTs on Tank Farm 1 would be demolished.

Key assumptions:

- The Tank Farm sites will be environmentally remediated to enable the proposed uses
- The plan assumes 300 foot setbacks from the remaining USTs
- Zoning will be modified to enable the proposed uses (if necessary)
- It is assumed that the waste water demand (i.e. sewer) created by the proposed uses will be provided for and accommodated off-site.



Figure XI-3

4. Defense Highway

The preferred plan for the Defense Highway is similar to what was previously developed during the alternatives stage of the BRAC process. The combined site totals approximately 67 acres; with linear properties across from Greene Lane Intersection, including portions of with the western shoreline of the island spanning the Towns of Middletown and Portsmouth. The Stringham Road portion is 1 mile long; and the Defense Highway portion is 3.6 miles long. With only two other major north-south transportation routes on the Island (Route 114 and Route 138), the Defense Highway represents a critical third transportation connection for north-south circulation on the island, with a high volume of traffic. Furthermore, the Defense Highway represents a key transportation element to support the core mission of NAVSTA Newport.

The Rhode Island Department of Transportation (RIDOT) has submitted a NOI for the Defense Highway and Stringham Road. The preferred use for these existing roadways dovetails with the recently completed *Aquidneck Island Transportation Study* which recommends a two lane scenario. Figure XI-4 illustrates the road in its existing (2-lane) configuration, with the addition of a multi-use pathway in a greenbelt on the opposite side of the railroad tracks, adjacent to the water. This plan assumes that the roadway will be environmentally remediated to enable the proposed uses and that zoning will be modified to enable the proposed uses (if necessary).

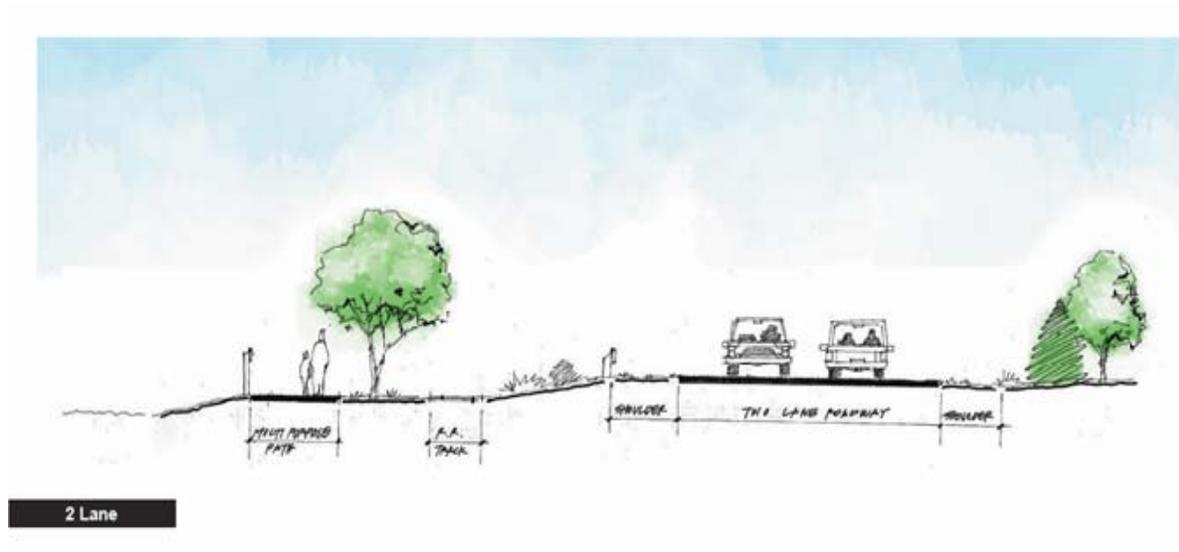


Figure XI-4

The other aspect planned in this area is the concept of Open Space “Ribbons” as shown in Figure XI-5. For this, a NOI has been received from the Town of Middletown for recreation/open space use for ± 25 acres at the Midway Pier/Greene Lane. As shown in Figure XI-6, the area included would encompass the Midway Pier and lands just to the north and to the south. A plan for a shoreline park prepared by the Town, including a fishing pier, kayak launch, restrooms, playgrounds, parking, picnic areas and pathways has been integrated into the plan for this site.



Figure XI-5

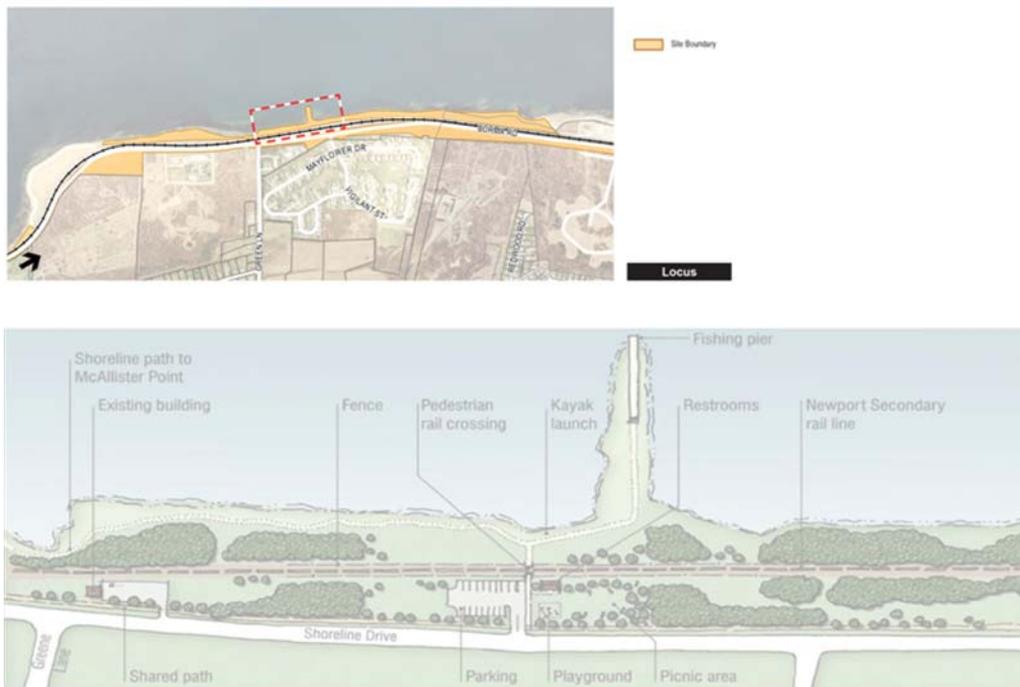


Figure XI-6

B. Implementation

In order to implement the Preferred Reuse Plan, a development entity will be needed to oversee the environmental characterization and remediation of property being undertaken by the Navy, administer and manage the distribution of earmarked property, and be a liaison

between the Navy and community. The development entity could be private company or individual or a public organization. The disadvantage for a private company or individual is that the environmental liabilities and associated redevelopment costs of the sites may be too significant in order to finance the improvements within the Preferred Reuse Plan. The advantage of a public sector development entity is that in addition to having a lower return on investment (ROI) requirement, it would be eligible for state and federal grant funds to help support the reuse plan. This may prove to be critical given the potential environmental uncertainties and building demolition needed at some of the sites.

1. AIRPA Role and Transition (Implementation LRA)

Because of the environmental liabilities and time needed to redevelop the sites, the AIRPA which jointly represents the City of Newport, Town of Middletown and Town of Portsmouth, seeks to retain its oversight role for the redevelopment of the surplus properties. To do so requires it to revise its current charter and authority and to become an Implementation LRA that has the legal powers to own property, borrow monies, receive grants, manage, lease or sell property, and other necessary functions to undertake the redevelopment of the properties. This can be accomplished by vote of each jurisdiction's governing bodies.

The LRA may then seek to acquire any or all of the properties from the Navy utilizing a combination of conveyance mechanisms including an EDC and PBC as described under the BRAC rules and regulations. The properties may be held by the LRA until each site has been prepared for development and can then be transferred to the host community. For those properties with limited site constraints (like the Navy Lodge site), transfer to the host community (Town of Middletown) may be immediate. For other sites (such as Tank Farms 1 and 2), transfer from the Navy may not happen for many years (until any outstanding environmental contamination issues have been addressed). Those portions of properties earmarked for public use (such as the waterfront park on the Hospital site or Greene Lane Park, for example) could be transferred at any time under EDC or PBC based on the needs of each host community.

The LRA will be governed by its governing board and administer the redevelopment efforts using a combination of staff and contract services. All required property maintenance services can be contracted for from private providers or from each representative host community. Marketing of individual sites can be done by LRA and/or Town staff augmented with hired brokerage services from experienced real estate professionals. Grant writing and administration will be done by LRA staff and assisted by the planning departments within each of the three municipalities represented on the LRA.

2. Financial Analysis

In order to evaluate the feasibility of developing the surplus sites relative to the Preferred Reuse Plan, a preliminary financial analysis was conducted to determine if the residual value¹⁸ of the properties is enough to support investment in the sites. In its most basic form used in this analysis, there are three steps used to calculate residual value. The first step

¹⁸ Estimated expected value of the land prior to development.

estimates the market value of the building improvements that could be realistically developed on the sites (based on current market conditions). The second step estimates the cost to prepare the sites for development, upgrade utilities (where needed) and construct the desired building improvements. For this step, it is assumed that the LRA (with possible assistance by each host community) would partner with developers and establish a development agreement to prepare and develop the sites. The final step is a calculation of the residual value by taking the difference between market value of the sites and costs to develop the sites.

The financial analysis is based on the following assumptions regarding the redevelopment of the sites:

- The AIRPA is constituted as a the Local Redevelopment Authority;
- The sites are transferred to the LRA upon remediation of environmental issues;
- The sites are conveyed to the LRA through an EDC or PBC with areas earmarked for public use subsequently transferred to each respective host community at an agreed time;
- The LRA uses a combination of bonded debt, grant funds and contributions from the local communities to support the redevelopment of the sites;
- Available sewer capacity is available to support any redevelopment program.

a) Property Value

Based on the development program outlined for each of the sites in the Preferred Reuse Plan, the total market value of the building improvements is estimated to be approximately \$116.9 (post-development in current dollars) million which is distributed within the following uses:

- Hotel - \$15 million
- Residential - \$49.4 million
- Office - \$9 million
- Retail - \$16 million
- Light Industrial - \$24 million
- Scrap Steel Value - \$3.5 million

While the civic uses within the development program provide a public benefit, they are not included in the financial analysis (as either a cost or a value enhancement).

b) Capital, Development, Site Preparation and Operating Costs

In order to redevelop the sites, a series of expenditures will be required (either by the LRA or private developers) to prepare the sites for development including building demolition, upgrade utilities and infrastructure, construct the buildings, etc. These costs are estimated to be approximately \$116.756 million and include:

- **Building Demolition:** Buildings at the Navy Hospital and Navy Lodge (northern parcels including the existing library and JFK School) will require demolition in

order to redevelop the sites. Demolition of the Navy Hospital and associated buildings is estimated at \$4 million (which includes environmental remediation of the associated demolition materials and site). Demolition of the Navy Lodge (library and JFK School) associated buildings is estimated at about \$100,000 (representing about half of the actual cost assuming that the LRA/Town of Middletown splits the cost with a developer as the site will include civic and private uses)

- **UST/AST Demolition:** Tank Farm 1 will require the demolition of the aboveground storage tanks (AST) and partial demolition of the underground storage tanks (UST) in order to implement the Preferred Reuse Plan. Demolition of the tanks is estimated at approximately \$1 million. However, it should be noted that the scrap steel salvaged from the AST is estimated to have a value of approximately \$3.5 million (which is included in the property value section above)
- **Utilities and Site Preparation:** In order to repurpose the sites for new development, new utilities (water, sewer, gas, drainage, roads, etc.) will need to be upgraded or replaced at an estimated cost of approximately \$10.6 million
- **Building Construction:** The estimated cost to construct the various private building improvements (hotel, residential, office, retail, light/industrial/flex) is estimated at approximately \$82.3 million. Construction of civic improvements has not been included in this construction estimate;
- **Soft Costs:** These are costs not directly associated with construction and include architectural, engineering, financing and legal fees and other pre and post-construction expenses. Soft costs are estimated to be approximately \$4.9 million (5% of development costs)
- **Developer's Profit:** A developer entering into an agreement with the LRA to construct the developments within the Reuse Plan will likely budget a profit of approximately 20% of the hard construction costs, which equates to a profit of about \$13.6 million. It should be noted that a developer's profit was not included for the Tank Farms and Defense Highway sites.
- **AIRPA Operating Costs:** These are costs associated with the LRA staff (one full time staff position), limited property maintenance, legal, accounting and technical assistance which are estimated at \$200,000. This total cost has been allocated equally (\$50,000) to each site.

c) Residual Value of Sites

As shown in Table XI-1, based on the estimated market value of the improvements (\$116.9 million) and the estimated capital, development, site preparation and operating costs (\$116.756 million), the residual value of the sites is estimated to be approximately \$143,000 - or essentially a revenue neutral or financial "wash" situation where revenues equal development costs.

The Preferred Reuse Plan for the redevelopment of the sites has the potential (at full build-out) to provide a significant input to the regional employment base. In order to calculate the

potential employment generated at the sites, typical employment standards were used for the development components in the Preferred Reuse Plan, including:

- Hotel (1,429 SF per employee)
- Retail (400 SF per employee)
- Office (333 SF per employee)
- Industrial (500 SF per employee)

d) Economic Impact

As shown in Table XI-1, implementation of the Preferred Reuse plan could add up to 980 new direct jobs to the regional economy at full build-out. This estimate does not include indirect jobs related to the construction or development activity related at each site, which may add 1,000 or more jobs.

Table XI-1

Revenue/Property Value	Navy Hospital	Navy Lodge	Tank Farms 1 & 2	Defense Highway	All Sites
Hotel	\$15,000,000	\$0	\$0	\$0	\$15,000,000
Residential Units	\$14,400,000	\$35,000,000	\$0	\$0	\$49,400,000
Office	\$0	\$9,000,000	\$0	\$0	\$9,000,000
Retail	\$0	\$16,000,000	\$0	\$0	\$16,000,000
Civic	\$0	\$0	\$0	\$0	\$0
Light Industrial/Flex/Office	\$0	\$0	\$24,000,000	\$0	\$24,000,000
Parking Spaces	\$0	\$0	\$0	\$0	\$0
Scap Steel Value	\$0	\$0	\$3,500,000	\$0	\$3,500,000
Total Value	\$29,400,000	\$60,000,000	\$27,500,000	\$0	\$116,900,000
Capital, Development & Operating Costs					
Hotel	\$12,000,000	\$0	\$0	\$0	\$12,000,000
Residential Units	\$8,100,000	\$30,187,500	\$0	\$0	\$38,287,500
Office	\$0	\$4,500,000	\$0	\$0	\$4,500,000
Retail	\$0	\$8,000,000	\$0	\$0	\$8,000,000
Civic	\$0	\$0	\$0	\$0	\$0
Light Industrial/Flex/Office	\$0	\$0	\$19,500,000	\$0	\$19,500,000
Parking Spaces	\$0	\$0	\$0	\$0	\$0
Building Demolition	\$4,000,000	\$100,400	\$0	\$0	\$4,100,400
Utilities/Site Preparation	\$700,000	\$429,000	\$7,500,000	\$234,000	\$8,863,000
Partial UST Demo	\$0	\$0	\$800,000	\$0	\$800,000
AST Demo	\$0	\$0	\$200,000	\$0	\$200,000
Road Repave/Restripe	\$0	\$0	\$0	\$1,800,000	\$1,800,000
Subtotal	\$24,800,000	\$43,216,900	\$28,000,000	\$2,034,000	\$98,050,900
Soft Costs	\$1,240,000	\$2,160,845	\$1,400,000	\$101,700	\$4,902,545
Profit	\$4,960,000	\$8,643,380	\$0	\$0	\$13,603,380
AIRPA Operating Costs	\$50,000	\$50,000	\$50,000	\$50,000	\$200,000
Total	\$31,050,000	\$54,071,125	\$29,450,000	\$2,185,700	\$116,756,825
Residual Land Value	(\$1,650,000)	\$5,928,875	(\$1,950,000)	(\$2,185,700)	\$143,175
Permanent Employment Generated	42	335	600	0	977

e) Potential Permitting Requirements

A permitting summary was developed assuming each development would be designed to comply with local zoning requirements and would not require any variances or waivers.

State permits with the RIDOT, RIDEM and CRMC, and federal permits with United States Army Corps of Engineers (USACE) will require further evaluation once resource areas are delineated and project impacts are determined in greater detail during future design phases for each site. This summary is not meant to be a legal interpretation of all permits that are required, and does not include applications related to buildings, utilities, or hazardous materials. Table XI-2 summarizes the Local, State, and Federal site permitting requirements.

The City of Newport, Town of Middletown, and Town of Portsmouth have regulatory authority over proposed land development and building construction on private land within the City/Town limits. The preferred reuse plan for the Navy Hospital, Navy Lodge, and Tank Farm sites are anticipated to require review as major land development projects due to the building development and parking proposed.

RIDOT has regulatory authority over state transportation systems including roads and highways. Any proposed alteration of these systems, including but not limited to increases in traffic, curb cuts, and roadway improvements or alterations, requires approval through a Physical Alteration Permit. The Navy Lodge site is anticipated to require a Physical Alteration Permit due to the proposed curb cut on Coddington Highway and West Main Road. The Burma Road parking area and Tank Farm sites may require a Physical Alteration Permit if the state takes ownership of Burma Road and Stringham Road.

CRMC has regulatory authority over tidal waters, coastal features, and the area of land within 200-feet of the landward limit of the coastal feature (200-foot Contiguous Area). The Coastal Resources Management Program (CRMC 1996, As Amended) requires individuals proposing alterations within these areas to seek authorization from the CRMC via an Assent Application. The Navy Hospital and Defense Highway sites are likely to require CRMC Assents due to their proximity to the shore. CRMC also has regulatory authority over Freshwater Wetlands in the Vicinity of the Coast and requires individuals proposing alterations within freshwater wetlands subject to their jurisdiction to seek authorization for the project. None of the sites fall within the CRMC freshwater jurisdiction.

The Environmental Protection Agency (EPA) has delegated authority to the RIDEM to review and authorize projects proposing soil disturbances. The RIDEM Rhode Island Pollutant Discharge Elimination System (RIPDES) Program requires projects proposing one acre or more of soil disturbance to submit a Notice of Intent under the General Permit to Discharge Stormwater Associated with Construction Activity. Each of the sites is greater than one acre, and as such it is anticipated that any projects on these sites will require a RIPDES Authorization.

The RIDEM Office of Water Resources Freshwater Wetlands Permitting Program has authority over activities proposed within state-regulated freshwater wetlands which include palustrine, lacustrine and riverine wetlands; their 50-foot Perimeter Wetlands or 100/200-foot Riverbank Wetlands; and 100 year Frequency Floodplain as identified by the Federal Emergency Management Agency. The Tank Farms site may require RIDEM Freshwater Wetlands permitting if jurisdictional resources extend onto the sites from adjacent properties.

The RIDEM Office of Water Resources Freshwater Wetlands Permitting Program has authority over activities proposed within the state’s waters and their tributaries in accordance with Rule 13 of the RIDEM Water Quality Regulations (RIDEM 2010). It is anticipated that the Navy Hospital and the Defense Highway projects may require a Water Quality Certificate in accordance with the regulations.

Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act provide the Army Corps of Engineers regulatory authority over activities proposed within Waters of the U.S. The Navy Hospital and Defense Highway sites are anticipated to require authorization from the ACOE.

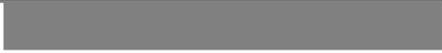
Table XI-2

Agency/Permit	Navy Lodge	Navy Hospital	Defense Hwy	Tank Farms
Local Permits				
Town/City Major Land Development Application	Yes	Yes	Not anticipated	Yes
Town/City Erosion & Sediment Control Ordinance	Yes	Yes	Yes	Yes
Town/City Flood Control Ordinance	No	Yes	Yes	No
State Permits				
RIDOT Physical Alteration Permit	Yes	No	Potential (required if the State takes ownership of Burma Road)	Potential (required if the State takes ownership of Burma Road and exclusion of Burma Road)
CRMC Coastal Permit	No	Yes (required if work is proposed in tidal waters, on coastal feature or within 200-foot contiguous area)	Yes (required if work is proposed in tidal waters, on coastal feature or within 200-foot contiguous area)	No
CRMC Freshwater Wetland Permit	No	No	No	No
RIDEM RIPLDES Authorization	Yes	Yes	Yes	Yes
RIDEM Freshwater Wetland Permit	No	No	No	Potential (required if work proposed within perimeter or riverbank wetland extending onto site from adjacent Melville Ponds area)
RIDEM Water Quality Certification	No	Yes	Yes	No
Federal Permits				
USACE Section 404 Permit	No	Potential (required if work is proposed below mean high water)	Potential (required if work is proposed below mean high water)	No

CRMC – Coastal Resources Management Council
 RIDEM – Rhode Island Department of Environmental Management
 RIPLDES – Rhode Island Pollutant Discharge Elimination

C. LRA Decision

On July 14, 2011, the Aquidneck Island Reuse Planning Authority voted unanimously in public session to adopt the Preferred Reuse Plan for the redevelopment of the surplus property at NAVSTA Newport and to pursue a combination of an Economic Development Conveyance and Public Benefit Conveyance of the properties from the Navy. Prior to the vote, representatives from each of the municipalities endorsed the Preferred Reuse plan.



XII. APPENDIX



Legend

- Site Boundary*
- Newport Zoning**
- Commercial Industrial (CI)
- General Business (GB)
- Limited Business (LB)
- Open Space (OS)
- Recreational (REC)
- Residential (R-10)
- Residential (R-10A)
- Residential (R-120)
- Residential (R-160)
- Residential (R-20)
- Residential (R-3)
- Residential (R-40)
- Residential (R-40A)
- Residential (R-60)
- Traditional Maritime (TM)
- Waterfront Business (WB)

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office

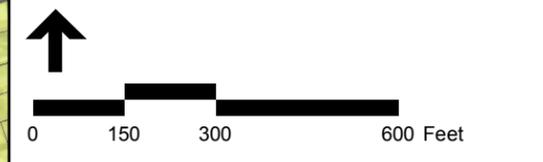
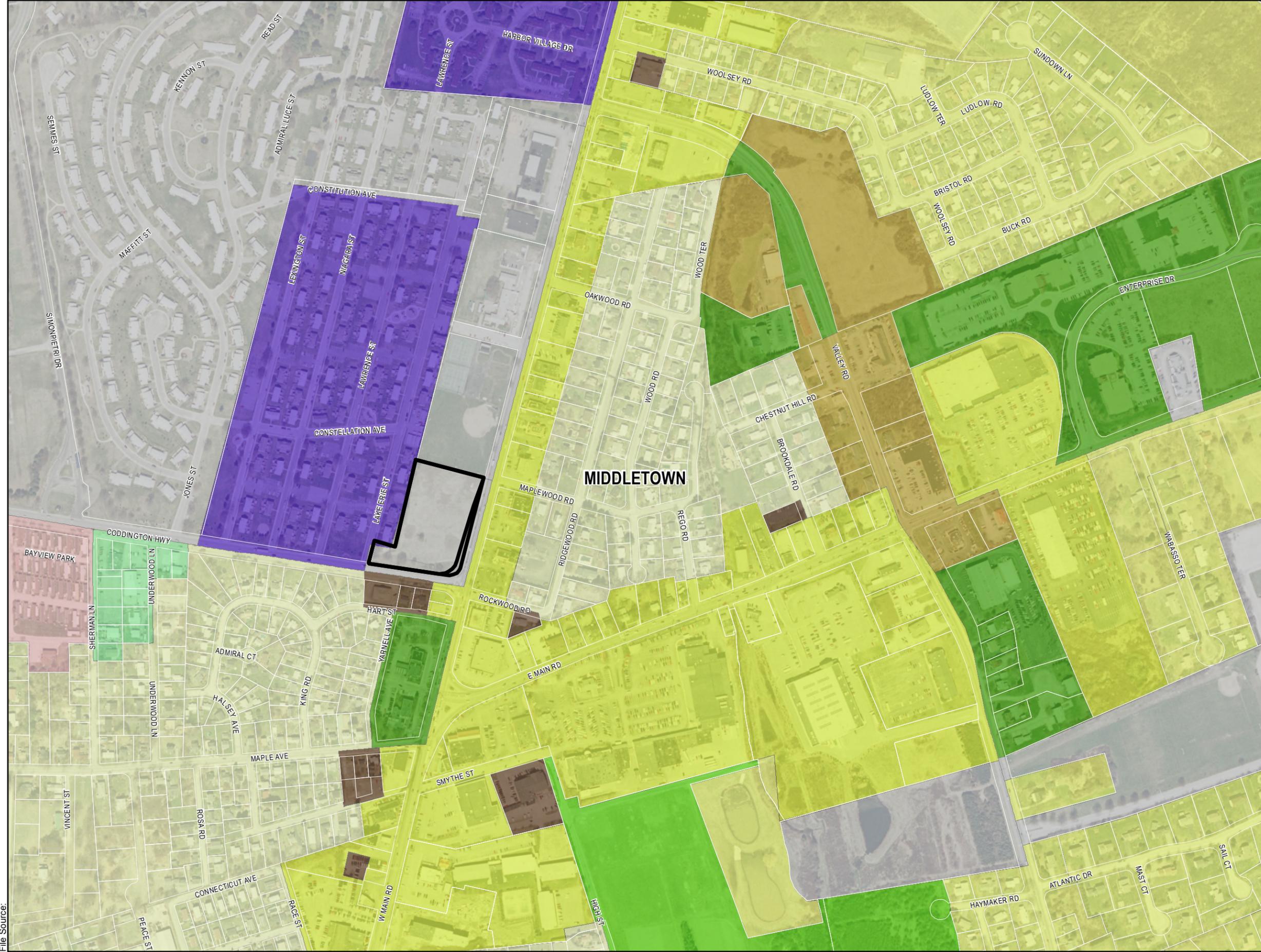


Figure III-E-1
Municipal Zoning

Area 1 - Navy Hospital
Date: August 2011



Legend

- Site Boundary*
- Municipal Boundary
- Zoning Districts**
- LND_ZONE**
- OP
- C
- GB
- GBA
- L1
- L1A
- LB
- LBA
- LI
- MIP
- MT
- OB
- OS
- P
- R-10
- R-20
- R-30
- R-40
- R-60
- RM

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

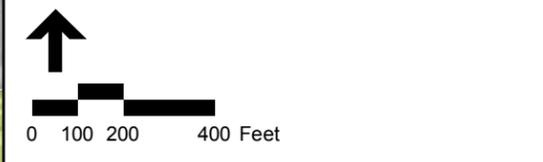
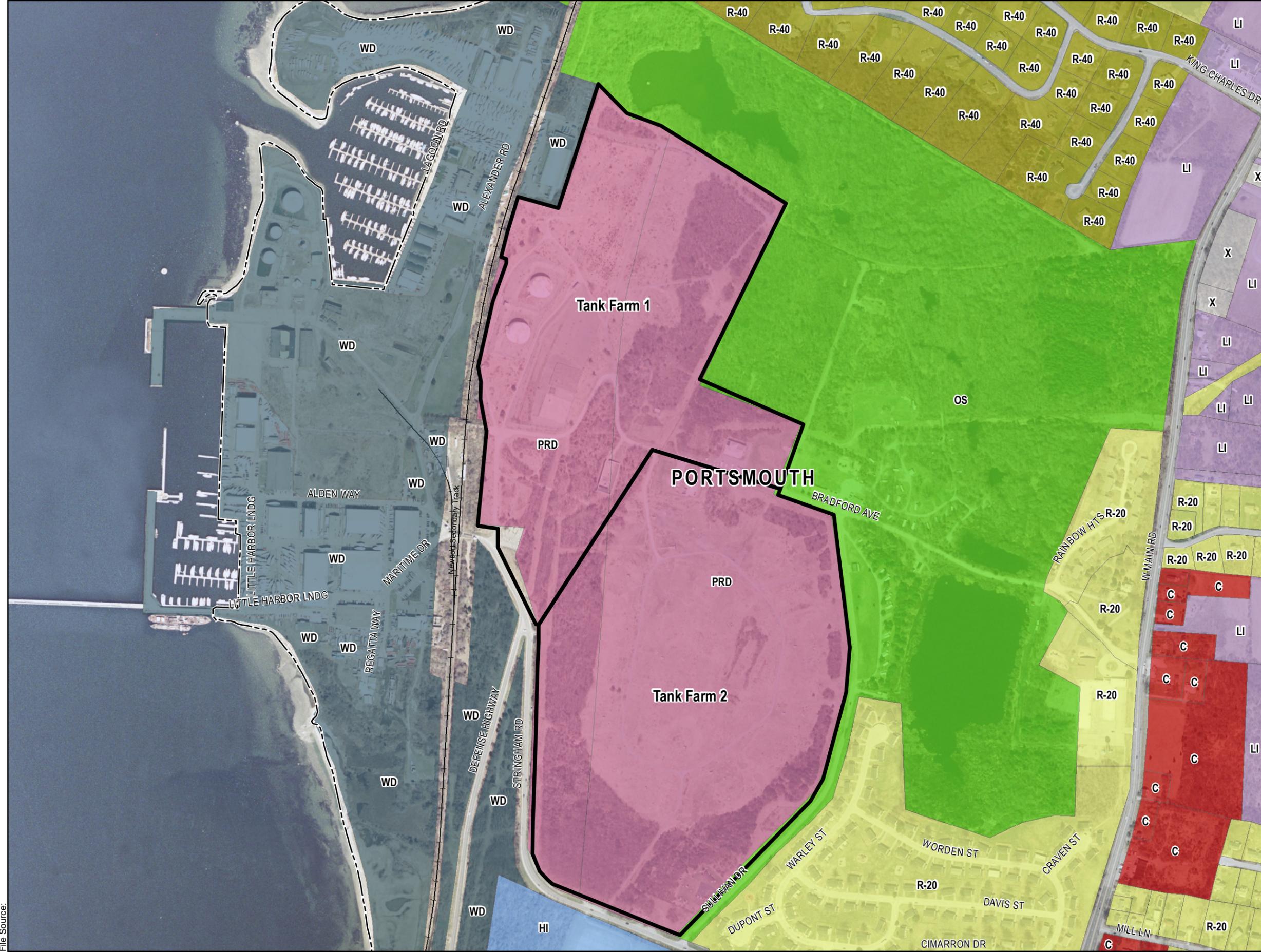


Figure III-E-2
Municipal Zoning

Area 2 - Navy Lodge
Date: August 2011



Legend

- Site Boundary*
- Portsmouth Zoning
- C
- HI
- LI
- OS
- R-10
- R-20
- R-30
- R-40
- R-60
- TC
- WD
- X
- PRD (Proposed Redevelopment District)

Note:
Please note that the location of the Redevelopment District does not reflect the official designation of this district on the Town's official zoning map.

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office

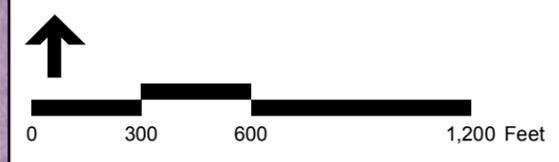


Figure III-E-3
Municipal Zoning

Area 4 - Tank Farms 1 and 2

Date: August 2011



Legend

- Site Boundary*
- Municipal Boundary

Portsmouth Zoning

- <all other values>
- C
- HI
- LI
- OS
- R-10
- R-20
- R-30
- R-40
- R-60
- TC
- WD
- X

Middletown Zoning

- OP
- C
- GB
- GBA
- L1
- L1A
- LB
- LBA
- LI
- MIP
- MT
- OB
- OS
- P
- R-10
- R-20
- R-30
- R-40
- R-60
- RM

*Note: Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

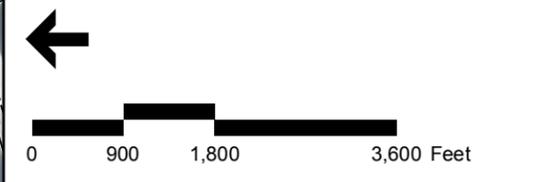
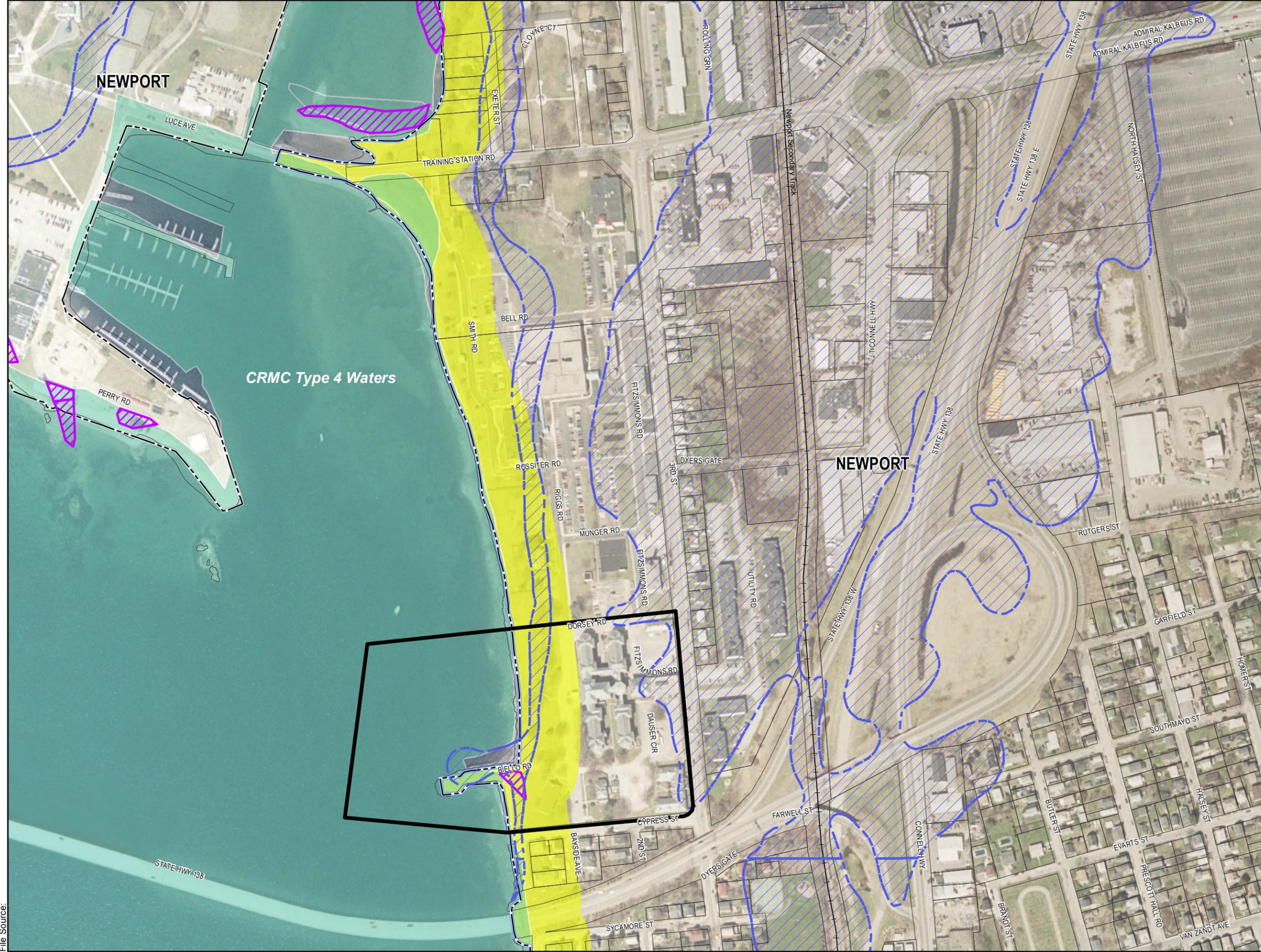


Figure III-E-4
Municipal Zoning

Area 3 - Burma Road
Date: August 2011

File Source:



Legend

- Site Boundary*
- Rail
- Parcels
- Narragansett Bay Estuarine Habitat (RIGIS)
- Rare Species (RIGIS)
- FEMA Flood Zones
- Wetlands (RIGIS)
- 200-foot CRMC Contiguous Area**
- Municipal Boundary

Notes:
 *Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.
 **The 200-foot CRMC Contiguous Areas shown are for illustrative purposes only and are approximate. The final location of the CRMC Continuous Areas will be determined from specific on-site delineations, which is not part of this study

Prepared by:
 Vanasse Hangen Brustlin, Inc.

Data Sources:
 ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office

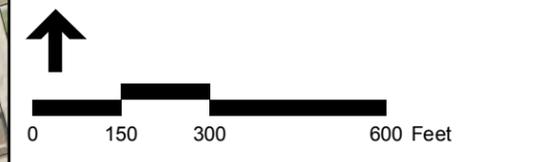
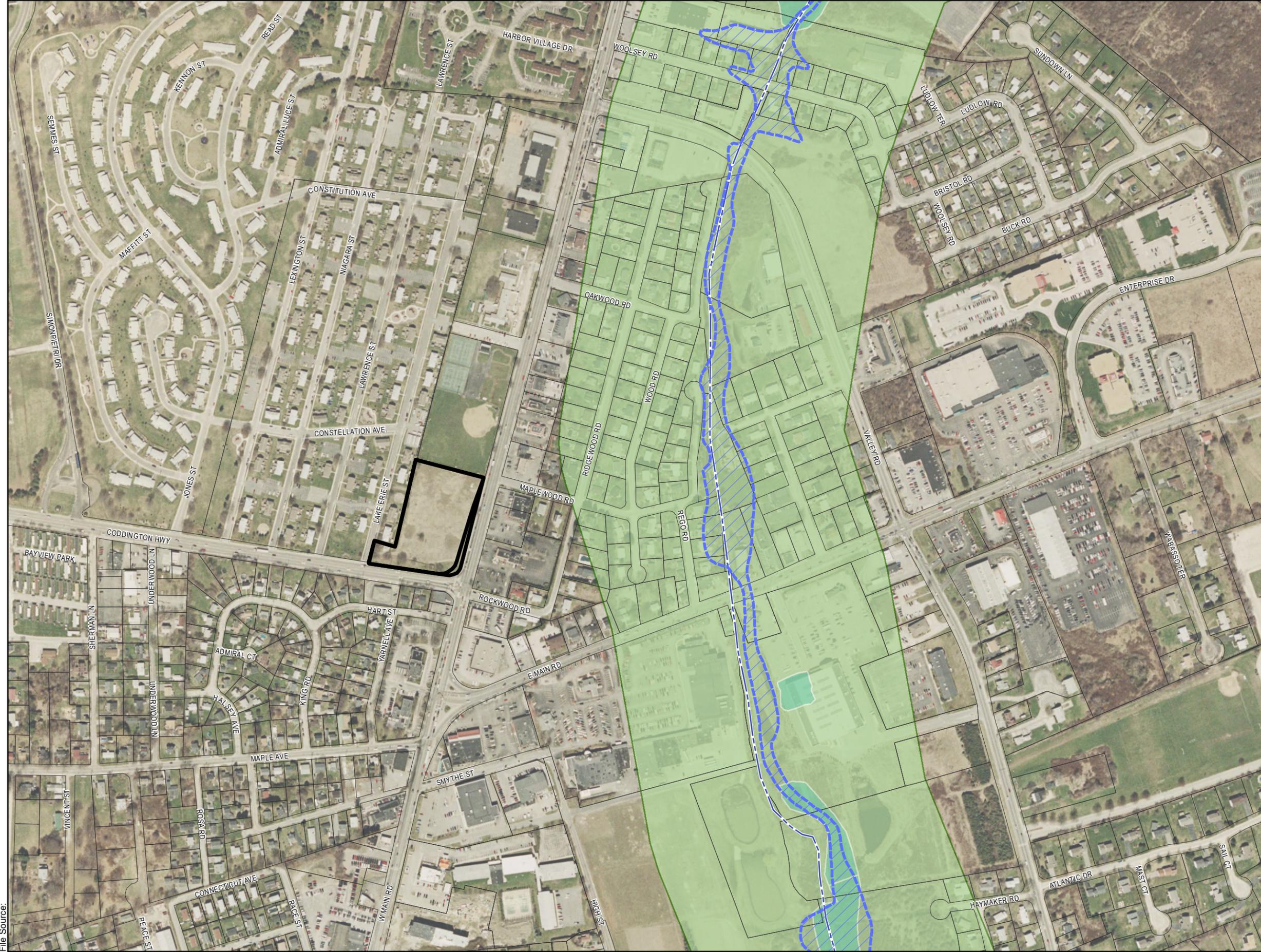


Figure III-F-1
Existing Environmental Resources
 Area 1 - Navy Hospital
 Date: August 2011



- Legend**
- Site Boundary*
 - Rare Species (RIGIS)
 - FEMA Flood Zones
 - Parcels
 - Wetlands (RIGIS)
 - State Greenways (RIGIS)
 - Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

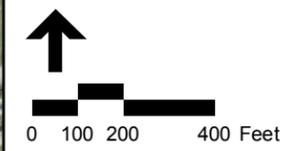
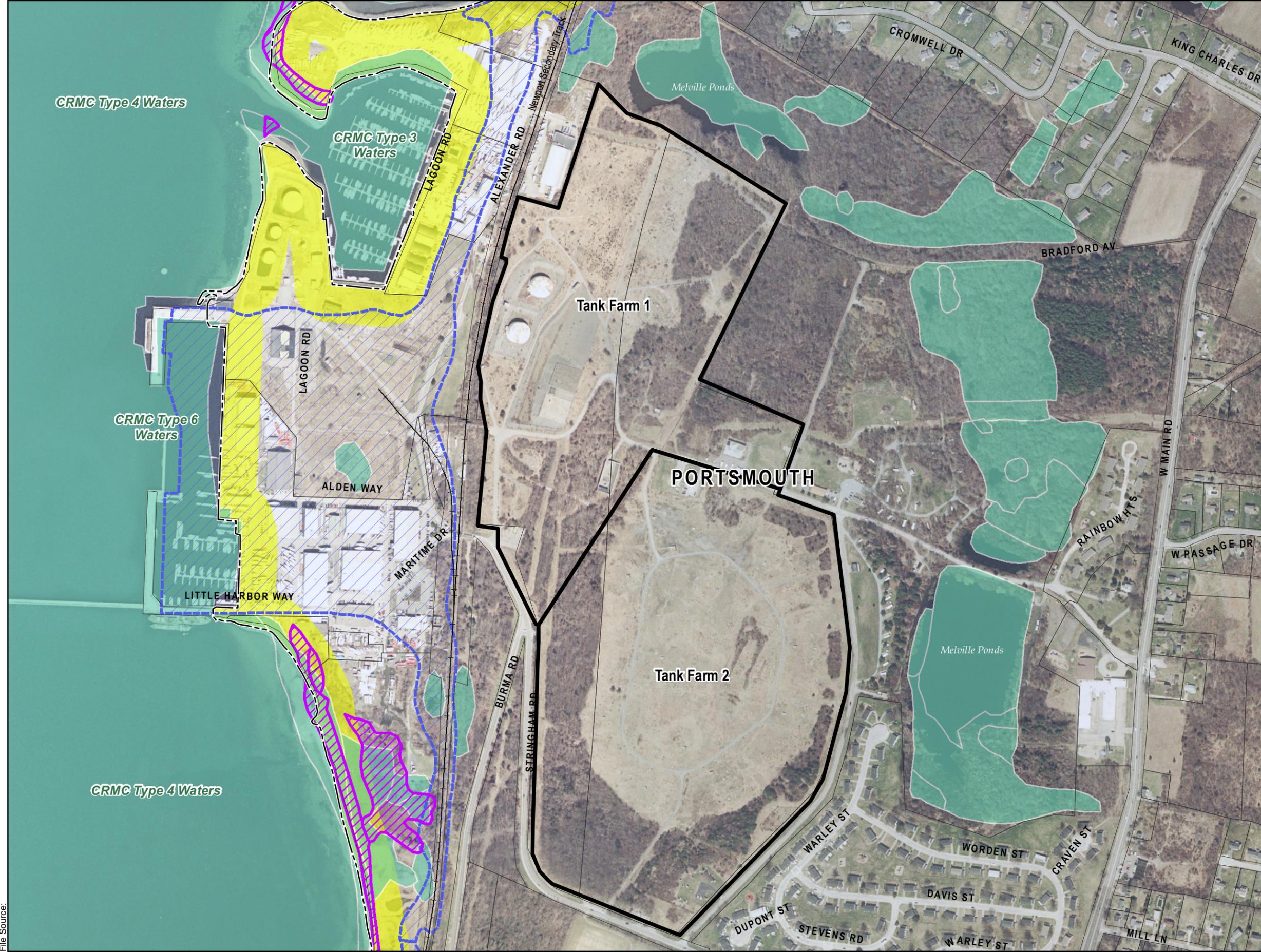


Figure III-F-2
Existing Environmental Resources

Area 2 - Navy Lodge

Date: August 2011

File Source:



Legend

- Rail
- Site Boundary*
- Parcels (Town of Portsmouth 2007)
- FEMA Flood Zones
- Narragansett Bay Estuarine Habitat (RIGIS)
- Wetlands (RIGIS)
- Rare Species Habitat (RIGIS)
- 200-foot CRMC Contiguous Area**
- Municipal Boundary

Notes:
 *Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

**The 200-foot CRMC Contiguous Areas shown are for illustrative purposes only and are approximate. The final location of the CRMC Continuous Areas will be determined from specific on-site delineations, which is not part of this study

Prepared by:
 Vanasse Hangen Brustlin, Inc.

Data Sources:
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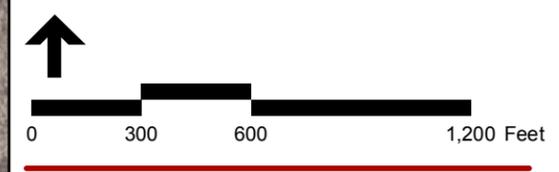


Figure III-F-3
Existing Environmental Resources

Area 4 - Tank Farms 1 and 2

Date: August 2011



- Legend**
- Site Boundary*
 - Parcels
 - FEMA Flood Zones
 - Narragansett Bay Estuarine Habitat (RIGIS)
 - Wetlands (RIGIS)
 - Rare Species (RIGIS)
 - State Greenways (RIGIS)
 - 200-foot CRMC Contiguous Area**
 - Municipal Boundary

Notes:
 *Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.
 **The 200-foot CRMC Contiguous Areas shown are for illustrative purposes only and are approximate. The final location of the CRMC Contiguous Areas will be determined from specific on-site delineations, which is not part of this study

Prepared by:
 Vanasse Hangen Brustlin, Inc.

Data Sources:
 ESRI, Towns of Middletown, Newport and Portsmouth RI,
 Department of the Navy BRAC Program
 Management Office

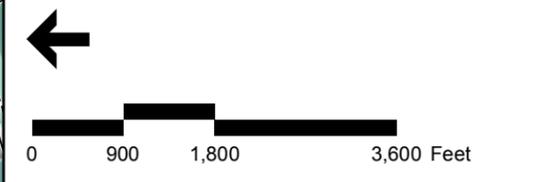
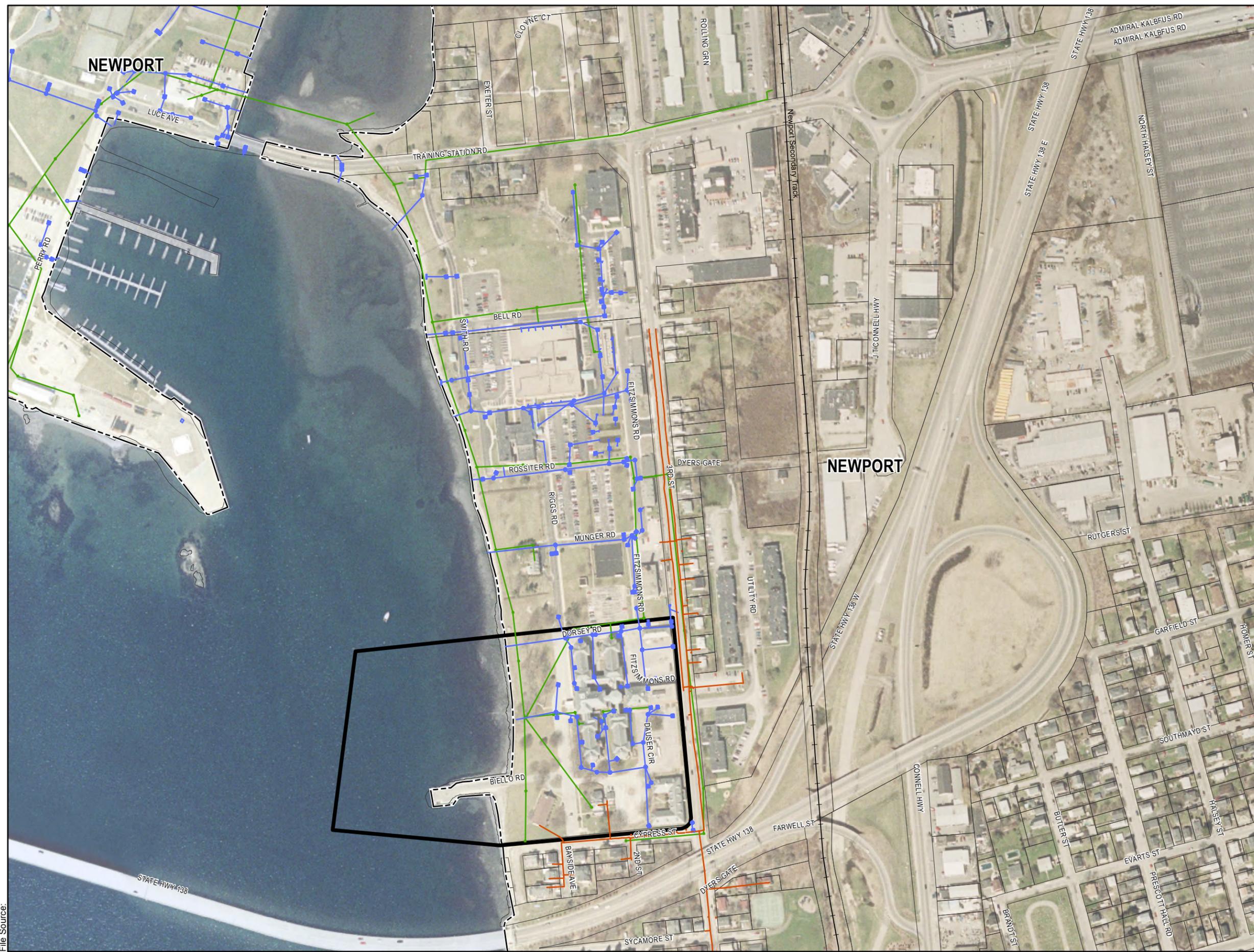


Figure III-F-4
Existing Environmental Resources

Area 3 - Burma Road

Date: August 2011



Legend

- Sanitary Sewer
- Stormwater Sewer
- Gas Lines
- Site Boundary*
- Parcels
- Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office

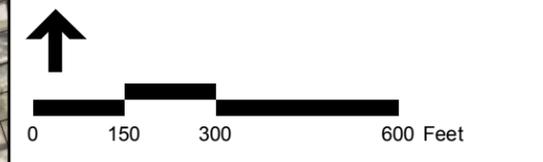
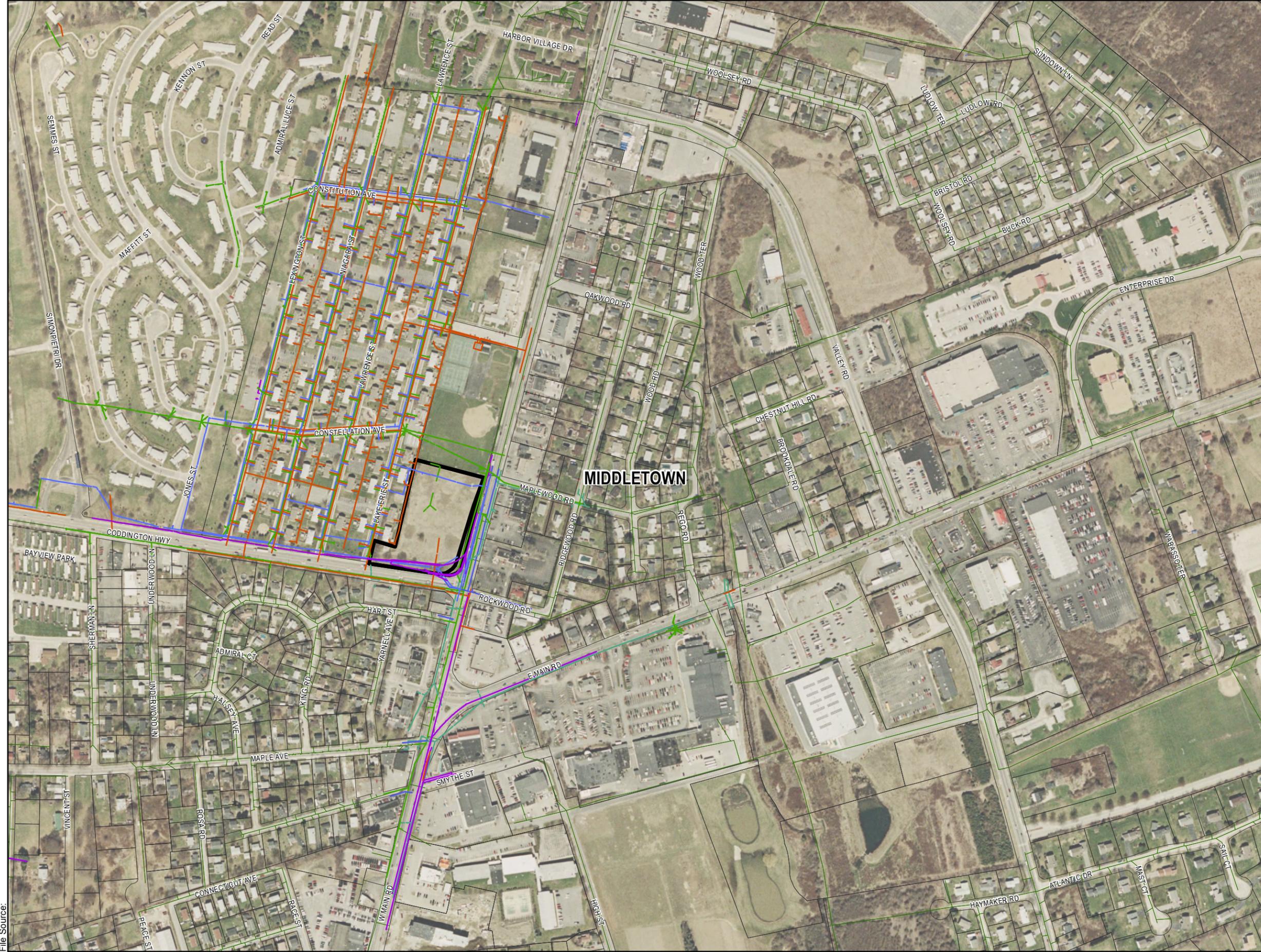


Figure IV-B-1
Existing Conditions Utilities Figure

Area 1 - Navy Hospital

Date: August 2011



Legend

- Existing Stormwater
- Existing Gas
- Existing Sewer
- Existing Telecomm
- Existing Water
- Site Boundary*
- Parcels
- Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

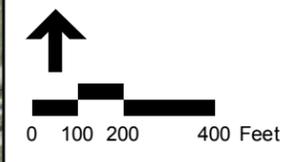


Figure IV-B-2
Existing Conditions Utilities Figure

Area 2 - Navy Lodge

Date: August 2011

Legend

-  Site Boundary*
-  Sanitary Sewer
-  Stormwater Sewer
-  Parcels (Town of Portsmouth 2007)
-  Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.



Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

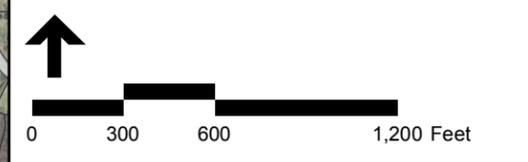


Figure IV-B-3
Existing Conditions Utilities Figure

Area 4 - Tank Farms 1 and 2

Date: August 2011

NAVFAC Newport Redevelopment Plan and HUD Submission



Legend

- Sanitary Sewer
- Stormwater Sewer
- Site Boundary*
- Parcels
- Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

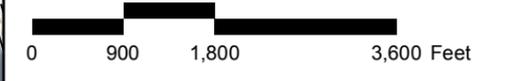
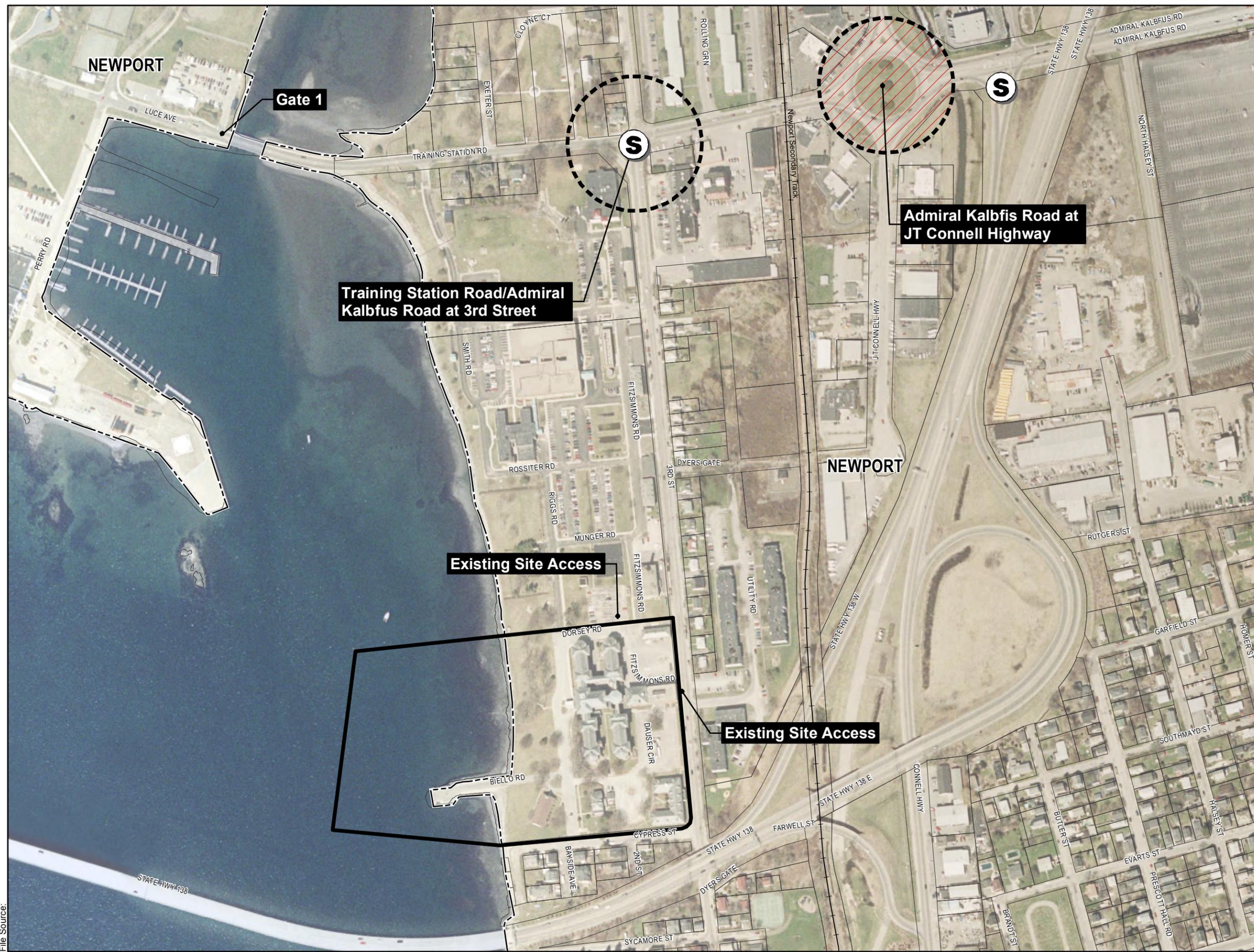


Figure IV-B-4
Existing Conditions Utilities Figure

Area 3 - Burma Road

Date: August 2011

File Source:



Legend

- Traffic Signal
- Site Boundary*
- Rail
- Parcels
- Municipal Boundary
- Primary Intersections**
- Primary Intersections
- High Crash Locations

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office, Aquidneck Transportation Study RIDOT

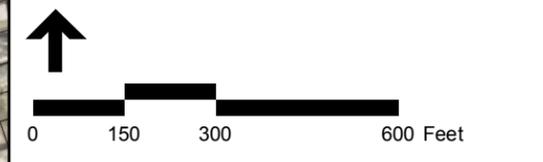


Figure IV-B-5
Existing Conditions

Area 1 - Navy Hospital

Date: August 2011

Legend

-  Traffic Signal
-  Site Boundary*
-  Parcels
-  Municipal Boundary
- Primary Intersections**
-  Primary Intersections
-  High Crash Locations

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.



Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

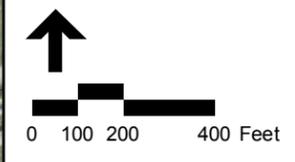


Figure IV-B-6
Existing Conditions

Area 2 - Navy Lodge

Date: August 2011



- Legend**
- Traffic Signal
 - Primary Local Connections
 - Site Boundary*
 - Rail
 - Parcels
 - Municipal Boundary
- Primary Intersections**
- Study Area Intersections
 - High Crash Locations

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office, Aquidneck Island Transportation Study, RIDOT

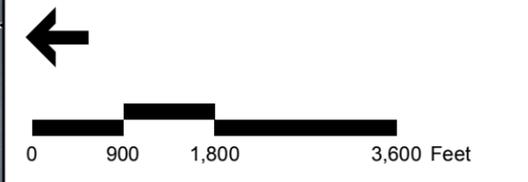


Figure IV-B-7
Existing Conditions

Area 3 - Burma Road

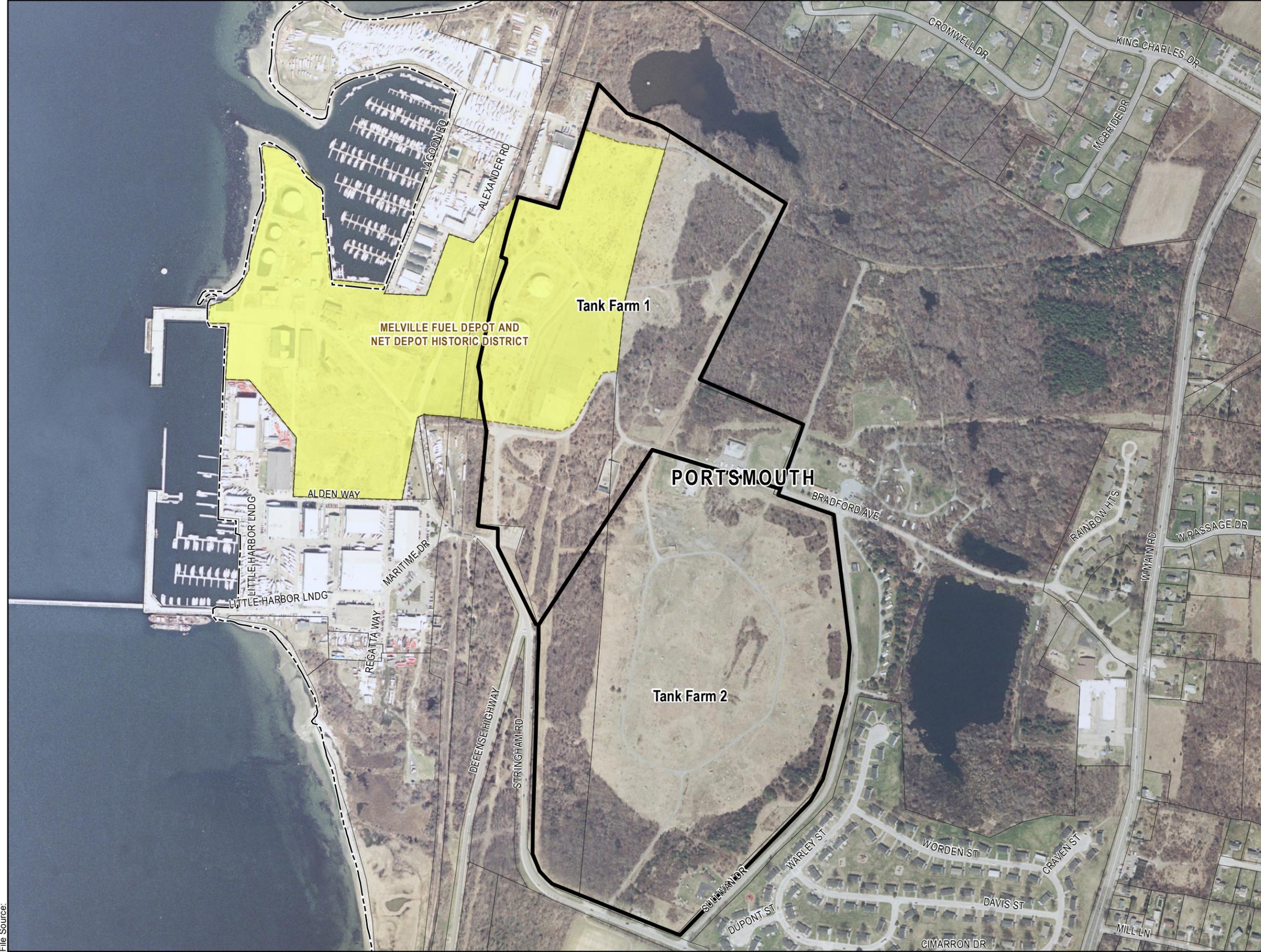
Date: August 2011

File Source: 07-11-10

Legend

-  Site Boundary*
-  Parcels (Town of Portsmouth 2007)
-  National Register-eligible Historic District or Individual Property
-  Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.



Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

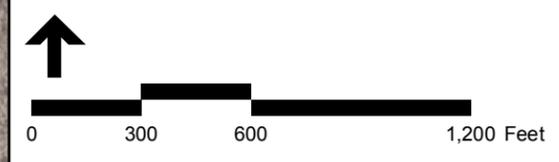


Figure IV-E-1
Existing Cultural Resources

Area 4 - Tank Farms 1 and 2

Date: August 2011



- Legend**
- Site Boundary*
 - Parcels
 - National Register-eligible Historic District or Individual Property
 - Historic Districts
 - Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
Department of the Navy BRAC Program
Management Office

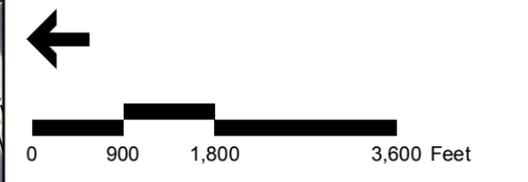


Figure IV-E-2
Existing Cultural Resources

Area 3 - Burma Road
Date: August 2011

File Source:



- Legend**
- Site Boundary*
 - Parcels
 - National Register-eligible Historic District or Individual Property
 - Municipal Boundary

*Note:
Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.

Prepared by:
Vanasse Hangen Brustlin, Inc.

Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI, Department of the Navy BRAC Program Management Office

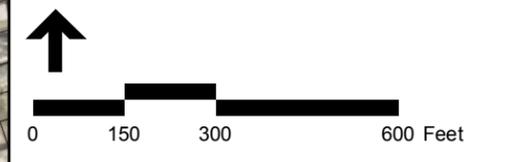


Figure IV-E-3
Existing Cultural Resources

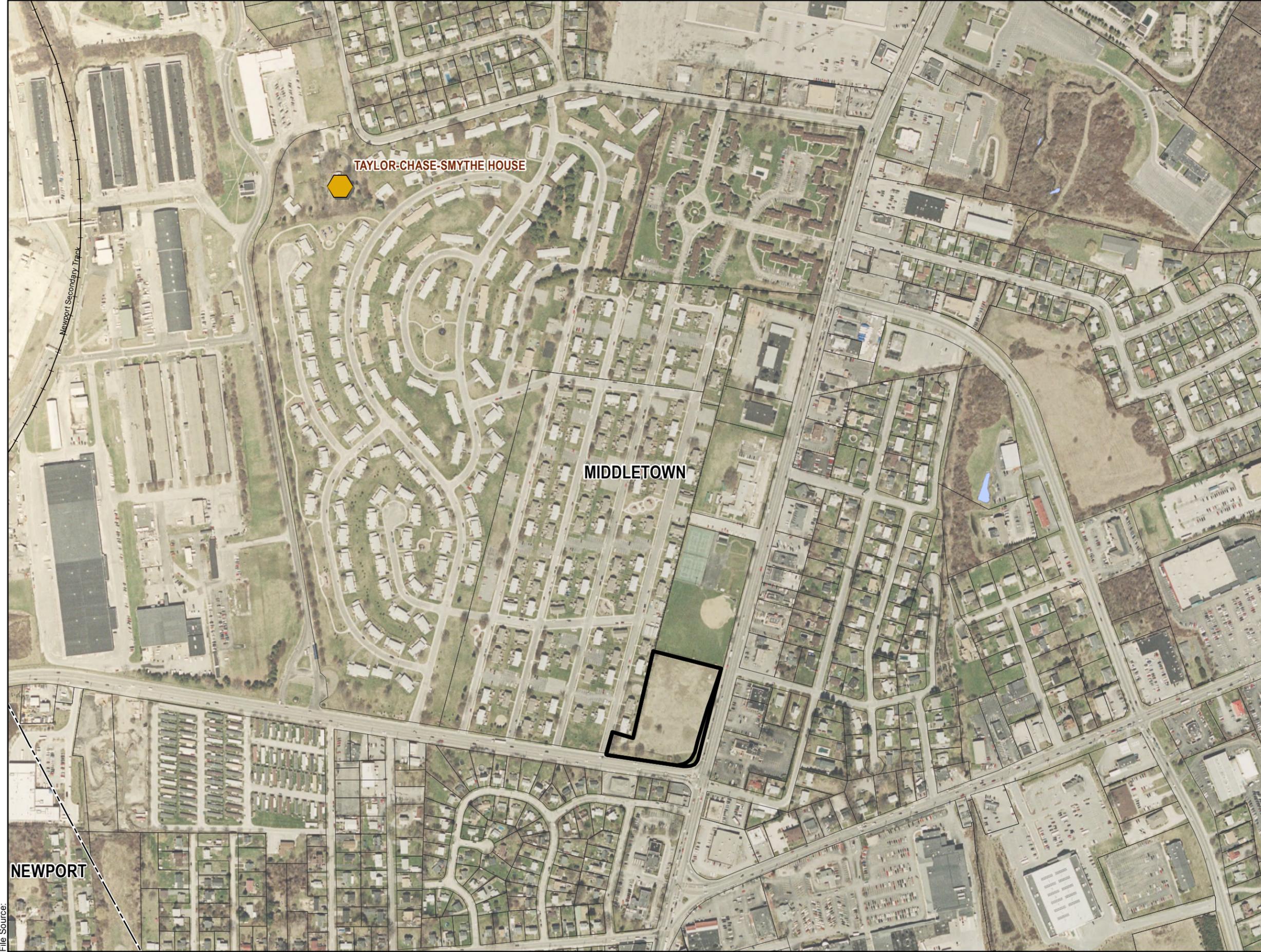
Area 1 - Navy Hospital

Date: August 2011

Legend

-  National Register-listed Individual Property
-  Site Boundary*
-  Parcels
-  Municipal Boundary

*Note: Site boundaries are preliminary and based on available information as well as subject to verification in order to determine their exact extent.



Prepared by:
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Data Sources:
ESRI, Towns of Middletown, Newport and Portsmouth RI,
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Management Office

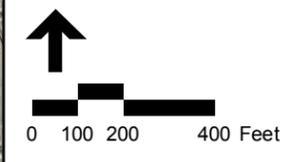


Figure IV-E-4
Existing Cultural Resources

Area 2 - Navy Lodge

Date: August 2011

NEWPORT

MIDDLETOWN

TAYLOR-CHASE-SMYTHE HOUSE

File Source:



RKG Associates, Inc.

634 Central Avenue
Dover, NH 03820
(603) 953-0202
www.rkgassociates.com

In Cooperation With:

Weston Solutions, Inc.
Vanasse Hangen and Brustlin, Inc.