

Yankee Engineer

U.S. Army Corps of Engineers, New England District, Volume 54, No. 2 November 2020

Building Strong



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Yankee Voices



Girl Scout Troop 6488 of Uxbridge, Massachusetts
Photo by Jen Spiecker

Stay safe and awake at the wheel

A nap can be pleasant and relaxing—unless you are at the wheel of a car when it happens. The U.S. Department of Transportation estimates that sleep-related driving accidents cause 40,000 injuries and 150 deaths every year. Don't be one of them. Follow these tips for staying awake and alert on the road:

Get enough sleep. Take a nap before you leave if you'll be driving late—but avoid driving late at night if possible, as you'll be naturally sleepy anyway no matter how rested you feel.

Take breaks. Stop about every two hours for 10-15 minutes of rest, brisk exercise, and stretching.

Get proper nutrition. Stay hydrated—drink lots of water.

Don't get too comfortable. Open the window to keep cold air blowing on your face or adjust your seat just enough to be noticeable as you drive (but not enough to distract you).

Pull over. If all else fails, find a safe spot to pull over and take a nap. Fifteen or 20 minutes may be enough to get you through the rest of your trip safely.

(First Draft Magazine)

West Hill Dam hosts local Girl Scout troop hike

There is no better way to get kids to stay active while staying safe than a socially distanced hike in the Great Outdoors.

Ten girls and leaders from Girl Scout Troop 6488 of Uxbridge, Massachusetts took advantage of a beautiful fall day by going on a hike at West Hill Dam, Oct. 25. Park Rangers provided the girls with hiking kits so they could complete some badge work while on the hike. The kits, which were assembled years ago by Park Rangers and another Uxbridge Girl Scout troop, allowed the girls to divide into even smaller groups and limit their interactions with Park Rangers.

Park Ranger Viola Bramel met with leaders days before the hike to review the kits, which contained maps and activities for the girls to do while on their hike. On the day of the event, the girls hiked for an hour before they met with Park Ranger Ron Woodall, who gave them a tour of the project's grasslands and pollinator gardens.

According to Troop Leader Jen Spiecker, the girls had such a great time, they were planning another hike at West Hill for the winter.

Praise for Otter Brook Lake

To whom this may concern,

I have been visiting Otter Brook Lake for the past two years 6-7 days a week, walking the trails and enjoying its beauty and wildlife. During these times I've had the pleasure of meeting the staff and rangers who work there.

Everyone is so knowledgeable, helpful, patient and kind. They are always ready with an answer to any question and willing to get information necessary for you to have a safe and enjoyable visit.

I'm sure it must start with John Asseng who is in charge of the staff. John is so easy to talk to, knowledgeable about the area and can explain anything from the vegetation in the area to the animal habitation in a way you can understand and appreciate.

Please give this staff the kudos they well deserve and work so hard for. Otter Brook Lake is a wonderful, safe, well maintained area thanks to these professional, well trained, courteous, caring and great staff!

Thank you for your time,

Judith A. Beauregard

Roxbury, New Hampshire



Thibodeaux receives Hiram M. Chittenden Award

Park Ranger John Thibodeaux, Ball Mountain and Townshend Lakes, received the 2020 Hiram M. Chittenden Award for Interpretive Excellence. Thibodeaux was one of four recipients to receive the honor throughout the entire U.S. Army Corps of Engineers (USACE).

According to his nomination, Thibodeaux exemplifies the spirit of interpretation through exciting, innovative, and engaging programming. He continually seeks to meet the needs of park guests, both young and old, by developing presentations and activities that foster interactive learning that is accessible to all. He strives to educate his local community about the importance of USACE flood risk management mission and to impart a love and appreciation of the area's natural and cultural resources.

“At Ball Mountain and Townshend Lakes, in the southern region of Vermont, Mr. Thibodeaux, has been pivotal in bringing back much desired year-round outdoor educational experiences to this rural community,” wrote members of the interpretive Services and Outreach Program, the group that nominated him. “Shining examples include bringing a Junior Ranger Program back to the Winhall Brook Camping Area with the development of a Junior Ranger booklet, a full suite of Ranger-led programs, and multiple indirect interpretive opportunities for visitors at his project.”

The citation goes on to state that Thibodeaux takes an “all of the above approach” to interpretation to maximize its reach, even when resources may be minimal.

He developed and implemented formal, informal, and indirect interpretation at his project, and served on multiple teams to reach beyond his project to achieve the full range



Park Ranger John Thibodeaux received the 2020 Hiram M. Chittenden Award for Interpretive Excellence.

of the USACE Interpretive Services and Outreach Program goals.

Thibodeaux joined the New England District in October 2016. Prior to that he worked as a seasonal Park Ranger for the Department of the Interior, Bureau of Land Management, at the Upper Missouri River Breaks National Monument.

He holds a Bachelor of Science degree in Fish, Wildlife, and Conservation Biology from Colorado State University, Fort Collins, Colorado. Thibodeaux is a U.S. Veteran and served his country faithfully in the U.S. Army.



John Thibodeaux huddles with some small visitors during an interpretive program in 2019.



John Thibodeaux speaks to a child during a summer interpretive program.

File photos



Adjusting the WBC to its final location within the building.

District constructing new laboratory for Food and Drug Administration, moves whole body counter to new location

**Story and photos by
Jennifer Flanagan
Project Management**

The U.S. Army Corps of Engineers, New England District (USACE) is currently building the new Winchester Engineering and Analytical Center (WEAC) for the Food and Drug Administration (FDA).

The WEAC is a multi-disciplinary, full-service specialty laboratory with capabilities in the areas of medical device/radiation-emitting products, radionuclides, and microbiology analyses. The existing facility was constructed in 1952 on 5.9 acres of land in Winchester, Massachusetts. The existing facility does not meet current program requirements or FDA's updated laboratory and office standards.

USACE awarded a \$54 million

Design-Build construction contract to the Whiting-Turner Contracting Company in July 2018. Construction began in September 2019. Since that time, significant milestones were achieved along the way.

A 'topping out' event took place in March 2020 where the last steel beam was signed by the project team and raised to the highest point of the building.

Recently, the slab on grade was placed in mid-October and the building was made water-tight at the end of October. To round out the milestones for the project in 2020, the Whole Body Counter (WBC) was moved to the new WEAC building on Nov. 19.

Among WEAC's unique competencies is testing for radionuclides. WEAC has lead responsibility for radionuclide analysis

of food samples collected in response to emergencies related to actual incidents or threatened acts resulting in contamination of the food supply. Maintaining this capability includes a safety program to screen personnel and the public for radioactive contamination.

The existing WBC is a device that measures radioactivity within the human body. The advantages of whole-body counting are that it measures body contents directly and does not rely on indirect biological testing methods. It is a unique instrument that provides an invaluable service to radiation workers and public health.

The WBC at the existing WEAC is a specially constructed room made of approximately 6.5-inch-thick steel on all sides.

The chamber weighs approximately 124,000 pounds. It uses heavy

steel shielding to keep out naturally existing background radiation. WBC also requires that the shielding itself not contribute any additional counts that could be misinterpreted as contamination within the body. Because air is passed through iron to make steel, any radioactive particles in the air post the atomic age will become part of the steel. This makes all modern-day steel slightly radioactive.

The existing WBC is constructed of pre-World War II era steel plates with properties that cannot be replicated with current steel materials. Therefore, the room could not be new construction and had to be relocated from the existing building.

The planning for the WBC move began almost six months ago with initial coordination with the FDA and consultation with riggers. The initial assessment indicated that the WBC needed to be transported as a single unit, and that no new steel be bolted or welded to the structure for lifting as that could introduce new steel into the structure.

The existing office around the WBC was selectively demolished in early August to allow for further assessment of the existing steel structure.

The existing concrete framed crawl space beneath the structure allowed for the placement of jacks to lift up the WBC. Straps were wrapped around the WBC and attached to a crane to lift and move the WBC to the new building opening.

Once the WBC was at the opening, it was lowered onto rollers and then winched inside the building with steel cables attached to straps. It was then carefully adjusted into the space within $\frac{1}{4}$ inch tolerance.

Now that the WBC is transported to the new building, a new anteroom/office will be provided as part of the space for instrumentation and controls.

The new WEAC building is planned for completion in September 2021.



Crane lifting the WBC to the building opening. Note some of the counterweights on the back of the crane – a total of 297,600 pound was needed to ensure a safe lift.



WBC at new building opening – set on top of rollers to guide the structure into the building.



Members of the official party break ground on the S2PRINT facility.

Photos by David J. Kamm. U.S. Army Combat Capabilities Development Command Soldier Center

District, partners break ground on new laboratory in Natick

Col. John Atilano II, New England District Commander, traveled to Natick, Massachusetts, Nov. 12 to participate in a groundbreaking ceremony for the Soldier and Squad Performance Research Institute Laboratory, also known as S2PRINT. The New England District is overseeing construction of the facility for the Natick Soldier Systems Center (NSSC). The ceremony, hosted by the NSSC, was held on post.

Other attendees included Congresswoman Lori Trahan; Maj. Gen. John George, commanding general, U.S. Army Combat Capabilities Development Command (DEVCOM); Brig. Gen. James Bienlien, deputy commanding general, DEVCOM and senior commander, Natick Soldier Systems Center; Maj. Andrew Shriver,

Chaplain; Sgt. Maj. Michael Grinston, Sergeant Major of the Army, and Jeffrey Hazelwood, CTA Construction.

Col. Atilano said he was excited to see construction begin on the project.

“Once constructed, the laboratory will be the only one of its kind designed from the ground up to generate cutting-edge science and technology that will directly benefit the Soldier,” he said. “The New England District is honored to be able to support this work.”

The more than \$40 million project includes constructing an 80,600-square-foot, three-story state-of-the-art laboratory building that will enable current research facilities in five separate locations across the NSSC to consolidate, update and collaborate.

“Today isn’t just a literal

groundbreaking, it’s symbolic of the groundbreaking research and technology that will allow the Army to shape our individual Soldiers to perform in different circumstances,” said Brig. Gen. George.

Sgt. Maj. Grinston said that he was personally appreciative of the science that comes out of the current facility, telling the audience he had one of his Soldiers get shot in the chest. But because of the work done in Natick, that Soldier survived. He said he looked forward to seeing what advancements the new facility will bring.

“Your hard work is highlighted today with this groundbreaking,” he said.

Hazelwood said CTA has done work for Natick in the past and they were happy to be working on this



Col. John Atilano II addresses the audience during the groundbreaking ceremony.

special project.

“Being a part of a project that will ultimately make our Soldiers perform better on the battlefield is very special and I feel very fortunate to be a teammate in this endeavor,” he said.

Congr. Trahan thanked everyone at NSSC for all the work they do every day to keep the nation safe.

“As a member of the House Armed Services Committee, I could not be more thrilled to support this state-of-the-art research facility,” she said. “Today as we celebrate the groundbreaking of S2PRINT, I am once again reminded of



Congresswoman Lori Trahan was a special guest at the groundbreaking ceremony.

the extraordinary capabilities that are housed right here in Massachusetts. What we’re celebrating here today is vitally important, not only to Massachusetts, but our country.”

Col. Atilano thanked New England District’s partners for their assistance and expertise, stating that without their valuable input and support, the beginning of the project would not be taking place.

“This is a fantastic project,” he said. “I look forward to coming back to this very spot in two to three years when we can cut the ribbon together on the new laboratory.”

USACE seeks comments on proposed modification to the Maine NRCP In-Lieu Fee program

**By Bryan Purtell
Public Affairs Office**

The U.S. Army Corps of Engineers, New England District is seeking comments on modifications proposed by the Maine Department of Environmental Protection (DEP) to the state Natural Resources Conservation Program In-Lieu Fee (ILF) program for the addition of 13 individual projects.

Maine DEP is the sponsor of the ILF program which serves as an alternative form of compensatory mitigation for aquatic resource impacts.

The 13 projects submitted as proposed additions to the ILF program instrument would provide compensatory

wetland and stream mitigation for permitted impacts to the following service areas: Aroostook Hills and Lowlands, Central Interior and Midcoast, and Southern Maine.

USACE is soliciting comments from members of the public; federal, state and local agencies; American Indian Tribes; and other interested parties to consider and evaluate the impacts of this proposed activity.

The public notice with more detailed information is available for review on the USACE website at: https://www.nae.usace.army.mil/Portals/74/docs/regulatory/PublicNotices/2020/10302020_MEILF_PN_2020.pdf.

Public comments on this proposed work will be accepted through Dec. 10.

Dredging up the past



Photo by Brian Murphy

The Work Environment Association Committee held its annual Pie Fest, Nov. 20, 2014, in the Concord Park cafeteria. This year, as with all the years prior, New England District team members lined up to have a slice of their favorite pie during their afternoon break. WEA holds this free annual event to celebrate the successful Fiscal Year End and to usher in the new Fiscal Year.

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