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Building Strong

®

President's Fiscal Year 2019 budget for Corps in New England would continue operations, fund Boston Harbor deep draft improvements

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Yankee Voices

Michael Andryuk, Engineering and Bob Casoli, Construction



Buffumville Lake New Junior Ranger Program

Do your kids enjoy being outside? Have they ever thought about being a Park Ranger? NEW to 2018 is the JUNIOR PARK RANGER PROGRAM at Buffumville Lake and Hodges Village Dam! Park Rangers will be offering many different programs this year to Junior Rangers and to the public.

If your Junior Ranger completes five items in the 2018 passport they can earn their Junior Ranger Patch!

Passports are available at the Buffumville Lake office.

Words Worth Repeating

"Faith is taking the first step, even when you don't see the whole staircase."

- Martin Luther King Jr.

"Mountaintops are for views and inspiration, but fruit is grown in the valleys."

- Rev. Billy Graham

Corps awards contract to design, construct System Management Engineering Facility on Hanscom Air Force Base

by Timothy Dugan
Public Affairs Office

A System Management Engineering Facility will be constructed at the Hanscom Air Force Base in Bedford, Massachusetts, under the terms of a \$16,977,000 design-build contract issued recently by the New England District. Work will be accomplished by J&J/BBIX Joint Venture of North Billerica, Massachusetts. Notice to proceed was issued Jan. 10, and preparation to initiate design work is underway. Major construction is anticipated to start about 6-8 months after the start of design work and some construction activities, such as building demolition and parking lot construction, may be "fast tracked" and initiated sooner. The contract was awarded on Oct. 23, 2017.

This project consists of construction of a new System Management Engineering Facility (SMEF) to replace aging structures built in 1953-1955. The new SMEF will be located on base adjacent to existing building 1604 which was constructed as the first phase of this two-phase project. Building 1604, which is complete, created a new 2-story, 30,000-square-foot office building. The second phase will add an additional 40,000 square feet to building 1604. Additionally, as part of the SMEF project, existing buildings 1600, 1605 and 1729 will be demolished after the current occupants are moved to the new SMEF building.

The System Management Engineering Facility design and construction will use economical design and construction methods compatible with applicable Department of Defense, Air Force and base design standards. The project will include design and construction of the SMEF addition, which is primarily office space, new access road, landscaping, site improvements, and necessary utilities and communications systems.





The Fox Point Hurricane Barrier and the Woonsocket Dam, both in Rhode Island, are part of the Fiscal Year 19 budget.

Fox Point Photo by John MacPherson. Woonsocket Photo by Joe Zanca.

President's FY19 budget for Corps in New England would continue operations, fund Boston Harbor deep draft improvements

by Timothy Dugan
Public Affairs Office

With the release of the President's Budget for fiscal year 2019 for the U.S. Army Corps of Engineers Civil Works on Feb. 12, the Corps' New England District looks forward to continued operations and funding in fiscal year 2019 that starts on Oct. 1.

In Connecticut, the budget proposes continuing funding for the operation and maintenance of the eight Corps-managed flood risk management reservoirs, the Stamford Hurricane Barrier, and for project condition surveys and inspection of completed works.

In Massachusetts, the budget proposes continuing funding for operation and maintenance of the 12 Corps-managed flood risk management reservoirs, the Cape Cod Canal and the New Bedford Hurricane Barrier.

Additionally, the budget proposes \$15.1 million for construction of the Boston Harbor Deep Draft Improvements and \$7.1 million for dredging the federal navigation project. It also provides funding for project condition surveys and inspection of completed works.

In New Hampshire, the budget proposes continuing funding for operation and maintenance of the six Corps-managed flood risk management reservoirs and funding for project condition surveys and inspection of completed works.

In Vermont, the budget proposes continuing funding for operation and maintenance of the five Corps-managed flood risk management reservoirs and funding for inspection of completed works.

In Rhode Island, the budget proposes continuing funding for operation and maintenance of the Fox

Point Hurricane Barrier and Woonsocket Flood Risk Management projects, and \$2.5 million for maintenance dredging of the Block Island Harbor of Refuge and \$350,000 to dredge the Great Salt Pond. It also provides funding for project condition surveys and inspection of completed works.

In Maine, the budget proposes funding for disposal area monitoring, inspection of completed works, project condition surveys and surveillance of northern boundary waters.

Additionally, the New England District will receive funding from its higher headquarters for Regulatory permitting activities and the Continuing Authorities Program and other work. Projects can be looked up by state.

The FY19 USACE Civil Works Budget Book is available for review online at: <http://www.usace.army.mil/Missions/CivilWorks/Budget.aspx>.

District awards contract to continue with Elizabeth Mine cleanup

The Elizabeth Mine in South Stafford, Vermont has transformed from a detriment to aquatic life to an award winning environmental project. The New England District and its contractors continue to improve the site.

The District awarded a \$25 million Indefinite Delivery Indefinite Quantity (IDIQ) contract to Nobis Engineering on Dec. 19, 2017 for that purpose. Efforts under the new IDIQ will include cleanup in the Lord Brook Source Area, including closure of an open pit lake, closure of mine adits/entrances, and long term passive treatment of any remaining contaminated discharge. Nobis Engineering, Inc., a small business firm from Concord, New Hampshire, had previously installed the tailing pile cap in 2011 and 2012 and performed wetland mitigation in 2013. The U.S. Environmental Protection Agency is funding the work.

Elizabeth Mine is one of the largest and most intact historic mining sites in New England. "The Elizabeth Mine Superfund Site is located in Strafford, Vermont," said project manager Stephen Dunbar. "It is an abandoned copper and iron-sulfate mine that operated from 1806 until 1958. The operations started as open-cut type mining with underground mining starting in 1886. Between 1830 and 1930, about 250,000 tons of ore were mined, from which about 10.5 million pounds of copper were produced. From 1943 to 1958, three million tons of ore were mined, producing more than 90 million pounds of copper. All mining operations ceased in February 1958. At the end of its operation, the mine was abandoned without any closure measures to restrict access or to prevent run-off from entering the mine. In addition, there

were 40 acres of exposed tailing piles (TP) which were still producing acid mine drainage. The acid run-off was causing water quality problems in receiving waters of the drainage, Copperas Brook, and downstream in the west branch of the Ompompanoosuc River."

The U.S. Environmental Protection Agency (EPA) approached the New England District for assistance in 1999, beginning a long and massive cleanup effort. "Starting in 2005, EPA Region 1 retained the New England District to design and cleanup the Superfund site," said Dunbar. "The New England District project delivery team (PDT) initially focused their efforts on constructing surface water and groundwater diversion structures, stabilizing the steep slopes of the tailing piles, and capturing and treating the contaminated discharge."

Nobis has previously completed building demolition/abatement compliant with historic preservation requirements, re-graded the 43 acre site, constructed an engineered cap over 3 million cubic yards of waste, and treated millions of gallons of acid rock drainage and iron-impacted water.

Green Remediation Strategies implemented during construction received the Chief of Engineer's Green Dream Team Award in 2014.

The 43-acre cap has been re-utilized by a private firm for a solar array providing enough electricity for about 1,200 homes annually.

Work on the Lord Brook Source Area is set to begin in March 2018 and will continue through the CY 2019 construction season.



The 43-acre cap at the Elizabeth Mine has been re-utilized by a private firm for a solar array providing enough electricity for about 1,200 homes annually.

Photo provided by Steve Dunbar.



A dredge excavates material from the North Cove Federal Navigation project.

North Cove Dredging in Old Saybrook continues

Story and Photo by Craig Martin Navigation Section

As one of the predominant small harbors at the mouth of the Connecticut River in the early 1900's the North Cove Federal Navigation Project in Old Saybrook, Connecticut has seen its use slowly change over the years from a harbor of refuge for light commercial vessels at its inception to a fleet almost entirely comprised of small to medium sized recreational vessels used mainly from the spring through fall months. The project has been maintained a number of times since it was authorized, with the most recent past dredging event in 2008. At that time, 175,000 cubic yards of sediment were removed, but due to funding constraints the authorized dimensions of the project were not obtained. The current cycle of maintenance was initiated by the town of Old Saybrook when availability of the project began to be impacted during times of low tide.

Dredging areas include the 11-foot

deep entrance channel, 11-foot deep anchorage and 6-foot deep anchorage. DonJon Marine Company, Inc., of Hillside, New Jersey, is performing the work under a \$4,283,562.50 contract awarded Sept. 20, 2017. The company began dredging activities on Nov. 14, 2017, and has removed about 230,000 cubic yards of material from the project so far. Approximately 286,000 cubic yards of predominantly silty sediment will be removed by mechanical dredge.. Approximately 56,000 cubic yards of material still needs to be dredged from the 6-foot anchorage area by the coordinated dredging window ending on March 31.

The state of Connecticut is the sponsor for the project and bonded \$7.5 million in 2015 for permitting, design and construction of the maintenance dredging project. The project sponsor was instrumental in getting the funding needed to move forward with the project. With the extensive number of shallow draft projects nationwide

competing for limited federal funding, this maintenance event would not have been possible without the financial support of the state of Connecticut and commitment of its Port Authority to make it happen. This project is unique for the District employing a second trans-loading dredge to transfer shoal material from small hopper scows used to access shallow portions of the project to large capacity dump scows.

After the trans-loading process is complete the large dump scows are hauled to the Central Long Island Sound Disposal Site, about 35 miles away from the project, and placed at predesignated coordinates. Additionally, the project will deploy a turbidity curtain during the latter stages of the project to allow dredging to continue into time of year restrictions to protect sensitive species.

Despite equipment breakdowns and cold weather resulting in several inches of ice within the project, the contractor expects to complete the project this dredging season.



Photo by Michael Riccio

The center section of the Nantasket Beach seawall will be fortified as part of the Nantasket Beach Hurricane and Storm Damage Reduction project.

Nantasket Beach Hurricane and Storm Damage Reduction Project is set to begin

A seawall at Nantasket Beach will have its center section fortified as part of the Nantasket Beach Hurricane and Storm Damage Reduction project in Hull, Massachusetts. George R. Cairns & Sons, Inc., of Windham, New Hampshire will do the work under a \$2,696,200 contract. “The project consists of installing an approximately 2,200-linear-foot stone toe revetment along the seawall at Nantasket Beach Reservation on Hull Shore Drive,” said Project Manager Michael Riccio.

The Nantasket Beach seawall was built in 1915 and is owned and maintained by the Massachusetts Department of Conservation and Recreation (DCR). Although the seawall has been relatively stable and well-maintained since its construction,

over the last 25 years, undermining of the seawall footing caused by long term erosion has resulted in several partial failures along the northern and southern sections.

Damaged sections have since been rebuilt and shored up by the DCR through emergency actions but the remaining 2,200 feet of undamaged seawall has remained unprotected and is still vulnerable to erosion and future undermining. This project will shore up the remaining 2,200 linear feet, resulting in stabilization along the entire length of the Nantasket Beach seawall.

The New England District and the DCR executed a Project Partnership Agreement in April 2016 for the final design and construction of the project.

According to Riccio, work on

the revetment will include shoreline excavation of about 27,000 cubic yards of beach material, placement of approximately 4,000 square yards of geotextile fabric, placement of about 1,600 cubic yards of ground and crushed stone, placement of about 4,000 cubic yards of 350-pound stone, placement of approximately 10,000 cubic yards of 2-3 ton armor stone, placement of approximate 30, 6-foot by 3-foot by 2-foot granite slabs, and backfilling of the revetment with excavated beach material.

The Massachusetts Department of Conservation and Recreation manages the beach and is the project sponsor. Construction is set to begin by the end of February 2018 and is expected to be completed by the end of May 2018.



Animal Trekkers prepare to head out to find some animal tracks.



Trekker Natalie kept notes for the participants while they searched for animal tracks.



Children step on an ice-covered puddle and measure the thickness for safety.

Photos courtesy of West Hill Dam

West Hill Dam Rangers host young and old on Animal Trek

Several families, Scouts from Douglas, Massachusetts, advanced Junior Rangers and volunteers joined the West Hill Dam team for an animal trek held at the project site in Uxbridge, Massachusetts, Jan. 14. The Animal Trek is one of West Hill Dam's many interpretive programs the team holds throughout the year.

Participants young and old grabbed their rulers and footprint charts and headed out with Park Rangers for a family friendly hike to find animal tracks. "We located deer and dog tracks mostly," said Park Ranger Viola Bramel. "There were no birds near the open water on the West River. We found several scat piles (animal excrement) on our track."

One little girl, Natalie, brought her field journal with her and kept notes for the group, according to Bramel. "She recorded the weather with symbols she drew in her journal," said Bramel. "For example, she drew a sun to signify it was sunny out."

As they walked, the Park Rangers discussed the importance of ice safety. "It was eye opening when some

of the kids jumped on an ice-covered puddle to measure the ice," said Bramel. "They measured the thickness, which was only half an inch."

Bramel said the Park Rangers told the trek participants that ice had to be at least 4-inches thick for a person to walk on it safely. "They took out their rulers and visualized the safe measurements for ice," said Bramel.

To continue with the ice theme, as trekkers took measurements of the animal tracks they found, Park Ranger Mark Larson discussed the weekend operations at the Woonsocket and West Hill Dams due to ice jams and other related weather conditions. Andy LeBonte, a Park Ranger now working in Human Resources, and Corps Volunteer Linda Martin assisted with the event.

West Hill Dam has recreational opportunities and free family-friendly events year-round. For a copy of the 2018 special events calendar, please go to http://www.nae.usace.army.mil/Portals/74/docs/Recreation/WHD/West_Hill_Dam_Events_2018.pdf.

Dredging up the past



Lt. Gen. Joe Ballard, Chief of Engineers, answers a question posed by Paula Kullberg during a Town Meeting he held when he visited New England District in Waltham, Massachusetts on Nov. 4, 1997.

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