



**US Army Corps
of Engineers**®
New England District

Update Report for New Hampshire



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Mission

The missions of the New England District (District) of the 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, streambank 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, with 6,100 miles of coastline, 170 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, it processes nearly 2,500 applications per year for work in waters and wetlands of the six-state region. The District employs about 500 professional civilian employees with about 300 stationed at the headquarters in Concord, Massachusetts. Other employees serve at District projects and offices throughout the region. For information on the District, visit the website at www.nae.usace.army.mil; on Twitter at twitter.com/corpsnewengland or on Facebook at facebook.com/CorpsNewEngland.

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Navigation

HAMPTON HARBOR (1st CD) – In response to a request from Seabrook, Hampton, and New Hampshire officials, the District completed dredging at Hampton Harbor in 2019. Hampton Harbor is located in Seabrook and Hampton, about 1.5 miles north of the New Hampshire-Massachusetts state line. The entrance to Hampton Harbor separates Seabrook and Hampton beaches and forms the mouth of the Hampton River with the North and South Jetty. A small lobstering fleet, charter fishing boats, and numerous recreational craft are based in the harbor. Maintenance dredging of Hampton Harbor federal navigation project (FNP) was needed to restore the project to authorized dimensions and alleviate shoal conditions impacting safe navigation through the channels and access to anchorages. Funding was provided in the fiscal year 2018 work plan in the amount of \$275,000 to complete environmental coordination/permitting and start plans and specifications documents leading to a solicitation.

Additionally, the District's work plan for 2019 was approved on Nov. 20, 2018, and included \$4.6 million for dredging Hampton Harbor. Completion of environmental coordination and permits, real estate agreements and contract award enabled maintenance dredging of Hampton Harbor to begin in the late fall of 2019. A \$4.45 million contract was awarded Sept. 12, 2019, to H&L Contracting, Inc. LLC, of Bay Shores, New York. Approximately 140,000 cubic yards of required dredging, with another 35,000 cubic yards of one-foot allowable over depth dredging, would bring these areas back to authorized dimensions. Sandy shoal material dredged from the mouth of the river was pumped to adjacent placement sites including the middle ground sand flat, under the Route 1A southern bridge abutment, Seabrook Beach, and Hampton State Beach Park. Work was completed at the end of December 2019.

On Oct. 31, 2018, the New Hampshire Port Authority made a request to USACE to initiate further studies of Hampton Harbor with a view to reducing erosion of the northern end of the middle ground bar in Seabrook and the resulting rapid shoaling of the Seabrook anchorage and channel. Funds amounting to \$50,000 were received to initiate this study and establish a federal interest before continuing with more detailed analyses. Additionally,

funding in the amount of \$4.5 million was received in FY20 for repairs to the North Jetty. The District has completed an initial survey of the structure and will be working on design and an environmental assessment through 2022.

PORTSMOUTH HARBOR AND PISCATAQUA RIVER, NEW HAMPSHIRE (1st CD) AND MAINE (1st CD) – This study of Portsmouth Harbor and the Piscataqua River in New Hampshire and Maine was directed by Section 437 of the Water Resource Development Act (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, New Hampshire. 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. Congress authorized the project in the Water Infrastructure Improvements for the Nation (WIIN) Act of December 2016. The design phase cost-sharing agreement between the District and the sponsor for the preconstruction, engineering, and design (PED) effort was executed Nov. 13, 2015. The project received federal construction funding in the Fiscal Year 2021 Work Plan. The contract was awarded October 2021. Dredging was completed April 2022. Eelgrass mitigation plans are ongoing so the project is not yet complete.

RYE HARBOR (1st CD) – Maintenance dredging of the Rye Harbor Federal Navigation Project (FNP) and the Rye Harbor state anchorage was completed in February 2021. A total of 51,033 cubic yards of sediment was removed from the harbor to restore the FNP to authorized dimensions, and 8,390 cubic yards was removed from the State Anchorage to restore the anchorage to authorized dimensions. Dredging of the Rye Harbor State Anchorage was conducted at 100 percent state cost.

ISLES OF SHOALS HARBOR OF REFUGE (1st CD) – Surveys, design studies and agency coordination for proposed repairs to the three breakwaters at the Isles of Shoals, Rye, N.H., and Kittery, Maine, began in the summer of 2020. Repairs to the structures are expected to occur in the spring to fall of 2022.

DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM – The DAMOS program supports the USACE navigation mission by providing monitoring and management of dredged material disposal sites in New England waters to document compliance with the environmental and operational conditions placed on aquatic disposal of dredged material. The program also supports the beneficial re-use of dredged material through the development of placement techniques and monitoring. To better serve harbors in New Hampshire, the DAMOS program and District staff supported EPA Region 1 over the past several years to designate the new Isles of Shoals North Disposal Site which opened for dredged material disposal on Oct. 26, 2020. The DAMOS program conducted baseline surveys of the site in 2019 and 2020, prior to dredge material disposal, and completed the first post-disposal monitoring surveys of the site in 2021 and 2022. Completed reports for the 2019 and 2020 surveys are posted to the DAMOS website (link below) with the 2021 and 2022 survey reports in progress.

<http://www.nae.usace.army.mil/Missions/Disposal-Area-Monitoring-System-DAMOS/>.

Flood Plain Management Services (FPMS)

NEW HAMPSHIRE SILVER JACKETS (NH-SJ) – Team meetings and projects: Quarterly meetings are held virtually to discuss ongoing flooding issues in New Hampshire and updates on various studies and projects by the various team members from federal and state agencies. The FY22 Stream Gage Project is ongoing with the first gage installed in Beaver Brook in Keene, N.H. For more information, go to <https://silverjackets.nfrmp.us/State-Teams/New-Hampshire>.

Emergency Streambank Protection

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 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 <https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/Section-14/>

Flood Damage Reduction

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 million. 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 District website at

<https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/Section-205/>

Special Studies

GULF OF MAINE INITIATIVE – The District is a member of the Gulf of Maine working group, providing this joint United States and Canadian committee with water resource planning expertise. District staff members provide technical assistance in areas relating to our missions. Opportunities for District participation in ecosystem restoration are continually considered.

CONNECTICUT RIVER ECOSYSTEM RESTORATION STUDY (2nd CD) – 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 WRDA of 2007 authorized USACE to partner with The Nature Conservancy (TNC). A feasibility study was initiated with TNC in 2008. The study investigated alternatives to manage the flow for the 73 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. A final report was completed in 2018 and is available for review at <http://www.nae.usace.army.mil/Missions/Projects-Topics/Connecticut-River/>

MERRIMACK RIVER WATERSHED STUDIES (1st & 2nd CDs) – The Section 729 overall purpose of the watershed assessment study is to conduct a comprehensive field program and data collection effort combined with watershed and river modeling to provide information to stakeholders to guide local water resource management decisions. The assessment of the Merrimack River and its watershed is a multi-phase effort that is being conducted in collaboration with multiple partners and stakeholders. This study is being conducted under the authority provided in Section 729 of WRDA 1986 as amended and titled “Water Resources Needs of River Basins and Region.” The Section 729 study requires (75% federal/25% non-federal) cost-sharing. Technical Study reports were provided to the non-federal sponsors during the study and a study summary report is currently being prepared to close-out the effort.

Interagency and International Support

SUPPORT TO THE U.S. DEPARTMENT OF VETERANS AFFAIRS (VA) – The District has teamed up with a sister federal agency to improve the care servicemembers are receiving at military hospitals. The VA and the District entered into an interagency agreement in 2001 for the goods and services the District may provide, when needed, to the VA. 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 USACE and the District 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 District works to support the environmental and engineering/construction requirements, as requested, of the USACE Cold Regions Research and Engineering Laboratory (CRREL) in Hanover, N.H. Projects are managed by the District under the supervision of a District Quality Assurance Representative to assure compliance with contract requirements.

Defense Environmental Restoration Program (DERP)

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 27 sites where no cleanup work was found to be necessary. Of the 10 sites where work was needed, the following efforts are underway: The former **Grenier Air Force Station, Manchester Airport, Manchester (1st CD)**, was originally identified as a formerly used defense site (FUDS) eligible property. However, it has been determined that the property is no longer eligible due to liability release provisions identified in the real estate transfer documents.

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)**.

Flood Risk Management Project Dams, Recreation and Natural Resources Management

The District constructed, 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 District 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 District recreation areas in New England, visit the website at www.nae.usace.army.mil and select "recreation," or for New Hampshire projects, go directly to the web page at <https://www.nae.usace.army.mil/Missions/Recreation/New-Hampshire/>

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 \$79.2 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 that maintain and promote healthy successional forest growth. For the most up-to-date information, call (603) 934-2116 or visit the following websites: <https://corpslakes.erd.c.dren.mil/visitors/projects.cfm?Id=E601720>, or <https://www.nae.usace.army.mil/Missions/Recreation/Blackwater-Dam/>

EDWARD MacDOWELL LAKE DAM on Nubanusit Brook in Peterborough was completed in 1950 at the 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 District 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.

This spring saw a paving contract completed for the access road coming into the dam and park. This project was highly successful, delivered on time and under budget, resulting in improved storm water management, a safer road and better drainage. Even with the lake slightly lower than normal, the beach was very popular this recreation season with great water quality weeks throughout the summer. There was much work accomplished on the boat ramps, water safety kiosks, life jacket loaner tree locations, and multi-use trails. Our Park staff conducted tours and programs, including our Junior Ranger program for children ages 6-12, which staff had not been able to conduct for two years due to the COVID Pandemic. In addition, new LED security lights which operate using less energy and offer more light were installed on site. In June of 2023, USACE will have a Periodic Inspection of the flood control structures with our engineering team. This five-year cycle inspection looks closely at all aspects related to the dam, to include hydrological, structural, mechanical and electrical features. Park staff is also preparing for the 75th Anniversary of Service as a Flood Control Dam which occurs July 31, 2025. For up-to-date information, call (603) 924-3431 or visit the lake's web sites at <https://corpslakes.erdc.dren.mil/visitors/projects.cfm?Id=E605310> or <https://www.nae.usace.army.mil/Missions/Recreation/Edward-MacDowell-Lake/>

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 opportunities at Franklin Falls, which include designated hiking trails, mountain biking trails, snowmobiling trails, picnicking, fishing, boating, wildlife viewing, hunting, horseback riding, dog sledding and disc golf.

For more information, call (603) 934-2116 or visit <https://corpslakes.erdc.dren.mil/visitors/projects.cfm?Id=E606150> or <https://www.nae.usace.army.mil/Missions/Recreation/Franklin-Falls-Dam/>

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, N.H.**, 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 the 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 106,000 visitors come to the Hopkinton-Everett project annually. The project has experienced another good recreational season. Visitors have again enjoyed the summer at Elm Brook Park, picnicking and enjoying the beach. Our seasonal park ranger staff welcomed visitors into the Park's Ranger Station, presented interpretive and recreational programs to visitors, and hosted a successful Junior Ranger program for area children. Off Highway Recreational Vehicle (OHRV) riders continue to enjoy our OHRV trail system located in Weare and Dunbarton 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 has worked through the summer on ongoing maintenance and natural resource management projects. Various maintenance contracts were awarded including for vegetation management, roof replacement and fall protection installation at the Everett Dam, culvert repairs to Dike P2, flood control gate painting and hydraulic repairs at the Everett Dam, and treatment for invasive Milfoil at Hopkinton Lake. Project staff is busy assisting visitors, patrolling the property, performing required inspections and maintenance, and working to improve recreational access and opportunities for the public. For up-to-date information, call (603) 746-3601 or visit one of the following sites: <https://corpslakes.erdc.dren.mil/visitors/projects.cfm?Id=E607700> or <https://www.nae.usace.army.mil/Missions/Recreation/Hopkinton-Everett-Lake/>

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 \$50.3 million. More than 39,000 visitors annually enjoy swimming, picnicking, boating, fishing and hunting available at the 458-acre facility. USACE reevaluated the spillway capacity at Otter Brook in 2003 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. For up-to-date information, call (603) 352-4130 or visit <https://www.nae.usace.army.mil/Missions/Recreation/Otter-Brook-Lake/>.

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 \$160.5 million. 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. For up-to-date information, call (603) 352-2447/4130 or visit the website at <https://www.nae.usace.army.mil/Missions/Recreation/Surry-Mountain-Lake/>.

Support to the U.S. Environmental Protection Agency

WORK FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY – The District provides support to the U.S. Environmental Protection Agency's (EPA) Region I (New England) Superfund program when requested. This typically includes responsibility for the design and/or construction execution of remediation projects. The District is not currently supporting EPA on any Superfund projects in New Hampshire.

Regulatory Activities

Department of the Army permits are required from USACE 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 District 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 <https://www.nae.usace.army.mil/Missions/Regulatory/permits-Issued/>. For information about USACE jurisdiction of wetlands and whether a permit is required for work, contact the Regulatory Division at (978) 318-8338 or (978) 318-8335, by email at cenae-r@usace.army.mil, or visit the District website at <https://www.nae.usace.army.mil/Missions/Regulatory/>

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 <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/New-Hampshire-General-Permit/>

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 USACE requires mitigation. Site-specific mitigation for many of these projects have 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 \$16 million has been paid into the fund and 84 projects have been approved for funding across the state. There was no request for proposal solicitation for projects in 2017 as the sponsor's staff used the time to prepare status and trends report for the program, review and edit the selection criteria, and perform other administrative tasks for the program. The 2018 solicitation was publicized in September 2018 and 35 applications were submitted. After review by the site selection committee, the interagency review team and the state's wetlands council awarded approximately \$4.2 million to 26 projects in 2018. Approximately \$1.6 million is available for project awards in the Merrimack River Service area. In 2019 and 2020, a combined 22

projects were selected to be added to the program's instrument to provide compensatory mitigation for resources impacted as a result of Department of the Army permits.