Yankee Engineer

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Building Strong®

Franklin Falls hosts program for home school children

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Yankee Voices

Donna Andrews and Dimitri Vasquez

Beware of these workplace dangers

The workplace can be a dangerous place if you're not careful. The Safety+ Health website spotlights these common causes of workplace injuries:

• Heights. You could be climbing a ladder, working on a roof, or crawling across catwalks near the ceiling.

Whenever you're more than a foot or so above the ground, be sure that the proper protections are in place and that you take care with every move you make.

• Poor housekeeping. Keep your workplace neat and tidy.

• Electrical cords. Don't string extension cords together endlessly. They should be used for temporary purposes, not long-term power needs. Unplug and wrap them up at the end of the day. Make sure you've got the right cord for the job so you're not drawing too much power from your outlets and posing a fire danger.

(First Draft Magazine)

A Final Integrated Feasibility Report and Environmental Impact Statement has been prepared as part of the New Haven Harbor Navigation Improvement Project Study in New Haven, Connecticut

by Timothy Dugan
Public Affairs Office

To facilitate efficient and safe navigation and marine commerce in New Haven Harbor in New Haven, Connecticut navigation improvements (i.e., deepening and widening) to the existing federal navigation project were studied.

The proposed project consists of deepening the main ship channel, maneuvering area, and turning basin to - 40 feet mean lower low water (MLLW) and widening the main channel and turning basin to allow larger vessels to efficiently access the port of New Haven's terminals.

The proposed improvements would remove about 4.28 million cubic yards (cy) of predominately glacially deposited silts from the federal channel. Additionally, approximately 43,500 cy of rock would be blasted and removed from the channel.

Several dredged material placement sites were identified and include: an area for shellfish habitat creation, two borrow pits in the harbor, an area for salt marsh creation, an area for rock reef creation, and open water disposal at an EPA-designated ocean dredged material disposal site (ODMDS) in Long Island Sound, the Central Long Island Sound Disposal Site.

This Final Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS) describes the existing environment of the project area and assesses the impacts of the proposed project.

The Final IFR/EIS is available for review on the Corps of Engineers, New England District web site at: http://www.nae.usace.army.mil/Missions/Projects-Topics/New-Haven-Harbor/.

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Hopkinton-Everett Lake team watches snow levels throughout winter

So far, this winter has been tame as far as snowfall goes, but even a couple of inches of the cold stuff can change the way the New England District dams operate, so it is closely monitored by Park Rangers. NAE has 93 snow survey sites that are surveyed by project staff. Out at the New England District Flood Damage Reduction projects, the team measures snow bi-weekly between January 7 and April 28, depending on snow conditions.

"All of the snow that is sitting on the ground during winter months represent a total water equivalency that will eventually appear in our lakes, rivers and streams," said Park Ranger Matthew Hackett. "This transfer could be done with warmer weather, or rain, or both. Also, there are many types of snow, so we can't just rely on a measurement of snow depth. Instead, we collect the measurements by depth and weight to find the water equivalency. The water equivalency will be reflected as inches of water, just like total inches of rain during a rain event. "

Hackett said the Merrimack River Basin team (Hopkinton-Everett, Franklin Falls/ Blackwater Dam, and Edward MacDowell Dam) share 22 localized sites across the basin. The Franklin Falls team collects data from 10 sites, Hopkinton from six sites, and Edward Macdowell from six sites. Hopkinton-Everett also collects data from three sites in the Piscataquog River Watershed.

"We measure the depth of the snow and calculate the total water equivalency by weighing the snow," Hackett said. We find an average for depth and average water equivalency for each site at each location."

Hackett said that they share the data with the District's Reservoir Control Center (RCC) that keeps track of all historic information that can be used by RCC for comparison to make accurate forecasts of rain and flood events. At the beginning of measurement season, January 7, the Contoocook sites averaged 4.3 inches of snow depth, with an average total water equivalency of 1.8 inches.

"The RCC historic records shows that this snow is only 85-percent of the normal time of the year and shows 2.1 inches as the 'normal' average for total water equivalency," said Hackett.

The team at Hopkinton-Everett will continue to measure snow throughout the season. Up to date information on all New England District projects can be found by visiting the RCC website: https://reservoircontrol.usace.army.mil/NE/pls/cwmsweb/cwms_web.cwmsweb.cwmsindex

Hopkinton-Everett Park Ranger Pascal Carter inserts a snow measurement instrument into the snow to measure levels.


Photos by Matthew Hackett

Hopkinton-Everett Park Ranger Pascal Carter reads the snow levels off of the snow measurement instrument.

Franklin Falls hosts program for home school children

Franklin Falls Dam held a four week educational program for 10 home school children aged 6-10 at the New Hampshire Project late November.

"This program was developed for home school families because they have the freedom to come to the dam during the week and it provides more opportunities for outreach for the staff during the week," said Franklin Falls Park Ranger and Program Coordinator Karen Hoey.

Project Manager Tia Mercer assisted Hoey in planning the program. The Home School program was held every Tuesday beginning November 26 and ending December 17 and ran from 10 to 11:30 a.m.

Sessions included a discussion of the week's topic and followed by an activity based on that topic. As an example of a typical session, on Dec. 3, the theme focused on, "Bears in New Hampshire."

"The kids really enjoyed discussing bear activity and habitat," said Hoey. "We read the ABC's of bears where each letter of the alphabet described bear behavior or a bear characteristic."

Hoey said that during the activity she challenged the children by asking them to take a letter from the alphabet and create a work of art describing a bear behavior using the letter.

"The kids really enjoyed creating their letters," she said.

This is a relatively new but well received program for Franklin Falls. Hoey said that she hopes to run the program three times a year.

"The next session for home school families is scheduled for Wednesday, April 1 and will end April 22," she said.

For more information on this or any of the programs held at Franklin Falls, please visit their Facebook page at https://www.facebook.com/FranklinFallsDam/?ref=bookmarks

Home school students and their mother show off some artwork they created during the program.

Karen Hoey makes a presentation to home school students during the Franklin Falls program.

Photos provided by Franklin Falls Dam

Hopkinton Everett gate house. File Photo

President's FY21 budget for Corps in New England to continue flood risk operations, fund Boston Harbor deepening dredging

By Timothy Dugan
Public Affairs Office

With the release of the President's Budget for fiscal year 2021 (FY21) for the U.S. Army Corps of Engineers Civil Works program on Feb. 10 the Corps' New England District anticipates continued operations and funding in fiscal year 2021 that started on Oct. 1, 2020.

In Connecticut, the FY21 budget proposes continuing funding for the operation and maintenance of the eight Corps-managed flood risk management reservoirs and dams and the Stamford Hurricane Barrier.

In Massachusetts, the FY21 budget proposes continuing funding for operation and maintenance of the 12 Corps-managed flood risk management reservoirs and dams, the Cape Cod Canal and the New Bedford Hurricane Barrier. Additionally, the budget proposes $68.4 million to continue funding the Boston Harbor Improvement project to deepen the main ship channel in the harbor; $400,000 to fund maintenance dredging of Chatham (Stage) Harbor; $400,000 to fund maintenance dredging of Green Harbor; and $100,000 to fund footbridge repairs at Plymouth Harbor.

In New Hampshire, the FY21 budget proposes continuing funding for operation and maintenance of the six Corps-managed flood risk management reservoirs and dams. In Vermont, the budget proposes continuing funding for operation and maintenance of the five Corps-managed flood risk management reservoirs and dams, and funding for an investigation of the dam at North Springfield Lake.

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 $350,000 to fund maintenance dredging of Great Salt Pond. Also, the budget proposes more than $1 million in funding for disposal area monitoring, including some of that monitoring in the state of Maine.

Additionally, the New England District anticipates FY21 funding from its higher headquarters for Regulatory permitting activities and the Continuing Authorities Program and other work. Proposed Corps FY21 projects can be looked up by state. The FY21 USACE Civil Works Budget Book is available for review online at: https://www.usace.army.mil/Missions/Civil-Works/Budget/.

Public Meeting held to update Muddy River progress

Members of the New England District team participated in a public meeting to provide updates on the Muddy River Flood Risk Management project, Feb. 27 at Emmanuel College's Eisner Administration Building in Boston, Massachusetts.

Emmanuel College, the Muddy River Restoration Project Maintenance and Management Oversight Committee (MMOC) and the Muddy River Cabinet hosted the event. The meeting was entitled, "An Update: The Muddy River Project. Climate Resilience Through Green Infrastructure."

Scott Acone, Deputy District Engineer for Programs and Project Management and Wendy Gendron, Chief, Civil Works Branch were guest speakers during the meeting. In his remarks, Acone thanked the event's hosts for inviting the District to participate.

"It seems like just yesterday that we were wrapping up the first phase of work," he said. "As we look out the windows at the restored river and landscape, I'm excited to start the final phase of our work to improve flows and reduce flood risk in the Muddy River. I look forward to being back to celebrate the positive impacts the completion of this project will have on the community."

Gendron made a presentation on the project which included a description, the history, the comprehensive and Flood Risk Management plans, work performed during Phase 1 of the project and what the public can expect during Phase 2.

Wendy Gendron gives a briefing on the Muddy River project. Photo by Sally Rigione

As a result of an October 1996 storm event that caused severe flooding along the Muddy River and significant damage to the Kenmore MBTA station as well as several tributary areas, particularly Stony Brook, the city of Boston, town of Brookline and the Commonwealth of Massachusetts proposed a plan called, "the Emerald Necklace Environmental Improvements Master Plan, Phase I Muddy River Flood Control, Water Quality and Habitat Enhancement."

The goals of the plan were to increase flood control, improve water quality and enhance aquatic/riparian habitat within the Muddy River by dredging accumulated sediment, providing flood damage reduction through improvements to restrictive drainage culverts, removing nuisance vegetation, improving fisheries/wildlife habitat and water quality, bank stabilization and promoting and enhancing recreational use of emerald necklace park lands.

Section 522 of the Water Resources Development Act (WRDA) of 2000 authorized the District to, "carry out the project for flood damage reduction and environmental restoration, Muddy River, Brookline and Boston, Massachusetts," substantially in accordance with the plans, and subject to concurrence that met federal guidelines. Corps headquarters prepared a Chief's report recommending federal participation and forwarded the report to the Assistant Secretary of the Army (ASA) for Civil Works on Dec. 29, 2003. The ASA approved federal participation in the flood damage reduction component of the project. However, due to its high unit cost, the environmental restoration portion of the project was not recommended for federal implementation. The District completed design efforts and prepared plans and specifications for the Phase 1 effort. A project partnering agreement was signed with the project sponsors. A $30.9-million contract for Phase 1 was awarded on Aug. 10, 2012. A ground breaking ceremony was held in October 2012 and construction started in early 2013.

Phase 2 of the project is scheduled to begin in May and is expected to be completed in 2023.

Other speakers at the event included Sister Janet Eisner, President of Emmanuel College; Francis Allou Gershwin, MMOC Chair; Dan Sieger, Under Secretary for the Environment, Commonwealth of Massachusetts; MMOC member Arleyn Levee; Erin Gallentine, Director of Parks and Recreation, town of Brookline; and Chris Cook, Chief of Environment, Energy and Open Space, city of Boston.

Other New England District team members who attended the meeting were Jennifer Flanagan, Steve Umbrell, Evamarie Dantuono, Mike Narcisi, Beth Gosselin, and Sally Rigione.

For more project information visit: https://www.nae.usace.army.mil/Missions/Projects-Topics/Muddy-River/.

Local Scout completes West Hill Dam's 50th Eagle project

Eagle Scout Zachary Gervais, Troop 1122 of Uxbridge, Massachusetts, recently completed his Eagle Scout project at West Hill Dam in Uxbridge. Gervais' is the 50th Eagle Scout project completed at that dam.

"Zachary designed 12"x12" visual signs marking the Woodland Trail, both upper loops, red and safety orange blazed trail system, West Hill Dam upper reservoir," said Park Ranger and Eagle Scout mentor Viola Bramel.

According to Bramel, hikers sometimes become lost due to the trail being re-directed because of the lack of signs. The new signs will keep the trail as a loop system within the wooded areas of West Hill Dam.

"Zachary also created labels for every blaze along these sections and updated all the trail blazes for a total of about three miles of trail network," she said.

Gervais began the process in early August 2019, designing his project, having it approved by Bramel and then putting his paperwork in for approval to the Boy/Girl Scouts of America. Actual installation of the project didn't begin until December 13, when he and his team carried in the cement and the 4'x4' pressure-treated sign posts.

The Gervais Eagle Scout Project team successfully install a sign post at West Hill Dam.

"Despite frost zone levels, he was able to dig sufficient holes and install cement footings for the signs," said Bramel.

Gervais had a crew of 21, to include fellow scouts and adults. "Steve Ackerman, an Eagle Scout from 2016 who completed his project at West Hill Dam came home from college at Christmas break to assist Zachary," said Bramel. "He will be one of our seasonal rangers this year."

Gervais and his team completed the project on Feb. 28. His project won't be the last at West Hill Dam. Bramel says three more Eagle Scout candidates have had their project designs approved by her. Girl Scouts have also made their mark at the dam.

"I am proud to say we have two Girl Scout Gold and two Girl Scout Silver Award projects with another Silver Award project in progress," said Bramel.

Gervais' project will have a positive, lasting effect on the project, aiding hikers by keeping them on the trail for many years to come. "Visitors have a closed trail network so families can feel safe," said Bramel.

Zachary Gervais (kneeling) and his project team pour concrete to install a sign post as part of Gervais' Eagle Scout Project at West Hill Dam.

Dredging up the past

Photo by CJ. Allen

New England District representatives and their partners, Friends of West River Trail, celebrated the transformation of "36 Miles of Trouble" into "36 Miles of Fun" during National Trails Day, June 5, 2014 at Ball Mountain Dam in Vermont.

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