



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

Update Report for Maine



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BUILDING STRONG®

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Mission

The missions of the New England District, U.S. Army Corps of Engineers include flood risk management protection, emergency preparedness and response to natural disasters and national emergencies, environmental remediation and restoration, natural resource management, 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, the District processes nearly 2,500 applications per year for work in waters and wetlands of the six-state region.

We employ about 500 professional civilian employees, with about 300 stationed at our headquarters in Concord, Mass. Other Corps of Engineers employees serve at Corps projects and offices throughout the region. For information on the New England District check the website at: www.nae.usace.army.mil/; on Facebook: [facebook.com/CorpsNewEngland](https://www.facebook.com/CorpsNewEngland/); on Twitter: twitter.com/corpsnewengland; or on Flickr: www.flickr.com/photos/corpsnewengland.

Index	
Conservation & Environmental Enhancement	8
Ecological Restoration	4
Interagency and International Support	8
Mission	1
Navigation	1
Regulatory Program	5
Special Studies	4
Superfund	5
Support to EPA	5

Navigation

BELFAST HARBOR, BELFAST (2nd CD) – The Belfast city manager requested the New England District initiate a study under Section 107 of the River and Harbor Act of 1960 to determine the feasibility of implementing a navigation improvement project for Belfast Harbor. Currently, Belfast Harbor contains a Federal navigation project consisting of a 15-foot channel flanked by 8-foot and 12-foot anchorage areas to the north and south respectively. The town requested a study for construction of breakwaters across the outer harbor to further protect the harbor from wave action and storms. This improvement potentially would provide further protection of harbor anchorages and shore facilities and allow for expansion of commercial and recreational activities. Economic data was provided by the city of Belfast, waterfront facilities, and the commercial fishing fleet to be compared with potential project costs to estimate and evaluate project cost-effectiveness. A Federal Interest Determination (FID) is being prepared to determine if project benefits outweigh project costs sufficiently to warrant further studies.

BIDDEFORD POOL AND WOOD ISLAND, BIDDEFORD (1st CD) – The Biddeford Board of Selectmen initiated a maintenance request through the District in 2015 stating that a significant portion of the 6-foot anchorage and 10-foot channel had shoaled and were causing issues to local fishermen and the recreating public. The District

completed sampling of the project in 2016 and is currently working on a draft Environmental Assessment to determine an appropriate placement location of dredged material. Environmental coordination with Federal and state agencies began in January 2018 and led to a series of meetings concerning submerged aquatic vegetation in the Wood Island entrance channel. The District is currently compiling a matrix decision document to reduce, avoid, or mitigate the eelgrass resources which would need to be removed as a part of the maintenance dredging event. A Public Notice on the project is anticipated. Funding was provided in the FY17 work plan in the amount of \$150,000 to complete environmental coordination/permitting and start plans and specification documents leading to a solicitation.

BLUE HILL HARBOR, BLUE HILL (2nd CD) – The Blue Hill Board of Selectmen requested the New England District initiate a study under Section 107 of the River and Harbor Act of 1960 to determine the feasibility of implementing a navigation improvement project for Blue Hill Harbor. Currently, the Blue Hill Municipal Wharf is accessible only at high tide. The town requested creating a navigation channel to the wharf to serve the fishing fleet. This improvement would provide full utilization of the harbor's existing facilities for commercial fishing vessels by reducing inefficiencies and encouraging growth of the lobster industry. An initial appraisal report of Federal interest was approved by

the Corps headquarters office. The Corps and the town executed a Feasibility Cost Sharing Agreement in June 2015. Work on the feasibility study is ongoing and a draft report is expected to be released in *fall* 2019.

CAMDEN HARBOR, CAMDEN (1st CD) – The Camden Board of Selectmen requested the New England District initiate a study under Section 107 of the River and Harbor Act of 1960 to determine the feasibility of implementing a navigation improvement project for Camden Harbor. Currently, the Camden Harbor contains a Federal navigation project consisting of an inner and outer anchorage. The town requested construction of breakwaters across the outer harbor to further protect the harbor from wave action and storms. This improvement potentially would provide further protection of harbor anchorages and shore facilities and allow for expansion of commercial activities.

During the initial phases of this investigation, a depth survey in the vicinity of proposed breakwater locations was completed in 2012. In 2013, economic data that was requested from the town of Camden, waterfront facilities, and the commercial fishing fleet was compared with potential project costs to estimate and evaluate project cost-effectiveness. Economic justification was demonstrated by the analysis, and an initial appraisal report/Federal Interest Determination (FID) was completed in January 2016. The FID was provided to the town of Camden along with an estimate of the scope, cost, and cost-sharing requirements for a Feasibility Study. The town now has the opportunity to request that a full feasibility study be performed and would then co-sign a Feasibility Cost Sharing Agreement with the Corps and provide a 50% match to the feasibility analysis cost.

CAPE PORPOISE, KENNEBUNKPORT (1st CD) – Congressionally authorized portions of the FNP include the 15-foot-deep Mean Lower Low Water (MLLW) channel and anchorage, and the 6-foot-deep MLLW channel. The 15-foot MLLW channel and anchorage will be dredged to a depth of 10-feet MLLW and the 6-foot MLLW channel will be dredged to authorized dimensions. Approximately 30,000 CY of sediment are required to be removed to allow project users to maintain safe navigation in these portions of the FNP and return the 6-foot channel to authorized and maintained dimensions. Dredge material will be placed at the Cape Arundel Disposal Site.

The work will be performed by a private contractor utilizing a mechanical bucket dredge with scows under contract to the government. Construction is expected to take 2-4 months to complete between approximately Nov. 1, 2019 and March 15, 2020.

GREAT CHEBEAGUE ISLAND (1st CD) – The town of Great Chebeague Island requested the New England District initiate a study under Section 107 of the River and Harbor Act of 1960 to determine the feasibility of implementing a navigation improvement project for Great Chebeague Island at the town's stone wharf landing. In July 2014, the initial study was completed which indicates sufficient justification

to draft a plan of improvement and develop a scope of work for detailed feasibility efforts. The Corps and the town executed a Feasibility Cost Sharing Agreement in July 2016. Work on the feasibility study is ongoing and a draft report is expected to be released later in 2019.

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.

Congress authorized the project in the WIIN Act of December 2016. The Design Phase Cost Sharing Agreement between the USACE and the sponsor for the Preconstruction, Engineering, and Design (PED) effort was executed Nov. 13, 2015. Federal and sponsor funds have been received and design phase work is 95 percent complete. This project is awaiting federal funding.

SACO RIVER AND CAMP ELLIS BEACH, SACO (1st CD) – The New England District, in response to a request from the city of Saco and state of Maine, has completed a study of potential solutions to erosion problems at Camp Ellis Beach. The study was conducted under the authority of Section 111 of the River and Harbor Act of 1968, as amended, which provides authority for the USACE to address mitigation of shore damages where the USACE navigation project has contributed to an erosion problem on adjacent shorelines.

A Draft Decision Document and Environmental Assessment evaluating a range of options for Saco-Camp Ellis was published April 26, 2013 for public comment. The report recommended a shore damage mitigation project consisting of a 750-foot long spur jetty extending northerly off the existing north jetty at the river mouth, and placement of about 365,000 cubic yards (CY) of beachfill along the 3,250 feet of beach north of the jetty. The beach would require renourishment of about 116,000 CY every 12 years.

While Section 111 typically limits a project to \$10 million in Federal cost, Congress in the Water Resources Development Act of 2007 authorized the work at Camp Ellis to exceed this limitation, up to a Federal cost of \$26.9 million, the estimated project cost at that time. Cost estimates today place the cost of the proposed plan at about \$31 million.

The USACE has prepared a final report that has scaled-back the proposed project's beachfill component to reduce the project cost to no more than the \$26.9 million authorized limit. It is currently estimated that construction of the spur jetty and placement of about 170,000 cubic yards of beachfill could be accomplished within the \$26.9 million authorized limit. The cost of future periodic renourishment is currently estimated at \$48 million escalated over the 50-year economic project life. Completion of the initial beachfill volume from the original plan, and future renourishment would be at the election and cost of non-Federal interests.

The revised report was submitted to USACE Headquarters for review; however, final approval required a letter of support from the non-Federal project sponsor, the city of Saco. The city declined to support the project and further efforts on the Section 111 shore damage mitigation project have been suspended.

The District also is working on a project to dredge the authorized project for the Saco River. The President's FY 18 budget included \$4.2 million to dredge the river. The plan includes dredging the upper river using the government dredge MURDEN, and contracting out the use of a hydraulic dredge to complete the areas of shoaling at the entrance to the river. All environmental permitting for the upper and lower river dredging has been completed. The MURDEN arrived on Nov. 17, 2017 and dredged shoal material for 30 days but ran into significant debris within the river slowing production and preventing this portion of the project being completed. All dredged material was placed in a previously used naturally deep scour hole approximately ½ mile down river of the dredge area. Preparation of plans and specifications to dredge the lower river with a hydraulic dredge are complete. An option to remove the remaining material at the head of navigation which was not completed by the MURDEN in December 2017 by mechanical dredge is included in the solicitation.

A \$3.9 million contract was awarded Sept. 28, 2018 to H&L Contracting, Inc. LLC, of Bay Shores, New York. Approximately 41,000 cubic yards of required dredging, with another 36,000 cubic yards of 1-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 approximately 8,000 feet north to Camp Ellis Beach. Work was completed in spring 2019.

SEARSPORT HARBOR (2nd CD) – The District is working on a maintenance dredging project for Searsport that would involve removal of about 40,000 cy of material. The sponsor, MEDOT, has identified a potential upland area nearby that could hold the material. Additional sampling of the shoals will be obtained and will undergo testing. Based on

conversations with the non-Federal sponsor and the results of the testing the District anticipates a decision on disposal site selection could be made soon. Assuming the material is suitable for the chosen site we will initiate completion of an Environmental Assessment and coordination with state and Federal resource agencies this year.

WELLS HARBOR (1st CD) – The town of Wells requested dredging of Wells Harbor due to severe shoaling of the channels and anchorage, with navigation into and out of the harbor hazardous at lower stages of the tide. Sediment sampling and testing will occur this year. As funds become available a project Environmental Assessment (EA) will be developed and coordination with Federal, State, and Local resource agencies will commence. After the EA and all coordination efforts are completed, then dredging can be accomplished during the years that funds are appropriated.

YORK HARBOR (1st CD) – A contract was awarded to Prock Marine Co. in October 2017 to conduct mechanical maintenance dredging in the two 8-foot-deep anchorages and a portion of the 10-foot-deep entrance channel. Several derelict moorings also were removed by the contractor. Both commercial fishing boats and recreational boats are moored in the harbor. The work consisted of the maintenance dredging of approximately 40,000 cubic yards of primarily fine-grain sand, silt, and clay, with more coarse-grain sand and gravel from the channel, returning the Federal project to its authorized dimensions. The dredged material was placed at the Cape Arundel Disposal Site, about 14 miles away. The dredging started in late November 2017 and was completed in February 2018.

DISPOSAL AREA MONITORING SYSTEM (DAMOS) PROGRAM – *The DAMOS Program supports the Corps' 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. In Maine, this includes three regional disposal sites, a number of more infrequently used smaller sites, and several nearshore placement sites for beneficial re-use of dredged material. To better serve harbors in southern Maine, the DAMOS Program and New England District staff have supported EPA Region 1 over the past several years to designate a new regional site, and the Proposed Rule for designation of this site was published on Sept. 18, 2019 (see link below). The DAMOS Program will be surveying this proposed site in fall 2019 to provide additional baseline and reference area data in anticipation of its official designation and initial use in 2020.

<https://www.federalregister.gov/documents/2019/09/18/2019-20127/ocean-disposal-designation-of-an-ocean-dredged-material-disposal-site-for-the-southern-maine-new>

Ecological Restoration

PLEASANT RIVER SALT MARSH RESTORATION (2nd CD) – The New England District is working with the Maine Department of Transportation (MEDOT) to restore up to 250 acres of salt marsh on the West Branch of the Pleasant River under the Section 206, Aquatic Ecosystem Restoration Program. The existing culverts under Ridge Road restrict tidal exchange to this former estuarine habitat. New England District received funds in 2010 to begin the feasibility study. The Corps and the MEDOT executed a Feasibility Cost Sharing Agreement in August 2011. Work on the feasibility study is ongoing and nearing completion, but the study costs have exceeded the original study cost estimate and additional funding has been requested from the sponsor accordingly. The sponsor has agreed to provide the additional funding, but the study is currently on hold until the additional funding can be procured.

NARRAGUAGUS RIVER AQUATIC ECOSYSTEM RESTORATION, CHERRYFIELD, MAINE (2nd CD) – The New England District is working with the town of Cherryfield, Maine, along with several environmental non-

profit organizations, to modify the Cherryfield Dam for fish passage, restoring access to spawning and rearing habitat for several anadromous fish species. The study is being conducted under the authority of Section 1135 of the Water Resources Development Act of 1986, as amended, to modify Federal projects to improve the environment. The New England District and the town of Cherryfield executed a Feasibility Cost Share Agreement in December 2018.

The sponsor has provided funding that would allow the feasibility study to remain funded until year 2020, with the agreement that the sponsor will provide additional funding to carry the project to completion. The feasibility study will begin in October 2019, pending the completion of an Ice Flow Modeling Study of the Cherryfield Dam that is currently underway by the Cold Regions Research and Engineering Laboratory (CRREL). This CRREL study will likely provide information that can be used to narrow the range of alternatives that are currently established for the feasibility study, thus, the New England District has opted to review the CRREL study before beginning the feasibility study.

Special Studies

SILVER JACKETS HIGH WATER MARKS PROJECT – The Blizzard of 1978 resulted in \$20 million in damage to public and private infrastructure due to coastal flooding, tidal surge, and high winds. After the event, the USGS surveyed and cataloged approximately 100 high water marks (HWMs) along the coast.

The purpose of this project is to locate and validate the accuracy of these existing HWMs, re-survey and/or re-establish better locations when appropriate, and photograph and provide that data to stakeholders. This effort is currently focused on two communities (York and Portland) as part of a ‘pilot’ effort. If successful, it is the Maine Silver Jackets team intent to conduct similar efforts in other communities.

The city of Portland and town of York are in the final stages of completing their HWMs. Outreach websites also are being established for both communities. On May 18, 2019, the High Water Mark signs were unveiled in the city of Portland and in the town of York. The event was well covered.

SILVER JACKETS FLOODPROOFING PILOT STUDY – Gardiner’s entire National Register Historic District is located within the 100-year flood plain. A significant hurdle for the redevelopment of the downtown area is the rising cost of flood insurance. The city and the developers approached the Maine Silver Jackets team for technical support to address appropriate flood-proofing measures to support the redevelopment project and to act as a demonstration project for other properties in the community and throughout the state. A final report was completed by the Corps National Flood Proofing Committee in 2018.

MEDUXNEKEAG RIVER (2nd CD) – The Houlton Band of Maliseet Indians (HBMI) requested that the Corps of Engineers assist the Tribe with aquatic ecosystem restoration or large scale watershed management planning. The Corps prepared a reconnaissance (Section 905(b)) report describing opportunities to assist the Tribe. The report was approved by the Corps’ North Atlantic Division (NAD). The Tribe and the Corps executed a cost sharing agreement for a watershed management plan for the Meduxnekeag River Watershed on March 19, 2014.

The Corps, together with the Houlton Band of Maliseets, Maliseet First Nation and Meduxnekeag River Association scientists, conducted fish habitat assessments in the fall of 2014 and 2015. The Meduxnekeag Watershed Assessment and Study Plan final draft was received from the contractor in December 2018. Reviews are ongoing and a final report will be released later in 2019.

PASSAMAQUODDY TRIBE AT PLEASANT POINT (2nd CD) – The New England District has been conducting shoreline erosion investigations since 2016 through the Tribal Partnership Program (Section 203 of WRDA 2000) and Section 14 of the Continuing Authorities Program. Section 203 efforts have focused primarily on protection of Split Rock, an area of cultural significance to the tribe.

A report detailing alternatives to protect the site is expected to be released to the Tribe in 2019. Section 14 efforts have focused on protection of public housing further north. Feasibility study efforts are complete and final design efforts for the proposed rock revetment were initiated in the fall of 2018.

Support to the U.S. Environmental Protection Agency (EPA)

SUPERFUND ASSISTANCE – The New England District provides support to the U.S. Environmental Protection Agency (EPA) Region I's (New England) Superfund program. This includes responsibility for site investigations, design work, construction execution, and some operation and maintenance at Federal lead sites when our support is requested. In addition, the District provides other technical assistance (5-year reviews, real estate support, etc.) at removal and national priority list sites being addressed by EPA Region I. During the past few years, we have provided support to EPA on projects in **Acton (1st CD), Lewiston (2nd CD), Saco (1st CD), Meddybemps (2nd CD), South Hope (1st CD)** and **Corinna (2nd CD)**.

CALLAHAN MINE SUPERFUND SITE, BROOKSVILLE

– The Callahan Mine Superfund Site is located at a former open pit mine located in Brooksville, Maine. In the 1960s, the 75-acre Goose Pond Estuary was dammed and drained to facilitate open pit mining for zinc, copper, lead, arsenic and

cadmium. From 1967-1972, the 300-foot-deep open pit was mined resulting in the stockpiling of 2.5 million cubic yards of waste rock material, and the creation of a 21-acre tailing impoundment. The Goose Pond Dams were re-opened in 1972, and the mine pit is currently under water. The USACE New England District continues to provide technical support to U.S. EPA to evaluate remedial alternatives to address the tailing impoundment, waste rock piles, and contaminated groundwater and sediment. A \$45 million Indefinite Delivery/Indefinite Quantity (ID/IQ) contract was awarded on May 18, 2018 to address all of these, with the first task order under the ID/IQ focused on stabilization of the tailing pile. Field investigations were performed in late 2018 to assist in workplan development. Work planned for 2019 includes processing of rock for construction activities, tailing pile stabilization, and site wide operation and maintenance. Work in 2020 will include contaminated sediment dredging and capping of the tailing pile. The project team continues to work closely with stakeholders to minimize local impacts.

Regulatory Program

STATUS OF PROGRAM – 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 <https://www.nae.usace.army.mil/Missions/Regulatory/permits-Issued/>. 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: <https://www.nae.usace.army.mil/Missions/Regulatory/>. The Maine Project Office can be reached at 207-623-8367.

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 Maine RGP is available at: <https://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/>. The current version of the Maine General Permit expires on Oct. 13, 2020.

AQUACULTURE (1st & 2nd CDs) – Aquaculture has been present within the coastal waters of Maine since the 1800s. The first official aquaculture lease was issued by the Maine Department of Marine Resources in 1973. That farm was established for the purpose of cultivating salmonids and

blue mussels. Although finfish culture was unsuccessful, warm water temperatures and high productivity made the Damariscotta River an ideal site for growing shellfish. In the 1980s mussel and oyster aquaculture underwent a period of tremendous growth and expansion and continues to this day statewide. Mussel farming now spans the coast from Casco Bay east to the Jonesport area. Although cultured in estuarine waters along the coast, the Damariscotta River continues to be the premier location for oyster farming in Maine. Clams, scallops and urchins also are cultivated, on a smaller scale, in various locations in the state. New to the aquaculture industry in Maine, seaweed culture has established itself in several locations in Casco Bay and Maine seaweed is being actively marketed in restaurants, schools, and healthcare facilities for its numerous reported health benefits.

The development of finfish aquaculture lagged behind shellfish by 10 years or more. In the early 1970s coho salmon and rainbow trout were being raised in floating pens within the Wiscasset River and on Vinalhaven Island. In 1984, Ocean Products, Inc. established farms in the cold waters of Cobscook Bay at Eastport. Since then, Atlantic salmon farming has spread west to the Blue Hill Bay region. Salmon aquaculture in Maine is second only to Maine's lobster industry in terms of economic return. The industry has undergone major restructuring for a variety of reasons. There is currently only one company controlling four hatcheries and 29 finfish leases totaling 580.33 acres. Only 9 of these farm sites were active in 2010, reporting an overall harvest of nearly 25 million pounds at an estimated value in excess of \$73 million. This is down from 28 sites reporting a harvest of over 36 million pounds in 2000. Indirect spending (supply chain) and the high number of jobs created within the industry and its suppliers contribute

greatly to the tax revenues of the state. The bulk of this economic activity occurs in an economically depressed region of the state. The Corps has been actively involved with this dynamic industry since at least the mid-1980s. Working with state and Federal partners and the industry, we developed a joint application and siting guidelines and continue to work cooperatively with those partners on issues such as endangered species consultation, regulatory streamlining, containment, finfish marking and genetics, seabird interaction, bay management, minimizing navigational impacts, and improving public awareness. The majority of permit applications for aquaculture projects in Maine become eligible for the Maine GP, thereby reducing regulatory burdens on the industry. Two large land-based salmon aquaculture facilities are in pre-application planning and coordination at present. Located at a former paper mill site in Bucksport and at an undeveloped parcel of land in Belfast, each of these independent developers would construct rearing and holding tanks with associated infrastructure in indoor facilities, thereby eliminating the need for ocean based pen systems. State and federal permit applications *are in process*.

HARBOR MANAGEMENT (1st & 2nd CDs) – The Maine Project Office and District staff continue to work closely with the state’s harbor masters in the area of harbor management. The Corps is an annual presenter at the Maine Harbor Masters’ Association annual training at Castine. We are working actively with a number of communities which sponsor federal navigation projects, thereby facilitating continued federal maintenance. We also routinely provide advice on harbor ordinances, mooring issues, and user conflicts and assist the U.S. Coast Guard in related outreach efforts. The 2019 training was held March 6-8 at the Maine Maritime Academy in Castine, Maine.

MAINE AQUA VENTUS OFFSHORE WIND PROJECT (1st CD) - Maine Aqua Ventus I, GP, LLC, is leading a demonstration project called Maine Aqua Ventus I, a 12 MW floating offshore wind pilot project to develop a renewable energy source off Maine’s shores. Project participants include Cianbro Corporation, the University of Maine, and DCNS Energy.

Subject to future grant funding, this demonstration project would deploy two 6 MW turbines on floating concrete semi-submersible platforms designed by the University of Maine, south of Monhegan Island, off the coast of Maine. Each floating hull/turbine will be held in position in the ocean by three marine mooring lines securely anchored to the seabed, with the electrical generation connected by subsea cable to the Maine power grid on shore. The floating offshore wind turbine platforms and column segments will be fabricated and assembled at an existing industrial facility adjacent to the Penobscot River in Hampden. Turbine components will be assembled on the hull in Searsport and subsequently towed to the University of Maine Deepwater Offshore Wind Test Site at Monhegan Island. An interconnection alternate current (AC) cable will join the turbines, and then connect to a 34.5 kilovolt (kV) subsea power cable extending from the test site to a proposed onshore transition point. Several

routes to the mainland are currently being evaluated.

Once installed, the turbines are expected to produce clean renewable energy for the duration of a 20-year power purchase agreement (PPA). Successful demonstration of the technology has the potential to lead to a 500 MW-scale project placed in U.S. federal waters. The project proponent is committed to not developing any future larger scale projects within 10 miles of an inhabited island or peninsula along the coast of Maine. Maine Aqua Ventus has received \$10.7 million from the U.S. Department of Energy (DOE), and is eligible for additional federal funding after meeting project milestones, subject to progress reviews. The operation, maintenance and eventual decommissioning of the proposed project are considered connected actions and will be analyzed by DOE in an Environmental Assessment (EA). DOE and the applicant are committed to collaboration with state regulatory and resource agencies including: Maine Department of Environmental Protection and Maine Department of Marine Resources, U.S. Fish and Wildlife Service, NOAA, U.S. Army Corps of Engineers, U.S. Coast Guard, and others. Public scoping sessions were held in February and March 2017. There is no schedule from DOE for the draft EA and future funding remains undetermined. Federal and state permitting processes will follow publication of the draft EA. Further coordination from the applicant has been stagnant since 2018.

MAINE ATLANTIC SALMON IN-LIEU FEE PROGRAM (1st & 2nd CDs) - The Regulatory Division worked with the U.S. Fish and Wildlife Service (USFWS), Maine Department of Marine Resources (MEDMR), and the Maine Department of Transportation (MEDOT) to develop an agreement for use of an in-lieu fee (ILF) program to provide an alternative to permittee-responsible mitigation when the Corps requires mitigation for stream impacts and/or projects involve coordination with the USFWS for impacts to the endangered Atlantic Salmon. The ILF program provides applicants an efficient and workable alternative to permittee-responsible mitigation of paying a fee, if the USFWS and/or District, in consultation with the other federal resource agencies, agree it is the best alternative, taking into account the Mitigation Rule issued by the Corps and EPA in April 2008. The fees collected through the ILF program will be aggregated by Salmon Habitat Recovery Unit which cover a large portion of the state of Maine. The funds must be used within a specified time period to restore, create, and enhance aquatic resources and/or preserve aquatic resources and their associated uplands to benefit the Atlantic salmon. A public notice soliciting comments on the prospectus for this program was issued on March 28, 2017. After addressing comments, the sponsor, MEDMR, was authorized by the Corps to draft the program instrument and on May 16, 2018 to develop the final instrument. The instrument was fully signed by the Corps, USFWS, and MEDMR on Sept. 20, 2018 and is now available for use by permit applicants.

MAINE DOT UMBRELLA MITIGATION BANK (1st & 2nd CDs) – The Maine Department of Transportation (Maine DOT) has established an Umbrella Mitigation Bank with a site on Sears Island as the first proposed deposit into the

bank. The Maine Umbrella Mitigation Banking Agreement (MUMBI) was signed by both Maine DOT and the Corps on Aug. 24, 2011. On Aug. 1, 2013, Maine DOT submitted a prospectus for a second site proposed for addition to the bank: Sherman Marsh in Newcastle. Maine DOT was unable to address the Interagency Review Team's concerns about an adequate buffer to the aquatic resources. Maine DOT withdrew the proposal in December 2017.

MAINE VERNAL POOL SPECIAL AREA MANAGEMENT PLAN (1st & 2nd CDs) – The University of Maine developed a proposed Maine Vernal Pool Special Area Management Plan (VP SAMP) in partnership with the Regulatory Division of the New England District; the Maine Departments of Inland Fisheries and Wildlife, Environmental Protection, and Agriculture, Conservation and Forestry; the U.S. Fish and Wildlife Service; the U.S. Environmental Protection Agency; the Maine towns of Orono and Topsham; and representatives of the real estate, development, and land trust communities. The VP SAMP is an alternate mitigation mechanism to address anticipated permitting and compensatory mitigation needs to improve the long-term management of vernal pools.

The Maine VP SAMP improves the agencies' capacity to protect the natural resource functions and values of vernal pools at a landscape scale while supporting municipal goals for growth. The Maine VP SAMP supports municipal growth by allowing vernal pool impacts in municipally Designated Growth Areas (DGAs) in exchange for conservation activities in municipally identified Rural Areas. The Maine VP SAMP promotes the meaningful conservation of vernal pools and surrounding habitat by applying landscape level conservation principles and assessment criteria to identify high value conservation targets in Rural Areas. Public comment on the Maine VP SAMP was solicited via a March 8, 2016 public notice and through a May 12, 2016 public informational meeting. The VP SAMP protocol was signed by the District Engineer and Maine DEP on Aug. 26, 2016 and Sept. 6, 2016, respectively.

Municipalities interested in using the VP SAMP must meet specified requirements and then must sign the VP SAMP along with the Corps and Maine DEP. The towns of Topsham and Orono are the first communities working to implement this novel approach but the Plan is intended to be available to towns statewide. The town of Topsham was delegated the authority to regulate vernal pools in their Designated Development Area by the Maine Board of Environmental Protection (MBEP) on May 17, 2018. The VP SAMP was fully signed by the town, Maine DEP, and the Corps on June 6, 2018 and is now available for use. The town of Orono was delegated the authority to regulate vernal pools in their Designated Development Area by the MBEP on April 3, 2019, provided they make two amendments to their town ordinances. The VP SAMP was fully signed by the town, Maine DEP, and the Corps on April 19, 2019.

MAINE WETLAND IN-LIEU FEE PROGRAM (1st & 2nd CDs) – The Regulatory Division worked with the Maine Department of Environmental Protection (MEDEP) and the

Maine Office of The Nature Conservancy (TNC) to develop an agreement for use of a program to provide an alternative to permittee-responsible mitigation when the Corps requires mitigation. The In-Lieu Fee (ILF) Agreement utilizes Maine's "Natural Resource Mitigation Fund" to provide this. Site-specific mitigation for many permitted projects has had limited ecological value due to their size, location, and/or permittee's ability to provide appropriate stewardship. The ILF program provides applicants an efficient and workable alternative of paying a fee, if the District, in consultation with the federal resource agencies, agrees it is the best alternative, taking into account the Mitigation Rule issued by the Corps and EPA in April 2008. This Rule provides a 'soft' preference for mitigation banking and ILF programs over permittee-responsible mitigation. The fees collected through the ILF program are aggregated by bioregion within the state of Maine and must be used within a specified time period to restore, create, and enhance aquatic resources and/or preserve aquatic resources and their associated uplands. The original Maine In-Lieu Fee Agreement was signed on Jan. 31, 2008. MEDEP, with the assistance of their program administrator, TNC, developed a revised ILF instrument that complies with the Mitigation Rule. It was signed by MEDEP and the Corps and became effective on Sept. 21, 2011.

The program has now gone through 10 granting cycles. In November 2018, \$1.47 million was granted to nine projects located in five service areas: Aroostook Hills and Lowlands, Central and Eastern Lowlands, Central Interior and Midcoast, Downeast Maine, and Southern Maine. Since the start of the project, approximately \$19 million has been collected in fees to date and approximately \$13 million has been granted for compensatory mitigation projects. On May 30, 2019, a Request for Proposals was issued for the 2019 grant round. *The initial screening of proposals by the Review Committee is scheduled for Oct. 9, 2019.* Details on the program, all the approved projects, and permits using the program, are available at <https://ribits.usace.army.mil>. Additional information is available at www.mwrcp.org and www.nature.org/ourinitiatives/regions/northamerica/unitedstates/maine/explore/mnrpc.xml.

PUBLIC OUTREACH (1st & 2nd CDs) – In addition to ongoing coordination with Maine's harbor masters, the Maine Project Office staff participates in numerous public outreach sessions. These include but are not limited to university career days, the Maine Fishermen's Forum, the Rockland Lobster Festival, Nation-to-Nation Tribal Outreach, regional/state dredging committee meetings, numerous public meetings and hearings, and local/regional transportation planning committee meetings. A number of these are in support of other divisions or branches within New England District. In FY 2018, MPO staff participated in the following outreach: Maine Audubon Society's Stream Smart Road Crossing Workshops; Maine Code Enforcement Officers' Vernal Pool Workshop; the Maine Harbor Master Association Training; Maine DMR aquaculture stakeholder outreach; the Maine Association of Wetland Scientists Annual Meeting; and the Maine Association of Professional Soil Scientists Annual Field Workshop. Similar workshops with these groups are scheduled for 2019.

STREAM CONNECTIVITY RESTORATION ACTIVITIES (1st & 2nd CDs) – Over the last 200 years, Maine’s history of dams, log drives, stream channelization, sedimentation and poorly constructed road-stream crossings have altered and eliminated access to important Atlantic salmon habitat (NMFS 2005). Since 2009, Atlantic salmon and its Critical Habitat in Maine have been listed under the federal Endangered Species Act (ESA).

The Maine Project Office in partnership with FEMA, the U.S. Fish & Wildlife Service, and the U.S. Forest Service are actively coordinating in the development of an Atlantic salmon habitat conservation plan focusing on Stream Simulation design road-stream crossings to restore stream connectivity within the state of Maine. The Corps and FEMA are required to consult with the Service on any federal action that may affect listed species or critical habitat pursuant to Section 7 of the ESA. Traditionally, this consultation can delay Corps permitting and FEMA actions. Lengthy interagency coordination has now resulted in a programmatic approach

to Section 7 consultation, specific to stream connectivity restoration projects, thereby substantially reducing the consultation timeline and subsequent permitting and FEMA funding processes.

This programmatic approach will provide the Corps and FEMA with a consistent methodology and appropriate criteria for implementing, documenting, evaluating, and monitoring stream connectivity restoration activities in a manner that is consistent with the long-term conservation needs of the species. In addition, this approach facilitates ESA section 7 consultation with FWS, providing information of sufficient detail and quality to support the appropriate FWS analysis and help streamline efforts that lead toward the attainment of Atlantic salmon habitat/stream connectivity goals. Although this effort focuses on Atlantic salmon, improvements to habitat connectivity will greatly benefit other aquatic organisms, too. For information refer to: <http://atlanticsalmonrestoration.org/news-announcements/atlantic-salmon-recovery-news-releases/streams-crossing>.

Interagency and International Support

INTERNATIONAL JOINT COMMISSION AND INTERNATIONAL ST. CROIX RIVER WATERSHED BOARD – The International Joint Commission (IJC) is an independent bi-national organization established by the Boundary Waters Treaty in 1909 with the purpose to help prevent and resolve disputes relating to the use and quality of boundary waters and to advise Canada and the United States on related questions. The IJC carries out their mission in part through local Boards established across the U.S./Canadian Boundary. The St. Croix River forms a boundary between New Brunswick, Canada and northeastern Maine. The Corps’ New England District Commander is a co-chair of the Board, along with a Canadian co-chair. The Board’s mandate is to proactively assist the Commission in preventing and resolving disputes regarding the boundary waters of the St. Croix River, to monitor the ecological health of the St. Croix River boundary waters aquatic ecosystem, and to ensure compliance with the Commission’s Orders of Approval for structures in the St. Croix River.

The Board prepares an annual report to the IJC on the St.

Croix River. These annual reports and additional information on the IJC and the Board activities are available at the IJC sponsored website: <https://www.ijc.org/en/scrwb>.

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 VA facilities in New England. Current or recent VA projects are located in Massachusetts, Rhode Island and Connecticut.

Conservation and Environmental Enhancement

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 cleanup of hazardous and toxic waste; unexploded ordnance; and unsafe buildings, structures and debris at current and former military facilities. One hundred and eighty-one formerly used defense sites have been identified in Maine. Site and project eligibility investigations

at 180 sites are now complete, including 92 where no work was found to be necessary. The remaining site, which will be scheduled for investigation in the future when funds become available, is Area Mike Bombing Range, **North Berwick (1st CD)**. Of the 88 sites where work was needed, the following efforts are underway.

A meeting with the MEDEP regarding the former **Dow Military Airfield (2nd CD)** (located at the Bangor

International Airport) concluded that the project should focus on investigating the two former underground storage tank (UST) sites nos. 1 and 2 (UST 1 & 2) and at a drum dump within the previously identified Fire Training Site. The projects involve both petroleum and trichloroethene contamination that remains following the removal of the tanks in the early 1990s. This contamination does not appear to pose a significant human health risk. The site was beneficially used by the airport; consequently, they are a potential responsible party (PRP). Internal USACE legal and programmatic discussion is on-going regarding DoD liability and USACE position on future work on the property. A contract was awarded to Avatar Environmental in June 2011 to conduct a Remedial Investigation (RI) at the Dow Former UST Sites 1 & 2. The RI Workplans were finalized in October 2012. In June 2014, USACE received a letter from MEDEP indicating that no further DOD action is required at the UST Site 1. Avatar Environmental revised their Workplans accordingly, and completed field work at UST Site 2 in September 2014.

The summary of results report has been reviewed by the Maine Department of Environmental Protection (MEDEP). Additional investigations for a limited subsurface investigation were completed in October/November 2016. A report summarizing the results was reviewed by Maine DEP and the city of Bangor, and has been finalized. Maine DEP recommended that notification of potential subsurface soil petroleum-related contamination be identified using signage and/or a deed notification for this area. The city of Bangor has agreed to implement the deed notification. No further investigative work is anticipated for this project. Closure of *installed* monitoring was completed in May 2019, and the project was closed out in the DERP-FUDS Program in September 2019.

A revised inventory Project Report (INPR) was signed in May 2015. Two projects (Fuel Filter/Drum/TCE Disposal Area and Salvage Yard) were identified as HTRW projects (without PRP issues). A contract was awarded to Mabbett & Associates in September 2016 to conduct a Remedial Investigation (RI/FS) at the Dow Fuel Filter/Drum/TCE Disposal Area. A Phase 1 investigation under this contract was conducted in the fall of 2017.

An investigation of the Salvage Yard site began in 2018. USACE has determined that the remaining areas (e.g., Fire Training Area and Landfill) are PRP projects.

The **NIKE LO-13 (Launch and Control sites), Caswell; Loring AFB Comm Annex #2, Perham; Loring AFB Laundry Annex, Presque Isle; The NIKE LO-13 (Launch and Control Site), Loring AFB Communications Annex, and Loring AFB Laundry Annex** are each undergoing a Remedial Investigation by the Corps contractor, Credere Associates, LLC. Historical analytical data from these sites have recently been reviewed and data gaps identified by Credere Associates, LLC. To develop a Proposed Plan/Decision Document, additional soil and groundwater samples are required to fulfill the Risk Assessment (RA) *analytical requirements*. Limited field activities planned in fall 2016

included soil borings and soil sampling at the NIKE LO-13 Launch site and the Loring AFB Laundry Annex. Residual petroleum contamination was detected at the Loring AFB Laundry Annex site during investigative field activities in fall 2016. Site investigations at both the LO-13 Control Site and the Laundry Annex were performed in July 2017.

The Final Remedial Investigation (RI) report for the Communications Annex with the finding of No Further Action was accepted by the MEDEP. *The installed monitoring wells were decommissioned in July 2019 and the project was closed out in the DERP-FUDS Program in September 2019.*

The Draft Laundry Annex RI is currently being reviewed by the MEDEP. The Nike LO-13 Launch and Control Site Draft RI is currently in preparation for review by the MEDEP.

The LO-58 Caribou, Remedial Investigation/Feasibility Report was finalized in February 2017 and a Proposed Plan was prepared in June 2018 followed by a public meeting on July 18, 2018. The Proposed Plan supports Long Term Monitoring for groundwater and indoor air along with operation of a Granulated Activated Carbon (GAC) at the Adult Multiple Alternative Center (AMAC) in order to remove trichloroethylene (TCE) and other volatiles. Additionally, a vapor mitigation system will be installed. The Decision Document has regulatory concurrence and was expected to be signed in 2019. These 5 Maine sites are all in the 2nd congressional district.

A Site Investigation (SI) at the Caswell Air Force Station was completed in 2019. The SI conclusions recommended a remedial Investigation for the project. A contract has been awarded for the RI. Work plans will be developed in 2019, and field work is anticipated for spring 2020.

For the **Bucks Harbor Former Air Force Radar Tracking Station and Former Ground/Air Transmitter/Receiver (GATR) Site (2nd CD)** in Machiasport, Maine, the project includes investigation at three separate sites. These sites are the **Howard Mountain**, the **Miller Mountain** and the **Transmitter sites**. This separation of sites is based on the different geology, groundwater chemistry and TCE sources at each location. This effort will facilitate the selection and design of a long-term solution for the **Air Force Radar Tracking Station** in Bucks Harbor.

The Corps has developed a Proposed Plan for the Site and completed a Proposed Plan public meeting on May 5, 2016. The recommended alternative will include long term groundwater monitoring, monitored natural attenuation, well head treatment (or connection to an alternate water supply) for impacted residents, and institutional controls. The recommended alternative will include the provision for providing an alternate water supply for the five (5) affected residents in the Howard Mountain vicinity. The Corps will be responsible for maintaining the water line from the Downeast Correctional Facility (DCF) water supply.

Colby Engineering has completed a Request for Proposal (RFP) package with a partial design with concept plans with

the general layout, dimensions, and orientation of the water line and system. USACE awarded (in July 2017) the design-build construction contract to install the water line. The Basis of Design specifications were completed in February 2018. The water line was anticipated to be installed in May 2018; however, the Downeast Correctional Facility (DCF) was unexpectedly closed in February 2018. Therefore, the design-build contract was suspended in February 2018, as the state of Maine determines the disposition of the DCF property.

The on-going groundwater-monitoring program includes sampling and testing of water samples from residential drinking water wells and monitoring wells. Additionally, USACE has performed vapor intrusion investigations at occupied DCF and Federal Aviation Administration (FAA) buildings and residential properties at the site. The results of these investigations concluded that there is currently no risk to the building occupants due to vapor intrusion of contaminants from the groundwater media to the indoor air. The Decision Document was finalized/signed in June 2017.

The Corps has completed a remedial investigation/feasibility study to evaluate trichloroethylene (TCE) contamination at the former **Air Force Ground/Air Transmitter Station in Glenburn (2nd CD)**. TCE concentrations have been detected in the groundwater in the general area surrounding the site.

The Proposed Plan public meeting occurred in August 2014, with a public comment period extending from Aug. 4 to Sept. 8, 2014. The site Decision Document was signed by USACE Headquarters in February 2016. The selected remedy includes monitored natural attenuation, long term groundwater sampling, indoor air analysis, and land use controls. The Corps currently is working on implementation of the selected remedy components (including on-going

vapor intrusion investigations, which were completed in March 2018; and installation of a bedrock monitoring well which was completed in November 2016).

CONSTRUCTION – Work at the former **Naval Fuel Depot, Long Island (1st CD)** is complete. A site closure letter has been received from the Maine Department of Environmental Protection (MEDEP).

In the past number of years, dating back to the program's start in the mid-1980s, work has been completed at:

First District

Great Diamond Island, **Portland**
Thompson's Point, **Thompson**
Peak's Island, **Portland**
Forts McClary and Foster, **Kittery**
Jewell and Peaks Islands, **Portland**
Fort Baldwin Military Reservation, **Phippsburg**
Gerrish Island Fire Control Station, **Kittery**
Merriam Point Fire Control Station, **Portland**
Fort Preble, **South Portland**
Former Fuel Depot, **Long Island (Portland)**
Cape Elizabeth Fire Control Station
Fort Levett on **Cushing Island**
Fort Preble in **South Portland**
Former Fuel Depot, **Long Island**

Second District

Dow Military Air Field, **Bangor**
Charleston Air Force Station
Bangor Ammunition Storage Annex
Former **Presque Isle** Air Force Base
Former **Caswell** Air Force Base
Loring Air Force Base Outer Marker Annex, **Fort Fairfield**
Laundry Annex, **Presque Isle**
Communications Annex, **Perham**
Nike Site LO-31, **Limestone**
Nike Site LO-58, **Caribou**
Nike Site LO-85, **Connor**
Nike Site LO-13, **Caswell**
Presque Isle Air Force Base, **Presque Isle**
Air Force Radar Tracking Station, **Bucks Harbor**
Air Force Ground/Air Transmitter Station, **Glenburn**

