US Army Corps of Engineers®
New England District

Update Report for New Hampshire

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BUILDING STRONG®

Mission

The missions of the New England District, U.S. Army Corps of Engineers include flood risk management, 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, 171 federal navigation projects (13 deep draft commercial waterways), 13 major river basins, and thousands of miles of navigable rivers and streams. The District operates and maintains 31 dams, three hurricane barriers and the Cape Cod Canal. Through its Regulatory program, the District processes nearly 2,500 applications per year for work in waters and wetlands of the six-state region. We employ about 510 professional civilian employees, with about 300 stationed at our headquarters in Concord, Mass. The other Corps of Engineers employees serve at Corps projects and offices throughout the region. For information on the New England District visit the website at: www.nae.usace.army.mil/; or on Facebook: facebook.com/CorpsNewEngland; or on Twitter: twitter.com/corpsnewengland; or on Flickr: www.flickr.com/photos/corpsnewengland.

Index

Navigation

HAMPTON HARBOR, NEW HAMPSHIRE (1st CD) – *A $1.9 million contract for the maintenance and repair of several sections of the north jetty feature of the Federal navigation project damaged during Hurricane Sandy was awarded to Mohawk Northeast. The project involves reworking existing stones and bringing in new armor stones to bring the structure back to its authorized dimensions. Work is anticipated to begin in early August 2016 and take several months to complete.*

PORTSMOUTH HARBOR AND PISCATAQUA RIVER, NEW HAMPSHIRE (1st CD) AND MAINE (1st CD) – This study of Portsmouth Harbor and the Piscataqua River, New Hampshire and Maine was directed by Section 437 of WRDA 2000. The non-federal sponsor is the state of New Hampshire, Pease Development Authority, Division of Ports and Harbors (PDA). The study's purpose is to determine the navigation related needs of the area and is focusing on the upper turning basin in the river near Newington, N.H. The current 800-foot width of the turning basin causes major safety concerns for shippers and limits the efficiency of shipping operations, particularly for large LPG tankers. The §905(B) reconnaissance report was completed and approved by North Atlantic Division in September 2004. A feasibility cost-sharing agreement for the PDA and Corps to share the cost of the feasibility study was executed on June 21, 2006. The feasibility study was initiated in 2006 using funds provided by the PDA and the FY06 E&WDA Act.

A draft Feasibility Report/draft Environmental Assessment was released for public review on March 31, 2014. The final Feasibility Report and Environmental Assessment were approved by the Civil Works Review Board on Aug. 21, 2014. State and Agency review of the proposed Chief of Engineers Report closed on Nov. 24, 2014. The final Chief of Engineers Report was signed on Feb. 8, 2015 and the reports were submitted to Congress on *June 15, 2015.*

The Design Phase Cost Sharing Agreement between the USACE and the sponsor for the Preconstruction, Engineering, and Design (PED) effort was executed on Nov. 13, 2015. Federal and sponsor funds have been received and design phase work is underway. Key efforts in the design phase include subsurface investigations to confirm dredge material types and quantities, and final determination of dredged material disposal and beneficial use options.

PORTSMOUTH HARBOR AND PISCATAQUA RIVER, NEW HAMPSHIRE (1st CD) AND MAINE (1st CD) – Maintenance dredging of the back channels portion of the

Portsmouth Harbor and Piscataqua River FNP (commonly called "Sagamore Creek") is needed to restore the project to authorized dimensions and alleviate shoal conditions that are impacting safe navigation through the channels. *A solicitation including* contract plans and specifications to remove a 4,000 cubic yard shoal at the confluence of the Portsmouth Harbor back channels *has been issued.* It is anticipated that a contract will be awarded late in FY16, with dredging commencing in FY17. Disposal of the dredged sand will be used as a beneficial use at a nearshore site off of Wallice Sands Beach.

Flood Plain Management Services

LAKE MASSASECUM / WARNER RIVER, BRADFORD, N.H. (2nd CD) – The purpose of this study is to assess the problem of flooding for residents of Bradford, N.H., living near Lake Massasecum and Melvin Brook. This study assessed methods to alleviate the flooding in Bradford. It was accomplished by modeling current conditions and modified conditions within the affected area to determine what improvements could be made to the system. The hydraulic analysis focused upon the potential backwater impacts generated by the newly designed Breezy Hill Bridge over the Warner River.

The most economically viable solution is flood proofing or raising individual homes around the lake to protect them from high water levels. A final report providing an engineering assessment was sent to town officials in February 2016.

NORTHERN MASSACHUSETTS/NEW HAMPSHIRE HURRICANE EVACUATION STUDY (2nd CD) – This study is being conducted under a federally funded program cosponsored by the Corps of Engineers and the Federal Emergency Management Agency. The objective of the program is to provide a technical data report and coastal flood mapping from which the state and local communities can develop/update preparedness plans for coastal storms. It also will allow state and local officials to identify evacuation areas and routes of evacuation for various coastal events. Inundation maps have been delivered to the state and affected communities. Final census figures have been compiled and delivered to New Hampshire state and local Emergency Management officials.

Emergency Streambank Protection, Section 14

This program is used to assist communities in the stabilization of streambank/shoreline emergency erosion conditions which threaten important publicly used facilities. The Section 14 authority allows the Corps of Engineers to participate in the planning and construction of stream bank erosion control projects in situations where public facilities are threatened, in partnership with a local sponsor.

For more information on the Section 14 Emergency Streambank Protection program visit the website at: www.nae.usace.army.mil/Missions/PublicServices/ContinuingAuthoritiesProgram/Section14.aspx.

Flood Damage Reduction, Section 205

This program is used to assist communities in identifying flooding problems and to formulate and construct projects for flood damage reduction. The local sponsor is required to cost-share equally in those feasibility investigations that exceed $100,000. The Federal expenditure per project limit is $7,000,000. The local sponsor is required to contribute 35 percent of the cost of plans, specifications and project construction.

For more information on Section 205 Flood Damage Reduction visit the website at: www.nae.usace.army.mil/Missions/PublicServices/ContinuingAuthoritiesProgram/Section205.aspx.

Defense Environmental Restoration Program

This Congressionally directed program (PL 98-212) provides for an expanded effort 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. Site and project eligibility investigations at 37 sites have been completed in New Hampshire, including 26 sites where no cleanup work was found to be necessary. Of the 11 sites where work was needed, the following efforts are underway:

DESIGN – The former **Grenier Air Force Station,**

Manchester Airport, Manchester (1st CD) has been identified as a PRP site. The New England District office, Manchester Airport, and the state of New Hampshire Department of Environmental Services are discussing the next steps.

REMEDIATION is complete for the **Mt. Washington Test Site (2nd CD),** the **Mt. Washington Equipment and Experimental Station (2nd CD),** the Wright Air Development Facility, **Bartlett (2nd CD),** Icing Research Annex, **North Conway (2nd CD)**, Concord Point Radar Station, **Rye (1st CD),** Camp Langdon and Fort Constitution, **Newcastle (1st CD),** Fort Dearborn in **Rye (1st CD),** and at the Massabesic National Guard Training Range in **Auburn (1st CD)**.

Support to the U.S. Environmental Protection Agency

WORK FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY – The New England District is designated as the Corps of Engineers total support agency for the U.S. Environmental Protection Agency's (EPA) Region I (New England) Superfund program for those federal-lead projects assigned to the Corps by EPA. This includes responsibility for design and/or construction execution of remediation projects. In addition, the New England District is providing technical assistance upon request to EPA New England for other federal-lead projects assigned by EPA to private firms as well as for some potentially responsible party (PRP) remediation.

Superfund

FLETCHER'S PAINT WORKS AND STORAGE FACILITY SUPERFUND SITE, MILFORD (2nd CD) – New England District is providing technical support to the U.S. EPA for the oversight of investigation and cleanup efforts by the responsible party for Operable Unit 1 (OU1), General Electric Company (GE). Specific tasks include review of plans for soil remediation and ongoing monitoring and investigation of groundwater contamination. GE initialized certain accelerated Remedial Action Activities in the fall of 2012. Construction of the alternative access for Keyes Drive was scheduled to be implemented in spring 2013, but the remediation was stalled by required coordination between GE, the utility companies, and other impacted parties. Soil remediation activities at Elm Street and Keyes Drive were re-initiated in 2015. GE is scheduled to provide a revised workplan for the Mill Street site. The revised workplan is necessary to address contaminants found in bedrock at that location. The New England District is currently collecting supplemental data to determine if an update to the conceptual site model is necessary, and completion of the Remedial Investigation and Feasibility Study (RI/FS) on OU2, which will assess the need for additional remediation of contaminated sediments in the Souhegan River, is pending EPA review.

Regulatory Activities

Department of the Army permits are required from the Corps under Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection, Research and Sanctuaries Act. The Corps reviews permit applications for work affecting navigable waters under its Section 10 authority and the discharge of fill material into all waters, including inland wetlands, under Section 404. A list of Monthly General and Individual Permit Authorizations is provided at www.nae.usace.army.mil/Missions/Regulatory/PermitsIssued.aspx.

Relevant environmental documents are available upon written request. For information about Corps jurisdiction of wetlands and whether a permit is required for your work contact the Regulatory Division at 978-318-8338 or 978-318-8335 or by email to cenae-r@usace.army.mil or visit the website at: www.nae.usace.army.mil/Missions/Regulatory.aspx.

GENERAL PERMITS – The District has comprehensive Regional General Permits (RGPs) in place for each of the six New England states that authorize work with no more than minimal adverse effect on the aquatic environment. Up to 98 percent of all permits issued in New England are RGPs. Work eligible under the RGPs is generally approved in less than 60 days. The current New Hampshire RGP is available at: www.nae.usace.army.mil/Missions/Regulatory/StateGeneralPermits.aspx.

NEW HAMPSHIRE IN-LIEU FEE PROGRAM (1st & 2nd CDs) – In 2008 the District and the New Hampshire Department of Environmental Services (NHDES) signed a Memorandum of Agreement (MOA) on an In Lieu fee (ILF) program called the Aquatic Resource Mitigation (ARM) Fund to provide an alternative to project-specific mitigation when the Corps requires mitigation. Site-specific mitigation for many of these projects has had limited ecological value due to their size, location, and/or permittee's ability to provide appropriate stewardship. The original program was developed prior to the Federal Mitigation Rule (33 CFR 332). A rule-compliant instrument was signed on May 18, 2012. The ILF program provides applicants an efficient and workable alternative of paying a fee if the District, in consultation with the federal resource agencies and the state, agrees it is the best alternative. The fees

are aggregated by service area, based on hydrologic unit codes, within the state of New Hampshire and must be used, within a specified time period, to restore or create aquatic resources and/or preserve aquatic resources and their associated uplands.

To date, more than $7 million total has been approved for funding of 64 projects across the state. Thirteen projects in seven service areas (Androscoggin, Salmon Falls/ Piscataqua River, Lower Connecticut River, Merrimack River, Contoocook River, Middle Connecticut, and Upper Connecticut) totaling $1,966,200 were approved by the Corps and state Wetlands Council in the 2015 round of grants. The 2016 grant round *is* underway. *Letters of Intent were submitted and reviewed to determine which qualify for submittal of a full application. Full applications are due in September* with decisions on projects expected in the fall.

Special Studies

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. Corps staff members provide technical assistance in areas relating to our missions. Opportunities for Corps participation in ecosystem restoration are being continually considered.

Other Current Activities

AQUATIC ECOSYSTEM RESTORATION, MILL POND, NASHUA (2nd CD) – The city of Nashua requested that the Corps study restoration of the aquatic ecosystem of the Mill Pond and canal in Mine Falls Park. The Corps is conducting this project under authority of the Aquatic Ecosystem Restoration Program, Section 206 of the Water Resources Development Act (WRDA) of 1996.

The objective of the study is to restore the fish and wildlife habitat associated with the pond and canal system. The canal starts at the Mine Falls historic gatehouse, circa 1888, where water is diverted from the Nashua River. The gatehouse is in need of repair to regulate water flows into the canal and pond. The canal system extends about two miles from the gatehouse, ending in an industrial/mill complex where the canal water drops through conduits through the complex and back into the Nashua River. The canal system includes a 20-acre pond called Mill Pond.

We partially completed the feasibility study, identifying several potential restoration alternatives. We closed out the study in July 2014, finding that the potential aquatic ecosystem benefits of the alternatives we examined did not meet aquatic ecosystem restoration criteria as being nationally significant.

CONNECTICUT RIVER ECOSYSTEM RESTORATION STUDY – Authority to conduct an ecosystem restoration study in the upper Connecticut River watershed is provided through a resolution adopted by the Committee on Environment and Public Works of the U.S. Senate on May 23, 2001. A reconnaissance report identified several ecosystem restoration opportunities along the main stem of the Connecticut River. Since then the Water Resources Development Act of 2007 authorized the Corps to partner with The Nature Conservancy (TNC). A feasibility study was initiated with TNC in 2008. The study is investigating alternatives to manage flow for the 70 largest dams in the basin with the goal of improving aquatic habitat while maintaining human uses such as flood control, hydropower, water supply and recreation. Various tools (e.g. operation and optimization computer models) have been developed to assess these management measures. The study is expected to be completed by the end of 2016.

GREAT BAY OYSTER RESTORATION (1st & 2nd CDs) – The Nature Conservancy (TNC) received approval for funding to restore oysters in Great Bay, New Hampshire, under the Estuary Restoration Act. The work will be conducted by the TNC in partnership with the Corps of Engineers under a cooperative agreement. The project will restore 10 acres of oyster reef (eastern oyster *Crassostrea virginica*) to provide ecosystem services (especially filtration and nutrient control) and to benefit diadromous and estuarine dependent fish, benthic invertebrate communities, and eelgrass beds. Oyster reefs provide ecosystem services, including water filtration, nutrient control and fish production. As late as 1970, surveys showed up to 900 acres of live oyster reefs in the Great Bay estuary, but by 2006 the system had lost an estimated 90% of adult standing stock. This project will begin to restore the lost benefits of those reefs. TNC is working to develop methods to ensure the long term protection of restored reefs prior to executing the cooperative agreement.

MERRIMACK RIVER WATERSHED STUDIES (SECTION 729) (1st & 2nd 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 and quantity concerns that still require significant investigation and planning beyond that which individual communities can address. In 2002 the Corps, to assist the communities and agencies, began a watershed assessment study to identify the number and range of water quality issues, ecosystem problems and opportunities along the lower Merrimack River from Manchester, New Hampshire, to the Estuary

in Newburyport, Mass. The Section 729 watershed study requires a 75 percent federal/25 percent non-federal cost sharing. The non-federal sponsors for the Lower Merrimack River Basin (LMRB) area study are the communities of Manchester and Nashua, N.H., and Lowell and Haverhill, Mass., and the Greater Lawrence Sanitary District in Massachusetts. Phase I was completed in September 2006.

In August 2006, the Corps extended the study to the Upper Merrimack River Basin UMRB (Phase II). The non-federal sponsor of the UMRB Study is the New Hampshire Department of Environmental Services, in partnership with the Southern New Hampshire Planning Commission and many New Hampshire Community Wastewater Treatment and Water Supply Departments. UMRB studies will assess and predict future river quality and quantity conditions from Manchester to Lincoln, N.H., using a computer simulation model.

Upper Merrimack River sampling efforts in 2009 included impoundment sampling during the summer. Sampling efforts continued in 2010 and a low flow survey was conducted in July 2010 and September 2010. In the fall of 2011, river cross-section (channel data) for the river was collected to augment existing data for the river model. A draft water quality data report was prepared in January 2011 and updated in January 2012. Also in January 2012 a conceptual loading model technical memorandum was completed to examine the sources of oxygen demanding substance in the river.

In 2012, work included collection of additional water quality data during a high flow event. The water quality data report has been updated to include this information and is available at www.nae.usace.army.mil/Missions/ProjectsTopics/UpperMerrimack.aspx. The UMRB computer model was completed and the model report is being finalized. The UMRB model is being used to simulate future condition scenarios and results will be summarized in a report in 2016.

Interagency and International Support

SUPPORT TO THE U.S. DEPARTMENT OF VETERANS AFFAIRS – The New England District has teamed up with a sister federal agency in an effort to improve the care Soldiers are receiving at military hospitals. The U.S. Department of Veterans Affairs (VA) and the Corps of Engineers entered into an interagency agreement in 2001 for the goods and services the Corps may provide to the VA when needed. These include project management, design services, construction management services, environmental services, preliminary technical investigations, surveying, and historical presentation compliance at VA facilities. In 2008, the VA started exercising its agreement with the Corps in New England and NAE is now supporting the VA with services at several facilities in New England. Current or recent projects are in Massachusetts, Rhode Island and Connecticut.

SUPPORT TO THE COLD REGIONS RESEARCH AND ENGINEERING LABORATORY – The New England District works to support the environmental and engineering/construction requirements, as requested, of the Corps' Cold Regions Research and Engineering Laboratory (CRREL) in Hanover, New Hampshire. A $418,990 contract was awarded June 26, 2015 for a renovation project at CRREL. Work includes 3rd floor and 2nd floor renovations and office cubicle construction. The project involves the preparation of design drawings followed by demolition, renovation, and construction work necessary to prepare the area for the construction of the cubicles, including electrical and telecommunications infrastructure. A $130,889 contract for paving improvement was awarded in late 2014. Work involves improvements to pavement, curbing, entry ramps, drains and manholes which are intended to correct broken and/or uneven pavement, curbing, concrete, and damaged drains or manholes in various locations at CRREL. Also, a $356,433.16 contract for operation and maintenance of the Water Treatment Plant at CERRL was awarded in mid-2014. The contractor will operate and maintain the Water Treatment Plant and the Sub-slab Depressurization Systems in the Childcare Development Center, the Main Laboratory Pilot (including the sub-basement), and the Multi-Purpose Room area. These projects are being managed by the Corps under the supervision of a Corps' Quality Assurance Representative to assure compliance with contract requirements.

WORK FOR THE DEPARTMENT OF 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 of Engineers performs physical inspections, contract administration reviews, drawings and specifications reviews, and final inspections for Housing Authorities located throughout the state of New Hampshire.

Flood Risk Management Dams, Recreation and Natural Resources Management

The New England District constructed and operates and maintains seven flood risk management project dams in New Hampshire. All are located in the 2nd Congressional

District, and information on each is provided below. In addition, the Corps is responsible for the conservation of natural resources held in public trust at civil works water resources projects. Recreation areas at the 31 federal flood risk management protection projects and the Cape Cod Canal within New England are managed for multiple uses. In some areas, management is delegated to the states for specific purposes, e.g., campgrounds, wildlife management and forestry. Recreation areas at these facilities are generally open from mid-May to mid-September.

For information on Corps recreation in New England visit the website at www.nae.usace.army.mil/ and select "recreation" or for New Hampshire projects go directly to the weblink at www.nae.usace.army.mil/Missions/Recreation/NewHampshire.aspx.

BLACKWATER DAM on the Blackwater River in Webster and Salisbury was completed in 1941 at a cost of $1.3 million. The 1,150-foot-long, 75-foot-high dam has a reservoir storage capacity of 14.9 billion gallons of water and has prevented damages of $77.6 million to date. Recreational opportunities at Blackwater include hiking, biking, boating, fishing, hunting, horseback riding, dog sledding and snowmobiling with several thousand people visiting the reservoir area each year. The forest management program continues to have frequent harvests which maintain and promote healthy successional forest growth.

Project staff are currently managing the recreation season. Specifications for routine operation and maintenance contracts are currently being worked. Ongoing backlog maintenance continues as time and funding allows.

For up-to-date information, call (603) 934-2116 or visit our website at: www.corpslakes.us/Blackwater or at www.nae.usace.army.mil/Missions/Recreation/BlackwaterDam.aspx.

Situated **on Nubanusit Brook in Peterborough, EDWARD MacDOWELL LAKE** was completed in 1950 at a cost of $2 million. Edward MacDowell Lake consists of an earth fill dam with stone slope protection 1,100 feet long and 67 feet high with a capacity of more than four billion gallons of water and has prevented damages of about $20.8 million to date. There is a conservation pool at Edward MacDowell Lake covering an area of 165 acres and having a maximum depth of about seven feet. The flood storage area of the project totals 840 acres and covers parts of Hancock, Dublin and Harrisville. The lake and all associated project lands cover 1,469 acres. This is equivalent to 5.4 inches of water covering its drainage area of 44 square miles. The Corps operates a small recreation area. Amenities include two pavilions, multiple picnic and grill locations throughout the park, beach, volleyball net, horseshoe pits and playground. Canoes, rowboats and other small boats are permitted on Edward MacDowell Lake. Project lands also offer trails for hiking and cross country skiing; snowmobile trails; undeveloped open space for ball playing and other sporting activities; drinking water; and sanitary facilities. More than 146,000 visitors annually enjoy the picnic areas, swimming areas, hiking trails, boating, fishing, hunting and snowmobiling available at Edward MacDowell Lake. For up-to-date information, call (603) 924-3431 or visit the lake's web site at www.corpslakes.us/EdwardMacdowell or at www.nae.usace.army.mil/Missions/Recreation/EdwardMacDowellLake.aspx.

It's been a busy year with lots of infrastructure improvements for the Edward MacDowell Lake Flood Control Project. The first project was completed with great success. Somatex was able to refurbish the three flood control operators and motors that were originally installed in 1949. This was an important effort to ensure that all bearings, seals, gears and electrical components were in good service condition.

The second project that is nearing completion is the Dam Crest Project which involves upgrading the electrical system, the communication lines and the water line. In addition, improvements have been made on the dam crest for storm water runoff and new pavement. The construction effort has significantly brought us up to today's standards with the electrical system, replacing the original direct burial line from 1948. The lines are in proper conduits and encased in concrete and with the addition of manholes for future access. The new communication lines are also in conduits and we also have fiber optics. The water line that was replaced was from the 1980s and now we have the proper standard water lines. Stone swales were created to improve water drainage and eliminate erosion effects on the dam slopes. The new pavement is now properly sloped and is a big improvement to the dam crest.

Currently, our structural engineers are working on specifications for the masonry brick work repairs at the Gate House Control Tower. The work will go out to Contracting Division this fall and plans to be awarded for a spring start-up date. The job will include needed repairs to joint lines, cracked bricks and waterproofing.

We also have scopes of work ready to go for replacement of steel doors for the gatehouse and a new roof hatch.

Construction of **FRANKLIN FALLS DAM in Franklin** was completed in October 1943 at a cost of $7.9 million. Situated on the Pemigewasset River in the town of Franklin, the 1,740-foot-long, 140-foot-high dam impounds a permanent pool of 440 acres with a maximum depth of about seven feet. The flood storage area of the project totals 2,800 acres and can store up to 50.2 billion gallons of water for flood risk management purposes. The project has prevented damages amounting to more than $178.3 million to date. Additionally, more than 100,000 visitors annually enjoy the recreational facilities at Franklin Falls, including designated hiking and snowmobiling trails, picnicking, fishing, boating, wildlife viewing and hunting.

Project staff are currently managing the recreation season. A new 18-hole disc golf course is being installed with the help of a local partner. Concrete work to repair the service bridge

is currently being scheduled with completion anticipated for the fall/winter of 2016. Ongoing backlog maintenance continues as time and funding allows.

For up-to-date information, call (603) 934-2116 or visit our website at: www.corpslakes.us/FranklinFalls or at www.nae.usace.army.mil/Missions/Recreation/FranklinFallsDam.aspx, or on Facebook: https://www.facebook.com/FranklinFallsDam or on Instagram: Franklin Falls.

The **HOPKINTON-EVERETT LAKES** flood risk management project is a two-dam system of flood protection for the Merrimack Valley. **Hopkinton Dam, on the Contoocook River in Hopkinton**, is 790 feet long and 76 feet high and can impound a 3,700-acre lake. Nearby **Everett Dam, on the Piscataquog River in Weare**, is 2,000 feet long and 115 feet high and can impound a 2,900-acre lake. The lakes have a combined storage capacity of 51 billion gallons of water and are linked by a canal, which allows water to be diverted between the two pools. Construction of the dual facility was completed in 1962 at a cost of $21.5 million. During the 1987 flood this combined project utilized 95 percent of its storage capacity and prevented $24.5 million in flood damages. Since the construction in 1962, the two dams are credited with preventing more than $217.1 million in damages. In addition, excellent recreational opportunities are available on project lands, including picnicking, swimming, boating, fishing, hunting and snowmobiling. An estimated 450,000 visitors come to the Hopkinton-Everett project annually.

The project has experienced another good recreational season. Visitors again have enjoyed the summer at Elm Brook Park, picnicking and enjoying the beach. Our summer park rangers have welcomed visitors into the park's ranger station, presented interpretive and recreational programs to visitors, and hosted two successful, 3-day, Junior Ranger programs for area children. Off Highway Recreational Vehicle (OHRV) riders are enjoying our OHRV trail system located in Weare and operated in partnership with the New Hampshire Bureau of Trails. Boaters are using the Hopkinton Lake for fishing and other visitors are using the property to relax and enjoy nature.

Project staff have worked through the summer on ongoing maintenance and natural resource management projects, including the treatment of portions of Hopkinton Lake to manage the negative effects of the invasive variable milfoil plant.

For up-to-date information, call (603) 746-3601 or visit the website at www.corpslakes.us/HopkintonEverett or at www.nae.usace.army.mil/Missions/Recreation/HopkintonEverettLake.aspx.

OTTER BROOK LAKE on Otter Brook in Keene was completed in 1958 at a cost of $4.4 million. The 133-foot-high, 1,288-foot-long dam can impound a reservoir with a storage capacity of 5.7 billion gallons of water. During the 1987 flood, this dam utilized 100 percent of its storage capacity and prevented $3.6 million in damages. Since the construction in 1958, the dam has prevented flood damages of $47.4 million. More than 39,000 visitors annually enjoy the swimming, picnicking, boating, fishing and hunting available at the 458-acre facility. For up-to-date information, call (603) 352-4130. The website is www.nae.usace.army.mil/Missions/Recreation/OtterBrookLake.aspx.

In 2003, the Corps reevaluated the spillway capacity at Otter Brook, using revised storm data generated by the National Weather Service. As the spillway was determined to be too small, a design to accommodate larger flood flows was completed. This effort resulted in a new concrete spillway weir with mechanical fuse plugs designed to fail prior to exceeding discharge capacity. This project was completed in the summer of 2006.

Construction to remove and replace asphalt pavement for the access road at Otter Brook Lake dam in Keene was completed under the terms of a $97,797.00 contract awarded by the New England District in late 2014. The work on this project consisted of providing materials, labor, testing and equipment for performing all operations necessary to remove and replace asphalt pavement, for the upper west access road, parking lot to the utility building, and the driveway to the operator's building at the Otter Brook Lake dam. Work requirements were managed by the Corps under the supervision of a Corps' Quality Assurance Representative to assure compliance with contract requirements.

SURRY MOUNTAIN LAKE on the Ashuelot River in Surry, just north of Keene, was completed in 1941 at a cost of $2.8 million. The 1,800-foot-long, 86-foot-high dam has a reservoir storage capacity of 10.6 billion gallons of water. During the 1987 flood, this dam utilized 100 percent of its storage capacity and prevented $8 million in damages. Since construction in 1941, the dam has prevented damages estimated at $149.5 million. For up-to-date information, call (603) 352-2447 or (603) 352-4130. The website is www.nae.usace.army.mil/Missions/Recreation/SurryMountainLake.aspx.

In addition to its flood risk management benefits, Surry Mountain Lake also provides recreational opportunities, such as fishing, swimming and boating to 58,000 visitors annually. Restrooms, drinking water and picnic shelters also are available.