CONSTELLATION

Baltimore District

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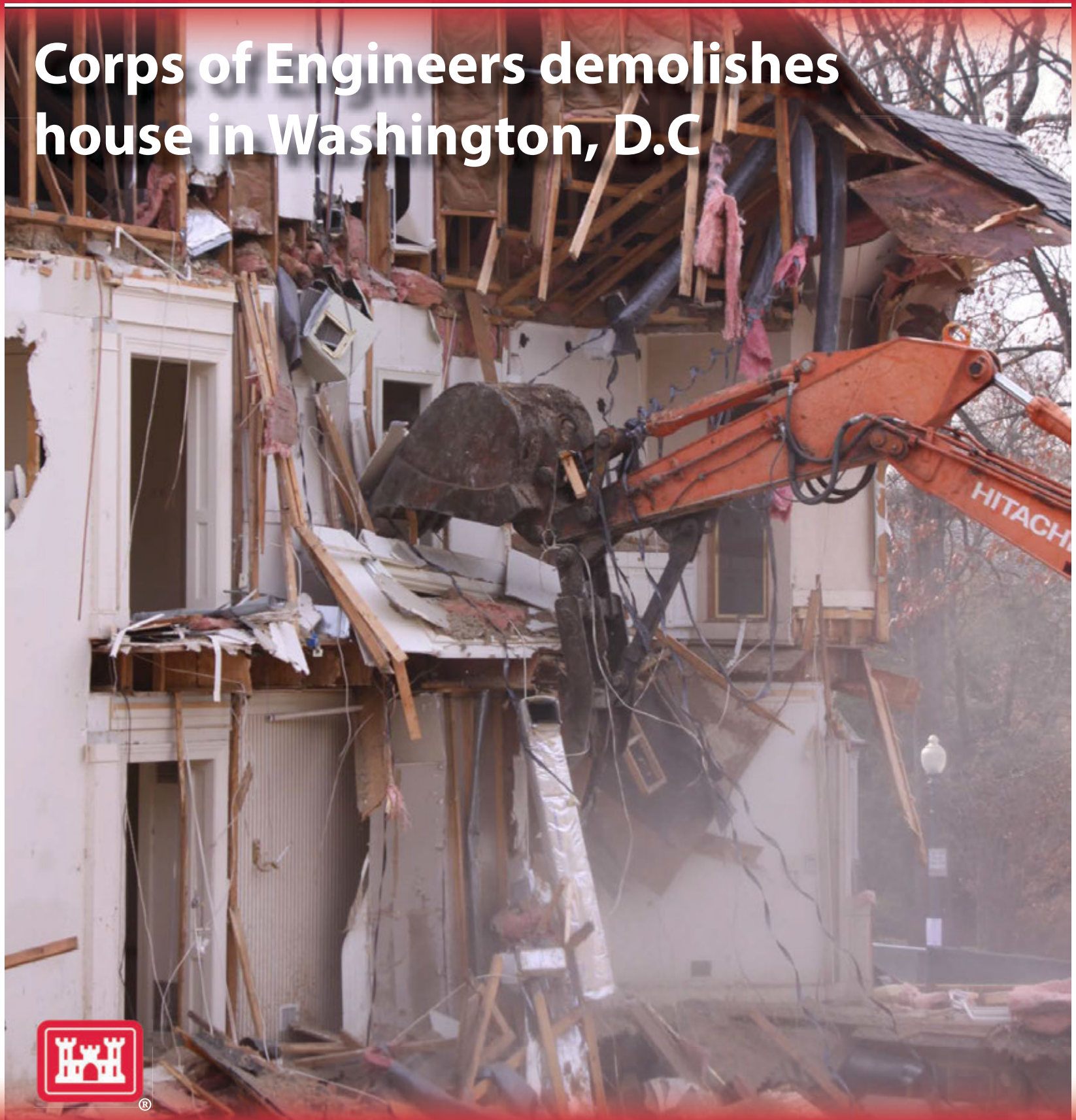


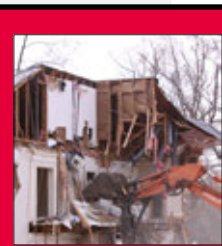
Corps of Engineers demolishes house in Washington, D.C

Spring 2013

CONSTELLATION

Inside this Edition

Corps of Engineers demolishes house in Washington, D.C. -- *Photo by Andrea Takash*



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Customer service with a values-based approach

Every day and with every project, I see our team working hard to provide valuable projects and services to all of our customers, whether to taxpayers who benefit from our civil works and environmental projects or the military and other paying customers who rely on us to meet their engineering needs. What do we provide for the nation? Our Baltimore District Vision is centered on using our professional capabilities to exceed the expectations of our customers.

My Vision is to have a district staffed by competent teams of professionals, enhanced with cutting edge technology and business processes, who are constantly striving to exceed customer expectations.

Within the pages of this edition of the Constellation, you'll find story after story that highlights the work we do to support our Soldiers, Civilians and region through collaboration, partnerships and a will to exceed expectations.

Two of this edition's stories encompass 20 years of cooperation and collaboration with multiple stakeholders, legislative representatives and community groups. In November, we did something incredibly unique for a Corps district – we removed a home in the Spring Valley area of Washington, D.C., done as part of a 20-year environmental clean-up project to search for, find and remove debris from a former World War I site that developed and tested chemical warfare materiel. This unique action, and the entire Spring Valley project, was carefully planned and coordinated with multiple agencies, and reviewed by the public.

We also joined Delaware civic and elected leaders in December to celebrate dredging on the Nanticoke River. The Baltimore District's Navigation Branch completed maintenance dredging at the Port of Seaford on Feb. 8. It was a $2.3 million project for a river channel that we last dredged in 1990. This is an historic mission for the Corps that will have a key economic impact in that area. In addition, local officials found a location that was good for the environment to deposit the dredged material, a win-win all the way around!

We also support Soldiers with modern facilities that are designed to meet the Leadership in Energy and Environmental Design Silver standard. In back-to back January ceremonies on Fort Meade, we supported groundbreaking events to renovate and expand the Defense Information School, and build the new campus for the Aysmmetric Warfare Group, an Army unit with an expanding mission. We take special pride in supporting the men and women of our armed forces.

Our Vision statement refers to the professionalism of our team. In February, Dr. Robert Wright, one of our project managers, was honored as a Modern Day Technology Leader at the Black Engineers of the Year awards ceremony in Washington, D.C. It is not unusual for an outside organization to recognize the work, and work ethic, of individuals in the district.

We are also still engaged in the Hurricane Sandy cleanup with debris removal on Fire Island in New York. This is a rugged mission, and our volunteers will continue that important work for months to come.

I hope you enjoy this edition of the Constellation and get a sense of the breadth and depth of both our support for the nation, the capabilities of our people, and our persistence in getting projects, large and small, done to the satisfaction of our customers.

Essayons! Building Strong!

COL J. Richard Jordan III
U.S. Army Corps of Engineers
Baltimore District Commander

District engineer honored

National award recognizes Modern Day Technology Leaders

By Clem Gaines

Dr. Robert Wright, a program manager for the U.S. Army Corps of Engineers, Baltimore District, was honored as a Modern Day Technology Leader at the 2013 Black Engineers of the Year Awards ceremony at the Marriott Wardman Park hotel in Washington, D.C., on Feb. 8. Dr. Wright leads project delivery teams on both military and civil projects.

"I am extremely honored to nominate Dr. Wright as a Modern Day Technology Leader," said Col. Trey Jordan, commander and district dngineer. "Dr. Wright is a talented engineer who has made a significant contribution to the Baltimore District during his three year tenure. His achievements are outstanding and have been a model for the rest of our project engineers to emulate."

Education has been the foundation of his success. A native of Washington, D.C., he earned a Bachelor of Science in Civil Engineering from Morgan State University in 1997. He holds a master's degree and a doctorate in Geotechnical Engineering from the University of Toledo. "Overall, I feel that my education has trained me to solve problems, prioritize tasks and utilize time management. When I passed my dissertation defense, I knew I could do pretty much anything I set my mind to," he said.

He is one of 13 Modern Day Technology Leaders honored at the ceremony from the U.S. Army Corps of Engineers.

"His management of several key projects for Baltimore District has proven him to be an invaluable asset to the Civil Project Management Branch. His unlimited potential for future contributions will shape the U.S. Army Corps of Engineers and benefit the nation," noted Dave Morrow, chief, Programs and Project Management Division.

His background includes construction sweat as well as academic success. "I started in the construction industry as a general laborer at the age of 18. While an undergrad at Morgan State, I worked as a laborer and researcher under a NASA grant," Wright said.

After graduation from the University of Toledo, he was the director for a science, technology, engineering and mathematics (STEM) program for Toledo City Schools.

His academic research included the development of deep sub-surface X-ray heavy metal detection equipment, and the development of numerical models to simulate sustainable landfill cap covers utilizing waste material and native vegetation. His private sector experience includes work on construction projects for high profile firms such as Chrysler, Ford, GM, Pfizer, National Harbor Group and several local and federal government entities.

He also encourages youth to pursue age-level interest in STEM subjects. "I would suggest middle school kids to look for local community programs to perform projects and experiments. Older youth should express their interest to teachers, and they may be surprised how much information their teachers have in these areas."

Highlighting his personal theme of accomplishment, Dr. Wright is a chef (one of three in his family). He has owned a restaurant and a food truck. "This is not really all that different from being an engineer. They both utilize math and project management," he said.

Dr. Robert Wright, a program manager with the U.S. Army Corps of Engineers, Baltimore District, was honored as a Modern Day Technology Leader at the 2013 Black Engineers of the Year Award ceremony in Washington, D.C., on Feb. 8. *Photo by Mikell Moore*

Department of Defense school upgraded

Defense Information School grows in size and capability

Story and photo by Clem Gaines

Dignitaries break ground for the renovation and expansion of the Defense Information School. They are (left to right): Dr. Marina Amat, Grimberg/Amatea JV; T.J. Singh, Fort Meade director of public works; Col. Jeremy Martin, commandant, Defense Information School; Bryan Whitman, acting director, Defense Media Activity; Col. Trey Jordan, commander and district engineer, U.S. Army Corps of Engineers, Baltimore District; and Peter Grimberg, John C. Grimberg Company.

On Jan. 23, U.S. Army Corps of Engineers, Baltimore District, joined Defense officials and our contract partners to kick-off the renovation and expansion of the Defense Information School, known throughout the military as DINFOS.

In an outside 18-minute ceremony in 18 degree weather, officials broke ground for the 62,000 square foot renovation and 88,000 square foot expansion at the instructional facility on Fort Meade, Md.

Bryan Whitman, the acting director of the Defense Media Activity, said "It was 67 years ago today, on Jan. 23, 1946, that the Army activated the information school at Carlisle Barracks in Pennsylvania. This was the first military school established to provide training for what would become the public affairs career field."

The event highlighted the long-awaited $30 million project that will renovate the instructional facilities and add a wing of new construction in the back of DINFOS. The design of the facility will include sustainability features, according to the Corps.

Whitman emphasized the unique importance of the career field. "There have been various mergers and moves until we have gotten to where we are here today, the Defense Information School, a premiere institution that is unquestionably vital to the Defense Department."

DINFOS has trained more than 150,000 enlisted, officer and civilian personnel with constantly updated written and visual communication courses designed to keep the troops and public informed about the missions and people of the Defense Department. DINFOS moved to Fort Meade during the base realignment and closure commission actions in the 1990s.

Whitman noted the vision and leadership of the current commandant, Col. Jeremy Martin, and previous leaders, including Navy Capt. Curry Graham and Col. Gary Keck, in effectively presenting and defending the case for this renovation and expansion.

A key architectural feature in the expansion is the glass-enclosed atrium that will connect the current building with the expanded instructional area.

Project completion is expected in November 2014. For Baltimore District, the project manager is Mary Dan, Programs and Project Management Division-Military, and Christy Pispitsos led the in-house design team from Engineering Division.

"To all of you and to all of those who have made this day happen, my sincere thanks and appreciation - now let's dig some dirt," Whitman concluded.

Districts team up for dam repairs

Corps tackles old problem with new answers at West Point

By Larry Mathena

When a West Point Upperclassmen asks a plebe (freshman), "How many gallons in Lusk Reservoir?", the plebe must answer, "78 million gallons, Sir, when the water is flowing over the spillway."

But the 117-year-old Lusk Dam started showing its age, as water now leaks through cracks in the masonry joints of the 35-foot high dam. The outlet pipe used to release water from the reservoir through the dam is inoperable, and must be repaired or replaced.

The U.S. Army Corps of Engineers team recognized the importance of making these critical repairs to this 12-acre reservoir, which provides drinking water to West Point. Not only is the reservoir a popular fishing spot, the walkway across the dam crest provides access to Michie Stadium, where Army does battle on the football gridiron each fall.

To tackle this project, the Corps of Engineers,New York District, partnered with Baltimore District to work through the unique challenges for the Lusk Dam repairs. Baltimore District engineers visited West Point in April 2011 to inspect the dam and discuss proposed repairs with representatives from New York District and the U.S. Army Garrison at West Point.

Based on inspections, the Corps of Engineers team felt the best option was to build a new concrete pipe in lieu of rehabilitating the existing brick masonry pipe. However, the project's contractor, Cutting Edge, actually proposed the use of plastic pipe lining for the upstream section of the concrete outlet pipe, instead of replacing the pipe.

"The use of an HDPE (High Density Polyethylene) liner reduced the cost of the repairs and was much safer because there was little to no excavation and earth work at the base of this very old dam," said Ray Schembri, New York District project manager. "Excavation at the base of a dam has the potential to cause uncontrolled seepage and leakage under or thru a dam."

The team quickly finalized the plans and even hired a private diving contractor to establish the condition of the submerged portion of the dam and the existing outlet pipe intake before starting the repairs.

"I found this project to be a nice change of pace, since many Civil Works projects take years to complete," said Mike Martyn, Baltimore District's lead civil engineer on the repairs. "Our biggest challenge was figuring out the underground utilities near the dam because of the lack of as-built drawings." Crews started the dam repairs in June 2012 and completed the project in September.

"The dam safety community at West Point is relieved to know that we once again have a working dam for the reservoir that can be used both for maintenance and in the event of an emergency," Schembri said.

Green dye is used to trace the piping structure as water flows downstream. *Photo by Don Ruhl*

The Lusk Dam and Reservoir at the U.S. Military Academy, West Point, N.Y. *Photo by Larry Mathena*

FEU supports projects

Field team uses new technology to dig beneath the surface

By Anastasiya Kononova

John Danko (left), Chris Larson and Chuck Frey collect and record data on subsurface conditions on Edgewood Arsenal in Maryland. FEU technicians send the data electronically daily for evaluation to provide project design engineers key information quickly. *Photo by Pete Wilson*

For most Baltimore District employees, a computer and a printer will get them through the day. But for the district's 12-member Field Exploration Unit (FEU), their work space includes two 400-foot-long warehouses, complete with drill rigs, an all-terrain vehicle, pressure washers and a bulldozer.

The FEU uses their specialized equipment to investigate different material below the surface of the earth to help engineers and planners make key decisions on projects, from environmental clean-up to activities, to designing foundation systems and developing repairs to existing structures.

"The information we gather is critical in helping engineers make the best decision in the design and construction of a project," said Clint Kneten, the chief of the district's FEU.

Before the FEU heads to the field, engineers must first determine the type and amount of data they need, regardless of whether they are designing a new facility or improving an existing structure, according to Chuck Frey, the chief of the Foundation and Dam section. Depending on the project, his engineers must understand its function, loading – or weight it will have on the surface – and location, among other factors. Knowing this preliminary data, engineers can determine how many soil samples or properties they need, from where, and from which depth.

Once soil sampling is completed, the FEU sends them to the Materials and Instrumentation Unit, which conducts property tests for engineering characteristics, such as moisture content, size of the material's granules or particles, and a soil's pliability. Frey explained that engineers then use this information to take appropriate action in developing improvements for existing structures or developing the most effective foundation systems, with important consideration given to cost and functionality.

The FEU uses new technology that allows the team to instantly measure soil properties on-site. One new tool, a dilatometer, pushes a flat plate into the ground that allows crew members to measure the pressure of the soil. Another tool, called a cone penatrometer, collects soil properties by reading its resistance against the soil and correlating that data to the strength of the soil.

The unit, located at Fort McHenry and the Edgewood area of Aberdeen Proving Ground, Md., is a regional center of expertise for subsurface investigations and represents just one of seven such teams throughout the Corps. Many missions require them to travel throughout the country to support an array of projects on a variety of terrain, from steep mountains, to swampy areas, low overhead situations inside structures, and on a barge, in calm or rough open water. Using special techniques, the drilling unit can reach depths in excess of 500 feet, according to Kneten.

"Where there is a project need, lack of support mechanism, or a district without drilling operations to support their engineering," said Kneten, "we give it a try."

FEU technicians Albert McNamara (left), John Blackson and Doug Baughman work on the slope of the Hop Brook dam (New England District) investigating the embankment and foundation materials. *Photo by Maria Orosz*

New roof for Eastern Distribution Center

Corps and installation officials team together

Story and photo by Clem Gaines

Corps officials from Charleston and Baltimore Districts joined Defense Logistics Agency (DLA) Distribution leaders for the Jan. 24 kick-off for the roof replacement on the Eastern Distribution Center (EDC), the largest Sustainment, Restoration and Modernization project on the installation in New Cumberland, Pa.

Two descriptive words capture this project – teaming and huge.

"We will replace the roof on this facility which covers 43 acres or 1.6 million square feet," said Lt. Col. Ed Chamberlayne, commander, U.S. Army Corps of Engineers, Charleston District. "This is a very large project and when completed, it will improve energy efficiency and bring significant cost savings," he said.

The EDC, a 1.7 million square foot facility, equivalent to 30 football fields, currently processes 73 percent of DLA Distribution Susquehanna's workload. It is the largest distribution facility in the Department of Defense, according to installation officials.

The project will include a complete roof replacement with ethylene propylene diene monomer (a popular reroofing material), heating, ventilation and air conditioning, control, and lightning protection systems. Because the facility is critical for U.S. military missions and support, it will remain open throughout the project.

"We work for you, and we will work closely with our Baltimore District colleagues to deliver the project," said Chamberlayne.

Teaming with Charleston, the Baltimore District, through its Harrisburg Area Office, will provide the on-site contract administration for the project. Remi Bollana is the resident engineer and contracting officer representative.

"We are happy to work with and support Charleston District on this project," said Col. Trey Jordan, Baltimore District commander. There is an additional, special relationship between these two Corps districts – Jordan served as the Charleston commander from 2007-2009. He warmly greeted the Charleston team members at the ceremony including Effie Meletis, the program manager and key point of contact on the project.

"There is one door to the Corps, and we are committed to providing quality goods and services," Jordan said.

Both commanders emphasized that the customer will determine the value of the project. "Our reputation is on the line," Jordan said, "and we will stand behind the project even after it is done."

"This is a team of teams," noted Col. David Touzinksy, installation commander, in referring to the continual coordination and communication needed as the project moves forward.

The kick-off concluded with Corps, DLA Distribution, Jacobs Engineering and Boro Developers representatives holding a ceremonial check for the $52 million project. The contract was awarded in September 2012 with a period of performance of almost 900 days. Project completion is expected in 2015.

Terra Dietz, DLA Distribution Public Affairs, contributed to this article.

Lt. Col. Edward Chamberlayne (left), U.S. Army Corps of Engineers, Charleston District, teams up with Baltimore District Commander Col. Trey Jordan to present the ceremonial check for the project to replace the 1.6 million square foot roof and mechanical systems at the Eastern Distribution Center, DLA Distribution, Susquehanna, Pa.

Dredging project completed

District and local government partnership pays off in Seaford dredging

Story and photo by Stacy Ouellette

The Daily News reporter James Fisher takes notes as Jeff Price, Baltimore District quality assurance representative, explains how dredged material from the Nanticoke River is processed at the former Woodland Road Executive Golf Course.

The Baltimore District's Navigation Branch completed maintenance dredging at the Port of Seaford, Del., on Feb. 8. The $2.3 million project has been in the making for two decades.

"This maintenance dredging will restore the river's main channel depth to 12 feet, which has shoaled in some portions, making navigation difficult or impossible for barges," said Bob Blama, Baltimore District project manager.

Sussex County purchased a 41-acre site west of Seaford near Woodland as the dredged material placement site.

Corps and local officials celebrate the Nanticoke River dredging project. From left: Rep. John Carney, Lt. Col. Brad Endres, Michael Vincent (Sussex County Council President), Delaware Sens. Christopher Coons and Thomas Carper, Dick Willey (Perdue Agriculture President), Councilwoman Joan Deaver, (Sussex County Council) and Todd Lawson (Sussex County Administrator). Each person played a key role in making sure this project was able to move forward after more than a decade of planning and searching for a placement site.

"History has shown how vital the Nanticoke has been to the development and prosperity of Western Sussex, from the early days of European exploration and settlement to the present day," said Sussex County Council President Michael H. Vincent. "This project will ensure the Nanticoke remains an essential link to the economic and cultural well-being of our community as we move into the future."

"This dredging project has the potential to allow businesses already here to grow and to attract new businesses to the communities along the river," Sen. Tom Carper said. "This is one example of government working to create a nurturing environment for business growth and job growth."

"Deepening the Nanticoke River clears the way for job creation, boosts business and supports vital industries that depend on a navigable waterway," Sen. Christopher Coons said. "As a result of dedicated individuals from all levels of government and industry working together over many years, this project is underway and our entire community will benefit."

Baltimore District Operations Division leadership attended the December ceremony with Lt. Col. Brad Endres, Baltimore District deputy commander. "This is an important project for the Army Corps of Engineers as projects represent two of the most important missions of the Corps - to provide economic support to our Nation and to meet our missions in an environmentally sustainable way, both in how we dredge and where we place the material," Endres said.

"The maintenance dredging was essential to ensuring safe, efficient navigation for barges that transport grains, gravel and fuel along the Nanticoke," Blama noted.

FUDS cleanup moves to next phase

Corps of Engineers demolishes house in Washington, D.C.

By Brittany Bangert

As the excavator scraped away the side of the stately colonial brickhouse at 4825 Glenbrook Road N.W. in Washington, D.C., people gathered to watch the long-awaited demolition in Spring Valley.

"Today marks a milestone of an extremely complicated project that continues with a strong collaborative partnership with our regulatory partners and other stakeholders," said Dave Morrow, deputy district engineer for Programs and Project Management for the U.S. Army Corps of Engineers, Baltimore District.

This property is part of the Spring Valley Formerly Used Defense Site (FUDS), which consists of approximately 661 acres in the northwest section of Washington, D.C. During the World War I-era, the U.S. government used the site, known as the American University Experiment Station (AUES), for research and testing of chemical agents, equipment, and munitions. Today, the site encompasses approximately 1,600 private properties, including several embassies and foreign properties, as well as the American University and Wesley Seminary.

The Corps has been actively investigating and cleaning up the Spring Valley FUDS for 20 years. This work includes the identification and removal of arsenic-contaminated soil, a groundwater investigation, and the search for additional munitions, both in burial pits and isolated items on residential properties. Crews from Demolition Services Inc., began work on Nov. 29, 2012, and by noon on Nov. 30, all that remained was one lone-standing chimney at 4825 Glenbrook Road — which sits on a piece of property believed to be the site of the Sgt. Maurer Burial Pit.

"In the mid-1990s, the Corps of Engineers received a 1918 photo from the Maurer family depicting Sgt. Maurer disposing of chemical-filled carboys," said Brenda Barber, project manager for the 4825 Glenbrook Road project. "This is the only historical photo we have that shows disposal at the American University Experiment Station." The team used a technique called photogrammetry, which is the science of making measurements from photographs, to pinpoint the location of the Sgt. Maurer pit by comparing historical aerial photos to current day maps.

Crews excavate the last test pit as part of the initial low probability work at 4825 Glenbrook Road.
Photo by Andrea Takash

"In addition to the historical photos, we started investigating the Korean embassy property next door in 1999 and realized that items of concern also were present on 4825 Glenbrook Road," Barber said.

The 4825 Glenbrook Road property has since been the focus of two thorough investigations (2000-2002 and 2007-2010).

"More than 500 munitions items, 400 pounds of laboratory glassware, and more than 100 tons of contaminated soil were recovered and safely removed during the two past investigations," Morrow said.

During these previous investigations, the Corps discovered the materials of concern not only on the lot, but adjacent to the foundation of the house and encased into the foundation of a portion of the retaining wall on the site.

"Based on these previous investigations, we knew there would be a greater chance of finding more materials," said Barber.

The Corps, along with the project partners, the Environmental Protection Agency and the District Department of the Environment, considered various cleanup alternatives for the property.

"Based on input from our partners, several government agencies, the property owner (American Uni-

The crew arrives to prepare the 4825 Glenbrook Road property for demolition. *Photo by Brittany Bangert*

versity) and the public, we chose to remove the house, cleanup, and restore the property to residential standards, providing for unrestricted future use of the property," Barber said. "Removing the house allows for the best access to clean up any material that is immediately adjacent to the structure, as well as any material that might be under it."

In January, crews from Parsons, the project's prime contractor, began performing some limited low probability excavation work in the front and backyard of the property, where the Corps of Engineers did not expect to find AUES materials based on historic and investigative field data.

The crews completed low probability work in March and did not find any AUES debris or visual signs of contamination. Additionally, there was no air monitoring detections of any chemicals of concern.

After completing the initial low probability work, crews began preparing the site for high probability work, which is scheduled to start this summer. Historical and field data indicate the high probability areas of the property have a greater likelihood of containing AUES debris and/or glassware items. High probability excavation includes removal of the basement slab, as well as continued excavation underneath the structure to competent saphrolite or bedrock.
In addition to the air monitoring used in low probability, crews also will place a large Engineering Control Structure over the site as another control measure.

"The Engineering Control Structure will fully enclose the high probability excavation areas, and the use of a Chemical Agent Filtration System will filter the air leaving the control structure so that any person outside of the tent is safer than those working inside the tent," said Barber.

All of the materials removed during the high probability phase will be safely disposed.

Following completion of the high probability phase, the Corps plans to finish up with the remaining low probability excavation areas. After completion of the low probability work, the team will restore the site and release it back to American University by spring 2014.

Through each step of the project, safety remains the focus for the Corps "The safety of our site workers and members of the community remains our number one priority and serves as the driving force behind each and every decision made on this Spring Valley Formerly Used Defense Site," Morrow said.
Andrea Takash contributed to this article.

Swallows benefit from project

Eagle scout award earned by building bird houses on Poplar Island

Story and photos by Stacy Ouellette

James Bieler stands in Poplar Island marshland beside one of the cedar tree swallow bird houses he built and installed. Bieler conceived and coordinated the project with representatives of the Corps and the U.S. Fish and Wildlife Service.

On Aug. 21, James Bieler, 16, an Edgewater native and Troop 91 Life Scout, completed building and installing bird boxes for tree swallows at the Poplar Island Paul S. Sarbanes Environmental Restoration project to earn his Eagle Scout rank. On Feb. 23, Col Trey Jordan, Baltimore District commander, presented Bieler with a District Certificate of Appreciation. Also an Eagle scout, Jordan reminisced about his days in scouting at the ceremony.

"I like the outdoors and being on the water so it was the perfect project for me," said Bieler. "It took approximately seven hours of cutting and measuring the pieces, two hours of assembly, and there were eight people helping out."

Bieler received word through his former scout leader that Chris Guy, U.S. Fish and Wildlife Service biologist, was looking for someone to build wooden boxes to serve as habitats for tree swallows on the island.

"A few years ago, we happened to get our hands on recycled tree swallow boxes from a restoration site near the Anacostia River in Washington D.C.," said Guy. "We put a few up at Poplar Island and discovered the tree swallows occupied them almost immediately. We ran out of recycled boxes two years ago and approached the scouts for assistance in making more."

The recycled boxes did have issues with the faces falling off. So, Bieler and his team made some design changes to include hinges on the boxes to avoid this from happening. They also used cedar for the wood, which is known for its longevity and strength.

Bieler also enlisted the support of three boy scouts in his troop and seven adult volunteers including his parents Jim and Liz Bieler. Finding volunteers for this specific project was very easy, according the Jim Bieler. It was a family affair to some extent as many were lifelong friends of the Bieler family, grown scouts and their spouses included.

"One of the many great things about Poplar Island – aside from its important ecological impact on the Chesapeake Bay – is that this project also serves as a living classroom for those wanting to learn more about the restoration of vital habitat," said Justin Callahan, U.S. Army Corps of Engineers project manager. "Thanks to the relationships we have with our federal, state and local partners, we're able to foster these educational opportunities that will continue to benefit everyone for years to come."

James Bieler is presented a Certificate of Appreciation from Col. Trey Jordan, district engineer, on Feb. 23, for his hard work and innovative spirit in building and installing bird boxes on Poplar Island. Jordan spoke proudly of how his Boy Scout experiences benefited him throughout his military career.

Team returns home

District unit returns home after lengthy deployment to Afghanistan

Story and photo by Stacey Ouellette

Col. Trey Jordan (left), Baltimore District commander, personally welcomed home members of the 71st Engineer Detachment Forward Engineer Support Team – Advance (FEST-A) on Jan. 23 after a nine month deployment in Afghanistan. The seven person team is made up of active duty military and civilian personnel. Lt. Col. Brad Endres, deputy commander, and Maj. Chris Berge, deputy district engineer for support, also attended the celebration.

Seven members of a multi-disciplined, multi-component, rapidly deployable team, who averaged a completed project about every three days during their 270-day Afghanistan deployment, returned home in late January.

The Fort Belvoir-based 71st Engineer Detachment Forward Engineer Support Team – Advance (FEST-A) team - delivered more than 100 projects, including airport runway repairs, solar lighting design, and the redesign of the Mazar e Sharif Courthouse facility.

"Their efforts have made a positive difference in Afghanistan, and their contributions will have lasting effects," said Col. Trey Jordan, U.S. Army Corps of Engineers Baltimore District Engineer and FEST-A home unit commander.

"We are a great team of motivated professionals, with quality training and equipment, who are willing to deploy at any time to support Corps missions worldwide," said Lt. Col. Saiprasad Srinivasan, 71st FEST-A commander. "Our engineers did phenomenal work," he added.

The Fort Belvoir-based team is one of eight such Corps assets. With five civilians and two active-duty military on the roster, the team can accomplish technical engineer assistance, design, engineer planning, infrastructure surveys, construction estimates, material listings and cost estimates for projects.

"The Corps is very proud of our team who has sacrificed time away from their lives and families for the good of our mission," Jordan said. Also joining the welcoming home moment at Baltimore/Washington International – Thurgood Marshall Airport was Lt. Col. Brad Endres, deputy commander, and Maj. Chris Berge, deputy district engineer for support operations.

"I was able to help build infrastructure for the Afghan National Army that will assist them in taking over the mission, which will in turn help keep our folks out of harm's way," Courtney Millburn, FEST-A member said. "I also helped a girls' school get running water, showers and latrines. Although it wasn't a military project, assisting with the development of women's education in Afghanistan is something I am deeply proud of."

Each team member had a specific role to fulfill and took pride in doing so, which isn't hard to see when asked about their service.

"I am proud that I was able to make a real contribution toward our effort in Afghanistan," Craig Rodgers, electrical engineer said. " I am very proud of our team's accomplishments which ranged from humanitarian to real contributions toward the war effort."

Whether the team was designing solar lighting, providing security or reconfiguring power systems, the entire team was dedicated to the mission. Having all of them return home safely to their awaiting families was another positive outcome to the mission.

"We had many successful experiences as a team over our nine month deployment, and we're all just really happy to be home again," said Sgt. 1st Class Adrin Young, 71st FEST-A non-commissioned officer in charge.

"Thanks" from British officers

Royal Engineers learn from U.S. Army, help achieve shared goals

Story and photos by Brittany Bangert

Capt. Matthew Fry (left), Sgt. 1st Class Solitaire Washington (center), and Maj. Robert Duke (right) board the Baltimore District's Debris Vessel 1 in Washington Harbor as part of an Officer's Professional Development training.

As most engineers know, obtaining a Professional Engineer (P.E.) license is a daunting and difficult task.

From hours of endless studying to maintaining an already demanding workload to ensuring enough time with one's family, passing the P.E. exam seems like a goal always out of one's reach. Now, imagine not only studying, working, and balancing a family, but also doing so in a foreign country.

That's exactly what British Army Captains Matthew Fry and Ben Hancock are doing while at the U.S. Army Corps of Engineers, Baltimore District.

Fry, a civil engineer, and Hancock, a mechanical and electrical engineer, arrived from the United Kingdom in February and April 2012, respectively, filling the only two foreign officer slots in the entire Corps of Engineers as part of a 16-month training with industry.

"It's a unique program that British officers are required to participate in if they are to obtain their Professional Engineering license," said Col. Trey Jordan, Baltimore District commander. "The Corps has a partnership with the Royal School of Military Engineering, and we here at the Baltimore District get the unique opportunity to host two officers as they complete requirements of a Professionally Qualified Engineer (PQE) course."

The officers' training began with seven months of intensive study in Chatham, Kent, the home of the Royal Engineers.

During those seven months they studied masters-level contract law, structural analysis, drainage and road design, estimating and project management through a very fast-paced course.

"The course is essentially cramming more than a year's worth of study into seven months," said Fry.

After completing the course, Fry and Hancock travelled to the United States for the Baltimore District assignment. The tour consists of 10 months at a field site and six months at the Baltimore District headquarters. "We get a chance to get our boots dirty and then we move on to the district headquarters to get exposed to the office side of engineering, particularly the financial aspects which we have limited exposure to back in the U.K. military," said Fry.

Fry spent his first 10 months at the Harrisburg Area Office, while Hancock started at Fort Detrick, Md.

During the time with the Corps of Engineers, the British Army requires Fry and Hancock to meet 15 developmental objectives as part of the PQE course, including identifying engineering problems and implementation solutions. "It's possible for multiple objectives to be fulfilled by larger projects such as Poplar Island," said Fry, whose contributions to a new, cost-saving, hydraulic structure for Poplar Island will be the focus of his thesis due in May.

Most of the objectives remain the same for Fry and Hancock, but some of them are specialized. "A few objectives are tailored to enhance our knowledge in our stream (field) of engineering," said Hancock, who fulfilled many of his electrical and mechanical engineering objectives while working at the U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID) and the Steam Sterilization Pump.

Corps of Engineers employees recognize the talents and contributions of the Royal Military Engineers. "Although the PQE course is primarily intended to afford masters-level engineering experience to the best and brightest of the British Army, it is the U.S. Army

Capt. Ben Hancock (left) works with a Fort Detrick contractor to test ducts at the U.S. Army Medical Research Institute for Infectious Diseases project to ensure containment and that all specifications are met as part of the quality assurance process.

who truly profits from this program," said Tony Marcell, supervisory engineer at Fort Detrick, who has worked with three rotations of Royal Engineers.

Hancock continues this tradition of excellence during his work at USAMRIID, Marcell said. "Capt. Hancock, like his predecessors, integrated well with our best engineers to solve many complex mechanical problems," he said. "His expertise in advanced mechanical systems and leadership tested on the battlefields of Iraq and Afghanistan gave us an engineer who is capable in any environment, and who can deal well with scholars or tradesmen."

Fry offered a new perspective to the Harrisburg Area Office along with a unique sense of humor. "We were fortunate to have gotten a chance to work with Capt. Fry," said Dawn Conniff, Harrisburg Area Office supervisory engineer. "He brought a fresh perspective coupled with extensive engineering knowledge to the team. He willingly jumped into several construction management and contract administration challenges."

Not only is the Corps of Engineers benefiting from this opportunity, but Hancock and Fry continue to grow professionally. "This was my first time working on a construction site and first time in a foreign country so it's been quite a steep learning curve…but after working with a diverse, civilian workforce with experts in their stream of engineering, it has allowed me to become a well-rounded engineer," Hancock said. "It's been quite an eye opening experience."

The eye-opening experiences continue beyond the construction sites and into U.S. culture. "Small differences can catch you off guard," said Hancock. "The idea that you have to drive everywhere was quite foreign to us. When I worked at Fort Detrick, I lived about a mile from the office and chose to walk to work, which really confused people," he joked. "Many of them would come screeching to a halt, asking if I needed a lift when I really just wanted to enjoy a nice walk to work."

Because of the need to drive from different locations, Hancock and his wife invested in a car. "We thought we had bought a huge car, only to realize it was lost in the parking lot behind someone else's even larger car," said Hancock.

Although many differences caught them off guard, some have been pleasant surprises. Fry recalls the first time he fueled up in the United States and the pump unexpectedly stopped at $40. He was about to complain to the store owner that the pump was broken, when he realized the tank was filled. "My wife and I started high-fiving each other in celebration of how cheap the gas is compared to back home," said Fry.

Pleasant surprises continue to greet Fry on the streets of Baltimore. "If I am walking to lunch or getting on the light rail, every day someone will say 'thank you' for your service, or they'll shake my hand or even buy my coffee," said Fry. "That is something we do not experience in the United Kingdom and that was quite a humbling experience."

This glimpse of respect and friendship is something that Fry and Hancock have become accustomed to while living in Baltimore but both expect their time here to benefit future relations between the U.S. and British Army on a larger scale.

"By working with American engineers, we develop a better understand about how their projects run and how their agencies operate," said Fry. "If we were to find ourselves on operations in the future working with the United States, we would be in a much better position because we already have that understanding of how the U.S. systems work."

Fry and Hancock will turn in their thesis in May and head back to the United Kingdom this summer where they will present to a board full of experts in their field of engineering in order to earn their charter as professional engineers.

District thanks key customer

Baltimore District honors flood authority leader

By Clem Gaines

Jim Brozena reflects on his personal and professional interaction with Baltimore District flood risk management experts before his award ceremony with Col. Trey Jordan. *Photo by Mikell Moore*

Amid handshakes, smiles and stories of central Pennsylvania floods, the Baltimore District said farewell to Jim Brozena, the executive director of the Luzerne County Flood Protection Authority, at an awards ceremony on Jan. 9. Luzerne County is home to one of the largest flood risk management systems in the district, the Wyoming Valley Levee System.

More than two dozen program managers, engineers and water operations experts gathered in the district's executive office as Col. Trey Jordan, commander and district engineer, presented Brozena with the Commander's Award for Public Service. The award read, in part, "Mr. Brozena is recognized for his outstanding contributions and teamwork as the local sponsor representative for the Wyoming Valley Levee Raising Project. This project raised approximately 15 miles of levee and floodwalls, modified 21 pump stations and relocated utilities while mitigating flood impacts to 53 communities in five counties."

Jordan also brought congratulations from Lloyd C. Caldwell, U.S. Army Corps of Engineers director of military programs. "I commend you on your outstanding service to the people of Luzerne County and support to our Civil Works mission," Caldwell wrote. "Most notably, as the Executive Director, you were responsible for the success of the Wyoming Valley Levee Raising Project. The Corps reputation is built on excellent partnerships, and this is a perfect example."

The Wyoming Valley Levee Raising Project is located along the Susquehanna River in the vicinity of Wilkes-Barre, Pa. In 1972, Hurricane Agnes overtopped the project and caused more than $2.8 billion in damages. In January 2003, the Corps, in partnership with the Luzerne County Flood Protection Authority and other stakeholders, finished the work to modify the project to provide Agnes-level protection which is equivalent to a river discharge of 318,500 cubic feet per second. In September 2011, Tropical Storm Lee passed over the area and caused the river to crest at 42.66 feet, 1.75 feet above the level from Hurricane Agnes. The system performed as designed and no overtopping occurred.

Brozena, who is also retiring after 33 years of service to the county, noted that he had worked with a dozen district engineers and seven program managers. "I was fortunate since they were all professionals and we developed a family-type relationship." Jordan also presented a Corps Castle, a personal coin from Maj. Gen. Michael Walsh, the Corps deputy commanding general for civil and emergency operations, and the newly redesigned Baltimore District coin.

Col. Trey Jordan, commander and Baltimore Distinct engineer, presents the Commander's Award for Civilian Service to Jim Brozena, retiring executive director of the Luzerne County Flood Protection Authority. *Photo by Mikell Moore*

Registry aids planners

New tool helps Corps, partners protect water resources

By Chris Augsburger

"We're laying all our cards on the table."

That's how Ellen Bryson, a Geographic Information Systems specialist for the Regulatory Branch of the U.S. Army Corps of Engineers, Baltimore District, characterized the overarching benefits of a new web-based, collaborative planning tool for watershed resources throughout the state of Maryland.

Debuted in October 2012 after nearly five years in the making, the Watershed Resources Registry (WRR) provides planners, developers and regulators with a literal map of Maryland's precious watershed resources. These maps include location, proximity to other watershed resource features, and characteristics about each feature, such as streams or wetlands.

Additionally, the tool leverages its unique GIS capabilities to rank critical areas throughout the state.

"The WRR is like one-stop shopping for natural resources," said Bill Seib, chief of the Regulatory Branch for the Baltimore District. "This tool allows agencies and the general public to find potential target areas for development or preservation with the click of a button. We already see the WRR being used for identifying potential mitigation sites and high-quality ecological resources."

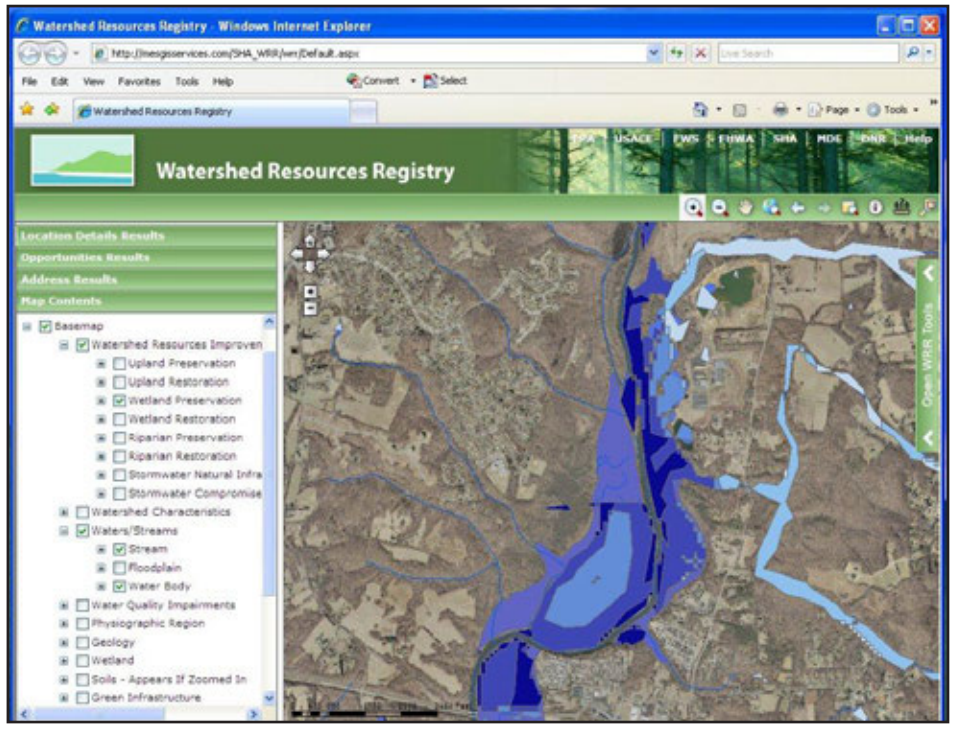
For regulatory agencies such as the Baltimore District or the Maryland Department of Environment, this tool could help save money and time in assisting applicants during their pre-application analysis. Not only will regulators, planners and others be able to make better decisions about their particular priorities, but the partners designed the WRR in a way to add secondary benefits, where the decision of a regulator or planner aids the priority of another. For example, a project intended to increase migratory bird habitat might also have the benefit of reducing storm water runoff if it was part of expanding a city's greenway.

Because developers, consultants, and agencies alike have their own unique purposes for the WRR, the equal contributions of data from partners across the state and federal governments were paramount in making this tool as accurate and comprehensive as possible, according to Bryson. When the State Highway Administration (SHA) uses the WRR, they can identify preservation areas and critical resources to avoid during their planning process.

"The WRR has allowed us to gain efficiency," said Sandy Hertz of the SHA. "We can get the research done in-house in one month that would normally be done in four."

Hertz said that SHA can be more confident that its designs would avoid areas of greatest impact, and mitigation sites would likely be favorably received by the regulatory agencies.

The WRR represents more than excellent cooperation among state, local and federal agencies; it also represents the continual advancement and incorporating technology to better support the needs of communities throughout the Nation.



This screenshot shows wetland preservation opportunities in the Patuxent River watershed, Prince George's County, Md., with the best opportunities shown in the deepest blue. *Screenshot by Ellen Bryson*

Web migration complete

Baltimore District launches new public website

Story and screenshots by Brittany Bangert

The U.S. Army Corps of Engineers, Baltimore District, launched its new website (www.nab.usace.army.mil) Feb. 1 that offers online users better access to information about the district's missions and projects.

The Baltimore District site is one of 58 Corps sites to migrate the website to a cloud-based system hosted by Defense Media Activity. The site enables the Corps to create a consistent look and feel across all websites as well as provide viewers with technologically enhanced capabilities.

The site, displaying a modern design, highlights the district's latest news, quick links, news releases, and photos. The site also showcases many new and improved features including the ability to sign up for alerts for news releases and public notices as well as interactive maps for area office locations. Visitors to the website will also find information about current projects organized by mission, navigation surveys, the permitting process, public notices, recreational opportunities on Corps-owned property, and more.

The new site gives project and program managers better opportunities and features to connect with constituents in addition to keeping them informed of the latest project updates.

The new Flood Risk Management (FRM) virtual tool on the public website exemplifies these new capabilities. "This is an excellent resource for all stakeholders in the Commonwealth," says Angel Gillette, eastern area president, Keystone Emergency Management Association. "Although flooding is Pennsylvania's number one risk, there wasn't a place where people could get information quickly without having to sift through an overwhelming amount of websites. The FRM virtual tool keeps it simple."

Within the next few months, the Baltimore District will continue to add interactive features to the site. This will include 360 degree views of the recreation sites, interactive maps, and more.

Groninger tours Aqueduct

Corps Command Sgt. Maj. visits Washington Aqueduct

Story and photo by Julia Battocchi

Tom Jacobus, Washington Aqueduct general manager, is joined by veteran water treatment plant operators Woody Peterson (left) and Ricky Davie (right) as he briefs Command Sgt. Maj. Karl J. Groninger on the impact tightening Environmental Protection Agency regulations have on the operation.

The U.S. Army Corps of Engineers (USACE) Command Sgt. Maj. Karl J. Groninger visited the Washington Aqueduct on Feb. 28 to learn about plant operations and speak with employees about their positions in the organization.

Groninger, a native of Newark, N.J., enlisted in the Army in 1982 and has been in his current role as the senior enlisted advisor to USACE commanding officers and staff since May 2012. A unique part of his position is that he travels throughout the Corps to see its projects and people.

"USACE is an incredibly diverse organization. On almost every visit, I learn about a service or project the U.S. Army Corps of Engineers performs in support of our country that our average citizen may not be aware of. My visit to the Washington Aqueduct was no different," he said of his tour of the plant. "The history behind USACE's requirement to initially build the Aqueduct was very interesting. The briefing and then actually walking through the plant, seeing how we take water directly from Great Falls and provide safe, clean, potable water to over one million people in and around our Nation's Capitol, was amazing."

His goal was to get an understanding of the operation so that he can ensure employee's training and safety needs are being met, that they are experiencing high levels of job satisfaction, and that they have the necessary tools to do their jobs. He spoke at length with employees performing wide ranging job duties in support of the mission, including laboratory scientists, whose technical and analytical support is needed to ensure the health and safety of the region's drinking water. Laboratory personnel, working with plant operators, ensure that water quality surpasses regulatory requirements.

He also talked with skilled tradespersons who maintain and repair hundreds of different pieces of equipment crucial to the plant's operations.

Groninger then visited with veteran water treatment plant operators Ricky Davie and Woody Peterson who provided a demonstration of the supervisory control and data acquisition system. The three spoke candidly about the changing role of the operator and the impact tightening Environmental Protection Agency regulations have on their work.

"As is always the case, getting to meet and speak with our dedicated workforce was the most rewarding part of my visit. Everything from mechanics to microbiologists working together in concert to ensure this vital piece of infrastructure operates as designed 24/7, 365 days a year. The dedication, professionalism and technical abilities of our USACE workforce never ceases to amaze me, they are the strength of this organization."

The Washington Aqueduct is the only federally owned and operated water treatment plant serving the public. The Aqueduct currently provides approximately one million customers living and working in Washington, D.C., Arlington County, Va., and the City of Falls Church, Va., with safe drinking water.

To learn more about the Washington Aqueduct, visit http://washingtonaqueduct.nab.usace.army.mil.

Levee repairs underway in Wyoming Valley

Corps personnel examine the repairs to a boil on the landside of the levee in Forty Fort, Pa. During Tropical Storm Lee, the pressure from the Susquehanna River forced water under the levee which surfaced and damaged an open area. *Photo by Clem Gaines*

Repair work continues on Dec. 12 on the Wyoming Valley Flood Risk Management System. The bulldozer is smoothing out a seepage berm that now adds strength to the levee wall in Forty Fort, Pa. The work is done with federal funding under PL 84-99. *Photo by Clem Gaines*

The Wyoming Valley Flood Risk Management System protects these homes in Wilkes-Barre, Pa., and elsewhere, from high water events on the Susquehanna River. *Photo by Clem Gaines*

Simple markers attest to the power of the Susquehanna River at its highest flood stages. These markers are on the Millennium Circle Portal Gate, an opening in the levee for public access from Wilkes-Barre, Pa. (left), to the Susquehanna River. In a flood event, huge gates stored in the sides are pulled out to close the portal. *Photo by Clem Gaines*