

# Update Report for Rhode Island



Current as of January 31, 2013

New England District

BUILDING STRONG<sup>®</sup>

696 Virginia Road, Concord, Massachusetts 01742-2751 <sup>®</sup> Public Affairs Office, 978-318-8264/8238 G Home Page: http://www.nae.usace.army.mil/

### Mission

The missions of the New England District, U.S. Army Corps of Engineers include flood risk management protection, emergency preparedness and response to natural disasters and national emergencies, environmental remediation and restoration, natural resource management, stream bank and shoreline protection, navigation maintenance and improvement, support to military facilities and installations, and engineering and construction support to other government agencies. The six New England states cover 66,000 square miles and have 6,100 miles of coastline, 11 deep-water ports, 102 recreational and small commercial harbors, 13 major river basins, and thousands of miles of navigable rivers and streams. The District operates and maintains 31 dams, three hurricane barriers and the Cape Cod Canal. Through its Regulatory program, the District

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processes nearly 4,000 applications per year for work in waters and wetlands of the six-state region. We employ about 510 professional civilian employees, with about 300 stationed at our headquarters in Concord, Mass. The other Corps of Engineers employees serve at Corps projects and offices throughout the region. For information on the New England District check the website at: <a href="http://www.nae.usace.army.mil">www.nae.usace.army.mil</a>; or on Facebook: <a href="http://facebook.com/CorpsNewEngland">http://facebook.com/CorpsNewEngland</a>; or on Flickr: <a href="http://twitter.com/corpsnewengland">http://twitter.com/corpsNewEngland</a>; or on Flickr: <a href="http://twitter.com/corpsnewengland">http://twitter.com/corpsnewengland</a>.

## Navigation

**BLOCK ISLAND HARBOR OF REFUGE (2nd CD)** – The recently reconstructed east wharf of the inner basin was damaged during Hurricane Sandy. We are currently working toward issuing a contract to repair the wharf, which we expect to complete before June 2013. Also, we are preparing to have the Corps' special purpose dredge CURRITUCK dredge the entrance channel to the Harbor of Refuge to remove the most hazardous shoals in the channel. Dredging will be performed in June 2013.

CHARLESTOWN BREACHWAY & INLET, CHARLESTOWN (2nd CD) - Local officials requested Corps involvement to resolve growing concern for navigation safety through the breachway. The Initial Appraisal Report examined the removal of large boulders within and on the ocean side of the breachway, as well as dredging of the natural channel through the inlet and into Ninigret Pond. That report recommended proceeding with final design and National Environmental Policy Act (NEPA) documentation for a project to remove the boulder hazards in the inlet and its seaward approaches under Section 107 authority. The proposal to include inlet dredging into the pond was determined not cost-effective and will not be considered further. Although the boulder removal project was approved, the difficult navigation conditions in the breachway and concern for safety of construction workers significantly increased the project cost estimate. The increased project cost reduced the benefit/cost ratio below the 1.0 mark necessary to proceed under Section 107 Authority. Study documents will be updated to reflect

that boulder removal at this inlet under Section 107 is not financially justified based on the project cost estimate. The Corps will proceed with the boulder removal if specific direction is received from Congress.

**GREAT SALT POND (2nd CD)** – Shoaling in the entrance channel to Great Salt Pond on Block Island *continues to impact* safe navigation in and out of the harbor. Dredging using the Corps' special purpose dredge CURRITUCK *is proposed for late May 2013.* 

**PAWCATUCK RIVER AND LITTLE NARRAGANSETT BAY (2nd CD)** – The proposed work involves maintenance dredging of the 10-foot-deep Mean Lower Low Water (MLLW) by 100-foot-wide entrance channel extending approximately 3 miles from Stonington Point, through Little Narragansett Bay to Rhodes Point. Natural shoaling processes in the 10-foot-deep channel have reduced available depths, making navigation hazardous at lower stages of the tide. Maintenance dredging of approximately 105,000 cubic yards (cy) of material from approximately 35 acres of the authorized project area will restore the channel to authorized dimensions. FY10 appropriations are being used to *complete* an Environmental Assessment and then contract plans and specifications. Dredging will be performed in the years in which funds become available.

**POINT JUDITH HARBOR OF REFUGE (2nd CD) –** The Corps has received a request from the Rhode Island Coastal

Resources Management Council (CRMC) to conduct a study of potential channel improvements at Point Judith under the Section 107 continuing authority. The study would examine a proposal last made in the early 1990s to widen and extend the Federal channel northeasterly along the north bulkhead at the Port of Galilee. An initial site investigation was conducted by the Corps of Engineers and RI CRMC. Information gathered will be used to determine if a complete feasibility study is warranted. Completion of the study would require execution of a Feasibility Cost Share Agreement (FCSA) to share the study costs with the local sponsor, the RI CRMC. The study could be completed within

## Ecological Restoration/Watershed Projects

**LOWER BLACKSTONE RIVER (2nd CD)** – The Rhode Island Department of Environmental Management (DEM) requested assistance from the Corps to restore anadromous fish populations in the Blackstone River between Narragansett Bay and the Lonsdale area in Rhode Island. The Corps' work is part of an interagency plan that would provide access to over 200 acres of spawning and foraging habitat for anadromous fish (river herring and shad). Our study is exploring alternatives to restore fish passage around the Elizabeth Webbing Dam in Central Falls. We received funding in 2010 to begin the feasibility study and executed a feasibility cost sharing agreement in August 2011. We presented the evaluation of alternatives to stakeholders in September 2012 and are awaiting DEM's input for the recommended plan.

**NATIONAL ESTUARY PROGRAM** – The New England District has been requested to provide technical assistance to the implementation committee for the National Estuary Program's (NEP) Narragansett Bay Project (NBP). The NBP Comprehensive Conservation and Management Plan is complete. Goals of the NEP include identifying nationally significant estuaries that are threatened by pollution, development or overuse; promoting comprehensive planning for and conservation and management of these waters; encouraging the preparation of management plans; and enhancing the coordination of estuarine research. Our activities include attendance at committee meetings on water resource planning and transfer of data to the NEP Geographic Information System for approval.

**TEN MILE RIVER ECOSYSTEM RESTORATION STUDY** (1st & 2nd CDs) – In January 1999, the New England District initiated a reconnaissance investigation to examine opportunities for environmental restoration of degraded salt marshes, freshwater wetlands and anadromous fisheries. The area under study included the Pawcatuck, Pawtuxet, Moshassuck, Ten Mile and Woonasquatucket River watersheds and the shoreline of Narragansett Bay. The Rhode Island Department of Environmental Management (RIDEM) selected restoring anadromous fish passage at the three dams along the lower Ten Mile River in the city of East Providence as their highest priority. The fish species targeted for restoration include American shad and two species of river herring (alewives and blueback herring). about 18 months of FCSA execution.

The Corps of Engineers is currently conducting a Major Rehabilitation Study for the main breakwater forming the Point Judith Outer Harbor of Refuge. As part of this effort the Corps is evaluating the effectiveness of the breakwater in its current condition to provide protection for navigation as well as secondary shore protection benefits. The Major Rehabilitation Design Report will result in a recommendation whether or not to repair the structure, and to what design level.

The Ten Mile River project consists of construction of Denil fish ladders at the lowest three dams (Omega Pond Dam, Hunt's Mill Dam, and the dam at Turner Reservoir) on the river. The three fishways will allow anadromous alewives access to about 340 acres of spawning habitat and provide approximately three miles of riverine spawning habitat for blueback herring and American shad. These habitats will support a fish run of over 200,000 herring. The fishways are capable of passing about 25,000 shad. We awarded a construction contract for the Turner Reservoir and Hunts Mill Dam fishways in July 2010. Construction of the fishways at Hunt's Mill Dam and Turner Reservoir is substantially complete. We awarded the construction contract for the Omega Pond fishway in the fall of 2011. Construction has been delayed to allow redesign of the cofferdam system around a gas pipe, and to account for unexpected subsurface conditions. Construction of the cofferdam will resume in the spring when the environmental window reopens.

The Ten Mile River Project received \$460,000 in Corps of Engineers American Recovery and Reinvestment Act of 2009 funds and \$545,000 in National Oceanic and Atmospheric Administration ARRA funds for construction.

TOWN POND (BOYD'S MARSH) SALT MARSH RESTORATION, PORTSMOUTH (1st CD) - The New England District partnered with the Rhode Island Department of Environmental Management to restore 23 acres of salt pond and salt marsh habitat in the wildlife sanctuary at Town Pond. Restoration primarily involved removing and redistributing dredged material that was placed in Town Pond when the Fall River Federal navigation channel was dredged in the early 1950s. Construction was substantially complete and tidewater returned to the pond on Sept. 21, 2007 for the first time in over 50 years, restoring ecologically important salt marsh and salt pond. Oyster seeding was conducted in the fall of 2008 and 2009. The project was turned over to the state of Rhode Island Department of Environmental Management for operation and maintenance in September 2009. The project's environmental monitoring program is complete and a report will be prepared.

**NARROW RIVER RESTORATION, NARRAGANSETT AND SOUTH KINGSTOWN (2nd CD)** – The New England District initiated a feasibility study under the Section 206, Aquatic Ecosystem Restoration Program in March 2005. The study considered alternative plans to restore eelgrass, shellfish beds, salt marsh, and other habitats in the Narrow River. The Rhode Island Coastal Resources Management Council (CRMC) was the non-federal sponsor. The study team completed the baseline studies (bathymetric surveys, sediment mapping, shellfish and sediment sampling, shorebird surveys, a water quality summary, and hydraulic modeling) and a preliminary evaluation of restoration plans, which involved dredging and redistributing sediments to restore proper elevations and depths for salt marsh and

## General Investigations

**BLACKSTONE RIVER, CUMBERLAND (1st CD)** – In 2008 the New England District conducted a Section 905(b) Reconnaissance Study to determine whether there was a Federal (Corps) interest in participating in a cost-shared Feasibility Study to improving flood risk management along the Blackstone River in Rhode Island. The reconnaissance study resulted in the finding that there is a Federal interest in continuing the study into the Feasibility phase, specifically for the Berkeley Industrial Park in the town of Cumberland.

The New England District began the Feasibility Study in November 2011 with the Rhode Island Department of Administration serving as the non-federal sponsor. A project kickoff meeting was held on Dec. 14, 2011 at the Cumberland Town Hall. A coordinated site visit was conducted on Jan. 18, 2012 involving project stakeholders from Federal, state and local agencies as well as nongovernmental organizations. Plan formulation, design alternative development, economic analysis and Hydrologic and Hydraulic studies are currently underway by the New England District study team.

**RHODE ISLAND FLOODING RECONNAISSANCE STUDIES (1st & 2nd CDs)** – March 2010 storms in Rhode Island resulted in significant riverine flooding of homes, businesses, roads, and wastewater treatment facilities. After the event, the Corps received funding through the 2010 Supplemental Appropriations Act to conduct reconnaissance investigations in the Pawtuxet, Woonasquatucket and Pawcatuck River watersheds. eelgrass, and inlet dredging to improve flushing. CRMC decided not to move forward with the feasibility study. However, we will resume work on the project with the Narragansett Bay Program serving as the non-federal sponsor when funding becomes available. *We did not receive funding for this project this fiscal year.* 

For information on the Aquatic Ecosystem Restoration Program visit the website at: <u>http://www.nae.usace.army.</u> mil/pservices/eco.htm.

Efforts initiated in the spring of 2011 included meeting with individual town and city representatives and RIEMA to collect flooding and damage information. This information, along with other data, was used to prepare Reconnaissance Reports to determine if Federal (Corps) participation in detailed flood risk management feasibility studies is warranted. The Reconnaissance Reports for the Pawtuxet and Woonasquatucket Rivers were approved in August 2012 and the Pawcatuck River Report was approved in May 2012. The reports recommend moving to the feasibility study phase. The Corps is working with the potential non-Federal study sponsors including the state of Rhode Island and the communities to develop feasibility study cost estimates and project management plans for the flood risk management feasibility studies. Feasibility studies require a 50% Federal-50% non-Federal cost-sharing requirement.

#### POST-FLOOD STORM ASSESSMENT (1st and 2nd CDs)

- As a result of the Rhode Island flooding of March 2010, the Corps received funding through the 2010 Supplemental Appropriations Act to conduct a Post-Flood Assessment to capture the conditions leading up to and resulting from the event. The study will capture the economic impacts and damages in addition to the hydraulic and hydrologic conditions within the affected Rhode Island watersheds. A complete review of available flood damage data has been completed and a draft report is expected in early 2013.

For information on Planning Services visit the website at: <u>http://www.nae.usace.army.mil/plnserve.htm</u>.

## Other projects

**COASTAL AMERICA** – The Coastal America Northeast Regional Implementation Team has focused its efforts on habitat restoration and, in particular, restoration of tidally constricted salt marshes and restoration of rivers for migratory fish passage. These efforts are coordinated with the Rhode Island Coastal Resources Management Council and the Rhode Island Department of Environmental Management.

## **Regulatory Program**

Department of the Army permits are required from the Corps of Engineers under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The Corps reviews permit applications for work affecting navigable waters under its Section 10 authority and the discharge of fill material into all waters, including inland wetlands, under Section 404. A list of Monthly General and Individual Permit Authorizations is provided at <u>www.</u> <u>nae.usace.army.mil/Regulatory</u> under the heading "State General Permits/Permitting" then "Monthly Permits Issued." Relevant environmental documents are available upon written request. For more information about Corps jurisdiction of wetlands and whether a permit is required for your work contact the Corps' New England District Regulatory Division at 978-318-8338 or 978-318-8335 or visit the website at: <u>http://</u> www.nae.usace.army.mil/Regulatory/.

**REGIONAL GENERAL PERMIT** – The New England District has comprehensive Regional General Permits (RGPs) in place in each of the six New England states covering work with minimal impact on the aquatic environment. Up to 98 percent of all permits issued in New England are RGPs. The RGPs are based on state thresholds for most categories of environmental impacts, and applicants generally need only file with the state. The federal screening is virtually transparent to applicants, and the RGP approval in most of the states is either included in the state approval letter or mailed simultaneously. Applications appropriately covered under the RGPs are generally approved in less than 60 days. Applicants have commented favorably about the simplicity, predictability and efficiency of the RGPs. The RI RGP was reissued on Feb. 22, 2012 for another 5 years and is located at: http://www.nae.usace.army.mil/Regulatory/ SGP/ri.htm.

DEEPWATER WIND (BLOCK ISLAND) (1st & 2nd CDs) Deepwater Wind Block Island, LLC and Deepwater Wind Block Island Transmission System, LLC (known collectively as Deepwater Wind) are seeking a permit from the Corps of Engineers to construct five wind turbine generators and do other work off the southeast coast of Block Island, Rhode Island. Deepwater Wind Block Island, LLC proposes to construct and maintain the Block Island Wind Farm (BIWF), a 30-megawatt offshore wind farm located in Rhode Island territorial waters. The BIWF will consist of five 6-megawatt wind turbine generators (WTG), a submarine cable interconnecting the five WTGs, and a 34.5-kilovolt submarine transmission cable from the northernmost WTG to an interconnection point on east-central Block Island where the cable will go ashore to a new substation built at the existing Block Island Power Company property.

In connection with the BIWF, Deepwater Wind Block Island Transmission System, LLC proposes to construct the Block Island Transmission System (BITS), a 34.5-kilovolt alternating current bi-directional submarine transmission cable from Block Island to the Rhode Island mainland. Deepwater Wind has submitted an Environmental Report as part of their application. It is available for review at: <u>www.dwwind.com/</u> block-island/block-island-project-overview. Paper copies are available at the Block Island Town Hall and at the Maury Loontjens Memorial Library in Narragansett. The five WTGs are proposed to be built approximately 3 statute miles off of the southeast coast of Block Island in Rhode Island Sound (Atlantic Ocean). The BITS will make landfall on east-central Block Island at the same location as the BIWF cable and will also interconnect at a new substation built at the existing Block Island Power Company property. The BITS will make landfall on the Rhode Island mainland in the town of Narragansett. The project will also include upgrades.

The BIWF will be located entirely within Rhode Island state

territorial waters. According to Deepwater Wind, the BIWF is expected to generate approximately 125,500 megawatthours each year once it is fully operational, supplying enough energy to power approximately 17,200 Rhode Island households. The Corps has made a preliminary determination that the BIWF and BITS may affect but are not likely to adversely affect terrestrial and marine protected species. Further consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding threatened and endangered species is being conducted and will be concluded prior to the final permit decision.

The BIWF will temporarily impact approximately 16.55 acres of Essential Fish Habitat (EFH) during construction and permanently impact approximately 0.74 acre during operation. The BIWF area will affect some EFH species and life stages. This habitat consists mainly of sands with some areas of cobble and boulders. The cable installation portion of this project will temporarily impact a maximum of 47.02 acres of EFH during construction and permanently impact a maximum of 1.33 acres during operation for various species and life stages. Habitat at this site can be described as sands and silts.

Deepwater Wind has minimized impacts to fish and invertebrate species by siting the project to avoid direct impacts to important habitats such as eelgrass and hard bottom substrates known to be used by some species throughout various life stages. Deepwater Wind has also minimized impacts on marine habitats by selecting construction techniques and equipment (e.g., jet-plowing, horizontal directional drill and dynamic positioning vessels) that substantially minimize disturbance and alteration of substrate during construction activities. However, despite this effort it is unavoidable that some marine habitats will be temporarily degraded (both water column and bottom habitat) and/or altered from the BIWF and BITS activities.

The Corps public notice, with more detailed information, can be viewed at <u>http://www.nae.usace.army.mil/Regula-tory/Public%20Notices/</u>. Public comments on this proposed work by Deepwater Wind (file # NAE-2009-789) should be forwarded no later than *Feb. 10, 2013* to the U.S. Army Corps of Engineers, New England District, Regulatory Division (ATTN: Michael Elliott), 696 Virginia Road, Concord, MA 01742-2751.

**OCEAN SPECIAL AREA MANAGEMENT PLAN (SAMP)** (1st & 2nd CDs) – In January 2006, the Governor announced the creation of an Office of Energy Resources with the mandate to implement 15% of the state's electricity from wind. A 2007 study concluded the great majority of the state's potential wind energy was from offshore (not onshore) wind. The Ocean Special Area Management Plan (SAMP), developed by the Rhode Island Coastal Resources Management Council (CRMC), establishes a comprehensive regulatory process to allow Rhode Island and the Corps to set standards to entertain permit applications submitted by offshore renewable energy developers. The SAMP was a two-year state funded effort. The first year (August 2008 – August 2009) was for data collection, analysis and outreach with the development of a preliminary zoning map. The second year (August 2009 – August 2010) was slated for research refinement, continued analysis, outreach, decision-making (development of CRMC policy and standards), and submission of the completed SAMP document for state and Federal approval. Besides the state and Corps, other participants in this planning process, with support from the University of Rhode Island, included Minerals Management Service, National Oceanic and Atmospheric Administration, Rhode Island Department of Environmental Management, Rhode Island Economic Development Corporation, and the states of Connecticut, Massachusetts and New York.

The Ocean SAMP was approved unanimously by the CRMC on Oct. 19, 2010. The SAMP is considered to be in the forefront of the nation's leading marine spatial planning initiatives. The OSAMP was approved by NOAA in July 2011

TF GREEN AIRPORT, WARWICK (2nd CD) - The Federal Aviation Administration (FAA) is seeking a Corps permit to potentially impact 8 to 21 acres of inland wetlands to provide operational and safety improvements to TF Green Airport in Warwick. The FAA has restarted its Environmental Impact Statement (EIS) process. Public scoping meetings were originally held in 2002. At that time, the proposed project only addressed short-term runway length needs. In 2003 the Rhode Island Airport Corporation (RIAC) revisited aviation forecasts and prepared a Master Plan that called for a longer-term plan to extend one of the runways up to 9,500 feet. The EIS was put on hold while other master planning ideas and alternative runway extension options were considered. The FAA prepared an EIS to study impacts related to runway extension, runway reconstruction, safety and improvements, terminal road improvements, concourse expansion, parking improvements, a new cargo facility and other activities. The Corps is participating in the EIS process, having attended many inter-agency coordination meetings starting in 2005. These agencies have included, among others, the U.S. Environmental Protection Agency, the U.S.

## Defense Environmental Restoration Program (DERP)

This is a Congressionally directed program (PL 98-212) that emphasizes the identification, investigation and prompt cleanup of hazardous and toxic waste; unexploded ordnance; buildings and other structures and debris at current and former military facilities. A total of 85 formerly used defense sites (FUDS) have been identified in Rhode Island. Site and project eligibility investigations at all sites are now complete, including 53 where no work was found to be necessary. Of the 32 sites where work was needed, the following efforts are underway:

#### QUONSET POINT, DAVISVILLE and NORTH KINGS-TOWN (2nd CD):

**Blue Beach Site –** Sampling for TCE in 19 wells was conducted in June 2009. *CENAE* contracted with an A-E firm in second quarter FY10 to develop a conceptual site model (CSM) and remedial investigation/feasibly study (RI/FS) Fish and Wildlife Service, and the Narragansett Tribe. During fall of 2007, other runway length alternatives were discussed and in October 2007 we agreed on two alternatives to be fully described in the Draft EIS. In addition to the No-Action alternative, lengths of 9,350 feet and 8,700 feet were included and considered in our subsequent permitting process.

Based on continued discussions with the city and the RIAC, it became clear that the most practicable alternatives would involve the 8,700-foot extension. During 2008, concepts with this length in mind were discussed. Several ideas were presented to reduce wetland impacts and in December 2008 we began preliminary discussions about wetland mitigation possibilities. FAA prepared the Draft EIS to evaluate the environmental consequences. There were interagency and tribal meetings in April and June 2009. The agencies selected alternative B-4 as the preferred alternative. A public meeting was held in June 2009. The Draft EIS and the Corps permit application were delayed while they conducted an updated noise analysis using the Integrated Noise Model which may result in fewer homes falling inside the area of significant impact.

The DEIS was published in the summer of 2010 with the public comment period ending Sept. 15, 2010. A Joint Public Hearing was held with the FAA and the public on Aug. 17, 2010. Comments we received from the DEIS were forwarded for their response and were reviewed and incorporated into the Final EIS. An interagency meeting was held in October 2010 with the applicant and consultant to discuss mitigation strategies. We won't have a complete application until the mitigation is further developed. The Final EIS was published in July 2011. The FAA issued a record of decision (ROD) on the FEIS in September 2011. RIAC expects to submit a complete application to the Corps. In November 2011 the city of Warwick decided to challenge the FAA's approval of the project and sued in federal court to stop the airport expansion. The legal challenge could stall the \$166 million airport project for as long as two years.

work plan for the Blue Beach site and associated Red Maple Swamp to address the TCE and metals contamination. CENAE retained an A-E firm to execute the RI/FS workplan and complete the RI/FS phase, slated to be completed in *late fall 2013.* 

Aqua Tank Farm – Test results from monitoring wells at the site indicate that concentrations of all groundwater contaminants comply with the ground water quality standards that are recommended by Rhode Island Department of Environmental Management (DEM) with the exception of Light Non-Aqueous Phase Liquid (LNAPL). Soil and LNAPL removal operations were completed in March 2010. DEM approved the corrective action closure report for the removal operations and provided CENAE a No Further Action letter, dated April 12, 2011. The remediation building and monitoring wells were decommissioned in the summer of 2012. A project close out will be completed for this project in January 2013.

**Electric Boat, PRP site –** USACE is currently involved in settlement negotiations with Electric Boat.

**Kiefer Park** – A free-floating product recovery system was installed at this site. This system has not been effective in removing Light Non-Aqueous Phase Liquid (LNAPL) at the site. We contracted with an A-E firm in second quarter 2010 to complete an LNAPL Mass, Mobility and Recoverability assessment for the Kiefer Park property. Field work was completed in late fall 2010 and the final LNAPL management plan completed in spring 2011, the results of which determined that NAPL at the project is not mobile. NAE retained an A-E firm to complete a validation of the project's existing 1997 RIDEM approved human health and ecological risk assessment as well as a site closure documentation under Rhode Island Remediation Regulations, both of which are slated to be completed in the *winter of 2014*.

NIKE PR-58 site - The New England District installed additional wells and various other sampling locations during the summer/fall 2009 and spring 2010 to identify the horizontal and vertical extents of the chlorinated volatile organic compound plume associated with the NIKE PR-58 site. Data collected was used to complete a Draft Remedial Investigation (RI) Report for the site. The RI had several data gaps that were required to be filled, prior to finalizing the report. CENAE decided that these data gaps needed to be completed prior to issuing a final RI for the site. CE-NAE has contracted with an AE to conduct field activities to fill data gaps identified in the Draft RI and complete a combined RI and Feasibility Study for the project, slated to be completed in late fall/winter 2013. Additionally, CENAE conducted a second sub-slab soil vapor investigation at the town of North Kingstown DPW facility, located immediately south of the PR-58 property. Results of this investigation found that impacts to the Facility from vapor intrusion are below actionable levels, therefore CENAE will continue to monitor groundwater beneath the facility (as a part of the larger FUDS project monitoring network) to identify any trends that may indicate future impacts to the facility. Field efforts are slated to be executed in early spring 2013, the results of which will used to complete a CERCLA-compliant *RI/FS for the project in early winter 2013.* 

**Camp Avenue Dump Site –** The New England District is continuing the long-term monitoring *of soil cover (surface inspection)* following *its* installation in the spring of 1998. A Five-Year Review Report *was completed in 2012 and was provided to the state (RIDEM).* 

**Newport Naval Base (NETC Melville) in Newport (1st CD)** – Melville North Area of Concern (AOC) #1 is located in the central portion of the site and is currently utilized as a boat marina by Hinckley Yachts. The District completed the removal of a large underground vault-like structure with surrounding PCB and oil-contaminated soils in September 2002. Additional investigation was required and a Site Investigation Report (SIR) was prepared and approved by the state (RIDEM). The report's selected remedy included the removal of a smaller underground concrete vault (along with associated petroleum contaminated soil from within

the buried vault), implementation of post-remedial action groundwater sampling program, and the use of petroleum absorbent tubular socks to remove product from the product recovery wells. The small vault removal was completed in the summer of 2010. The District is currently working to solicit a contract to conduct the post-remedial action groundwater sampling/product removal program.

**Charlestown (2nd CD) Naval Auxiliary Landing Field (CNALF)** – A remedial action was completed in July 2008 to remove and dispose of petroleum contaminated soil. Wells also were installed as part of a Long Term Monitoring Program. The Corps *completed* 2 years of quarterly groundwater sampling from October 2008 through September 2010. The Draft Two Year Long Term Monitoring Report was submitted to RIDEM in January 2012. *The Corps received the state's comments on the report in September 2012 and is in the process of evaluating and addressing those comments.* 

Nike PR-79, Foster (2nd CD) - Annual supply well sampling continues at the four active water supply wells impacted by the contaminant of concern (COC), TCE, at levels, above the RIDEM standard for GA (Groundwater A rating) aguifers. USACE installed and is maintaining carbon filters to remove the TCE on all impacted water supply wells as a protective measure for local residents. The next supply well monitoring and carbon filter inspection event is scheduled for fall 2013. Additionally, USACE contracted the United States Army Public Health Command (USAPHC) to complete a drinking water well survey of additional residential drinking water wells in the area of NIKE PR-79. The drinking water well survey consisted of the identification of approximately 70 residential and/or commercial drinking water wells, potentially impacted by the COC from NIKE PR-79. CENAE requested permission from each property owner to sample their well for volatile organic compounds (VOCs); 13 property owners responded, all of which granted permission to have their wells sampled. Sampling efforts were completed in summer 2010 and results were provided to the homeowners and RIDEM in late summer 2010. No COCs were detected at concentrations in excess of applicable regulatory standards. A second guarter FY 2011 contract was awarded to an A-E firm to complete a public participation program as well as execute various tasks leading up to and including the completion of the RI/FS report. The first phase of a presumably two phase RI/FS field investigation is slated to be executed in early spring 2013.

#### \* **REMEDIATION is complete** for the following:

#### First District

Army Reserve Center, Lincoln Nike Site, Bristol Fort Adams, Newport Beavertail Point Naval Communications Station, Jamestown Prudence and Rose Islands, Portsmouth and Newport Fort Church, Little Compton Fort Wetherill, Newport Sachuest Point, Newport Rose Island, Newport Fort Wetherill, Jamestown Fort Getty, Jamestown Prospect Hill Fire Control Station, Jamestown Camp Avenue Dump Site, **Davisville**, Hull Cove Fire Control Station, **Jamestown** 

#### Second District

T.F. Green Airport, **Warwick** Nike Site PR-79, **Foster** Devil's Foot Road, **Quonset Point Quonset Point** NAS, Nike PR-58 Nike Site, **Coventry** Building, pier and pool demolition, **North Kingstown** 

In addition, several remediation projects have been completed at **Quonset Point Naval Air Station (2nd CD)** and **Charlestown (2nd CD)**. These efforts included the removal of a total of 124 tanks, ranging in size from 1,000 to 25,000 gallons, cleaning and grouting of three miles of pipeline, and removal of 20 transformers.

**FUDS Inspections** –The Corps is conducting Site Inspections of FUDS to determine if any munitions and explosives of concern (MEC) or munitions constituents (MCs) are present on property formerly owned or leased by the Department

## Work for the Environmental Protection Agency

The New England District is the Corps of Engineers' total support agency for the EPA's Region I (New England) program for those federal-lead projects assigned to the Corps by EPA. This includes responsibility for design, construction execution, and some operation and maintenance of remediation projects. In addition, the District is providing technical assistance upon request to Region I for other federal-lead projects assigned by EPA to private firms, as well as for some potential responsible party (PRP) remediation under Superfund.

## Superfund Assistance

**CENTREDALE MANOR, NORTH PROVIDENCE (1st CD)** – The Centredale Manor Restoration Superfund Site consists of property located along Route 44 in North Providence and a section of the adjacent Woonasquatucket River and its associated ponds and floodplain. A chemical company and a drum reclamation company previously occupied the property, operating from the 1940s to the early 1970s. All buildings on the property were demolished in the mid-1970s. Roadway, parking lots and two high-rise residential buildings that were constructed in the late 1970s and early 1980s currently cover the property. Elevated levels of dioxin, PCBs, chlorinated solvents and other compounds have been found in soils at the property and in soils and sediments downstream of the property. of Defense. Many of the sites visited during this project may not have been used since the World War II timeframe, or their use changed when the property was transferred to another branch of the military or other private or public landowners. Alion Science & Technology, Inc. is assisting the Corps' Baltimore District in performing this evaluation at FUDS in the Northeast region.

Alion and the District will review historical records and maps, meet with site regulators and key stakeholders, and conduct field inspection activities in the area(s) of interest. The outcome from these Site Inspection activities will be to determine if the project site poses any threat to human health or the environment, and if further work needs to be done either through an RI/FS or some type of removal action.

Presently funded site inspections in Rhode Island are as follows: Sachuest Point (Newport), Fort Nathaniel Greene (Narragansett), Prudence Island Naval Supply (Portsmouth), and A-A Gun (Portsmouth).

The New England District previously designed a temporary cap for contaminated soils on the property and completed a flood inundation and hydraulic study at the site. The Corps provided technical oversight during design and construction of a non-time critical removal action (NTCRA) in FY 2002/2003, which included the reconstruction of Allendale Dam and sampling and removal of contaminated residential soils adjacent to Allendale and Lyman Mill Ponds.

Contractors Battelle and AMEC working under the Corps prepared many documents for the site which are now part of the Administrative Record. Documents include: interim final human health and ecological risk assessments (November 2005), interim final RI report (July 2005), Interim Final Feasibility Study (April 2010), and Addendum to the Oxbow Risk Assessment and the Addendum to the Interim Final Feasibility Study (September 2011). EPA issued the Proposed Plan in early November 2011 and conducted Public Meetings in November 2011. The Formal Public Comment period ended on Feb. 12, 2012. The EPA also issued an Addendum to the Proposed Plan (August 2012) with Public Meetings in August 2012 and a Formal Public Comment period ending in mid-September 2012. Remedy for the site differs by location, but for the source area includes targeted excavation and conversion of existing caps, and for the sediment includes, excavation and On-Site Containment in an Upland Confined Disposal Facility. The Record of Decision was signed on Sept. 28, 2012.

## **Special Studies/Projects**

ALLENDALE DAM, NORTH PROVIDENCE (1st CD) – The Corps was authorized by Section 358 of the Water Resources Development Act (WRDA) of 1992 (PL 102-508) to repair Allendale Dam on the Woonasquatucket River in North Providence. The dam was naturally breached in November 1991. Reconstruction of the dam was completed in February 2002. EPA is investigating the Centredale Manor site upstream under Superfund authority. Remediation of the contamination at the site is being coordinated with EPA and the city of North Providence as part of the Centredale Manor Superfund Project. (See earlier entry)

**RHODE ISLAND SOUTH SHORE REGIONAL SEDIMENT MANAGEMENT STUDY (1st & 2nd CDs)** – Funds have been appropriated to develop a Regional Sediment Management Plan for the south coastal area of Rhode Island. One of the most significant products of this effort would be a sediment budget for the overall system and at each inlet within the system so that informed management

## Operating Flood Risk Management Projects

The New England District provides flood risk management project benefits at two projects it operates in the state of Rhode Island. Information on each is provided below.

**FOX POINT HURRICANE BARRIER (1st & 2nd CDs)** – The U.S. Army Corps of Engineers, New England District, took over the operations and maintenance (O&M) of the Fox Point Hurricane Barrier in Providence, Rhode Island, as of Feb. 1, 2010. The Corps is responsible for Project features located within the banks of the Providence River. Day-to-day management of the Fox Point Hurricane Barrier fell under the Corps of Engineers' Cape Cod Canal Field Office in Buzzards Bay, Mass. O&M responsibility remains with the city of Providence for project features located outside the river banks such as dikes that flank each side of the barrier and for the three vehicular street gates and five sewer gates that comprise the rest of the project.

The Fox Point Hurricane Barrier provides critical flood protection to the state capital and has prevented loss of life and property time and again since its construction in 1966. *In FY 2012,* the Corps of Engineers staff operated the barrier for flood control on 12 occasions during coastal storms.

The hurricane barrier provides protection against tidal flooding from hurricanes and other storms to approximately 280 acres of downtown Providence. The protected area includes the commercial and industrial center, transportation facilities, public utilities and many homes.

The hurricane barrier is a 700-foot-long concrete structure, 25 feet high, that extends westerly across the Providence River. The structure contains three tainter gate openings that prevent the entry of floodwaters from the bay when closed and permit flow from two rivers out to the bay and passage of small vessels when open. Each gate is 40 feet high and 40 feet wide. Two 10- to 15-foot high earthfill dikes with stone slope protection flank each side of the barrier. The eastern dike is 780 feet long and the western dike is 1,400 feet long.

A pumping station and cooling water canal are integral parts of the project. During a tidal/flood situation, the pumping station's five large pumps can discharge the floodwaters of the Providence River through the barrier into the bay. Two gated openings in the pumping station, each 10 feet high and 15 feet wide, admit water into the cooling water canal used by a power plant, located immediately behind the barrier.

decisions can be made given existing sediment resources and potential outside sediment sources (such as beach fill). The 2010 efforts included: deployment of an offshore wave data buoy; initial wave energy modeling, Light Detection and Ranging (LIDAR) based topographic and bathymetric surveys; deployment of tide/Acoustic Doppler Current Profiler (ADCP) gages and meteorology station; and compilation of existing beach profile data. Efforts on this study have been suspended due to a lack of funding.

The Corps recently completed major construction contracts to repair pump #5 and pump #1. Another contract to upgrade the Electro-Mechanical Control system was awarded on Sept. 29, 2010 to Ryan Construction of Norton, Mass., in the amount of \$908,269. This work is ongoing and scheduled for completion in early 2013.

Work has started on the design to rehabilitate Pump #3, with an award scheduled for 2013. Work has also started on the design to replace the roof of the pump station, as well as replacing the Incoming Power Supply Line to the Barrier. Awards are scheduled to occur during 2013 for these projects.

WOONSOCKET FLOOD DAMAGE REDUCTION PROJECT (1st & 2nd CDs) – The U.S. Army Corps of Engineers, New England District has taken over operation and maintenance of the Woonsocket Flood Damage Reduction Project in Woonsocket, RI. The project was transferred from the city of Woonsocket to the Corps of Engineers in January 2009 in accordance with Section 2875 of the National Defense Authorization Act for Fiscal Year 2008. The New England District, Corps of Engineers assumed operation and maintenance activities in July 2009 upon receipt of funding.

The Woonsocket Flood Damage Reduction project protects industrial and commercial establishments and densely populated residential areas from flood flows on the Blackstone, Peters and Mill Rivers. It was constructed in response to flood damage that occurred due to heavy rains in August 1955 that caused \$22 million in damage. The project was constructed in two phases: construction of the Upper Woonsocket section along the Blackstone River was completed in 1960 at a cost of \$5.4 million, and construction of the Lower Woonsocket section along the Blackstone River and two of its tributaries, the Mill River and Peters River was completed in 1967 at a cost of \$8.3 million.

The Upper Woonsocket section consists of the following features: (a) 8,300 feet of channel improvement (b) replacement of the old Woonsocket Falls Dam with a new dam, (c) the Singleton Street pumping station, (d) four levees/dikes totaling about 1,200 linear feet, and (e) a 308 foot long concrete floodwall. The Lower Woonsocket section consists of two independent units: (a) the Social District Unit consisting of six levees/dikes totaling about 5,000 linear feet,

three concrete floodwalls totaling about 2,000 linear feet, two pressure conduits totaling about 2,200 linear feet, and the Social District pumping station; (b) the Hamlet District Unit consisting of three levees/dikes totaling about 2,800 linear feet, a 115-foot-long concrete floodwall, and the Hamlet District pumping station.

Work is currently underway on the replacement of 10 sluice gate operators and two gate operating stems. These gates control storm drainage flow through the levees and pump stations to the river. The current operators are approaching 50 years old and are in poor operating condition. Replacing these operators will improve the reliability of project operations during flood events. This work is valued at approximately \$110,000.

Staff are planning contracts to have major masonry repairs to the Hamlet and Social Pump Stations, and upgrades to

the pump operating system at the Singleton Pump Station carried out in FY 2013.

Recent work completed at the project includes safety/access improvements to the Hamlet and Social Pumping Stations.

The Corps and FEMA are working together to ensure that flood hazard maps clearly reflect the flood protection capabilities of the levees, and that the maps accurately represent the flood risks posed to those protected areas. The Woonsocket, RI, project was decertified under the National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency in May 2007 because the agency determined the project no longer provides protection from the base flood level. As a result, property owners behind the project are now paying flood insurance.

