



US Army Corps
of Engineers
New England District

Update Report for Massachusetts



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Mission

The missions of the New England District, U.S. Army Corps of Engineers include flood damage reduction and control, 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, two hurricane barriers and the Cape Cod Canal. Through its Regulatory program, the district processes about 6,000 applications per year for work in waters and wetlands of the six-state region. We employ about 550 professional civilian employees, with about 400 stationed at our headquarters in Concord, Massachusetts. The other Corps of Engineers employees serve at Corps projects and offices throughout the region.

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Navigation

AUNT LYDIA'S COVE, CHATHAM (10th CD) – Maintenance dredging of the 8-foot deep, 100-foot wide entrance channel *was successfully completed* by the Government-owned dredge CURRITUCK in June 2004.

BOSTON HARBOR (8th, 9th, & 10th CDs) – The New England District and Massport have begun examining a proposal by Massport to deepen the major entrance channel and main ship channel through the harbor up to South Boston to 50 feet. An expedited reconnaissance report was completed in July 2000 and approved in August 2000. In June 2002 the Corps and Massport executed a feasibility cost-sharing agreement for the next phase of study. The Feasibility Study, including preparation of a Supplemental Environmental Impact Statement, began in June 2002, and will be completed in 2007.

Work is also proceeding on plans for maintenance dredging of the 35- and 40-foot sections of the Main Ship Channel *below Spectacle Island*, Broad Sound North Channel and President Roads Channel and Anchorage. These areas were not included in the project that was recently completed. A solicitation for proposals from dredging companies to perform the maintenance

activities was issued in early July 2003 and bids were scheduled to be opened in early August 2003, but was postponed due to funding concerns. *A contract was awarded to Norfolk Dredging Company in July 2004 for this work. The contractor will start work in August 2004.*

CAPE COD CANAL BOURNE AND SAGAMORE BRIDGES (10th CD) – A contract for sandblasting and painting the Bourne Bridge was awarded to Eagle Painting Corp. in September 2003. Work started in mid-March 2004 and will continue until the spring of 2006. Lane closures associated with the work will be confined to the typical spring and fall timeframes.

CAPE COD CANAL RAILROAD BRIDGE (10th CD) - The New England District and Massachusetts Executive Office of Transportation and Construction (EOTC) have coordinated the rehabilitation of the Cape Cod Canal railroad bridge. The project has been accomplished in two phases. A \$12.8 million contract for Phase I, which *include* steel repairs and painting requiring less than eight consecutive hours of shutdown time, was awarded in August 2000, to Odyssey Contracting. Phase II *consists* of all other items, including bearing and cable replacement, which require a bridge outage.

Replacement of operating system components (Phase II) was completed by June 2, 2003, within the planned 90-day outage, despite unfavorable weather conditions. The contractor, Cianbro Corporation, diligently worked double shifts, and some Saturdays and Sundays to accomplish the work. The engineering/construction challenge of simultaneously performing structural, mechanical, electrical repairs totaling about \$13.0 million in a 90-day window, while maintaining marine traffic, is a significant accomplishment. Both phases are substantially complete with minor items to be finished by late summer.

EAST BOAT BASIN, SANDWICH (10th CD) – The Corps of Engineers, North Atlantic Division approved the New England District's recommendation for a full-scale Feasibility Study and Environmental Assessment of the expansion of the Basin. The Corps is working with town officials to execute a Feasibility Cost-Sharing Agreement. The agreement will be executed once the town has determined a funding source for the local share. The Corps will then meet with town officials to determine the alternatives to be considered.

GREEN HARBOR, MARSHFIELD (10th CD) - Annual maintenance dredging of the 6-foot and 8-foot deep, 100-foot wide entrance channel was completed by the Government-owned dredge CURRITUCK in May 2004.

IPSWICH RIVER (7th CD) – A request was received from the Town of Ipswich to examine the feasibility and Federal interest in maintenance dredging to re-establish the 4-foot channel to the Town Wharf, and to examine the potential Federal interest in deepening the channel to 5 or 6 feet. The reconnaissance level report is expected to be completed in *September* 2004. The report will contain a recommendation for or against further Federal involvement and must be approved by the Corps of Engineers' North Atlantic Division.

NEW BEDFORD & FAIRHAVEN HARBOR (4th CD) - The New England District is assisting the Massachusetts Office of Coastal Zone Management in preparation of a Dredged Material Management Plan (DMMP) for maintenance dredging of the navigation channels in New Bedford and Fairhaven harbors. The main deep-draft channel to New Bedford has an authorized depth of 30 feet, while the shallow draft channels for the fishing fleet at Fairhaven have depths of 15 and 10 feet. A review of navigation traffic information has indicated that the shallower channels on the Fairhaven side of the harbor require maintenance dredging of about 70,000 cubic yards of shoal material. The deeper channels serving the New Bedford waterfront would require dredging of about

1.3 million cubic yards to restore the authorized project dimensions; however, navigation traffic projections offered by the city do not, at this time, demonstrate a need for dredging those areas. The City, however, has recently indicated that traffic patterns had changed and is developing information to support their claim. Confined Aquatic Disposal (CAD) has been identified as a feasible disposal option through the State's DMMP process. The City recently indicated that they were proposing to dredge the CAD cells sufficient to accommodate the maintenance material. If this can be accomplished it would significantly accelerate the maintenance process. Once we receive the City's information regarding using traffic we can move forward with the project.

OAK BLUFFS HARBOR, OAK BLUFFS (10th CD) – The Corps of Engineers, New England District is working with North Atlantic Division (NAD) to finalize the draft Feasibility Study/Environmental Assessment Report. A *30-day public comment period on a public notice issued in June 2004 recently closed*. The report recommends adoption of a Federal navigation project consisting of dredging the entrance channel to Oak Bluffs Harbor with disposal of the dredged sand on an adjacent Town beach. *Preparation of plans and specifications has begun while state and Federal regulatory approvals for the project are being sought. These actions are being run concurrently in an effort to meet the sponsor's target of completing the channel dredging prior to the next season of heavy use in the spring.*

PLYMOUTH LONG BEACH DIKE (10th CD) - Plans and specifications are being prepared to restore Long Beach Dike to authorized dimensions. This will require rebuilding a 2,500-foot-long section of the dike. Environmental constraints restrict work to fall and winter months to avoid interference with endangered bird nesting. Although beach nourishment is not a feature of the Federal Dike reconstruction project, the local sponsor (Town of Plymouth) is being required to nourish the fronting beach as a condition for the Federal project to go forward. The town faced significant opposition to their proposed offshore borrow source for its beach nourishment material and have scaled back the original proposal. They are now looking to truck in about 300,000 cubic yards of sand from an upland borrow area. The Town is working to obtain the necessary State permits for the beach nourishment work as well as for the dike reconstruction work. Once they have been secured we can move forward with the dike reconstruction. *The recently issued Wetlands Protection Act Order of Conditions has been appealed by local residents who are opposed to the project. The appeal process is expected to delay construction of the project by one year.*

SALEM HARBOR (6th CD) –Maintenance dredging of the existing Federal navigation project, including 32-foot main channel and the shallow draft channels at Derby Wharf and the entrance to the South River will require dredging of about 200,000 cubic yards of shoal material. Testing has determined this material is suitable for unconfined open water disposal in Massachusetts Bay. All Federal and state regulatory approvals including Water Quality Certification and MA Coastal Zone Management consistency concurrence have been received. An environmental assessment and finding of no significant impact were signed in July 2003. A review of water and sewer line elevations indicates there are no problems with utility crossings beneath the channel. Plans and specifications for the work are complete. Work will be conducted when funds become available. *No funds are available to pursue this work at the present time.*

Shoal materials from the upper reaches of the Federal South River channel, and other non-Federal areas in Salem Harbor were shown to be unsuitable for unconfined open water disposal. These areas are not proposed for dredging at the present time. The Massachusetts Office of Coastal Zone Management had been preparing a draft Dredged Material Management Plan for unsuitable dredged materials for Salem Harbor, including the South River channel and numerous municipal and private dredging projects. However, that study has been deferred by the State, pending resolution of harbor development issues and regional disposal

Shoreline/Streambank Protection

NANTASKET BEACH (MDC), HULL (10th CD) -A draft Section 103 Hurricane and Storm Damage Prevention Detailed Project Report was completed in January 1997 in response to a request for assistance from the Division of Urban Parks and Recreation (DUPR, formerly the Metropolitan District Commission). The investigation examined potential solutions to coastal erosion and backshore flooding at the DUPR's Nantasket Beach Reservation in Hull. Although the draft report was endorsed by the DUPR, nonfederal funding to proceed with the project was not available at that time. Later, the DUPR requested that the report be finalized so that project approval for implementation could be pursued. The Corps worked with the DUPR to complete project details. A revised draft report was sent to the DUPR in January 2000. The project calls for placement of beach fill in front of the seawall. Additional work requested by the DUPR was incorporated into the Feasibility Report. The draft report was submitted for Division review in August 2002, and a Public Notice was issued on March 13, 2003.

considerations.

WESTPORT HARBOR, WESTPORT (4th CD) – At the request of the Town of Westport, the New England District is evaluating the adoption of a Federal navigation project consisting of dredging the entrance channel to the Westport River from Buzzards Bay with disposal of the dredged sand on an adjacent Town beach. The feasibility cost-sharing agreement (FCSA) between the Corps and the Town was executed in August 2003. The Corps and the Town are cost-sharing the study costs necessary to complete the Feasibility Study report and conduct the review process. The Feasibility Study/Environmental Assessment is expected to be completed for internal review in *September 2004*.

WEYMOUTH FORE RIVER (10th CD) - Shoaling has been identified in the 35-foot deep, 500-foot wide main channel and maintenance dredging has been requested by the Town of Weymouth and navigation interests. Sampling and testing have been completed and the material to be dredged has been deemed suitable for disposal at the Massachusetts Bay Disposal Area. Approximately 500,000 cubic yards need to be removed from the channel to return it to its authorized dimensions. A draft Environmental Assessment is being prepared and coordination with the Federal and State resource agencies will be initiated shortly. Plans and specifications *are being developed*. *Work is contingent* on the availability of the necessary funds and approvals.

In response to agency comments received in response to the Public Notice, a combined Environmental Assessment/Environmental Impact Report (EA/EIR) will be prepared to address all Federal and non-Federal construction activities proposed at Nantasket Beach. The Corps will reissue the Public Notice upon completion of the draft EA/EIR. After public review is completed, we will seek North Atlantic Division approval of the 103 report and initiate the project design phase.

NANTASKET SEAWALL - DCR (former MDC), HULL (10th CD) - The Department of Conservation and Recreation (DCR) has entered into an agreement for the Corps to study, analyze and perform design services to repair the seawall along Nantasket Beach. The district completed 50 percent plans and specifications to repair the seawall. However, completion of final plans and specifications has been delayed by the DCR pending completion of an Alternatives/Analysis Study (AAS), currently underway by the district. The AAS is required as

a result of the Certificate issued by the Secretary of Environmental Affairs on the Environmental Notification Form for the Nantasket Beach Coastal Storm Damage Protection Project. The AAS concentrates on 1) Beach Geological History and Land-Ocean Interface Dynamics, 2) Alternatives Analysis of Shore Protection Options in lieu of repairs in kind to the seawall, and 3) Alternatives Analysis of Access ways (i.e. Stairways and Ramps). New England District completed the AAS final draft report in October 2003 and DCR distributed it to local, state and federal agencies on Nov. 10, 2003. Follow-up meetings with the local, state and federal agencies have been ongoing. The final report will be prepared and distributed following resolution of agencies comments and upon agreement of a recommended plan to repair the entire seawall including repair/replacement of the failed 1,000-foot section of seawall at the northern end of the project. The state and federal environmental review process will commence upon completion of the final report. Final design would occur next followed by construction which would most likely be accomplished in two phases. The first phase would address repairs to the entire Nantasket Beach seawall including repair/replacement of the failed 1,000-foot section of seawall at the northern end and could begin in late 2005 while the second phase would restore beach nourishment along Nantasket Beach to Elevation 12, approximately 10 feet above current conditions. Construction of the second phase could begin upon completion of the first phase.

In the meantime, beach sand level conditions in front of the seawall have deteriorated to the point where the district has determined following completion of a stability analysis, that the required amount of passive force against the seawall necessary to maintain stability is no longer being provided and has reached a critical point. As

Flood Damage Reduction

ABERJONA RIVER, FEASIBILITY STUDY (8th CD) – A Section 205 study is underway to address the flooding issues associated with the Aberjona River in the town of Winchester, Mass. A recently completed reconnaissance investigation indicated a channel-widening project just downstream from Winchester Center merited further detailed study. A final feasibility report is scheduled to be completed in the winter 2005.

AGAWAM, MA (2nd CD) – A Section 14 streambank protection design has been initiated to determine the feasibility of providing riverbank stabilization along the Westfield River. The stabilization is needed to prevent riverine erosion from threatening a 24-foot diameter lateral sewer main. The city of Agawam Water and Sewer

a result, the seawall is in jeopardy of failure along a 2,000-foot reach in the area of the Tivoli bathhouse. The DCR has tasked the District to perform an alternatives analysis of temporary emergency remedies designed to restore stability to the seawall in a timely fashion that could be expected to survive up to a 25-year storm event with maintenance, until the long term beach nourishment project could be constructed which would provide permanent protection to the seawall. The District has completed all of the above tasks including final design for the *DCR selected plan – Temporary Seawall Fortification (stone revetment)*. DCR began construction in June 2004 with construction completion scheduled during August 2004.

NORTH NANTASKET BEACH (10th CD) - A Section 103 Hurricane and Storm Damage Prevention Detailed Project study to determine the feasibility of providing coastal storm damage protection to the 10,000-foot-long North Nantasket Beach in Hull is examining protection to backshore properties against flooding and wave attack. The local sponsor is the Massachusetts Department of Environmental Management (DEM). The study cost is shared 50 percent from the Corps and 50 percent from the state and the town of Hull. Both the state and the town requested additional engineering analysis on a locally preferred plan. A more detailed analysis was performed, but did not result in a change to the Corps recommended plan for Federal project features. DEM and the town of Hull do not support the plan recommended by the draft report. DEM and the *Massachusetts Office of Coastal Zone Management (CZM)* provided elevations of the existing dune and the Corps agreed to evaluate the protection it might provide with beachfill placed in front of it. The town of Hull will arrange a meeting with DEM, CZM and the Corps to discuss the evaluation.

Department is participating as the non-Federal project sponsor. Approximately 200 linear feet of riverbank requires stabilization. Design documents are scheduled to be completed in 2004.

BLACKWATER RIVER, SALISBURY (6th CD) - The New England District is conducting studies to determine the feasibility of providing local flood protection along the Blackwater River in Salisbury. Preliminary studies indicated that flood control measures would be economically justified, but further detailed studies are necessary to fully evaluate flood control alternatives and impacts. A feasibility cost-sharing agreement outlining the scope and cost of these additional studies was prepared and executed between the Commonwealth and

the Corps in January 1999 and amended in June 2002. Feasibility studies are underway, with the draft feasibility report and environmental assessment scheduled for completion in *November 2004*.

MUDDY RIVER FLOOD DAMAGE REDUCTION AND ENVIRONMENTAL RESTORATION INVESTIGATION (4th, 8th & 9th CDs) - In response to a October 1996 storm event that resulted in severe flooding along and adjacent to the Muddy River as well as several tributary areas, particularly Stony Brook, the city of Boston, town of Brookline and the Commonwealth of Massachusetts developed and proposed a plan called "The Emerald Necklace Environmental Improvements Master Plan, Phase I Muddy River Flood Control, Water Quality and Habitat Enhancement," dated January 1999. The objectives of the plan are to increase flood control, improve water quality and enhance aquatic/riparian habitat within the Muddy River by dredging accumulated sediment, upgrading flood control by improvements to restrictive drainage culverts, removing nuisance vegetation, improving fisheries/wildlife habitat and water quality, bank stabilization and promoting and enhancing recreational use of Emerald Necklace park lands.

Section 522 of the Water Resources Development Act of 2000 authorized the Corps to, "carry out the project for flood damage reduction and environmental restoration, Muddy River, Brookline and Boston, Massachusetts, substantially in accordance with the plans, and subject to concurrence it met Federal guidelines. The New England District prepared the required decision documents and the Draft Decision Document and Environmental Assessment were distributed for a 30-day public review period on June 16, 2003. The final report was submitted to Corps Headquarters for approval in September 2003. The Corps Headquarters prepared a Chief's report recommending Federal participation and forwarded the report to the Assistant Secretary of the Army (ASA) for Civil Works on Dec. 29, 2003. The *ASA has approved Federal participation in the flood damage reduction component of the project and is evaluating the environmental restoration portion of the project. A decision on this portion of the project is expected by the end of August 2004.*

The New England District has developed a scope and cost estimate for design efforts and the preparation of plans and specifications. A design agreement *is expected to be executed between the Corps and the City of Boston for the design phase in the fall of 2004.*

ROUGHANS POINT, REVERE, LYNN, SAUGUS and MALDEN (6th & 7th CDs) - Construction on the

Roughans Point Project began in October 1997 and is substantially complete. The \$11.8 million coastal flood protection project will relieve the neighborhood from severe flooding like the Blizzard of 1978 and storms in 1991 and 1992. Authorized by the Water Resources Development Act of 1986, the federal project includes measures for stabilizing and improving existing seawalls, placement of a new rock revetment to reduce wave runoff and storm overtopping, and rehabilitation of an existing pump station. The city of Revere and the Commonwealth's Department of Environmental Management are sponsors for the project. Construction of the revetment and seawalls was finished in November 1999. Rehabilitation of the pumping station (owned by the Commonwealth's Metropolitan District Commission) began in May 2000. Work on the pumping station had been delayed due to the need to upgrade the existing electrical service. The city of Revere entered into an agreement with Massachusetts Electric for the electrical service, work which was completed in September 2001. The pumping station work was substantially completed by spring 2002 with final completion planned for the *summer 2004*.

TOWN BROOK, BRAINTREE AND QUINCY (9th & 10th CD) - The Water Resources Development Act of 1986 authorized federal flood protection consisting of Town River channel modifications near the Southern Artery in Quincy, a 12-foot-diameter deep rock relief tunnel over 4,000 feet long under Quincy Center, and reconstruction of the Old Quincy Dam in Braintree. This federal project is part of an overall flood control system for the Town Brook watershed in cooperation with the Commonwealth of Massachusetts. The total flood control project is estimated at over \$53 million.

The flood protection works were built in three phases. The first phase was constructed by P. Caliacco Corp. of Rockland and included channel work and new culverts at the downstream end of Town Brook under the Southern Artery. Work on this \$3.3 million phase is complete. The second phase, which is the largest and involves construction of the tunnel under the business district in Quincy, was built by Kajima/Marra-Majestic (joint venture) of Pasadena, Calif., at a cost of \$24 million. Construction began in November 1993 and is complete.

Both phases were transferred to the MDC in January 2002. The project has prevented about \$25 million dollars in damages from the March 1999 and March 2001 storm events. The last phase is the reconstruction of the Old Quincy Dam in Braintree. An \$8.7 million contract for this work was awarded in September 1998 to D&C Contracting Co., Inc., of Rockland. *Work on this phase of*

the federal project is complete. The last phase (Quincy Dam Reconstruction) was turned over to the local sponsor, Department of Conservation and Recreation

(formerly MDC), on June 28, 2004 for future operation and maintenance.

Ecological Restoration/Watershed Management

BLACKSTONE RIVER (3rd CD) - A \$400,000 federally-funded reconnaissance study focusing on ecological needs in the Blackstone River watershed was completed in 1997. The study identified the federal interest in environmental restoration plans for the watershed, and determined the type and cost of prototype projects that could potentially be constructed throughout the watershed. A Feasibility Cost Share Agreement was signed in 1999 with the Commonwealth of Massachusetts Executive Office of Environmental Affairs (EOEA); however, Rhode Island declined further participation. The originally estimated \$2 million cost-shared Feasibility Study is currently ongoing and is one of the rivers selected as part of the Urban Rivers Restoration Initiative between the Corps and the U.S. Environmental Protection Agency. Key components of this study include an assessment of the threat from contaminated sediments, an inventorying of environmental restoration opportunities in the watershed, a determination of the role of impoundment's on water quality and sediment resuspension, and an inventorying of dams and their condition. MA EOEA recently informed the Corps that due to the fiscal constraints the Commonwealth is facing there would be no additional State funding for the Feasibility Study. They have requested that we complete any ongoing efforts and document our results in an interim report. In order to provide this interim report the Corps will utilize remaining funds, both available as cash and through credit of in kind services. The MA EOEA would like to see the interim report provide recommendations for the restoration of Fisherville Pond.

BIRD ISLAND TERN NESTING HABITAT RESTORATION, MARION, MASSACHUSETTS (4th CD) - *Working with the Massachusetts Executive Office of Environmental Affairs (Office of Coastal Zone Management and the Division of Fisheries & Wildlife, Natural Heritage & Endangered Species Program), the New England District is completing a feasibility study under the Section 204, Beneficial Uses of Dredged Material Authority to consider options to restore and protect roseate and common tern nesting habitat on the Bird Island in Buzzards Bay. The northeastern population of the roseate tern is listed as endangered at both the Federal and State levels of jurisdiction and Bird Island supports 25-30 percent of the North American population. The revetment that protects the island is in*

poor condition and the coastal storms are eroding the vegetation and sand that roseate and common terns need for nesting. The study is considering options to stabilize the revetment and restore substrates for tern nesting. We expect to issue the Public Notice for the draft Project Report and Environmental Assessment in February of 2005.

BROAD MEADOWS SALT MARSH RESTORATION QUINCY, MASSACHUSETTS (10th CD) - The New England District has completed a draft feasibility study for the restoration of 37 acres of saltmarsh habitat, 29 acres of recreational grass/open space, and 12 acres of saltwater channels and pools at Broad Meadows Marsh. The city of Quincy is the sponsor for the 75 percent Federal/25 percent non-Federal effort. The restoration would restore salt marsh to replace the low value common reed (*Phragmites australis*) marsh that occupies the site, restoring marine life populations. The Corps issued the Public Notice for the draft feasibility report in October 2003. Plans and specifications will be initiated in *September 2004.*

COASTAL MASSACHUSETTS ECOSYSTEM RESTORATION STUDY (6th, 7th, 9th, & 10th CDs) - This Congressionally directed reconnaissance investigation was started in February 2001. The purpose is to identify the most significant ecological restoration opportunities that can be accomplished by the Corps in collaboration with the Commonwealth. The study area includes the coastal waters from the New Hampshire border to Provincetown. The reconnaissance report was completed in July 2001. Individual scopes of work and budgets were prepared and submitted to EOEA for 18 identified sites. In October 2002, a Feasibility Cost Sharing Agreement between USACE and the Mystic Valley Development Commission was executed for the Malden River Ecosystem Restoration Feasibility Study. The Corps has contracted with ENSR International to conduct a Phase I, Data Collection & Review, of the study. *The Phase I Report has been completed. The Phase I Report identified and evaluated a suite of individual ecosystem restoration measures, which will be used in the Phase II portion of the study to define specific study alternatives. Comprehensive evaluation and comparison of these alternatives will also be performed under Phase II.*

DEERFIELD RIVER FEASIBILITY STUDY (1st CD) -

The study of fish habitat restoration on the Green River in Greenfield, Mass. is an outgrowth of the study originally intended to evaluate the Searsburg and Somerset dams in Vermont. Fish passage alternatives at four dams on the Green River, a Deerfield River tributary, as well as other fish habitat enhancement opportunities are under consideration. The study has been restarted after receipt of additional funding. *New England District anticipates issuing a Public Notice for the draft report and environmental assessment in February of 2005.*

GULF OF MAINE INITIATIVE - The New England District is a member of the Gulf of Maine working group, providing this joint U.S./Canadian committee with water resource planning expertise. Technical support in applications of sediment chemical mapping for Boston Harbor is being provided. New England District staff members are participating in Gulf of Maine Workshops and these workgroups are discussing ways in which the U.S. and Canada can partner through the Gulf of Maine program.

MANHAN DAM AQUATIC ECOSYSTEM RESTORATION (1st CD) -

Currently, the Manhan Dam on the Manhan River in Easthampton blocks the upstream migration of anadromous fish species. There are many tributaries flowing into the Manhan River above the dam. Generally the tributaries are clear, cold, fast flowing, shady, and with no visible algae growth. It appears that the tributaries can provide very good salmon spawning habitat. The presence of anadromous species (i.e., shad, blueback herring, Atlantic salmon) in the pools below the dam indicates that if fish passage were provided, it would be utilized by these species to access the spawning and nursery habitat upstream from the dam. The District is completing Plans and Specifications under the Corps "Aquatic Ecosystem Restoration Program" (Section 206). The city of Easthampton is the sponsor for the 65 percent Federal/35 percent non-Federal effort. The Corps is working with the non-Federal sponsor to resolve issues related to State-listed protected species and habitats. Once these issues are resolved, the Corps and the City will execute the Project Cooperation Agreement and award a construction contract in spring 2005.

MERRIMACK RIVER WATERSHED STUDIES (SECTION 729) (5th & 6th CDs) -

Over the past several decades, significant improvements have been realized in the overall quality of the Merrimack River due to federal, state, local community, and private investment in water pollution control facilities. However, there are water quality concerns that still require significant investigation and remediation beyond that which individual communities can address. Communities along the

Merrimack River in Massachusetts and southern New Hampshire are undertaking planning efforts that could result in as much as \$500 million in combined sewer overflow (CSO) control projects. In addition, future stormwater and total maximum daily load (TMDL) regulations may result in additional responsibilities. Contributions from non-point source pollution to the Merrimack have not been estimated and could be a major contributor to much of the water pollution problems in the river. The local communities are concerned that pollution control requirements are being mandated by state and federal regulatory agencies without a clear understanding of the pollution sources and the water quality and ecosystem benefits to be achieved basin wide. The Corps has scoped out a watershed study to identify the number and range of water quality issues, ecosystem problems and opportunities along sections of the Merrimack River and to develop a framework for a comprehensive study of identified watershed areas. This study will be conducted under the authority provided in Section 729 of WRDA 1986 as amended and entitled "Water Resources Needs of River Basins and Region." The Section 729 comprehensive watershed study requires (50 percent federal/50 percent nonfederal) cost sharing. Phase I of the Merrimack River Assessment will cost \$2 million and was initiated in spring 2002 and the draft report is scheduled for *spring 2005*. *Interim task reports can be viewed on the Corps web site.*

MILL POND RESTORATION, LITTLETON, MASSACHUSETTS (5th CD) -

The town of Littleton, MA requested that the Corps of Engineers conduct a study of Mill Pond and its tributaries to investigate alternatives to restore the ecology and health of this 52-acre degraded freshwater pond. This study is being conducted under the Corps' Aquatic Ecosystem Restoration Program, Section 206 of the Water Resources Development Act of 1996. The aquatic habitat of the pond is degraded as a result of sedimentation and excessive nutrient loads into the pond from the surrounding 4,500-acre watershed. An estimated volume of 5.1 million cubic feet of soft sediment has accumulated in the pond, reducing the average depth of the pond from 10 feet deep to 3.6 feet. The current shallowness of the pond and excessive nutrient concentrations contribute to extensive and dense growth of aquatic weeds. The major feature of the restoration study is to address ways to remove and dispose of accumulated sediment from the pond to reduce the recycling of phosphorous and to increase the depth of the water. A Preliminary *Restoration* Plan determined that a feasibility study of the potential project is warranted, and the Feasibility Study was initiated in April 2002. Due to a lack of current fish data in the pond and streams upstream and downstream of the pond, a fish survey was conducted

in May of 2003 to provide fisheries data for the study. The Corps is assessing the environmental benefits and costs of several pond-dredging options to determine the most cost-effective and acceptable solution. A draft detailed project report and environmental assessment are being prepared, with a public release of a draft report planned in 2004.

MILL RIVER, NORTHAMPTON (1st CD)—A Preliminary Restoration Plan has been approved for the Northampton Local Protection Project. The city is interested in opportunities for environmental restoration and improvements to aquatic habitat along the Mill River Diversion and the historic Mill River Channel. The Corps will initiate a Section 1135 feasibility study to look at channel restoration, fish passage and other habitat improvements *when funding in the Section 1135 program becomes available*.

MILFORD POND RESTORATION, MILFORD, MASSACHUSETTS (2nd CD)—MA DEM on behalf of the town of Milford, MA requested that the Corps of Engineers conduct a study of Milford Pond to investigate alternatives to restore the ecology and health of this 120-acre degraded freshwater pond. This study is being conducted under the Corps' Aquatic Ecosystem Restoration Program, Section 206 of the Water Resources Development Act of 1996. The aquatic habitat of the pond is degraded as a result of sedimentation and excessive nutrient loads into the pond. The shallow water depth and thick organic sediments from the decomposition of vegetation contribute to the eutrophication of the pond and the extensive growth of the emergent vegetation. Feasible dredging alternatives being considered require dredging to a depth of 12 feet to prevent the growth of rooted aquatic vegetation. The draft report has been completed and is scheduled to be released for public review *this summer*.

NASHAWANNUCK POND, EASTHAMPTON, MASSACHUSETTS (1st CD) - The city of Easthampton requested assistance under the Section 206, Aquatic Ecosystem Restoration program authority to restore the Nashawannuck Pond's ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. It has been determined that removal of pond sediments would improve/restore the open water habitat for fish and waterfowl resources. Currently, the District is completing plans and specifications. The city of Easthampton is the sponsor for the 65 percent Federal / 35 percent non-Federal effort. Completion of the contract documents is *temporarily on hold due to the shortage of funds in the Section 206 Program*.

NATIONAL ESTUARY PROGRAM - The district is currently supporting implementation of the comprehensive conservation and restoration plans of the Massachusetts/Cape Cod Bays and the Buzzards Bay National Estuary Programs (NEP). Activities include attendance at committee meetings and transfer of our data to the NEP Geographic Information Systems. Additionally, we continue to work to identify habitat restoration opportunities.

NATIONAL MARINE LIFE CENTER (NMLC), BOURNE (10th CD) - NMLC, with support from MA EOE's Wetlands Restoration Program, requested that the Corps undertake a salt marsh restoration project under Section 1135 of the 1986 Water Resources Development Act. The project seeks to re-establish tidal flow to a degraded salt marsh by modifying an aging and undersized culvert to the Cape Cod Canal, and grading adjacent upland areas. NMLC seeks to re-establish this salt marsh and develop an open-water pond to allow for rehabilitation of recovering sea mammals prior to their re-release to the open ocean environment. The Planning and Design Analysis phase was initiated on March 13, 2002. A draft Environmental Assessment, excluding soil/groundwater chemistry information, was completed during the fall of 2003. The results of soil and groundwater chemical testing related to previous use of the area *are being incorporated into the Environmental Assessment so that it can be released for public review. We anticipate releasing the Environmental Assessment for public review in December of 2004*.

NEPONSET RIVER, BOSTON/MILTON (9th CD) -The Massachusetts Executive Office of Environmental Affairs (EOEA) requested that the Corps of Engineers conduct a study of the Neponset River to explore the possibilities of restoring a degraded aquatic ecosystem to a less degraded, more natural condition. This work is being conducted under the Corps Aquatic Ecosystem Restoration Program, Section 206 of the Water Resources Development Act of 1996. The feasibility study will evaluate alternatives for fish passage at the Walter Baker and Tilestone and Hollingsworth dams along the river, as well as examine opportunities for channel improvements and habitat restoration.

NORTH NASHUA RIVER, FITCHBURG (1st CD)—*New England District prepared a Preliminary Restoration Plan under the Section 1135, Project Modification to Improve the Environment* authority for the Fitchburg Local Protection Project. Opportunities for improvements to aquatic habitat and riparian corridors along the North Nashua River will be investigated. Working with the city

and other stakeholders, the Corps is preparing an Alternatives Analysis to expand the proposal and optimize a restoration plan.

SAGAMORE SALT MARSH RESTORATION PROJECT (10th CD)

- The Sagamore Marsh, situated on the north side of the Cape Cod Canal in the towns of Bourne and Sandwich, was identified as a high priority salt marsh restoration site. Under the Continuing Authorities Program, a project utilizing funds provided by the Section 1135 Project Modifications for Improvement of the Environment Authority, restored 56 acres of saltmarsh at a cost of \$2.44 million. The non-Federal sponsor was the Massachusetts Department of Environmental Management. The construction contract was awarded in spring 2000, with site work completed by September 2002. The project also includes a five-year monitoring effort, which is ongoing.

STEWART'S CREEK, BARNSTABLE (10th CD)

- The town of Barnstable, with strong support of MA EOEA's Wetlands Restoration Program, requested that the Corps undertake a Section 206 Aquatic Ecosystem Restoration Project at Stewart's Creek. The project involves increasing tidal exchange to the Stewart's Creek salt pond and wetlands. Currently, a 24-inch diameter culvert under Ocean Avenue, which empties into Hyannis Harbor, restricts tidal interchange to this extensive wetlands resource. Inadequate flushing is contributing to eutrophication and sediment accumulation in the salt

pond. The Corps has developed alternatives to restore tidal flows, salt marsh, and benthic habitat to the salt pond/marsh system. A draft Environmental Assessment was released on July 16, 2004.

YARMOUTH RUN POND COASTAL ECOSYSTEM RESTORATION STUDY (10th CD)

-The Run Pond restoration site is located on Nantucket Sound in Yarmouth. Currently, there is limited tidal exchange at the site. This pond experiences extensive algal blooms each summer, and the surrounding salt marsh shows signs of degradation as evidenced by the presence of phragmites and loss of salt marsh vegetation to cattail. Tidal flows to the pond are controlled by about a 900-foot culvert. Improvement to the salt pond and salt marsh will result in an increased finfish and shellfish population, and higher quality salt marsh vegetation. A feasibility study is being conducted under the Corps "Aquatic Ecosystem Restoration Program," Section 206 of the Water Resources Development Act of 1996 to determine plans to restore this degraded coastal wetland. Alternative restoration plans have been developed that include adding additional culvert(s) to improve tidal exchange. Currently the Corps is completing the comparison of environmental restoration benefits and plan costs. In order to analyze benefits the Corps is preparing a vegetation type map of the existing conditions in the fringing wetland. The *internal* draft report is expected to be completed in *summer 2004* and *provided to the sponsor for their review*.

Special Authorities

COASTAL AMERICA (10th CD)

- The New England District continues to chair the Northeast Regional Implementation Team (NERIT) for Coastal America. NERIT has focused its efforts on habitat restoration and, in particular, restoration of tidally constricted salt marshes. The Corps has assisted these efforts at several sites throughout the state in association with the Massachusetts EOEA Office of Wetlands Restoration. The Coastal America Northeast Regional Implementation Team has several new projects scheduled for FY-04. We anticipate beginning construction on the Rhode Island Coastal Salt Ponds and Town Pond salt marsh in Rhode Island. Several studies have been initiated in each state for dam removals, eelgrass restoration and wetlands/aquatic habitats improvements. The restoration of Bird Island in Marion, MA for Roseate Tern nesting has also

begun feasibility study. Our military coordinator has begun scheduling more Innovative Readiness Training projects for the returning and reserve troops. The Coastal Ecosystem Learning Centers and several agencies are attempting to schedule a student learning research cruise on a federal research vessel this summer in CT (Mystic Aquarium and Institute for Exploration) and MA (New England Aquarium). All 5 coastal New England states now have active Corporate Wetlands Restoration Partnerships that have allocated funding for projects in each state. This year several team "focus groups" are to be convened, for example; habitat restoration on all of Cape Cod and south coastal Massachusetts and the restoration of the Penobscot River Watershed in Maine are a team priority.

Flood Plain Management Services

MARTINS BROOK FLOOD STUDY, NORTH READING, MA (6th CD)

- The Town of North Reading

has sought assistance under the U.S. Army Corps of Engineers' Flood Plain Management Service program to study the flooding problems of Martins Brook from Route 62 in Wilmington to Burroughs Road in North Reading. On

April 3, 2003, an initial reconnaissance meeting was held between the Corps and North Reading's Town Engineer. The District has since developed a scope of work, which was approved by the Town. *A draft report has been completed and mailed to the Town for their comment.*

MUSHQUASHCUT POND TIDAL FLUSHING STUDY, SCITUATE, MA (10th CD) – This FPMS study was requested by the Town of Scituate. The study will analyze the effect of manipulating the town-owned tide gate to improve tidal flushing in the Pond. The Town of Scituate flushes the Pond once a month during high tide. They would like the pond to be flushed more often to control the midge populations and reduce salinity stresses on fishes. This study will look into the possibility of properties adjacent to the pond being flooded from increased flushing, along with the hydraulic analysis of the gates, to determine if they are sufficiently sized to completely flush the pond. The investigation was initiated in April 2003. *The final report has been completed and mailed to the Town for their use.*

NORTHERN MASSACHUSETTS/NEW HAMPSHIRE HURRICANE EVACUATION STUDY - This study was conducted under a federally funded program cosponsored by the Corps of Engineers and the Federal Emergency Management Agency (FEMA). The objective of the program provided hurricane surge mapping and a technical data report from which the state and local communities develop/update preparedness plans for hurricanes. Final inundation maps for New Hampshire and Massachusetts were delivered allowing state and

local officials to identify hurricane evacuation areas and the population within those areas.

STRAITS POND TIDAL FLUSHING STUDY, HULL, MA (10th CD) – This FPMS investigation was jointly requested by the towns of Hull, Cohasset, and Hingham. Straits Pond is co-located in the towns of Hull, Cohasset and Hingham. The pond empties into the Weir River estuary at the Route 228 bridge/culvert. This bridge is in dire need of repair, and the Town of Hull's major utilities run through it. The pond is flushed *frequently* during a high tide event to improve water quality. This study will look into developing a tide gate management program that balances reducing flood damage from overwash (backside of pond abuts a beach) and normal tidal flow, and improved pond circulation. The investigation was initiated in April 2003. *A final report was completed and mailed to the Town for their use.*

WOBURN, MA FLOOD STUDY (7th CD) - This is a continuation of an FPMS effort started several years ago to assist the City of Woburn in its efforts to mitigate flooding problems along the Middlesex Canal in Woburn/Burlington. The Corps negotiated with a local firm, VHB, to do the H&H modeling of the northern portion of Middlesex Canal. Their work was completed in January 2003. After meeting with the City of Woburn in November 2003, it was decided to reanalyze the northern portion of the canal using digitally developed topographic and hydrologic data. This analysis *will begin again when funding becomes available in the fall of 2004 and the additional data has been provided.*

Planning Assistance

PLUMBUSH CREEK, NEWBURYPORT (6th CD)– The Massachusetts Executive Office of Environmental Affairs (EOEA) has requested that the New England District obtain and evaluate the characteristics of Plumbush Creek Estuary. EOEA's efforts for the restoration of salt marsh and improvements to the aquatic habitat are expected to center on the installation of a new culvert under the Plum Island Turnpike. The purpose of the study is to obtain and assess the existing conditions of Plumbush Creek and to confirm whether reopening of the creek would benefit the northern marsh restoration effort. The study cost is \$80,000, which is cost shared 50/50 with EOEA. The cost sharing was executed in July 2002. Topographic surveys have been completed by Clough, Harbour & Associates during the summer of 2003. Per request from the local sponsor, GEI Consultants were contracted to obtain soil cores in January 2004 and perform the analysis in February 2004. Required revisions to the GEI report were performed in March 2004.

The completion of the draft report is scheduled for *the summer of 2004.*

SUDBURY/ASSABET/CONCORD RIVERS TOTAL MAXIMUM DAILY LOADS (TMDL) STUDY (3rd, 4th & 5th CDs) - The Massachusetts Department of Environmental Protection (DEP) cost-shared water quality sampling, analysis and related tasks relevant to the determination of total maximum daily loads of nutrients and bacteria in the Sudbury/Assabet/Concord (SUASCO) watershed. Approximately \$614,500 of federal and state funds combined have been earmarked to date. The effort is being conducted under the Corps Planning Assistance to States Program. The study began in July 1999. A final report on the Assabet River was completed in November 2001. Several wet weather sampling events on the Concord River were delayed until the fall of 2002. The final report for the Concord River was completed in February 2003. Efforts to collect data

(bacteria and nutrients) on the Sudbury River were begun in the spring of 2002. A draft report of the Sudbury River sampling results was completed in December 2003. The final report was completed in May 2004. Additional funds, in the amount of \$127,500, for the SUASCO water quality work were contributed by DEP and utilized under a Support for Others contract.

SWANSEA COUNTRY CLUB POND WETLAND RESTORATION STUDY (3rd CD)— *The purpose of this study is to characterize the existing conditions and assess the potential to restore tidal flows from the Palmer River to the Swansea Country Club Pond in Swansea, Mass. The non federal sponsor for the study is MA CZM Wetland Restoration Program (WRP). The study will include an investigation of the existing physical and biological site conditions, evaluation of existing habitat and value of potential restorable habitat, and formulation of conceptual plans and cost estimates to restore Palmer River flows, salt marsh. The Swansea Country Club (the Landowner), the Town of Swansea (the Town), WRP, and*

other interested stakeholders will use this information to assess the feasibility of restoring Palmer River tidal flows to this historically tidally restricted pond.

This study will be performed in a phased approach with primary tasks focused on establishing whether or not the physical characteristics required to restore tidal flows and salt marsh habitat exist at this site. Once confirmation of restorable conditions is complete, this study will include a secondary phase of data collection to support the assessment of the value of the restorable habitat, comparison with existing habitat value, and development of conceptual plans and general cost estimates to aid in developing a restoration plan. By implementing a phased approach, limited resources will be more efficiently focused first on determining the feasibility of restoring historically degraded coastal wetlands and secondarily on acquiring the baseline information required to assess the practicality of such an endeavor. The initial study phase will begin in August 2005 and be completed in December 2005.

Defense Environmental Restoration Program (DERP)

This Congressionally directed effort (PL 98-212) provides for expanded work in environmental restoration. It emphasizes the identification, investigation and prompt cleanup of hazardous and toxic waste; unexploded ordnance; and unsafe buildings, structures and debris at current and former military facilities. A total of 327 formerly used Defense sites have been identified in Massachusetts. Site and project eligibility investigations at 324 sites are now complete, including 206 where no work was found to be necessary. The three remaining sites, **Quabbin Bombing Range (1st CD)** and two Job Corps facilities in **Chicopee (2nd CD)**, will be scheduled in the future when funding priorities allow. Of the 118 sites where work was needed, the following efforts are underway:

The U.S. Army Engineering and Support Center, Huntsville, Ala., has issued a contract for an Ordnance and Explosives (OE) waste investigation at the former **H-Range, Camp Edwards (10th CD)** in December 2001. Field investigation was completed in June 2003 and the final report is scheduled for the *fall 2004*. The New England District is involved with environmental, real estate and public affairs coordination for this portion. The Corps (New England District) also completed a hazardous waste soil removal project at the former small arms firing range at the same site and provided additional soil testing of other military features in November 2001. Soil removal of additional petroleum contaminated soil for

the military features was completed in June 2003. A final report is scheduled for *fall 2004*.

A \$148,124 contract was awarded in June 2000 to Arthur D. Little, Inc., to perform a Phase I Initial Site Investigation at the Former Burn Area at the **Hingham Naval Ammunition Depot Annex (Wompatuck State Park, 10th CD)**. This phase was completed in May 2001. A modification was awarded on June 29, 2001 to complete a Phase II Comprehensive Site Assessment. Fieldwork was completed in November 2002. A modification to this contract was awarded in November 2002 in order to add additional sampling parameters requested by MADEP and conduct a limited removal action for contaminated soils. A Draft Phase II was completed in May 2003. Additional sampling is required in order to address data gaps discussed in the Draft Phase II report.

A \$42K modification was awarded in April 2004 for the **Hingham Former Burning Ground** for the preparation of a Phase II Sampling and Analysis Plan Addendum, completion of additional fieldwork, preparation of a UXO Survey Workplan, and the update of the Phase II CSA Report that meets requirements of the MCP - with either a Response Action Outcome (RAO) Statement or Phase III activities to follow. Baltimore District OE is presently scoping out the approach and screening program for this project after a site visit on April 27, 2004 with USACE NAE, the Contractor and Regulators.

Remediation work, consisting of follow-up groundwater

monitoring, was conducted at the Lonczak Drive Area (LDA) of the **Westover Air Force Base in Chicopee (2nd CD)** with one last round of groundwater sampling in February 2002. Results indicated the re-appearance of fuel product. The re-appearance of fuel in the groundwater may be due to unusually long dry period and extremely low groundwater levels. Currently groundwater is being monitored while long term alternatives are evaluated. Further studies and remediation of the southern portion of LDA will be required, and costs associated with this effort are estimated at \$1.4 million. This work will be performed when funding is available. In the pump house #2 area, site characterization was completed with a Phase II Remedial Investigation; however, during a gauging event in July 2002, fuel product in excess of 3 feet was found in monitoring wells. Reappearance of product at Westover sites is attributed to an unusually low groundwater table. The Phase II report is currently under review and was submitted to the MADEP in May 2003. Further actions at this site are being conducted by Western Massachusetts Economic Development Council and include continued gauging of groundwater, risk evaluation, and site closure.

Naval Fuel Annex (8th CD) - On behalf of USACE, Environmental Chemical Corporation (ECC) completed remediation work at this Tier II site in accordance with the Massachusetts Contingency Plan (MCP), Phase IV. The Licensed Site Professional (LSP) certified the Remedial Action Outcome (RAO) that a portion of the site can be closed with an Activity and Use Limitation (AUL). However the environmental risk of the remainder of the site needs to be studied further. This evaluation shall determine whether the whole site can be closed or the remaining portion will require a Phase V, Operation, Maintenance, and/or Monitoring.

There are three sites associated with the former **Watertown Arsenal (8th CD)**. 1) At the Watertown Mall site, the Corps performed a Phase II Comprehensive Site Assessment and Radiological Risk Assessment (done in accordance with the Massachusetts Contingency Plan-MCP). Reports were submitted to MA DEP and the Nuclear Regulatory Commission (NRC) for review in 1998. At NRC request, the Corps did follow-up radiological sampling and submitted a draft risk assessment in July 2000. In September 2000, NRC confirmed their review of historical use of radiological material at the Arsenal Mall (Watertown Arsenal former Buildings 34, 41, and sewers associated with Building 41), as well as documentation of surveys and remediation of the former Arsenal facilities. NRC also confirmed the dose assessments and evaluations through independent

dose calculations. Based on this review, NRC agreed that any residual radioactivity at the Arsenal Mall site would not result in a significant dose to the public in excess of the NRC dose-based release criteria for unrestricted site use. Based on these conclusions, the NRC removed the site from the Site Decommissioning and Management Plan.

In September 2003, the Corps submitted the Response Action Outcome (RAO) Statement for the Former Watertown Arsenal, Arsenal Mall site. This RAO was prepared in accordance with the MCP. The MADEP has concurred that a Class A-2 RAO has been achieved for the Arsenal Mall Site. Class A-2 RAOs apply to disposal sites at which remedial actions have been conducted, a permanent solution has been achieved, concentrations of oil and/or hazardous material (OHM) have not been reduced to Background levels, and no Activity and Use Limitations (AULs) are necessary to maintain a level of No Significant Risk.

2) At the Watertown Arsenal Park site, the Corps performed a Phase II Comprehensive Site Assessment and Radiological Risk Assessment (done in accordance with the MCP). Report was submitted to MADEP and NRC in July 1998. The radiological risk assessment concluded that a Condition of No Significant Risk exists at the Arsenal Park site, and the site meets regulatory criteria for unrestricted use. In September 2000, NRC confirmed their review of historical use of radiological material at the Arsenal Park (Watertown Arsenal former Buildings 421, which had been located where the tennis courts are now), as well as documentation of surveys and remediation of the former Arsenal facilities. NRC also confirmed the dose assessments and evaluations through independent dose calculations. Based on this review, NRC agreed that any residual radioactivity at the Arsenal Park site would not result in a significant dose to the public in excess of the NRC dose-based release criteria for unrestricted site use. Based on these conclusions, the NRC removed the site from the Site Decommissioning and Management Plan.

In April 2002, the Corps submitted the RAO Statement for the Former Watertown Arsenal, Arsenal Park site. This RAO was prepared in accordance with the MCP. The MADEP has concurred that a Class A-2 RAO has been achieved for the Arsenal Park Site. Class A-2 RAOs apply to disposal sites at which remedial actions have been conducted, a permanent solution has been achieved, concentrations of OHM have not been reduced to Background levels, and no AULs are necessary to maintain a level of No Significant Risk.

3) At the General Services Administration (GSA) property adjacent to the Mall, the Corps performed a Phase II

Comprehensive Site Assessment and Radiological Risk Assessment (done in accordance with the MCP). This final report was submitted to the MADEP and NRC in January 2004.

Radiological characterization of the GSA site was completed separately under the Multi-Agency Radiation Survey and Site Investigation Manual guidance, and is documented in the Historical Site Assessment (issued in October 2002), followed by the definition of Site-specific Derived Concentration Guideline Levels (DCGLs) (issued September 2001). The DCGL represents a site-specific total uranium concentration in soil corresponding to a Condition of No Significant Risk for the receptors and exposure assumptions (current conditions and foreseeable future land use) used to derive the DCGL. In April 2003, the Corps prepared an evaluation of the final radiological status of the GSA Site. This document concluded that the average total uranium concentration in soil at the GSA Site was below the DCGL. Based on this result, the NRC published a notice in the Federal Register on Sept. 29, 2003, indicating their intention to release the Site for unrestricted use. The MADEP concurred with this decision in November 2003.

In January 2004, the Corps submitted the RAO Statement for the former Watertown Arsenal GSA Property. This RAO was prepared in accordance with the MCP. The RAO Statement concluded that a Class A-3 RAO has been achieved for the GSA Site. Class A-3 RAOs apply to disposal sites at which remedial actions have been conducted, a permanent solution has been achieved, concentrations of OHM have not been reduced to background levels, one or more AULs have been implemented to maintain a level of No Significant Risk; and OHM concentration remaining at the site do not exceed an applicable Upper Concentration Limit (UCL) in Soil or Groundwater. MADEP concurrence with the RAO Statement is expected; however, it has not been received to date.

Site preparatory work, and partial cleanup of the gross contamination and limited demolition of area 1 (out of 8) of Building 108 at the **Charlestown Navy Yard (8th CD)** has been completed. Due to reduced funding levels, this project is presently on hold. Building 108 is unstable structurally. This has resulted in unsafe working conditions that need to be addressed prior to allowing the abatement work to continue. The current estimate is that an additional \$13 million will be needed to stabilize the building, complete the abatement work and finish the demolition. Work will continue when priorities and funding allow.

The files for the Westover Bulk Petroleum, Oil and Lubricant (POL) Terminal and Salvage Yard in **Chicopee (2nd CD)** have been reviewed as part of our potentially responsible party investigation. As a result of this review it was determined that additional contaminant information for both soil and groundwater should be obtained. A contract to obtain that information was awarded in June 2001. A Draft Report was received on Dec. 14, 2001. Results indicated isolated exceedances of applicable cleanup standards for groundwater in one monitoring well and soil collected from 2-4 feet below grade in one soil boring. A modification to the contract was awarded in February 2003 to investigate the extent of groundwater contamination at this site and to determine the fuel source type (JetA aviation fuel or JP-4 Air Force fuel). Field work was completed in June 2003 with follow-up sampling being conducted in August. A draft report summarizing the findings was received in November 2003. A modification to this Task Order is required in order to complete a Tier Classification of the site and complete a Phase II Remedial Investigation of the site in accordance with Massachusetts Contingency Plan 310 CMR 40.00.

The U.S. Army Engineering and Support Center, Huntsville, Ala., completed the *first portion of the fieldwork effort* of the Engineering Evaluation/Cost Analysis (EE/CA) of the former **Camp Wellfleet (10th CD)** in 1998. The New England District is involved with environmental, real estate and public affairs coordination. The Corps completed a groundwater sampling investigation of chemicals and explosives in April/May 2000. This investigation did not identify any contaminants above action levels. Another round of sampling was completed in May 2002. Results are similar to the April/May 2000 findings. An aerial geophysical survey of the entire site was conducted in March 2002 by Oak Ridge National Laboratory. The purpose of the aerial survey was to confirm the findings of the EE/CA, assist with any required debris/ordnance clearance, and assist in siting of additional monitoring wells (if necessary) Huntsville discussed the preliminary results at a meeting Sept. 18, 2002. It is necessary to perform additional groundwork to determine if any of the anomalies found are OE related or are other metal items. It was hoped that field work would be scheduled between January and March 2003. Fieldwork did not take place in January through March 2003 as hoped due to the work costing much more than the funds programmed. Huntsville separated the work into phases, with the available funds. Huntsville awarded Zapata Engineering a modification for \$117,200 in April 2003 to conduct the ground truth in all areas except Areas A and B, as those are the areas affected by the nesting of the Piping Plovers. Fieldwork was conducted in May 2003, prior to the arrival of the tourists. The remainder of

the work in Areas A and B, and additional investigation warranted from the May 2003 fieldwork was awarded on Sept. 26, 2003 to Zapata Engineering for \$330,504. The Contractor was on site from mid-January through mid-March 2004 to perform the remainder of the fieldwork associated with this project. During the field effort, 3 areas were identified to need further investigation. *A project team meeting with MADEP, NPS, Corps, and the contractor to discuss the upcoming field effort is scheduled for Aug. 3, 2004.* A modification will be issued in first quarter FY05 to accomplish this additional fieldwork. The work will be completed during the January-March 2005 window so not to effect the nesting birds, hunters, tourists, etc. The EE/CA Action Memorandum was signed in April 2001.

Due to lack of funding the current remediation effort is on hold. Partial gross contamination at Building 105, **Charlestown Navy Yard (8th CD)** has been removed from the soil and interior surfaces. Full remediation of these interior surfaces will be performed once EPA and MADEP have approved cleanup standards and methods. Decontamination of the existing equipment is complete. Remediation is being coordinated with all state and federal agencies involved in historical preservation issues. Work will continue when funding is available.

Former Lowell Ordnance Plant (5th CD) — The Corps of Engineers is in the process of evaluating information to determine what cost of remediation, if any, is the U.S. Government's responsibility.

Boston Naval Annex (9th CD) – *This project is now closed. On behalf of USACE, ENSR completed amending the Phase II, - Comprehensive Site Assessment (CSA) and prepared the Response Action Outcome (RAO) statement in accordance with the Massachusetts Contingency Plan (MCP). The RAO states that the site is in compliance with MCP 310 CMR 40.1012 and that there is No Significant Risk to safety, public welfare and human health from the soil and groundwater at the site.* The RAO document was submitted to the Northeast Region office of the Massachusetts Department of Environmental Protection (MADEP) on Dec. 17, 2003.

Remedial construction projects are complete at:

First District

Westover Light Annex #2, **Granby**
Westover Light Annex #3, **Amherst**
New Salem Gap Filler Annex, **New Salem**
Westover Remote Site, **Shutesbury**

Second District

Springfield Armory-Rail, **Springfield**
Chapman Valve Exp, **Springfield**
Westover AFB, **Chicopee**
Westover AFB, **Ludlow**
Hadley Nike Site

Third District

Swansea Nike Site

Fourth District

Nike Site PR-19, **Rehoboth**

Sixth District

Beverly Nike Site
Danvers/Topsfield, Nike Site
Fort Ruckman, **Nahant**
Nike Site BO-17, **Nahant**
Nike Site BO-84, **Burlington**
Ipswich Data Collection Lab Annex, **Ipswich**
Fort Ruckman, **Nahant**

Seventh District

Lincoln Nike Site
Nike Site BO-03, **Reading/Wakefield**

Eighth District

Fort Strong, **Winthrop**
East Boston Naval Fuel Annex
East Boston Naval Fuel Annex
Charlestown Navy Yard
Charlestown Navy Yard, Tank Removal
Fort Warren, **Boston**

Eighth & Ninth Districts

Fort Standish, **Boston**

Ninth District

South Boston Naval Annex
Needham Nike Site

Tenth District

Camp Candoit, **Cotuit**
Martha's Vineyard Airport
Hingham School Property, **Hingham**
Fort Andrews, **Hull**
Hingham Army Reserve Training Center
Hingham Naval Ammunition Depot & Annex
Hingham Nike Site
Martha's Vineyard South Beach
Hingham/Cohasset Naval Ammunition Depot
Camp Wellfleet
Nike Site BO-37, **Quincy**
Nike Site BO-40, **Quincy**

Fort Revere, **Hull**
Hingham Naval Ammunition Depot Annex
Misham Point Electronics Research Annex, **Dartmouth**
Squantum Electronics Research Center, **Quincy**
Strawberry Point Fire Control Station, **Scituate**
Point Allerton Military Reservation, **Hull**

Point Allerton Surface Craft Detector Site, **Hull**
Holly Hill Radar Station, **Marshfield**
Nantucket NAVFAC, Tom Nevers Naval Base
Hingham Naval Ammunition Depot
Camp Edwards, **Sandwich**
Campbell School, **Bourne**

Work for the Environmental Protection Agency

The New England District is the Corps of Engineers' total support agency for the Environmental Protection Agency'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

ASHLAND (5th CD) - The Nyanza site consists of four operable units (OU) to address contaminated soil (OU #1), groundwater (OU #2), continuing source areas (OU #3), and the Sudbury River (OU #4). The Corps of Engineers has supported EPA at this site since the late 1980s, with activity currently underway in support of OU #2. The New England District is currently monitoring the groundwater plume originating from the site through regularly scheduled sampling events. Sampling events held in spring and fall 2003 are complete. The Corps is developing requirements for the continued 2004 groundwater monitoring program for the EPA and the Corps will execute the work. Additionally, the New England District is working with EPA to develop the scope of work for a feasibility study related to OU #2, and the contractor has been selected to perform the work. The New England District is also providing technical assistance to EPA in overseeing the environmental impact on the remedies at this site resulting from the private development on adjacent properties. This effort directly assists EPA's role as steward in their mission to mitigate the environmental risks for the community by making parcels adjacent to the Superfund site available for productive use.

FAIRHAVEN (4th CD) - The Atlas Tack Corp. Superfund Site, located in Fairhaven, is a former industrial manufacturing facility whose soils, sediments, groundwater and surface water are contaminated with heavy metals, volatile organic compounds and other contaminants. The site's wetlands are filled with wastes

from the former manufacturing processes that included electroplating, acid washing, enameling, and painting. A Record of Decision was signed in March 2000 that describes excavation, treatment and off-site disposal of contaminated soils and sediments. Remedial design activities including scope of work for demolition of existing buildings, and excavation and restoration of upland soils is complete. The design for Boy's Creek tidal marsh soils and sediment remediation is ongoing through *September 2004* and includes surveying and hydraulic studies in the marsh. *EPA has received funding for Phase 1 (building demolition and cleanup of contaminants within building footprints) of the remedial action. It is anticipated that a USACE 8A contractor will implement the remedial action between August and December 2004.*

HOLBROOK (10th CD) - The New England District's support to the Baird & McGuire site began in 1990 and has involved the construction of a groundwater treatment facility, the excavation and incineration of approximately 248,000 tons of contaminated material and the subsequent restoration of the site, and the excavation and incineration of contaminated sediments from the Cochato River. *As of June 24, 2004, O&M activities were handed over to the Massachusetts Department of Environmental Protection.*

LOWELL (5th CD) - The Silresim Site is a 4.5-acre area located in an industrial area of Lowell. The New England District designed and constructed a groundwater treatment facility at this site. A new contract for operation and maintenance at the treatment plant was awarded in May 2002 to New England District contractor Watermark Environmental, Inc. of Lowell, MA. This is a one-year service contract with four option years. *USACE and contractor Tetra Tech FW have completed and EPA has approved a design package for the excavation of off-site surface soils and restoration of excavated areas. It is anticipated that a USACE 8A contractor will implement the remedial action between August and October 2004.*

NEW BEDFORD (4th CD) - We completed dredging the Hot Spot portion of the New Bedford Harbor Superfund Site in 1995. This five-acre area contained 14,000 cubic

yards of highly contaminated sediments, which were stored in a confined disposal facility (CDF) located on the New Bedford shoreline just north of Coggeshall Street. We maintained the CDF and adjacent facilities until EPA signed its Record of Decision in April 1999, determining that the sediments would be dewatered and then hauled to a commercially approved landfill. Construction began in August 1999 and the last load of contaminated sediment left the site in mid-April 2000. This phase of the work cost approximately \$8 million.

EPA signed the Record of Decision for remediating the remainder of the harbor in September 1998. The \$340 million project involves dredging about 900,000 cubic yards of contaminated sediments from the estuary and lower harbor. The majority of sediments will be dewatered and disposed of off site in regulatory approved landfills. EPA may decide in the future to dispose of some of the sediments in Confined Disposal Facilities (CDFs) which would be constructed along the New Bedford shoreline. In addition, the project includes constructing facilities to dewater the sediments and treat the water generated from dredging and dewatering, placing interim and final caps or covers on the CDFs if built, and relocating utilities, including ComElectric's power cables which cross the harbor. Design activities for this operable unit are complete and include design documents for dredging/excavating sediments, wetland restoration, a dewatering and material handling facility, and a water treatment plant.

The first step in the relocation of ComElectric's power cables involved the installation of conduits for the new electrical cable is complete. The second and final phase involving the installation of the new cables in the new conduit and removal of the old cable will likely be completed in the summer 2005. The "Early Action" clean up of about one-acre of wetlands near residential properties in Acushnet started in February 2001 and was completed with restoration in the summer 2001. Several construction activities are underway in support of building the dewatering and material handling building and expediting portions of the overall remedy. Removal of 16 abandoned and sunken vessels in contaminated sediments started in April 2002 and was completed in August 2002. A bulkhead along a portion of the harbor was completed in May 2003. The bulkhead is needed so that the dewatering facility can be constructed on available property. Construction of the dewatering building started in May 2003 *and was completed in July 2004*. Remediation of the very northern tip of the harbor, north of the Wood Street Bridge which involved the removal of approximately 12,000 cubic yards of sediments was completed in July 2003. Dredging of roughly 5,000 cubic

yards of sediments from an area referred to as the North Lobe began in early September 2003 and was completed in November 2003. The dredging was required to support the relocation of a business that was operating in the area of the bulkhead. Full scale dredging for remediating the harbor is scheduled to begin in September 2004. *Mobilization and installation of the equipment necessary to start the dredging started in June 2004 and will be complete in time to support the start of full scale dredging.* Construction and dredging are scheduled to be complete in anywhere between 2010 and 2015, depending on the level of funding available on a yearly basis. The total budget for this project exceeds \$300 million and is again dependent on how much funding is received on a yearly basis.

NORWOOD (9th CD) - The New England District designed and constructed a groundwater treatment facility at the Norwood PCB Superfund Site, decontaminated equipment from the Grant Gear Facility, and completed the restoration of Meadow Brook. The Corps also provided technical and construction oversight on several other remedial actions accomplished by the Responsible Parties. We operated the groundwater treatment facility at an annual cost of approximately \$500,000 until it was shut down in June 2000 due to significantly reduced contaminant levels in the groundwater. Decommissioning of the plant was completed and the plant put into "stored-in-place" status on Oct. 6, 2000. Groundwater and surface water monitoring was conducted through December 2002. Based on the results of the monitoring and on environmental and human health risk assessments, the monitoring program was discontinued. Additional surface water and sediment sampling is underway and the Ecological Risk Assessment is being revised to determine if the groundwater treatment plant can be permanently dismantled and the site redeveloped for commercial use.

GENERAL ELECTRIC/HOUSATONIC RIVER, PITTSFIELD (1st CD) - The General Electric (GE) facility encompasses an area of approximately 300 acres along the north bank of the Housatonic River in Pittsfield. Past operations by GE have caused significant contamination with PCBs and other compounds at this facility (soil, groundwater, and buildings) and in the Housatonic River. In September 1998, EPA and GE reached an Agreement in Principle for the environmental and economic restoration of Pittsfield and southern Berkshire County. This agreement was approved by a Consent Decree entered in the U.S. Circuit Court on Oct. 27, 2000. Under the terms of the agreement, GE is responsible for cleanup

of the first half-mile of the river beginning at the GE facility, the GE plant site and other areas located in Pittsfield. GE cleanup of the half-mile stretch of the river starting at the GE facility and ending at the Lyman Street Bridge started in October 1999 and was substantially completed in September 2002. At the request of EPA, New England District provided construction oversight and engineering assistance to monitor GE's work.

EPA has determined that a non-time critical removal action is needed in the 1.5-mile stretch of the Housatonic River starting from the end of GE's half-mile removal action at Lyman Street, Pittsfield (downstream limit of GE property) and extending to the confluence of the West Branch of the Housatonic River. EPA signed an Action Memo on Nov. 21, 2000, presenting a proposed removal action for the 1.5-mile reach consisting of the excavation and disposal of approximately 95,000 cubic yards of contaminated sediment and riverbank soils. The excavated areas will be backfilled with clean material. The remediation will consist of a combination of sheet piling and *pipe* bypass to allow for excavation in the 'dry.' Habitat restoration will be met through a combination of regrading, vegetation, bioengineering and potential installation of habitat improvements. The 1-1/2 mile removal action will be completed in three phases and will take approximately five years to complete at an estimated cost of \$88 million. The cost will be jointly financed by GE and EPA based on the cost sharing procedures contained in the Consent Decree.

The New England District awarded a Site Specific Environmental Remediation Contract (SSERC) to Roy F. Weston in April 2000 for this 1-1/2 mile reach of the river and to provide technical support to EPA in other areas as needed. It is a \$150 million, five-year contract with a scope that includes investigation, design, construction, O&M, technical oversight and support. The design for the excavation and restoration of Phases 1 and 2 of the removal action have been completed *and the draft final*

design is underway for Phase 3. Removal action construction activities were initiated in September 2002. To date, remediation of Phase 1 and the Transition Reach have been completed. This section of the river is approximately 2,200 feet long and extends from Lyman Street Bridge to Elm Street Bridge. *Remediation of Phase 2, the next 2,000 feet from Elm Street to Dawes Avenue, started in November 2003 and will be completed in March 2005.* Phase 3, Dawes Avenue to the confluence of the East and West Branches, will be completed in June 2007. Approximately 41,000 cubic yards of contaminated sediment and riverbank soils have been excavated to date. The project is about 40 percent complete.

EPA is utilizing the SSERC to continue with studies and extensive modeling efforts for the next 20 miles of the Housatonic River. The Human Health Risk Assessment (HHRA) was released to the public for comment on June 13, 2003. The Ecological Risk Assessment (ERA) was released to the public for comment on July 14, 2003. A cleanup decision on the lower river will be made by EPA after completion of its studies and will be implemented by GE.

CONSTRUCTION GRANTS PROGRAM - In 1978, the Environmental Protection Agency (EPA) and the Corps of Engineers (COE) entered into an interagency agreement (IAG) to establish the COE mission in the oversight responsibilities for the Construction Grants Program (CGP). Consequently, Regional EPA-COE agreements have been executed by COE's divisions and/or districts in accordance with the provisions and requirements of the IAG. Since 1978, the Corps has performed various forms of support for the CGP projects throughout New England. Presently, the New England District is monitoring construction progress at wastewater treatment plants and facilities in Massachusetts. Projects are located in the following communities: **Gloucester (6th CD), Lynn (6th CD), New Bedford (4th CD), and Haverhill (6th CD).**

Formerly Utilized Site Remedial Action Program (FUSRAP)

FORMER SHPACK LANDFILL SITE, NORTON/ATTLEBORO (4th CD) - The Shpack site is an eight-acre abandoned domestic and industrial landfill which operated from 1946 to 1965. It is located along the Norton/Attleboro town boundary with approximately 5.5 acres in Norton and 2.5 acres in Attleboro. The town of Norton and Attleboro Landfill, Inc., own the property. The contaminants of concern include radioactive compounds, volatile organic compounds and heavy metals. The New

England District's role at this site focuses on the radioactive contamination, which is believed to have come from Metals and Controls, Inc. (now Texas Instruments) and the local jewelry industry, which used the landfill to dispose of trash and other materials from 1957-1965. The site was also listed on the National Priority List (NPL) in 1986, and EPA signed an Administrative Order by Consent with a Group of Settling Parties (which includes Texas Instruments).

Legislation was passed on Jan. 10, 2002 that directs the Corps to proceed with the cleanup of radioactive waste at the site. The New England District completed work plans for additional focused site characterization work in coordination with EPA and the PRP group. We mobilized

on April 15, 2002 and completed site characterization work in support of a Non-Time-Critical Removal Action. A draft EE/CA was submitted on Nov. 7, 2003 and is currently undergoing an internal Corps of Engineers review. Remedial Action is scheduled to begin in 2005.

Support to the Military

MASSACHUSETTS MILITARY RESERVATION (10th CD) – Drinking Water Supply Project

In August 1999, the Joint Program Office (JPO) at the Massachusetts Military Reservation (MMR) tasked New England District to provide MMR and surrounding communities on Upper Cape Cod with a three-million gallon per day drinking water supply system. Cost of the system is \$18.5M. The Deputy Under-Secretary of Defense for Environmental Security (DUSD-ES) directed providing the drinking water system because of the effect of contaminated groundwater in the area caused by past military activity on the reservation. With the help of our Total Environmental Restoration Contractor, Foster-Wheeler, construction of the project began in September 2000 and was completed in July 2001.

On April 26, 2002, the District Engineer signed a Memorandum of Agreement with the Bourne Water District to have NAE install an emergency drinking water main from the Massachusetts Military Reservation on the Upper Cape Cod, MA, to the town. The town needs the water because their existing drinking water wells are being threatened by recent detections of contamination from past military activities on the installation. Mr. Fatz, the Deputy Assistant Secretary of the Army for Environment, Safety and Occupational Health, committed to the town that the emergency pipeline would be operational by July 1, 2002 to meet the summer demand for water on the Cape. Estimated cost of the three-mile pipeline is \$2.5M. On June 27, 2002, Army, Air Force, and MMR officials, Congressman Delehunt's staff and town officials participated in a ceremony marking the completion of the emergency water main and in July 2002, the Bourne Water District, the base, and the Town of Falmouth began taking water from the System. In January 2003, the Massachusetts Department of Environmental Protection approved an increase in capacity of the water supply system from 3 to 4.5 million gallons per day.

Support to the Impact Area Groundwater Study Program

In September 2000, the National Guard Bureau announced its decision to use the New England District as supervisory contractor for the Impact Area Groundwater Study. The study is being conducted in accordance with Administrative Orders issued by EPA under the Safe Drinking Water Act. The transition to supervisory

contractor was complete in January 2001. The work is estimated to cost \$250 million, last six to 10 years and involve completing groundwater and UXO studies followed by cleanup project implementation. The Corps is currently working with the Guard to complete environmental studies and develop both long-term and short-term goals to accomplish remedial designs and cleanup activities for the project. In September 2002 a task order was awarded to Environmental Chemical Corporation to prepare a UXO characterization work plan. Also in September, New England District awarded a task order to AMEC Earth and Environmental, a contractor accessed through a NGB Nationwide contract and involved with the project since 1997, to continue investigation work on the site. In December 2002, the Army announced that a new Program Manager from the Army Environmental Center would oversee the project. No change in the Corps role as Supervising Contractor is expected.

In May 2003, New England District awarded a task order to ECC to start soil environmental restoration at Demolition Area 1, the first significant clean-up activity on the project. After extensive UXO anomaly removal, soil excavation at Demo 1 started in November 2003 and soil treatment started in March 2004. *Soil treatment was suspended temporarily while excavation continued and resumed on July 7, 2004. A media event with Congressman Delehunt is scheduled for summer 2004.* In September 2003, New England District awarded a task order to ECC for additional significant soil cleanup at the southeast ranges. Anomaly removal *continues at both the J-2 and the J-3 Ranges. Excavation began in mid-July 2004. Soil is being treated on site. Other sites designated for soil excavation and treatment this summer/fall are CIA targets, Demo 2, BIP Soils, HUTA Soils, MT-9, CS 19 and Former A Range.* In January 2004, a task order was awarded to AMEC Earth and Environmental to start temporary interim groundwater cleanup of the Demo-1 plume, the first significant groundwater remediation project for the program. Groundwater treatment is expected to start this fall.

At the direction of the Army, the IAGWSP is in the process of connecting three private residences in Bourne to town water. Hook up was authorized as a result of low level

offsite contamination as a result of past military training at MMR.

HANSCOM AIR FORCE BASE (5th CD) – A \$30 million Design-Build construction project to Building 1614 on Hanscom AFB is scheduled for completion this October. The first half of the project is complete, and the space has been occupied by approximately 500 employees. Systems furniture installation is underway in the remaining portion of the building, and the Air Force will take beneficial occupancy with an additional 500 employees in November 2004. An \$8 million Addition/Alteration to the existing Fitness Center on Hanscom AFB is under design, and mobilization to the site is

scheduled to start in July 2004. This is a Design-Build construction project, and the contractor is Hodess Building Company.

SOLDIER & BIOLOGICAL CHEMICAL COMMAND, NATICK, MA (9th CD) – New England District started design for a \$4.1 million FY-03 Congressional Insert, titled “Food Engineering Laboratory Expansion, Bldg. 36.” A design contract has been awarded for \$488K for a \$5.5 million FY-04 Congressional Insert, titled “Construct Thermal Test Facility. The Food Lab project is scheduled for a contract award in September 2004, and the Thermal Test Facility is scheduled to be awarded in October 2004.

Base Realignment and Closure (BRAC)

U.S. ARMY MATERIALS TECHNOLOGY LABORATORY, WATERTOWN (8th CD) - The New England District has provided remedial investigation, design, environmental remediation, cultural resources compliance, and real estate transfer activities associated with the closure of the Materials Technology Laboratory (MTL) in Watertown. The closure was accomplished under the Base Closure and Realignment Act of 1988 (BRAC I). The New England District completed the MTL closure Environmental Impact Statement (EIS), and the Record of Decision (ROD) was signed by the Assistant Secretary of the Army (Installations, Logistics and Environment) in 1991. The EPA announced the placement of MTL on the National Priorities List in 1994. The Army Materiel Command completed the disposal and reuse EIS in 1995, and the Record of Decision signed in 1996. The Army identified three operating units at MTL for environmental evaluation and remediation – indoor chemical cleanup, regulated by the Massachusetts Department of Environmental Protection (MA DEP), groundwater/soil and the Charles River, which have the U.S. EPA providing regulatory oversight.

Estate Office completed the McKinney Screening for Homeless Providers and the state/local screening in 1995. In 1998, the Army transferred 30 acres to the Watertown Arsenal Development Corporation and the Commander’s Quarters and seven-acre park to the town of Watertown. The New England District prepared the application to nominate the MTL Historic District for inclusion on the National Register of Historic Places and accepted for inclusion on the National Register list on May 12, 1999.

In 1997, the New England District completed a \$2.5M soil remediation effort of the 37-acre MTL parcel in accordance with the ROD. EPA subsequently deleted this parcel from the NPL in November 1999 following the approval of the final closeout in 1998. A \$9.3M environmental restoration contract was also completed that involved the remediation of indoor building surfaces, including removing hazardous and toxic waste (HTW), shock sensitive materials, fume hoods, and drains, and addressing lead paint and asbestos.

The New England District completed a \$18 M project that removed and properly disposed of low-level radiological waste (LLRW) from the research reactor in 1992 and subsequently completed demolition of the reactor shell in 1994. In 1995, a \$45M decommissioning effort was completed for the removal and treatment of low level radioactive waste from nine research buildings. The Nuclear Regulatory Commission issued termination of the nuclear materials licenses in July 1997.

The 11-acre Charles River Park portion of the former Army Material Technology Laboratory was separated out from the 37-acre MTL parcel and soil remediation initiated in 1997. An Environmental Assessment for the disposal and reuse of the Charles River Park parcel was prepared in 1998 by the New England District. Remediation was deferred while a Feasibility Study Addendum was prepared to evaluate alternative means to cleanup. A \$3M soil remediation and site restoration effort of the Park subsequently occurred between September 2000 and October 2001.

During 1995 and 1996 intensive historical and archaeological investigations were also performed for the Watertown West archaeological site, finding artifacts dating back to 3000 B.C. The New England District Real

Sampling activities conducted in 2000 revealed that the soils in these areas contained levels of polycyclic aromatic hydrocarbons (PAHs) and a pesticide (4-4’

DDT) that exceeded the Record of Decision (ROD) cleanup standards. *Remediation of contaminated soils along the river bank, access ramp and parking area of the Watertown Yacht Club (WYC) riverbank was initiated in April 2001 and completed in October 2001.*

New benches were installed in late July 2001 at the Park and the entire Park re-seeded in September 2001. The Park opened for public use in May 2002 as agreed to by the DCR. Closeout documents of this work were completed in April 2002. This 11-acre parcel *is scheduled to be transferred to the Commonwealth of Massachusetts by Sept. 30, 2004. The Department of Conservation and Recreation will operate and maintain the Park following property transfer.*

Presently, a Baseline Ecological Risk Assessment (BERA) for the Charles River Operable Unit is being conducted in accordance with the 8-step CERCLA process to assess possible attribution of MTL activities on the resources in the river. *Environmental sampling was conducted in the Charles River during the summer of 2003 with the results included a Draft BERA Report that was completed and is currently undergoing review by the MADEP and EPA and their consultants. The final BERA Report is anticipated to be completed in the spring 2005 with additional environmental activities defined at that time.* The current completion schedule has a completion date for the revised FS as December 2005 (FY06) and the ROD document completed in September 2006. This is beyond the original DA goal of completion by 2005 but well within the original EPA proposed completion date of 2009.

FORT DEVENS, AYER (5th CD) - Fort Devens was selected for cessation of operations and closure under the Department of Defense Base Realignment and Closure Act of 1990 (Public Law 101-50). Fort Devens is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL) site which is located in the towns of Ayer and Shirley (Middlesex County) and Harvard and Lancaster (Worcester County), approximately 35 miles northwest of Boston. In 1991, the New England District assumed the mission of implementing BRAC 91 related environmental restoration work at Fort Devens. The District has also been preparing real estate transfer documents, including federal property screening, appraisals, and transfer negotiations; documentation for the findings of suitability to transfer (FOST); and deed preparation for the Army at Fort Devens.

Prior to the official closure of Fort Devens in 1996, the installation occupied 9,300 acres and was divided into the

North, Main and South posts. In May 1996, the Army closed Fort Devens and portions of the Main and North posts, with 3,040 acres (except for that being transferred to federal agencies) conveyed to the Massachusetts Government Land Bank/ Massachusetts Development and Finance Agency, Devens Commerce Center (MDFA) by negotiated sale or lease. MDFA subsequently changed its name to Mass Development Finance Agency and is now referred to as Mass Development (MassDev). The property retained by the Army was realigned as the Devens Reserve Forces Training Area, with 444 acres pending lease or transfer following completion of the ongoing environmental remediation efforts. In 1997, 243.62 acres were transferred to other federal agencies; 221.62 acres to the Department of Justice-Bureau of Prisons and 22 acres to the Department of Labor-Job Corps Center. During 1998 and 1999, another three parcels of property totaling 6.9 acres of the former Main Post were transferred to MassDev for Innovation and Business Technology use. Also, in 1999, 95 acres of the former Main Post were transferred to MassDev for Rail, Industrial, and Trade-Related Use, and 836 acres along the Nashua River Area were transferred to the Department of Interior-U.S. Fish & Wildlife for use as an open space as part of the Oxbow National Wildlife Refuge.

A total of 324 areas (e.g., Operable Units (OU)) were initially identified for investigation under CERCLA in the early 1990s. No Further Action (NFA) decision documents, which signify that no further action is required at these sites as agreed among the representatives of the BRAC Cleanup Team (BCT), were signed on 285 OUs after successfully completing investigations. A total of 33 OUs have had environmental remediation work successfully completed. Two remaining major OUs in the Remedial Investigation/Feasibility Study (RI/FS) stage are Areas of Concern (AOCs) 50 and 57. AOC 50 involves a perchloroethylene (PCE) contaminated groundwater plume that extends under the former Moore Army Airfield that is located in the former North Post portion of the Devens RFTA. The environmental remediation of the site is being accomplished by the Devens BRAC office through a guaranteed fixed price remediation contract. The contract was awarded in mid-September 2001 at a cost of \$8M with an expected completion by 2009.

AOC 57 contains three areas totaling 30 acres on the southeast side of Barnum Road which have soil and groundwater contamination consisting of fuel-related compounds, chlorinated solvents, and dichlorobenzene from historical vehicle maintenance waste disposal. The ROD was executed in mid-September 2001. *Remediation was completed in two areas of soil*

contamination during 2002. Additional investigation work was subsequently conducted in a third area to determine the source of the floating product on the groundwater and the extent of contaminated soil. Excavation of all contaminated soil was subsequently completed in this area and the site restored during the Fall 2003. A semi-annual long term monitoring program was initiated at this site in Spring 2004 as part of the Devens Long Term Monitoring and Maintenance Program. Property transfer documents are presently being prepared for transfer of this property to MassDev in late 2005.

The Army and EPA signed the ROD in July 1999 for consolidating a total estimated 300,000 cubic yards of landfill debris from six former landfill sites on Fort Devens. On June 28, 2000, the Army, EPA, MA DEP and MassDev jointly announced the decision of selecting the best-value alternative to construct a new on-site (RCRA subtitle D) landfill at the former golf course driving range (located on land that the Army previously transferred to MassDev) and place non-hazardous waste materials from six former landfill sites at that location. The impermeable base of the new 15-acre landfill was completed in November 2001 and debris from the Area of Concern (AOC) 9, 11, 40 and 41 landfill sites along with Study Area 12 and 13 Landfill sites subsequently transported to and compacted within the new landfill during the fall 2001 and spring and summer 2002. All excavation and restoration activities were completed at the 6 landfill sites and over 325,000 cys of debris placed in the new consolidated landfill as of October 2002. The Landfill was capped in the fall 2002 following disposal of 100,000 cys of pesticide contaminated soils excavated from the former Grant, Locust and Cavite Street family housing areas. The District utilized its pre-placed remedial contract with Stone & Webster Construction, A Shaw Group Company, of Boston, Mass., for the construction of the new \$25 million consolidated landfill. Construction of the new landfill began on Sept. 25, 2000 and was completed in the end of May 2003.

As agreed between the ASA and MassDev in the spring of 2001, the District completed the remediation of pesticide contaminated soils at the former Grant, Locust and Cavite Street housing areas in December 2002. This \$10.5M effort involved the removal of all concrete slabs from a total of 149 previously demolished housing units, removal and disposal of all underslab asbestos HVAC piping, conducting investigations to determine the depth of contamination, excavation of 175,000 cys of contaminated soils and disposal of 100,000 cys in the new consolidated landfill and off site disposal of the remaining 75,000 cys. Confirmatory soil samples were taken from the base and walls of the excavation to assure cleanup

criteria specified in the approved Remedial Action Measure (RAM) plan were attained.

Asbestos laden soils from the demolition of a former Army Hospital located near the Shirley entrance to Devens was removed and disposed off-site in an approved acceptance facility in June 2002. An additional 500 cys was subsequently excavated and placed in a cell at the new consolidated Landfill. The Town of Shirley acquired the property from MassDev and has constructed a new school and athletic fields at this area.

During the remediation of the pesticide soils at the former Grant housing area, PCB contaminated soils were encountered with concentrations exceeding the 1 ppm EPA cleanup standard for residential reuse of the property. Completion of this PCB soil removal action is anticipated in spring 2005. A Preliminary Assessment/ Site Inspection (PA/SI) is presently being performed in the Grant, Locust and Cavite Street housing areas to determine if the soils contain explosives, lead, arsenic and other CERCLA contaminants as a result of these areas being identified as former Army training areas and ranges. Site investigation and contaminated soil removal activities are expected to be completed in 2005. Following completion of remedial actions the site will be approved by the Regulating Agencies for re-development of the land by MassDev.

The District continues to perform annual and semi-annual long-term monitoring of the Shepley's Hill Landfill, the South Post Impact Area, the former Fort Devens Elementary School, the former Defense Reutilization and Marketing Office Yard, the former Petroleum, Oil, Lubricant Storage Area, and two former gas station sites. Contaminant levels are monitored for natural attenuation.

The first statutory-required comprehensive five-year review of remedial actions performed on Devens Reserve Forces Training Area CERCLA sites was conducted from May 2000 through September 2000 for the following sites:

- Barnum Road Maintenance Yards (AOCs 44 and 52)
- Shepley's Hill Landfill Operable Unit (AOCs 4, 5 and 18)
- AOC 63 AX
- AOCs 43 G & J
- South Post Impact Area (AOCs 25, 26, 27, and 41-groundwater)
- AOCs 32 and 43
- AOC 69W
- AOCs 9, 11, 40 and 41-solid waste, and SAs 6, 12 and 13

In addition, reviews were also performed at the following sites as a matter of policy for which there was a CERCLA design document (e.g. Action Memorandum):

- SA 34, 35 and 71
- AOCs 50 and 57
- AREE 61 Z, 63 BD, 63 BE, 63 BQ, 63 BH, 63 AM

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The review also reports deficiencies, if any, found during the review, and identifies recommended actions to address. The five-year Review Report was completed in September 2000. Another 5-Year Review Report will be prepared in 2005.

SUDBURY TRAINING ANNEX (5th CD)- The U.S. Army Forces Command (FORSCOM), renamed the BRAC Atlanta Field Office in October 2002, requested support from the New England District for the Base Realignment and Closure (BRAC) activities at this facility. The District began the real estate screening process in 1995. Of the 2,292 acres on the site, 2,165 were transferred to the U.S. Fish and Wildlife Service in September 2000. Additionally, four acres were transferred to the U.S. Air Force in 2002. An additional 71.5 acres were transferred to the Federal Emergency Management Agency (FEMA) in spring 2003. The District completed environmental cleanup of the site in September 2000 and completed real estate disposal as outlined below. In FY 2001, the Army completed its first five-year review of the project actions and work for protectiveness against human health and the environment. EPA deleted the site from the NPL on Jan. 28, 2002.

The New England District constructed a landfill with an impermeable cap in 1996 to consolidate contaminants from a landfill (site A7) containing approximately 2,000 cubic yards of debris and waste; a clothing and material "burn" test site (A9) with approximately 200 cubic yards of soil contaminated with petroleum, oils, and lubricants

(POL); and a small site (A4) containing approximately 20 cubic yards of soil with elevated levels of metals. The District continues to monitor the effectiveness of the cap to reduce landfill leachate in accordance with the approved long-term monitoring and maintenance plan.

Based on the recommendations of an Archival Search Report, the U.S. Army Engineering and Support Center completed an Ordnance and Explosives (OE) investigation in 1997. The investigation found no ordnance, and thus a No Further Action decision was rendered. The Archival Search Report also indicated buildings, which were used for explosives research, and remediation was completed in the summer of 2000.

The District also completed the excavation and disposal of 3,700 cubic yards of arsenic-contaminated soil in September 2000. The plan for this remediation was based on a 1999 facility-wide arsenic investigation and involved extensive coordination among the Army, EPA, MADEP and the U.S. Fish and Wildlife Service. In August 2001, the District also completed a comprehensive five-year review of all sites where a CERCLA Record of Decision has been executed and for all sites for which there is a CERCLA decision document completed.

The District conducts field sampling and maintenance activities as part of the Army's Long Term Monitoring and Maintenance program. *Sampling and analyses of the groundwater from the monitoring wells began in June 1997 and is being completed semi-annually (spring and fall).* As part of this effort the District completes an annual inspection of the Landfill in mid-October to evaluate its condition. The *spring 2004 and fall 2003* inspections revealed that no further maintenance was required at this time except for annual mowings and minor maintenance and repairs of erosion. The 2004 Annual Inspection Report was completed in March 2004 and will be presented at a Technical Review Committee meeting to be held *in summer 2004*.

Interagency and International Support

HOUSING AND URBAN DEVELOPMENT - The Corps of Engineers has entered into an interagency agreement with the Department of Housing and Urban Development. In accordance with the agreement the Corps performs physical inspections, contract administration reviews, drawings and specifications reviews, and final inspections for Housing Authorities located throughout Massachusetts.

SUDBURY-ASSABET-CONCORD RIVER (SuAsCo)

BASIN TMDLs (3rd, 5th & 7th CDs) project - The MA DEP provided funds for the Corps to perform extensive water quality data collection in support of SuAsCo total maximum daily loads (TMDL) investigations. Support for Others funds in the amount of \$127,500 were used in data collection efforts that are also being performed under our Planning Assistance program. Final reports on Assabet River and Concord River work were published in November 2001 and February 2003, respectively.

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. *At the end of March 2004, there were 77 active applications for regulated work in Massachusetts. During April, May and June 2004, 202 new applications were received. Final actions were taken on 91 applications, including six individual permits, 62 general permits, two not required, and no denials. The balance at the end of June 2004 was 188 active applications.*

PROGRAMMATIC GENERAL PERMIT - The New England District has comprehensive Programmatic General Permits (PGPs) 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 PGPs. The PGPs are based on the 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 PGP approval, in most of the states, is either included in the state approval letter or mailed simultaneously. Applications appropriately covered under the PGPs are generally approved in under 30 days. Applicants have commented favorably about the simplicity, predictability and efficiency of the PGPs. The Massachusetts PGP was reissued in January 2000 for another five years. On June 30, 2003, the District amended the MA PGP to incorporate some minor changes and to make it more user-friendly. The Public Notice announcing the changes and the amended PGP are available at <http://www.nae.usace.army.mil>. Go to "Regulatory/ Permitting" and then click "Public Notices." The district proposes to revise the PGP again in January 2005, and we will request comments from agencies and the general public in the upcoming months.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (GREENBUSH LINE) (10th CD) - The Massachusetts Bay Transportation Authority (MBTA) has requested a permit to place fill within a total of approximately 7 acres of wetlands and waterways for restoration of 17.7 miles of commuter rail service on the Greenbush branch of the Old Colony Railroad line in the towns of Braintree, Weymouth, Hingham, Cohasset, and Scituate. The Corps conducted a public hearing in August 1997 to solicit public comments and input about the

proposal. Numerous concerns were raised concerning potential alternative transportation systems, the project's potential effects on air quality, noise, public safety, traffic, historic resources, flood plains, wetlands, and, in general, the needs and welfare of the people. The MBTA submitted a revised application in December 2002 providing additional information and project modifications that included changes to the locations of station sites and work within Town River in Hingham and Smelt Brook in Weymouth. A public notice was issued Dec. 12, 2002. A public hearing was held April 15, 2003 in the Hingham Town Hall and the public comment period ended April 25, 2003. We are currently evaluating the comments received from the public as well as the MBTA's response to those comments. Although a Programmatic Agreement to ensure compliance with Section 106 of the National Historic Preservation Act has been reviewed and signed by the consulting parties, additional consultation will occur as needed to address ongoing project modifications.

NANTUCKET SOUND CAPE WIND PROJECT (10th CD) - The District received an application from Cape Wind Associates, LLC in 2001 for a Section 10 Individual Permit for installation of offshore Wind Turbine Generators in federal waters off the coast of Massachusetts in Nantucket Sound, with the transmission lines going through Massachusetts state waters. The Corps determined in December 2001 that an Environmental Impact Statement (EIS) is required for the project, currently the first proposal of its kind in the United States. Public scoping meetings were held in March 2002 in Boston and West Yarmouth. The applicant is proposing a 130 wind-turbine array to generate 454 MW of renewable energy that will be distributed to the New England regional power grid. The northernmost turbines would be more than 4 miles from Barnstable, the southeastern most turbines would be about 11 miles from Nantucket, and the westernmost turbines would be about 5.5 miles from Martha's Vineyard. The Corps is the lead federal agency on the EIS process and is working closely with Massachusetts' officials who have required that the applicant prepare an Environmental Impact Report (EIR) under the Massachusetts Environmental Policy Act (MEPA). The document will be a joint EIS/EIR. The EIS is being coordinated with numerous other state and federal agencies. The proposed turbine site would be outside of the three-mile limit and therefore outside of Massachusetts' jurisdiction. Sites selected for detailed evaluation in the DEIS are 3 locations in Nantucket Sound (shallow water) proposed by the applicant,

Massachusetts Military Reservation (upland), south of Tuckernuck Island (deeper water), and a combination site of south of New Bedford *with a reduced footprint at Horseshoe Shoal. The Draft EIS could be available as early as August 2004. Public hearings would then follow in September. A decision on the permit application could not occur until 2005.*

TAUNTON RIVER, FALL RIVER, WEAVER'S COVE ENERGY, LLC LNG IMPORT/EXPORT TERMINAL (4th CD) - Weaver's Cove Energy, LLC, has formally applied to the Federal Energy Regulatory Commission (FERC) and to the Corps for a license to obtain the necessary permits to construct a new Liquefied Natural Gas (LNG) import/export terminal at the site of the former Shell Oil terminal along the Taunton River in Fall River. To develop the facility the applicant will need to construct a new offloading pier, install new gas pipelines, build new structures and place fill along the shoreline to stabilize and reconstruct the existing oil terminal. To be able to gain navigable access to the terminal to deliver the LNG by ship the applicant will need to maintenance dredge and deepen the existing Federal channel and turning basin. As currently proposed all the dredged material to be generated will be disposed of on upland areas owned by

the applicant. All of these construction activities in the waters of the Taunton River and Mount Hope Bay and any fill in the waterway or in any adjacent wetlands will require Corps of Engineers permits in addition to the FERC licenses for the facility and pipelines. A federal Environmental Impact Statement (EIS) is required and FERC is the lead agency. In September 2003 the Corps of Engineers agreed to be a cooperating agency on the EIS. A state of Massachusetts EIR is also required for this project through the Massachusetts Executive Office of Environmental Affairs. The State has already issued its scope and a procedural decision that allows for a coordinated EIS/EIR review. The State and Federal environmental review agencies are working together to ensure that the resulting EIS/EIR satisfies the necessary State and Federal review requirements. FERC is expecting to issue the draft EIS *by the end of July 2004 with public hearings scheduled for September 2004.* In accordance with our highway methodology, we will be issuing our public notice for the project at the same time as FERC issues the draft EIS. We will have our public hearing in conjunction with FERC's hearing on the draft EIS. We will continue to participate in appropriate meetings.

Operating Flood Control Projects & Recreation/Natural Resource Management

The New England District provides flood control benefits and, working in cooperation with agencies of the Commonwealth of Massachusetts, provides diverse quality outdoor recreational opportunity on each of the 11 flood control reservoirs it has constructed in the Bay State, the Cape Cod Canal, and the Charles River Natural Valley Storage Area located within the Commonwealth. Information on each is provided below.

BARRE FALLS DAM (1st CD), on the Ware River in Barre, was completed in 1958 at a cost of \$2 million. The 885-foot-long and 69-foot-high dam can impound a lake, which can store 7.8 billion gallons of water. Barre Falls has prevented \$23.2 million in flood damages. Over 50,000 annual visitors enjoy picnicking, hiking, fishing and hunting at Barre Falls Dam. The Barre Falls Dam's website is: <http://www.nae.usace.army.mil/recreati/bfd/bfdhome.htm>.

2004 Season Activities: Enjoy canoeing, picnicking, 18-hole disc golf course, fishing, hiking, bike riding, wildlife observation, and the scenery from sunrise to sunset. Hunting during season is permitted.

Scheduled events: Call the office at (978) 928-4712 to arrange a group tour: Ralph Gendron, Project Manager, Barre Falls Dam, Hubbardston, MA 01452; phone:978-928-4712); ralph.j.gendron@usace.army.mil

BIRCH HILL DAM (1st CD) is situated on the Millers River in Royalston. Completed in 1942 at a cost of \$4.6 million, the 1,400-foot-long, 56-foot-high dam can store 16.2 billion gallons of water. To date, damages amounting to more than \$58.7 million have been prevented. Birch Hill offers many fine recreational opportunities. The Lake Denison Recreational Area, managed by the Massachusetts Division of Forests and Parks, provides camping, swimming, picnicking, boating, and fishing. The Massachusetts Division of Fisheries and Wildlife manages much of the remaining reservoir as part of the Birch Hill Wildlife Management Area. Popular activities include hiking, hunting, fishing, mountain biking, and snowmobiling in season. The Birch Hill Dam and reservoir area attracts more than 1.3 million visitors annually. Birch Hill Dam's website is: <http://www.nae.usace.army.mil/recreati/bhd/bhdhome.htm>.

Polychlorinated Biphenyls (PCBs) were discovered in 1987 in tissue samples taken from fish caught in the Otter and Millers rivers. The Corps of Engineers is working, in cooperation with the Massachusetts Department of Environmental Protection, to determine the extent of the problem and possible source(s). A Phase II Site Assessment Report and Ecological Risk Characterization of PCBs at Birch Hill Reservoir were completed in July 2000 and determined that there are no immediate actions required by the Corps to protect public health, safety and welfare, at Birch Hill, such as closure of a portion or all of the reservoir area. The study and report confirmed that PCB concentrations at Birch Hill remain high enough that they may pose a potential risk to human health and the environment. A significant risk to human health exists, primarily through the consumption of fish from the Millers and Otter rivers and contact with sediment in the Otter River at Birch Hill. A condition of no significant risk to safety and public welfare exists at the site. The Corps provided copies of the report to the Massachusetts Department of Environmental Protection, the Massachusetts Executive Office of Environmental Affairs and the Massachusetts Department of Public Health.

The Massachusetts Department of Public Health and the Massachusetts Division of Fisheries and Wildlife published and posted a Fisheries Consumption Advisory on the Millers River in 1988 and there are also Fish Consumption Advisories published in the Abstracts of the Massachusetts Fish and Wildlife Laws. The Corps' recent investigations and the study suggest that these advisories should remain in effect. The Massachusetts Department of Environmental Protection (DEP) has identified possible sources of the PCB contamination. The Corps is not the cause of the contamination and the Potentially Responsible Parties (PRPs) have the responsibility for future investigations and resolution of the problem. The Corps continues to cooperate in the investigation and has voluntarily initiated a long-term monitoring program to protect the health and safety of visitors to Birch Hill. The initial long-term (baseline) sampling conducted in March 2002 concluded that total PCB concentrations in the Birch Hill hydric soil and sediment do not exceed Acute and Chronic Human Health Threshold Levels at pre-determined locations of high recreational use.

2004 Program Schedule: We'd like to invite you to our offering of educational and recreational programs at Birch Hill Dam. We're now into our summer schedule of programs, which mostly consists of our rangers presenting programs at the dam, in the Lake Denison Campground or out in the reservoir area. Last year we

presented programs dealing with flood control, what is a park ranger, what the USACE means to your community, the water cycle, bird life, beaver and other fur bearers and environmental issues. We also went on mountain bike tours and hiked through a variety of habitat. All our programs at Birch Hill are available to the public and best of all, they are free. Please call at 978-249-4467 or e-mail jeffrey.n.phillips@usace.army.mil to schedule a program for your school or group.

July 31 — Mountain bike tour of the Birch Hill Area: Park Manager Jeff Phillips will be leading you on a leisurely mountain bike tour. Interesting facts about the areas wildlife, plants and history will be discussed. The trip starts at the parking lot on the entrance road to the dam at 10 a.m. The ride should last a couple of hours and will end back at the same parking lot. Bring water and a snack and call for any more information.

Other Events: Aug. 17 — Friends of Birch Hill Clean Up Day: Ranger Zach Koziol leads an inter-agency team from the U.S. Army Corps of Engineers, Massachusetts Department of Conservation & Recreation and Massachusetts Division of Fisheries & Wildlife, on a day to pick up some of the most abused spots in the Birch Hill Reservoir Area. If you or your group would like to take part in this effort, please contact Ranger Koziol at 978-318-8265 or email at zachery.e.koziol@usace.army.mil.

BUFFUMVILLE LAKE (2nd CD) on the Little River in Charlton was completed in 1958 at a cost of \$3 million. The 12,700 acre-feet of storage at Buffumville is equal to 3.9 billion gallons of water and is impounded by a 3,255-foot-long, 66-foot-high earthen dam. Buffumville Dam has prevented more than \$54.6 million in damages. Picnicking, swimming, boating, fishing, hunting, 27 hole disc golf course, volleyball, horseshoes, two rental shelters and sight-seeing attract more than 63,000 visitors annually. Portions of Buffumville Park are handicap accessible. *Some upcoming events are monthly Star Gazing, Full Moon Community Swim on July 31 and National Public Lands Day. Our big volunteer event will be held on Sept. 25.* For a full list of current events and interpretive programs please visit Buffumville Lake's website at: <http://www.nae.usace.army.mil/recreati/bvl/bvlhome.htm>.

CAPE COD CANAL (10th CD) – The Cape Cod Canal, the widest sea-level canal in the world, extends 17.4 miles across the narrow neck that joins Cape Cod to the mainland. The Corps of Engineers operates and maintains the Canal from a field office in Buzzards Bay, about 50 miles south of Boston. The canal, with a 32-foot-deep by 700-foot-wide approach channel, saves

commercial and recreational vessels 65-150 miles (depending on trip origin and destination) from the route on the outer Cape, where shoals and treacherous currents have made navigation hazardous for centuries. The toll-free waterway, with two mooring basins, is open for passage to all boating craft properly equipped and seaworthy. Two-way traffic is routinely maintained. Private interests sold the Canal to the U.S. government in 1921 for \$11.5 million (title obtained in 1928). Responsibility for operating and maintaining the Canal was assigned to the Corps of Engineers, which has maintained and improved it since then. In 1933, three bridges were authorized and constructed over the Canal – the Sagamore and Bourne highway bridges and the Railroad Bridge at Buzzards Bay. The Corps operates and maintains all three. The Canal is one of New England's most popular recreational areas. More than four million visitors annually enjoy the Canal and its adjacent lands for diverse outdoor activities including participating in interpretive programs run by Corps rangers, or enjoying some of the best saltwater fishing in the country. The service roads are popular for biking, hiking, roller blading and walking.

CHARLES RIVER NATURAL VALLEY STORAGE AREA (2nd, 3rd, 4th, 7th, 8th, and 9th CDs) was authorized by Congress in March 1974. Federal funds totaling \$8,300,000 were used to purchase 3,210 acres of fee land and 4,891 acres of restrictive easement. The Charles River Natural Valley Storage Area (CRNVS) is located in 16 towns (Bellingham, Dedham, Dover, Franklin, Holliston, Medfield, Medway, Millis, Natick, Needham, Newton, Norfolk, Sherborn, Walpole, West Roxbury, and Wrentham) in three counties. The CRNVS Area acts as a flood control project by using the natural flood attenuation characteristics of the over 8,000 acres of wetlands purchased. The project attracts over 40,000 visitors a year. Visitors bike, boat and canoe, camp, fish, hike, hunt, view wildlife and other passive recreational uses. The CRNVS Area is a wilderness surrounded by development, forever set aside for the enjoyment of all. The CRNVS Area website is <http://www.nae.usace.army.mil/recreati/crn/crnhome.htm>.

On the Charles River: Efforts are being made to finalize a policy to handle requests from local towns and the Commonwealth of Massachusetts to upgrade many of the bridges crossing the Charles River. Input is being received from the Charles River Watershed Association, Massachusetts Highway Department and local towns. The work necessarily entails construction in environmentally sensitive areas. To protect and maintain the resource area, the Corps and the Student

Conservation Association (SCA), a nation wide placement agency, have recruited two interns with technical skills in GIS and GPS. They will locate and sign the boundaries and easement in the CRNVS. These interns will work a 12-week assignment as volunteers. It is a pilot program that will give the interns credible work experience and the Corps will receive a much-needed service.

Watch for a Charles River Natural Valley Storage Area Corps identification sign along MA Route 27. MA-Wildlife, which works with the Corps to manage Wildlife Management areas for hunting and fishing, has assisted with a sign location on state property. The Corps of Engineers continues to cooperate with towns in the Charles River Natural Valley Storage Area, keeping with the objectives of the CRNVS Master Plan, to help towns provide water and infrastructure while maintaining the flood storage capacity of priceless wetlands.

Corps Rangers and WHD-CRNVS Project Manager met with Town of Holliston officials to inspect and direct permitting for a town water well test site (ongoing). The West Hill Dam and Charles River Resource Management Team are working with the Public Access Board to provide an improved and accessible canoe launch along the Charles near Forest Street (Millis, MA).

SCA Interns have compiled in GIS an entire database (Town of Dover) complete with linked photographs, located existing bounds and have installed signage for boundary and easement lines to inform residents of the management of the Charles River Natural Valley Storage Area. Interns have prepared an electronic and hard copy review of their work, results and recommendations for future interns and Corps records.

The Recreation Resource Management Team, headquartered in the West Hill Dam Project Office in Uxbridge, Mass., provides patrols, researches and resolves real estate inquiries, which include boundary queries, requests for leases, licenses and easements, and private sector, town and state infrastructure assistance, in the Charles River Natural Valley Storage Area. The Resource Management Team and Corps of Engineers staff in the Concord Office service constituents in the 16 towns along the Charles River.

CONANT BROOK DAM (2nd CD), on the brook of the same name in Monson, can store 1.2 billion gallons of water behind the 1,050-foot-long, 85-foot-high impoundment. Completed in 1966 at a cost of \$3 million, the project annually attracts around 20,000 visitors to its

scenic trails for hiking, horseback riding, and cross-country skiing and for its fine trout fishing. *For more information on Conant Brook Dam access the website at <http://www.nae.usace.army.mil/recreati/cbd/cbdhome.htm> or call (508) 347-3705.*

EAST BRIMFIELD LAKE (2nd CD) on the Quinebaug River in Sturbridge was constructed at a cost of \$7 million. The 520-foot-long, 55-foot-high dam can impound a 29,900-acre-foot reservoir, which is equivalent to 9.7 billion gallons of water. Since it was placed in operation in 1960, it has prevented damages of \$45 million. The reservoir area offers fine recreational opportunities, including swimming, picnicking, fishing, hunting, canoeing, boating, and nature study, and attracts more than 124,000 visitors annually. *Lake Siog Park in the Town of Holland, Mass., under management by USACE, is open on a limited basis, Friday, Saturday and Sunday. The open hours are 10 a.m. to 6 p.m. Park rangers, local police and State of Massachusetts conservation officers provide visitor assistance and protection. For more information on Lake Siog and East Brimfield Lake access the website at <http://www.nae.usace.army.mil/recreati/eb/ebhome.htm> or call 508-347-3705.*

HODGES VILLAGE DAM (2nd CD), across the French River in Oxford, was constructed at a cost of \$4.4 million. The 2,140-foot-long, 55-foot-high dam can impound a 13,200-acre-foot reservoir, which is equivalent to 4.2 billion gallons of water. Since it was placed in operation in 1959, it has prevented damages of \$52 million. The reservoir area offers fine recreational opportunities, including picnicking, fishing, hunting, mountain bike and horseback riding, and nature study to the more than 28,000 visitors it welcomes each year. *There is a new 9-hole primitive practice Disc Golf course for those who've enjoyed the course at Buffumville Lake and would like to try a new challenge. Some upcoming events are National Public Lands Day, our biggest volunteer event, now in its 13th year. And there will again be two Walking Weekend Ranger led walks in October. For a complete list of current events, Hodges Village Dam's website is: <http://www.nae.usace.army.mil/recreati/hvd/hvdhome.htm>*

KNIGHTVILLE DAM (1st CD), on the Westfield River in Huntington, was constructed at a cost of \$3.4 million. The 1,200-foot-long, 160-foot-high dam can impound a 49,000-acre-foot reservoir (equivalent to 15.8 billion gallons of water). Since its construction in 1941, it has prevented damages of \$143.4 million. More than 35,000 visitors enjoy the variety of recreational pursuits available at Knightville, including picnicking, hiking, fishing,

hunting, group camping and snowmobiling. Knightville Dam's website is: <http://www.nae.usace.army.mil/kvd/knvhome.htm>

The Indian Hollow Group Campground will be open from May 21, 2004 until Sept. 12, 2004. The campground includes 2 group site loops (15 sites, each loop), a waterborne comfort station with hot showers, drinking water, hiking trails and a riverside environment. One loop may be reserved for a fee of \$75 per night and both loops may be reserved for a fee of \$150 per night. Reservations are on a first-come, first-serve basis and one or both loops have already been reserved for nearly every weekend during the summer of 2004. Some weekdays and scattered weekend days may still be available. Reservations may be made through the National Recreation Reservation Service at www.reserveusa.com/ or by calling 1-877-444-6777.

Special interpretive programs are offered and include such topics as Water Safety, the Water Cycle, the History of the Corps of Engineers and Flood Control. Rangers can also prepare a program that deals with the Corps of Engineers and its missions, water resources or natural resources and tailor it to your needs. These programs can be given at the Dam, or we can come to your group or school. Contact the Park Ranger at (413) 667-3656 for more information on any of these programs or to schedule a program.

Program Schedule: We'd like to invite you to our offering of educational and recreational programs at Knightville Dam. Programs are open to the public and best of all they are free. All ages are welcome; however, we do ask adults to accompany their children. Please call 413-667-3656 or e-mail thomas.m.wisnauckas@nae02.usace.army.mil to check for added programs or before attending our programs, as the schedule is subject to change. *Knightville Dam is normally open between 7 a.m. and 3:30 p.m., Monday through Friday, seven days a week between Memorial Day and Labor Day. Special interpretive programs are offered and include such topics as Water Safety, the Water Cycle, the History of the Corps of Engineers, and Flood Control. Rangers can prepare a program that deals with the Corps of Engineers and its missions, water resources or natural resources and tailor it to your needs. Programs can be given at the dam, or rangers can come to your group or school. Contact the Park Ranger for more information on any of these programs or to schedule a program.*

LITTLEVILLE LAKE (1st CD), on the Middle Branch of the Westfield River in Huntington and Chester, is 1,360

feet long, 164 feet high and cost \$7 million to construct. Its lake can hold a 23,000-acre-foot or 7.5 billion-gallon reservoir. It has prevented damages totaling \$54.1 million since it was placed in operation in 1965. The reservoir area offers many fine recreational opportunities, including picnicking, fishing, hunting, canoeing, boating and nature study, and attracts more than 45,000 visitors annually. Littleville Lake's website is: <http://www.nae.usace.army.mil/recreati/lvl/lvlhome.htm>.

Program Schedule: Littleville Lake is normally open between 7 a.m. and 3:30 p.m., Monday through Friday, seven days a week between Memorial Day and Labor Day. Special interpretive programs are offered and include such topics as Water Safety, the Water Cycle, the History of the Corps of Engineers and Flood Control. Rangers can also prepare a program that deals with the Corps of Engineers and its missions, water resources or natural resources and tailor it to your needs. Programs can be given at the Dam, or rangers can come to your group or school. Contact the Park Ranger for more information on any of these programs or to schedule a program.

Other Events: In May the Lake received stocking of tiger trout by MassWildlife.

THE NEW BEDFORD-FAIRHAVEN-ACUSHNET HURRICANE PROTECTION PROJECT (4th CD) was completed in 1966 at a cost of \$18.6 million and provides a gated barrier across New Bedford-Fairhaven Harbor and supplementary dikes in the Clarks Cove area of New Bedford and Fairhaven. The twin sector gates can seal the 150-foot-wide navigation opening in 12 minutes and were operated 14 times in the year 2000 and 11 times in the year 2001. This barrier affords tidal-flood protection to an area of about 1,400 acres. To date, \$17.6 million in damages have been prevented.

TULLY LAKE (1st CD), situated on the East Branch of the Tully River in Royalston, is 1,570 feet long and 62 feet high. Completed in 1949 at a cost of \$1.6 million, the dam has a reservoir storage capacity of 7.1 billion gallons of water. Tully Lake prevented damages of \$22.5 million. Nearly 30,000 visitors annually enjoy picnicking, hiking, boating, fishing, and hunting at Tully Lake. Tully Lake's website is: <http://www.nae.usace.army.mil/tul/tulhome.htm>

The Tully Campground, which is operated under a lease by The Trustees of Reservations, will be open seven days a week from Memorial Day to Labor Day and then remain open on weekends only until Columbus Day. The campground has waterborne restrooms with showers,

drinking water, primitive walk-in or boat-in campsites and hiking trails. For more information, please call The Trustees of Reservations at (978) 249-4957 or (978) 840-4446. The North Quabbin Bioserve encompasses 64,000 acres of land in the towns of Athol, Erving, New Salem, Northfield, Orange, Petersham, Phillipston, Royalston, Templeton, Warwick, Wendell and Winchendon. The U.S. Army Corps of Engineers is an active member of the North Quabbin Regional Landscape Partnership and was instrumental in the designation and construction of the 18-mile-long Tully Trail, which passes through the 1,269-acre Tully Lake Reservoir Area, an important segment of the North Quabbin Bioserve. The Tully Campground and Tully River Canoe Launch Area are popular "jumping off points" for the Tully Trail.

Events: Aug. 7, 6 – 8 p.m.: Russ Cohen, Edible Plants Walk: Russ Cohen, professional environmentalist and wild foods enthusiast, will lead a walk in search of wild edible plants. Plan on encountering at least two dozen of the 150 different species of edible wild plants and mushrooms that New England has to offer, many which are more flavorful than their cultivated counterparts. Meet at the campground ranger station.

Aug. 11-13, Junior Ranger Program: The program is for children between the ages of 6-11 and provides environmental education in five areas. One section will be offered each day for three consecutive days in: what a ranger does, the environment, water safety, wildlife, and forestry. At the end of the program children will become official Jr. Rangers. Pre-register with Steve or Ashley at (978) 249-9150.

Aug. 14-15, Hike the Tully Trail with the Pioneer Valley Hiking Club: The Pioneer Valley Hiking club will lead a two-day, moderate to strenuous, backpacking outing on the Tully Trail. It will begin at the parking area for Tully Mountain promptly at 8 a.m. Saturday morning and end there sometime Sunday evening. The group will overnight at the new Adirondack shelter built by The Trustees with the help of many volunteers and the PVHC last fall. Backpackers must provide their own gear, food and water. For more information call 978-248-9455. NOTE: This is a strenuous hike and not suited for beginners.

Aug. 21, 3 p.m., Tully Lake Mountain Bike Trail Ride: This ride through the Tully region with James West will take about 2.5 hours and be moderate to difficult riding. Meet at the campground ranger station.

WEST HILL DAM (2nd CD), on the West River in Uxbridge, was completed in 1961 at a cost of \$2.3 million.

The 2,400-foot-long, 51-foot-high dam can impound a 12,400-acre-foot lake capable of storing four billion gallons of water. It has prevented damages of more than \$30 million. More than 90,000 annual visitors enjoy picnicking, swimming, hiking, fishing and hunting at the 1,401-acre facility. The dam embankment was constructed of random and impervious fill with a limited upstream impervious blanket without any significant foundation seepage control features. Seepage through the foundation materials occurred during operation of the project for flood events in 1979, 1987 and 1998. Drawing on the dam's past performance, borings, and piezometer data, it was concluded that the dam embankment and foundation were insufficient to effectively prevent the development of adverse seepage conditions when the reservoir level exceeds a 15-foot pool stage (about a three year flood event). Plans and specifications for a concrete panel cut-off wall tied into bedrock along the full length of the dam embankment were developed and a contract was awarded on June 8, 2001 to the joint venture of Soletanche-McManus to construct a concrete slurry wall within the length of the dam embankment. This wall will prevent the development of detrimental seepage conditions, including piping, boils, and internal erosion. Concrete tremie concrete panels were placed to form the impervious wall. Placement of the concrete wall was completed in September 2002 and reconstruction of the dam was completed in November 2002. The contractor returned to West Hill Dam in April 2003, completing required safety items and the construction area was approved for public access in June 2003.

Third Picnic Shelter: New at the dam site to be installed in summer of 2004. A picnic pavilion for small family gatherings, graduation parties and picnicking along the West River will be available for a small fee during the 2004 season and upcoming summers. Your patronage to West Hill Park and Dam makes this upgrade possible. Visitors are welcome to join rangers for scheduled tours of the restoration area. Two per month are generally held during summer months through August.

Annual Events Calendars, along with a monthly posted calendar, are available at the West Hill Dam Project Office, 518 East Hartford Avenue, Uxbridge, MA 01569 or in brochure boxes at the park/dam bulletin board areas.

West Hill Dam Anniversary: 2010 will mark the 50th anniversary of the construction of West Hill Dam. We are looking for those who'd like to share their stories about Hurricane Diane in 1955, Hurricane Carol, or the construction of West Hill Dam, etc. To share your memories please call Ranger Viola Bramel at (978) 318-

8417.

The popular Junior Ranger Program is in full swing, with one session celebrating with 26 graduates. One additional session will be held Aug. 2-6, 2004. There are a few spaces remaining. Junior Ranger graduates and previous graduates are working hard in resource management, recreation management, trail maintenance, etc. in the Junior Ranger Level Two program. (See project monthly calendar for upcoming sessions). Past graduates are returning as volunteers and if pursuing a related career can apply for seasonal employment while attending college.

Please continue to use the new parking area near the entrance to the dam and walk in to the park and dam area. Thank you for your cooperation and understanding during these more secure times in our nation.

West Hill Dam is a Massachusetts Wildlife Management Area. *Please wear your lifejacket while boating or fishing. Coast Guard Regulation- All rivers and lakes in Massachusetts- Adults are required to wear a Coast Guard Approved lifejacket from Sept. 15 to May 15 annually. Lifejackets are mandatory for youth year-round for ages 12 and under.*

Lewis and Clark Events: Family Campfires featuring the Corps of Discovery Box were hosted on June 25 and July 9. About 60 park visitors (young and old) enjoyed a campfire and listened to taped night/animal sounds they might have heard if on the original expedition. They viewed animal mounts of fox, beaver and a screech owl. Various items from the Corps Discovery Trunk including clothing and tools/skills soldiers needed to survive such as medicinal, carpentry, hunting etc. were shared. Excerpts from records of the expedition members (e.g. some from local towns here) were shared to add a personal connection.

Story Time for our young visitors featuring a tale told by Seaman, Lewis's Dog, was shared in a peaceful wooded setting by rangers on June 29. Story Time for August- Aug. 31 at 2 p.m.

Upcoming events: Upcoming Lewis and Clark summer campfire gathering- will be held Aug. 20 from 6-8 p.m. For nationwide events and Lewis and Clark updates or school programs please visit the Lewis and Clark link at: www.nae.usace.army.mil

Eagle Scout News: Eagle Scout candidate Alan Hoyt and Junior Ranger graduate designed and constructed 12 Screech Owl nesting boxes. Alan installed these boxes

throughout the West Hill Dam Management Area to assist this species with the decline of available old growth and snag trees. Screech Owls are cavity dwelling birds. Thank you Alan for your great contribution to the preservation of Screech Owls and other cavity dwellers. Eagle Scouts welcome...Eagle Scout candidates are encouraged to improve habitats and public recreation at West Hill Dam and park. Please contact the Ranger Resource Management Team at (508) 278-2511.

Picnic Shelter Reservations: West Hill Park offers two picnic pavilions for family or organizational events (e.g. wedding receptions, family reunions or company picnics). Reservations are currently open. Contact us at (508) 278-2511. The large pavilion can accommodate groups up to about 100 comfortably for a fee of \$50; the small pavilion is available for 30 folks for a fee of \$40. Both shelters have large barbecue grills. Rest rooms and a water fountain are close by. The shelter areas are located conveniently near the swimming beaches, a sand volleyball court, accessible playground, and hiking trails.

Annual Volunteer Work Day 2004: keep the date Sept. 18, 2004 open. Last year the Ranger Team hosted the 4th Annual West Hill Dam Work Day on Saturday Sept. 20, 2003. Forty-two volunteers rolled up their sleeves to improve an open field habitat, seal park trail benches, clean the West River of trash and clear a passage for canoeists and kayakers, and replenish the surface area beneath the playground. Volunteers contributed labor and services valued at \$18,400, while local businesses contributed materials and a picnic barbecue for the weary and hungry volunteers. Volunteers represented local scout troops, bicycle and trail organizations, local watershed associations and came from far away as Cumberland, RI.

WESTVILLE LAKE (2nd CD) in Southbridge and Sturbridge is 560 feet long and 78 feet high and cost \$5.7 million to construct. Its lake can store an 11,100 acre-foot reservoir, which amounts to 3.6 billion gallons of water. It has prevented damages totaling \$22.9 million since it was placed in operation in 1962. The reservoir area offers fine recreational opportunities, including picnicking, fishing, hunting, canoeing, boating, and nature study and annually attracts more than 55,000 visitors.

In 2001, a cooperative trail committee was formed to plan and implement the construction of a 3.5-mile rail trail on the abandoned Grand Trunk railbed from Route 131 in Southbridge to Route 15 in Sturbridge. The committee includes the towns of Southbridge and Sturbridge, Corps of Engineers, Quinebaug River Basin Team Leader from

the Executive Office of Environmental Affairs, Quinebaug/Shetucket National Heritage Corridor, UMass at Amherst Dept. of Landscape Architecture and Regional Planning, Opacum Land Trust, National Park Service Rivers and Trails and the Grand Trunk Trail Blazers. The goal is to construct a multiuse trail on the railbed making federal and town property more accessible for recreational opportunities. Estimated completion is within a five-year period or sooner depending on funding. The trail was designated a National Recreational Trail in a ceremony at Westville Lake in June 2001.

A dedication ceremony for a new footbridge that connects the towns of Southbridge and Sturbridge, MA, through New England District's Westville Lake took place Oct. 2, 2002. The District hosted the ceremony that named the 85-foot structure the Ed Calcutt Bridge. Approximately 55 people participated in the event. The Ed Calcutt Bridge is a major component of the Grand Trunk Trail. The trail, managed and maintained by Westville Lake/East Brimfield Lake Park Rangers with Grand Trunk Trail Blazers and local volunteers help, begins in the town of Southbridge and follows the old Grand Trunk Railroad bed through a variety of landscapes. The Quinebaug and Shetucket River Valley Heritage District and Commission provided funding for this project through the Office of the Executive Office of Environmental Affairs, Department of Environmental Management. The Corps of Engineers provided contract oversight for bridge and abutment installation and funding for abutment construction. The bridge is named for Ed Calcutt, who has been the President of the Grand Trunk Trailblazers since it was organized in 1992. Mr. Calcutt started the organization in response to his long-time interest in biking and trails. Since its inception, the non-profit organization has been working on trail development in the area. In addition to the trail bridge, the Corps of Engineers at Westville Lake has completed a \$40,000 improvement to the Westville Lake Recreation Area.

Completed on Oct. 7, 2002, a rehabilitated parking area at the entrance to the recreation area allows for safe parking for the public when park gates are closed as well as when open. The rehabilitated parking area also provides for handicap access to the trail system at Westville Lake and for the Westville Lake Recreation Area. The previous parking area did not provide designated parking spaces, handicapped or not, nor was there a safe exit and entry point for walkers or cars. *At the end of the fiscal year 2004 and into fiscal year 2005, accessible pathways to the Grand Trunk Trail will be completed. USACE is also working with the Town of*

Sturbridge, Mass. on a Challenge Cost Share that will see much of the final surfacing work (stone dust) completed on the Trail from Westville Park southwest to Farquahar Road, in Sturbridge, Mass. The Town of Sturbridge Trail Committee is currently working with local environmental professionals to ensure protection of wildlife along this section of trail.

Recently added to the Grand Trunk Trail system at Westville is another major component in trail

development in the region. A bridge *excessed from* the Big Dig in Boston was placed this past fall, crossing the inlet at Westville Dam, fulfilling the dreams of many a hiker and Corps personnel. The bridge, *named The Heritage Connector*, makes for a scenic, approximately 3-mile loop around Westville, in addition to connecting to the Grand Trunk Trail. *For more information on Westville Lake, please call us at (508) 347-3705 or access the website at <http://www.nae.usace.army.mil/recreati/wvl/wvlhome.htm>*



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