US Army Corps of Engineers
New York District Times
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2013 Year in Review Edition
U.S. Army Corps of Engineers, New York District

New York District 2013 Year in Review

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New York District Times
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U.S. Army Corps
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New York District

(photo by Chris Gardner, New York District)

Crews use equipment to pump sand on Rockaway Beach in Queens, N.Y., to repair and restore the previously constructed coastal storm risk reduction project there after it was impacted by Hurricane Sandy. Rockaway Beach was one of several New York District projects impacted by Sandy. The District worked diligently through 2013 to repair the damages from Sandy to these projects and restore them to original design profiles. More on the District's post-Sandy missions in 2013 **"Hurricane Sandy Coastal Restoration and Special Projects Branch a major part of District's 2013 mission"** on page **3**.

District Commander's Reflections on 2013

Col. Paul E. Owen
Commander

The year 2013 was the 13th year of the 3rd millennium, and 13th year of the 21st century. We've said goodbye to 2013 but I'd like to take a final look back at what New York District has achieved during another exceptional year. As we shift our attention to 2014, we can reflect on the many milestones achieved and successful work that's been accomplished.

Over a period of 12 months you have been absolutely remarkable -- another Year of New York District setting a standard within the North Atlantic Division. The District's project successes have significantly contributed to improvements across our area of responsibility. Our successes and accomplishments are a product of your great efforts and demonstrate your ability to solve problems and meet our customer needs.

Over the past year, the District has completed various high visibility projects, studies and successful initiatives. These initiatives were accomplished admirably despite financial hardships in the midst of a pay freeze, sequestration, Government furlough, rescinded programs, and training and travel restrictions, coupled by some of our employees still getting back on their feet following Hurricane Sandy. I continue to be impressed by the dedication and professionalism of the District workforce and, particularly, by your commitment during stressful times and aforementioned hardships.

A great majority of this year's initiatives were focused on supporting our North Atlantic Division, and Headquarters relating to Hurricane Sandy. In 2013, we obligated millions of dollars through hundreds of contract actions. What we've achieved as a whole exceeds our capabilities as individuals as these many accomplishments speak for themselves. You worked diligently throughout the calendar and fiscal years wrapping up FY13 and getting FY14 off to an excellent start. You managed and ensured the delivery of programs affecting the people in the region who depend upon our projects.

As communities across our region continued to recover from Sandy, we are reminded of our spirit of resilience. 2013 began with resiliency at our Caven Point Marine Terminal that was severely damaged by Hurricane Sandy and began its own recovery with critical structural dock repairs as well as helping reopen the harbor by removing hazardous debris.

May saw the District's continued progress on our Military construction projects across each of the installations we support, including the Keller Army Community Hospital whose additions were performed in phases which allowed the hospital to remain open during construction.

In June, Brig. Gen. Kent Savre hosted the District's town hall meeting for the first time, as the North Atlantic Division's Commander and Division Engineer. He also took the opportunity to recognize several

Commander's Reflections cont'd on 21...

Hurricane Sandy Coastal Restoration and Special Projects Branch a major part of District's 2013 mission

Hurricane Sandy severely impacted coastal communities throughout New York District's boundaries and beyond when it struck the region in October 2012.

The U.S. Army Corps of Engineers played a large role in the emergency response missions immediately following the storm as well as in the recovery missions that continued well into 2013.

The Corps, through FEMA mission assignments, supported debris removal operations in New York City starting immediately after the storm as well as an additional debris mission on Long Island on Fire Island that began in early 2013 **(see page 4)**.

Sea Bright, N.J., on September 7, 2013 during post-Sandy repair and restore work, was one of several coastal communities where the Corps of Engineers managed work to increase the height and width of previously constructed beach berms in 2013 impacted by Hurricane Sandy at the end of 2012. (File Photo)

While all of this was happening, there was new attention from all over the country being paid to coastal communities in New York, New Jersey and other areas impacted by Sandy. This brought additional attention to the Corps of Engineers and its role in reducing risks to communities from coastal storms.

While supporting emergency response activities such as providing emergency temporary power to critical facilities, unwatering vehicular and mass transit tunnels that had flooded and removing debris, New York District personnel were also already assessing Sandy's impact to coastal areas and especially to previously constructed coastal risk reduction projects. This meant inspecting several miles of previously engineered and constructed risk reduction beaches throughout the region, as well as inspecting other risk reduction elements like levees and tide gates.

This was a critical first step to repairing these projects, which the Corps has a standing legal authority to perform via the Flood Control and Coastal Emergencies Act, or Public Law 84-99.

This law gives the Corps of Engineers the standing authority to repair risk reduction projects that have been severely damaged by a large storm or other extraordinary event to their pre-storm condition.

"These projects helped mitigate some of the impacts from Sandy, but the storm left the projects in a damaged condition, leaving the communities behind them potentially more vulnerable to future storms," said Anthony Ciorra, Chief, Sandy Coastal Restoration and Special Projects Branch. "That's why the work to repair and ultimately restore these

Sandy cont'd on page 5...

New York RFO finishes post-Sandy debris removal mission in 2013, including FI mission

The New York Recovery Field Office set up by the U.S. Army Corps of Engineers after Hurricane Sandy oversaw Corps of Engineers response and recovery missions in the state. That included the massive debris management mission in support of New York City immediately following the storm.

The RFO started in rented space in Queens, but eventually moved to be co-located with New York District in lower Manhattan in early 2013. The debris mission supporting New York City continued into spring 2013 with the continued removal of flush-cutting of tree stumps.

In early 2013 though, the Corps of Engineers was assigned a new mission by FEMA for debris removal on the barrier island of Fire Island on the South Shore of Long Island.

Crews worked and moved in limited spaces around homes on Fire Island during post-Sandy debris removal efforts there in early 2013. (photo by Chris Gray Garcia, New York RFO)

Residents and visitors access Fire Island primarily by ferry. A remote barrier island, Fire Island has limited vehicle access and travel is mostly limited to small boardwalks or sand pathways, and driving on the beach required special permits in several communities. The Corps worked street by street and removed debris using dump trucks, front-end loaders and crawler excavators. Approximately 2,200 structures on Fire Island were damaged by the storm and an estimated 62,000 cubic yards of storm debris was moved from the right of way and private property.

Due to the remote nature of Fire Island and the limited vehicular access, debris was loaded onto barges for disposal during post-Sandy debris removal efforts there in early 2013. (photo by Chris Gray-Garcia, New York RFO)

To complicate the mission even more, crews had to respect environmental restrictions associated with nesting piping plovers and remove debris before April. The mission shifted into high gear at Fire Island in March with 24-7 operations in full swing to expedite the removal process and meet the clean up goal.

All in all, the RFO managed the removal of roughly 800,000 cubic yards of debris from New York City and Fire Island.

— *Sandy cont'd from 3* ———

projects to their authorized design profile was so important to these still-recovering communities."

New York District personnel started work immediately after Sandy, gathering data on previously constructed projects, obtaining the proper approvals and moving toward execution of repairs.

DISASTER RELIEF APPROPRIATIONS ACT OF 2013

While all of this was happening, Sandy, its impacts and the recovery of the region were all being debated in Washington.

After much debate, the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, or the Sandy Relief Bill) was passed in early 2013. It included more than $60 billion to be used to support post-Sandy recovery and rebuilding in the region.

Of that, P.L. 113-2 allocated $5.35 billion to the U.S. Army Corps of Engineers ($5.08 after sequestration), including $4.56 billion to the Corps' North Atlantic Division ($4.33 billion after sequestration). The majority of the funds would be targeted for near- and long-term work in New York and New Jersey.

These funds were primarily designated toward repairs to previously constructed projects, updating and ultimately constructing coastal projects that had been authorized for construction in the past but for whatever reason had not been constructed, and completing ongoing coastal risk reduction studies. The bill also funded repairing Sandy's impacts to federal navigation channels throughout the region, which was an impact of the storm of which many people are often not aware **(see page 12)**.

Post-Sandy coastal projects were very highly visibile. U.S. Army Corps of Engineers Chief of Engineers Lt. Gen. Thomas Bostick and Assistant Secretary of the Army (for Civil Works) Jo-Ellen Darcy meet with New York District and North Atlantic Division personnel as well as top local officials and representatives of local elected officials at Rockaway Beach on August 21, 2013 to discuss ongoing beach restoration activities there. (photo by Hector Mosley, New York District)

It also called for a Project Performance Evaluation Report to be prepared to assess how previously constructed projects performed and to discuss coastal risk reduction going forward **(see page 8)**.

The bill also authorized the Corps of Engineers to not only repair previously constructed coastal risk reduction projects impacted by Sandy to their pre-storm conditions, but to also restore those projects back to their original design template. This meant more sand along engineered risk reduction beaches, more risk reduction for coastal communities hit hard by Sandy and for some communities it meant beach sizes and risk reduction levels that hadn't existed in several years or even decades.

With the new authority, the District went to work adjusting its plans for repairing coastal projects and moved forward with its restoration efforts.

The large growth in the District's coastal mission from new funding and authorities associated with P.L. 113-2 led to the creation of the Sandy Coastal Restoration and Special Projects Branch in the Programs and Project Management Division.

RESTORATION OF PREVIOUSLY CONSTRUCTED PROJECTS

Much of the District's most visible post-Sandy coastal activity was centered around repairing and restoring previously constructed coastal risk reduction projects in

Sandy cont'd on page 7...

Coastal Project Repair and Restore at a Glance

After Hurricane Sandy, the U.S. Army Corps of Engineers was tasked with repairing and restoring previously constructed coastal projects throughout the region, which meant placing more than 26 million cubic yards of sand along the coast. Of that, New York District was responsible for work in New York and northern New Jersey. That meant placing more than 16 million cubic yards of sand to help restore their risk reduction benefits to coastal communities, many of which were still recovering from Sandy's impacts through 2013.

Previously Constructed Coastal Risk Reduction Projects	Sand Placed (cubic yards)
Rockaway Beach (NYC)	~3.5M
Coney Island (NYC)	~600K
Gilgo Beach (LI)	~1.7M
Westhampton (LI)	~1M
West of Shinnecock Inlet (LI)	~450K
Keansburg (NJ)	~1.1M
Sea Bright to Manasquan (NJ)	~8.2M
Total	**~16.5M**

Sandy cont'd from 5

Jersey. This included beaches in New York City like Coney Island and Rockaway, along the south shore of Long Island, along the Atlantic coast of Monmouth County in New Jersey and in Raritan and Sandy Hook Bay in New Jersey **(see page 6)**.

The effort is being carried out through 13 contracts, including 11 for primarily sand placement, while the remainder were for levee and/or tide gate repairs. All of New York District's repair/restore contracts were awarded by the end of October 2013. Work on multiple contracts was completed at the end of 2013, including the placement of roughly five million cubic yards of sand of an estimated total of 16.5 million cubic yards slated to be placed. The remaining repair/restore contracts are slated to be completed by mid-2014, depending on factors like weather and the availability of dredges.

"The Corps' focus is to finish repairing and restoring these coastal storm risk reduction projects as soon as possible so they're in better condition than they were prior to Sandy's landfall," Ciorra said in December as sand placement work continued on repairing and restoring projects in the region. "At the same time, we are continuing to work with our partners in New York and New Jersey to design and construct new projects that will reduce risk to additional coastal communities in areas throughout the region where no Corps projects have previously been constructed."

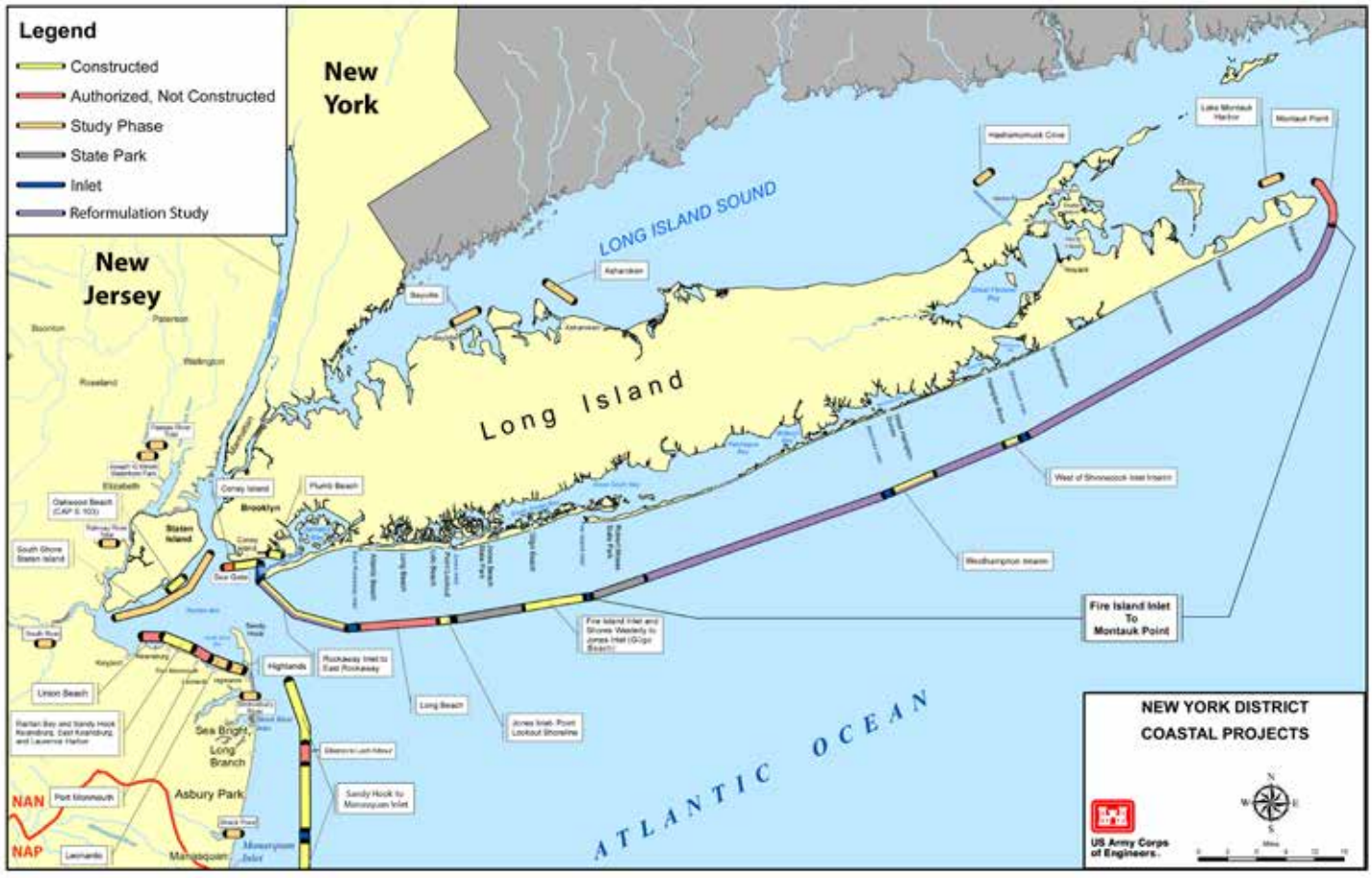
PREPARING FOR FUTURE COASTAL RISK REDUCTION WORK

The repair/restore work is the first phase of a three-phased long-term approach to the District's post-Sandy coastal risk reduction mission. The second phase involves constructing new projects that were previously authorized but were yet to be built and the third phase is to complete ongoing studies looking at potential coastal risk reduction alternatives.

P.L. 113-2 also allocated funds and defined potential cost-sharing ratios for ongoing efforts in both these two additional phases.

"The Corps and the District have been given a unique opportunity to expedite and complete coastal

Sandy cont'd on page 14...



Corps evaluates performance of coastal projects during Sandy

Lynn Bocamazo from New York District's Engineering Division discusses the performance of the coastal risk reduction project at Westhampton, N.Y., with District senior leaders on November 16, 2012. While sand was removed and dunes were flattened during Sandy, homes and infrastructure behind the project fared well during the storm. (photo by Chris Gardner, New York District)

The U.S. Army Corps of Engineers has completed and released the findings of the Hurricane Sandy Coastal Projects Performance Evaluation Study that was conducted in accordance with the Disaster Relief Appropriations Act of 2013 (Public Law 113-2, or often referred to as the Hurricane Sandy Relief Bill).

USACE was directed by Chapter 4 of Public Law 113-2 to evaluate the performance of existing USACE coastal projects impacted by Hurricane Sandy, with the purpose of determining their effectiveness and recommending improvements thereto.

While Hurricane Sandy's impacts were the most pronounced in the North Atlantic region of the United States, the storm impacted communities and coastal storm risk management projects as far south as Florida and as far inland as the Great Lakes region. The Hurricane Sandy Coastal Projects Performance Evaluation Study's primary focus was an evaluation of 75 constructed coastal storm risk management projects in USACE's North Atlantic Division, which extends from Maine to Virginia. In addition, the Study includes evaluations of 31 projects in the USACE's Great Lakes and Ohio River Division and nine projects in the USACE's South Atlantic Division.

The performance of each of these projects was evaluated to determine the effectiveness of the project with respect to both the engineering and economic benefits and the extent to which the project reduced the overall risk to the coastal communities. Overall, the report found that, when taking into account the varying levels of intensity of the storm in different areas with completed risk reduction projects (with storm frequencies exceeding 500-year storm levels in some areas), existing USACE projects performed as designed in reducing coastal storm risks. Although several of the projects were overtopped by Hurricane Sandy's record-setting storm surge in the New York and

Project Performance cont'd on page 22...

A manager at the flagship Nathan's Famous restaurant in Coney Island describes to New York District Commander Col. Paul Owen how water came into the restaurant from the bayside during Hurricane Sandy rather than the side of Coney Island where the Corps had built a project while talking the storm's impacts on May 24, 2013. The Corps' Performance Evaluation Report looked at how projects like the one at Coney Island performed during Hurricane Sandy. (photo by Chris Gardner, New York District)

District's Military Programs continued to serve service members and families

District continues serving installations and service members throughout AOR despite sequestration's impact on personnel

In 2013, New York District's Military Program continued to successfully meet the needs of service members and their families. Despite financial and staffing challenges because of sequestration, the District moved forward to construct and award many projects. These projects included modernized and energy-efficient living space, health care services, education and training. Following are a sampling of these projects at various military installations.

U.S. Military Academy at West Point, N.Y.

Providing West Point's Corps of Cadets proper combat training is of great importance to the Army. During the summer the District provided the service academy with its first urban assault course that trains the Cadets on how to maneuver in different urban environments that they may encounter when in combat.

Army Corps contractor Doyle Contracting of Pearl River, N.Y., performed the work that included constructing a series of five training stations, connected by roads on 11 acres of land. The project was completed ahead of schedule, allowing the Cadets to begin using it in 2014.

The U.S. Army Corps of Engineers began construction on the new Cadet Barracks at the U.S. Military Academy at West Point in fall 2013. Once completed, the facility will house 650 Cadets (Rendering courtesy of STI/URS contractors joint venture)

During the academic year, when Cadets are not away and are living at the Academy, their quality of life is also important. New Cadet barracks are being constructed by Army Corps contractor Walsh Construction Company of Chicago.

The new barracks, the equivalent of dormitories at civilian institutions, will be 287,000 square feet, have six floors with living space for 650 Cadets. The barracks is expected to be completed in fall 2016.

Having convenient healthcare while at the Academy is important to Cadets who don't want to lose valuable training time and class hours. The District is adding a clinic to the Academy's Keller Army Community Hospital that will provide the Cadets and the Army community with much needed nearby outpatient and clinical care.

Contractor Morgan Construction Enterprises of New York City is performing the work which involves constructing a 51,000 square-foot clinic addition to the hospital. It's being constructed using an energy efficient and flexible design to allow the hospital to modernize further in the future without needing additional construction. The addition will be open to patients in 2014.

Also being modernized is the 80-year old West Point Middle School that educates 300 of the garrison's children.

Contractor Benard Associates of Wayne N.J., completed construction of a new 31,000 square foot addition this summer and is currently performing renovation of the historic original 1934 school.

The combined 62,000 square foot educational facility is taking the school into the 21st century and will include state-of-the-art classrooms for art,

science, music and general purpose. Classes will be equipped with interactive smart boards and wireless Internet access. The remainder of the project will be completed in 2014.

Fort Drum, N.Y.

Fort Drum is improving the healthcare for its 80,000 service members and their families.

Contractor Structural Associates of Syracuse, N.Y., is constructing a Soldier Family Care Clinic that will provide needed outpatient and clinical services.

The clinic will be an energy-efficient 22,500 square-foot facility that will be completed by the summer of 2015.

Thule Air Base, Greenland

Providing service members' quality living space is always very important, but it's especially critical at Thule Air Base in Greenland. The base is the U.S. Armed Force's northernmost installation, located 750 miles north of the Arctic Circle.

Because of the harsh weather and remoteness of the base's location, service members need top-notch living space that helps to improve their morale, productivity, career satisfaction and quality of life.

Construction is underway on several projects at the base, including the construction of two dormitories – a 54-person facility and a 48-person facility.

Crews work on the exterior of a 54-person dormitory under construction at Thule Air Base in Greenland on Ovtober 4, 2013. (photo by KimYan Chin, New York District Construction Division)

Both dormitories will have three stories and are being constructed using special techniques needed when building in an Arctic environment, where the ground consists of permafrost that can melt.

Contractor MT Højgaard, a Denmark-based firm, is constructing the 54-person dormitory that will be completed in 2014 and Denmark-based contractor Pilegaard-Henriksen is constructing the 48-person dormitory that will be completed in 2015.

Solar Power Project at the Homeland Security Center of Excellence in Lawrenceville, N.J. (photo Courtesy of the New Jersey National Guard)

Joint Base Mcguire-Dix-Lakehurst, N.J.

The Department of Defense aims to incorporate energy efficiency into all of its projects and this is especially important at the Joint Base, the nation's only tri-service joint base.

The District has constructed several renewable energy projects for the base and this past summer they completed another.

Contractor P&S Construction, Inc. of Lowell, Mass., mounted a photovoltaic power system on the roof of the New Jersey Department of Military and Veterans Affairs, New Jersey Homeland Security Center of Excellence in Lawrenceville, N.J.

The 210 kilowatt power system will save the base considerable money in electrical costs and save taxpayers approximately $110,000 annually.

Civil Works Branch projects and studies continued moving forward in 2013

While a great deal of the District's coastal missions transferred to the Sandy Coastal Restoration Branch, the District's Civil Works Branch continued moving forward with its ongoing coastal work as well as ongoing flood risk management construction and studies throughout the region.

While major construction on the Bound Brook portion of the Green Brook flood risk management project was essentially finished with the completion of the New Jersey Transit railroad closure gate at the tail end of 2012 that completed Bound Brook's ring of protection, construction continued into Middlesex County on the massive multi-county project that will eventually reduce risks for several towns throughout the Green Brook sub-basin.

Timothy Yarger, of New York District's Construction Division, looks at early progress in late 2012 on the construction of a floodwall in Middlesex County, N.J., that is part of the larger, multi-county Green Brook Flood Risk Reduction Project the Corps is building in partnership with the state of New Jersey. While major construction for the nearby Bound Brook portion of the project in Somerset County was completed in late 2012, work in nearby Middlesex County on elements like this one ramped up and hit full stride throughout 2013. (photo by Chris Gardner, New York District)

While construction progresses on the Green Brook project, the District continued pressing forward with studies analyzing potential risk reduction alternatives for other areas, including the Mamaroneck River and Byram River basins in New York and Connecticut and the Passaic River, Millstone and Rahway River basins in northern New Jersey.

For the Passaic River Basin, which has a history of flooding and Corps efforts to manage flood risks, the Corps completed the Preliminary Alternative Re-evaluation Report which outlines six alternatives to manage flood risk for communities throughout the 983-square-mile basin and provides preliminary updated overviews of them since the Corps last looked at the basin decades ago. The Corps had previously proposed a flood risk reduction project for the basin that was eventually authorized by Congress for construction in the 1990s, but it was never built due to lack of local support.

In 2012, the Corps was asked by the state of New Jersey to again look at risk management alternatives for chronic flooding in the basin and that led to the Preliminary Alternative Re-evaluation Report, which was delivered to the state of New Jersey for review in fall 2013. The next step is for the state of New Jersey to determine which alternatives it would like the Corps to move forward with for further detailed analysis.

In Vermont, the District oversaw the award of a contract for the removal of three obsolete oil bollards from Burlington Harbor in order to remove the potential for obstruction to navigation being created by their continued deterioration. The work will be completed in 2014.

District works to restore post-Sandy normalcy to navigation

While many people are aware of Hurricane Sandy's significant impacts on land to coastal communities throughout the region, not nearly as many people may be familiar with the storms unseen impacts below the water's surface.

The storm's powerful waves and currents moved materials below the water, including in many navigation channels. In addition, it also damaged navigation structures like jetties and breakwaters that the Corps began repairing in 2013.

The first step to restoring the region's navigation channels was surveying the storm's impacts to the channels. While New York District's hydrographic survey vessels worked swiftly after Hurricane Sandy to conduct cursory obstruction surveys and help get the Port of New York and New Jersey back up and running, the surveying mission kept going well into 2013 conducting new surveys showing the new, post-Sandy dimensions of dozens of navigation channels.

That effort continued through the winter and well into the spring. The across-the-board surveying of all federally authorized navigation channels in the region helped provide up to date depth information for mariners for the increased numbers in the spring and summer while also providing data needed to prepare for post-Sandy maintenance dredging.

In addition to the other support the Survey Section provided like regular support to the continued effort to deepen the channels in the New York Harbor and new work supporting post-Sandy missions like restoring beaches throughout the region (often with sand from channels), the District's survey mission likely doubled in 2013.

With the passage of the Disaster Relief Appropriations Act of 2013 and the subsequent guidance from Headquarters USACE, the District was authorized and funded to restore the dozens of miles of channels impacted by Sandy.

While work repairing channels started as early as weeks after Sandy through dredging navigation channels for emergency response work like breach closures and work on many contracts has begun in 2013, even more post-Sandy maintenance dredging contracts will be awarded and carried out in 2014. Preparatory work for those dredging contracts continued through 2013.

In order to manage the significant increase in dredging in 2013 and in preparation for even more dredging in 2014, the District has taken on engineers and construction inspectors from other Districts around the Corps to assist.

In total, including other Districts in North Atlantic Division, the Corps will be awarding roughly more than $300 million in maintenance dredging contracts to repair Hurricane Sandy's impacts to navigation channels in the northeast.

New York Survey Boat 3 conducts a hydrographic survey in Sandy Hook Bay on April 10, 2013 as part of a massive effort to map Hurricane Sandy's impacts to navigation channels throughout the region. The surveys provided updated post-Sandy data that was useful for mariners and needed for dredging efforts to restore channels impacted by Sandy to their authorized dimensions. (photo by Chris Gardner, New York District)

District continued to support Overseas Contingency Operations in 2013

District supported Overseas Contingency Operations through deploying personnel, reachback support and awarding contracts

Nicholas Emanuel of New York District's Contracting Division deployed to Afghanistan in 2012 and returned stateside in the summer of 2013. Emanuel, shown here in Afghanistan in October 2012, worked as a contract specialist with the Afghanistan Engineer District – South. (U.S. Army photo by Jasmine Chopra-Delgadillo, USACE)

While Afghanistan may not have been in the news as much in 2013 as previous years, missions there continued and New York District supported the larger Corps of Engineers missions there through both personnel deploying and reachback support.

Throughout 2013, nine New York District personnel were on volunteer deployments to Afghanistan at some point, filling crucial positions ranging from project managers to engineers to support staff.

The District also continued to support the Transatlantic Division and the Middle East District in their missions in Afghanistan and Iraq through reachback support.

The work in Afghanistan varies much like the Corps' domestic missions.

Nicholas Emanuel, Contracting Division, deployed to Afghanistan Engineer District - South in 2012 as a Supervisory Contracting Officer and returned in the summer of 2013. He said his role supported a variety of projects.

"My work mainly involved building infrastructure for the Afghanistan National Security Forces and working on civil works projects that included power systems, construction of irrigation canals and dams," Emanuel said.

In 2013, New York District personnel stateside also supported ongoing efforts in Afghanistan through reachback support. This included providing electrical engineering support by reviewing designs and shop drawings produced by contractors constructing projects for Corps' efforts in Afghanistan.

New York District also awarded contracts such as an $11.6 million contract awarded in early 2013 to a local Afghan firm for facility construction in Kabul and a $1 million contract awarded for classrooms for a regional military hospital compound at Gardez in early 2013. After the District awards contracts like these, construction management is then handled by the local Afghanistan Engineer District.

Personnel interested in learning more about overseas deployment opportunities can contact Christina Carney at: Christina.D.Carney@usace.army.mil.

District supported initiatives throughout 2013 promoting STEM to area students

STEM, which stands for science, technology, engineering and math is a buzzword across the nation with leadership in the U.S. Army Corps of Engineers, the Pentagon and all the way up to the White House interested in STEM outreach programs for students of all ages.

The push comes from the growing awareness that the nation will need increased numbers of graduates that have studied in the STEM field to help the nation progress in the coming years and fill important jobs.

The U.S. Army Corps of Engineers, as the nation's premier engineering agency, has been a big part of the push for STEM outreach to students and New York District continued to expand its STEM outreach in 2013.

Engineering Divisions's Zulamet Vega-Martinez talks to students about the importance of studying science, technology, engineering and math at a STEM Expo on April 19, 2013 organized by the New York City Department of Education and targeted toward students with English as a second language. (photo by Chris Gardner New York District)

New York District Commander Col. Paul Owen talks to high school students about the missions of the Corps of Engineers, the importance of studying STEM and the opportunities studying STEM can create at a STEM Career Day June 6, 2013 hosted in coordination with New York City Department of Education. (photo by Chris Gardner, New York District)

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risk reduction projects throughout the region," said Ciorra. "We're looking forward to working with our partners to construct these projects in vulnerable coastal areas."

Seven New York District projects are currently identified as being eligible for initial construction to be 100 percent federally funded, ranging from relatively smaller efforts like bulkhead work in Newark, N.J., to comprehensive risk reduction proposals for dozens of miles along the south shore of eastern Long Island. District personnel worked through updating these projects and incorporating post-Sandy data and conditions throughout 2013 and construction is expected to begin in 2014 on the first of these projects.

Other projects are subject to traditional cost-sharing ratios, but with federal money potentially already fully available.

Eleven ongoing New York District coastal studies are currently identified as eligible to be completed via full federal funding.

Work constructing new coastal risk reduction projects and completing ongoing studies and implementing their recommendations will continue well past 2014 and keep the District's Sandy Coastal Restoration and Special Projects Branch busy for years to come.

Harbor Deepening effort moves closer to completion, awards final major contract

Through the four major container terminals in the Port of New York and New Jersey waterborne cargo moves to all parts of the United States and throughout the world.

During the past decade, the U.S. Army Corps of Engineers, New York District, in partnership with The Port Authority of New York and New Jersey, has been deepening 38 miles of federal navigation channels in the New York Harbor to a navigable depth of 50 feet. The 50-foot channel deepening provides a safe and economically efficient pathway for the newest generation of container ships calling in the Port of New York and New Jersey.

The New York District awarded the final major construction contract in 2013 for deepening the Arthur Kill Channel to 50 feet which leads to the New York Container Terminal, Borough of Staten Island, New York City. The deepening of the Arthur Kill Channel is expected to be completed this year and will be the final milestone achieved in the overall 50-foot Harbor Deepening Project.

Work has been undertaken through various construction contracts with the last major contract for the 50-foot deepening project nearing completion. The project consists of 17 separate construction contracts to deepen the major navigation channels beginning from the Ambrose Channel entrance to the Upper New York Bay and Newark Bay, providing access to the Global Marine, New York Container, Port Newark, and Elizabeth Marine Terminals.

"The entire project couldn't have been accomplished under one enormous contract," said Bryce Wisemiller, project manager. "A section of a major shipping channel couldn't just be closed down while being deepened."

According to Wisemiller, during the entire 50 foot deepening project, one side of a channel remained opened while the other side was being deepened.

To allow large ships to safely transit the shipping channel, a dredge deepens the Arthur Kill Channel approaching the New York Container Terminal in the waters off of Elizabeth, N.J. and Staten Island, N.Y. (photo by Vince Elias, New York District)

"It's much like leaving one lane open for traffic on a major expressway during construction while painting a stripe down the center of a highway," said Wisemiller. "The only difference is that it's on the water."

The $1.6 billion project, cost shared with The Port Authority of New York and New Jersey, was initiated prior to the announced improvements to the Panama Canal, expected to maintain the Port of New York and New Jersey's position as a premiere port on the East Coast.

The New York District has been ultimately responsible for the administration, construction of the massive project with The Port Authority that has provided funding, identified designated placement sites for dredged material, assured the relocation of utilities that the Corps identified as obstacles to deepen, reviewed federal contract bid documents and assured that port ship berths were the proper depths as the navigation channels.

The Arthur Kill Channel deepening effort is one of the last construction elements as part of a more extensive harbor-dredging project to create safe and efficient channels for a larger class of vessels that will be calling at the Port.

"This construction is a significant component of the broader effort of the Army Corps' navigation channel deepening project, crucial for modern-day container ships fully loaded to navigate safely," said Wisemiller.

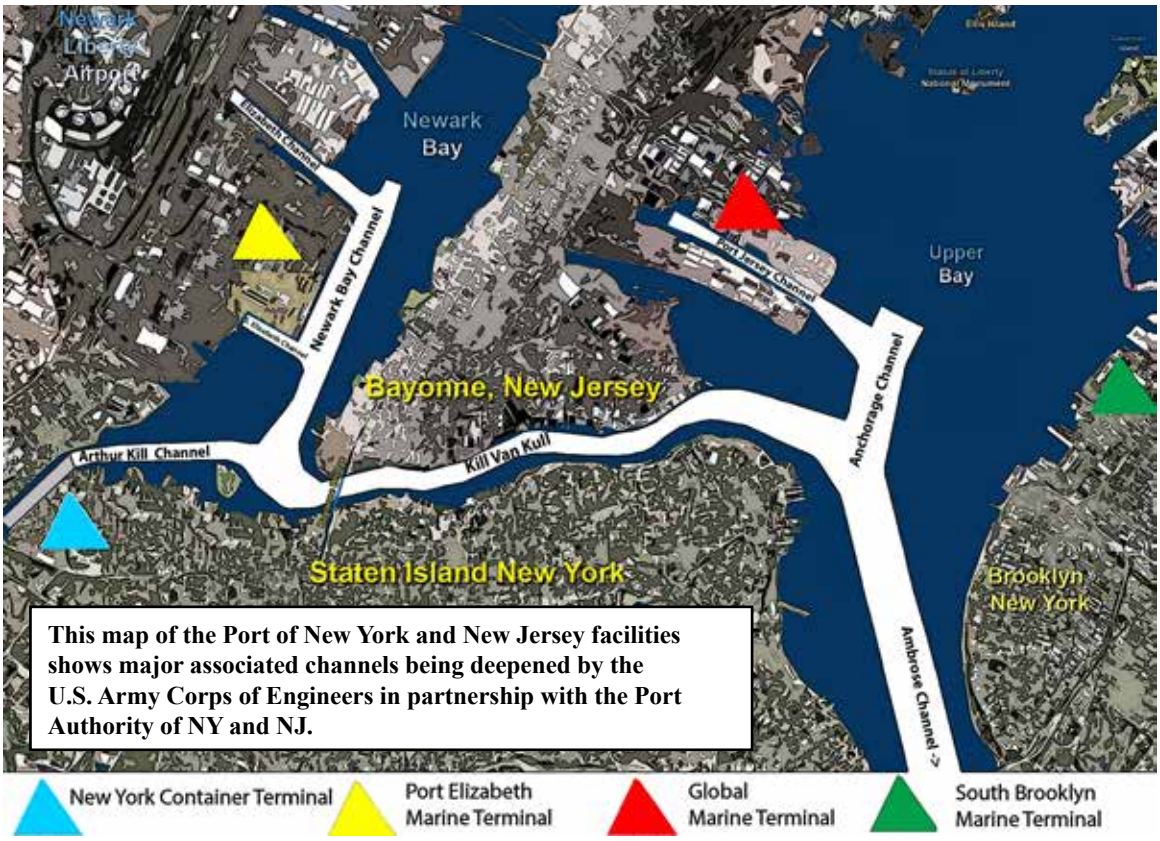
All facets of the Harbor Deepening Project were accomplished with safety as a first priority as contractors dredged the channels in a manner that protected the health and the environment. During the project, several areas contained solid bedrock which necessitated precision-controlled, safe and staggered detonations underwater to fracture the rock for removal. Areas of the Kill Van Kull and Arthur Kill Channels contained solid bedrock of various types such as sandstone, shale and an igneous rock called diabase. "Diabase is the same rock that makes up the cliffs of the Palisades in New Jersey," said Wisemiller.

The harbor deepening project necessitated the safe and cost effective placement of silt, clay and rock that are dredged in constructing the deeper channels. With millions of cubic yards of dredged material of many different types of material, nearly all the material was beneficially reused in several different manners, each tailored to the specific type of material at hand.

Artificial reefs off the New York and New Jersey shores were constructed using dredged bedrock of sandstone, shale, diabase and other rock types. Glacial till and clay deposits along with suitable silty sediments were used to help remediate the Historic Area Remediation Site in the Atlantic Ocean. Sandy sediments were used to construct wetland restoration sites at several eroded islands within Jamaica Bay, New York as well as sites in New Jersey. In Jamaica Bay dredged material was beneficially used to create new habitat. Industrial era silty sediments that were dredged, which had relatively low levels of various contaminants, given legacy of past pollution in the Port, was also used beneficially, once it was processed, to help cap and close numerous existing landfills and Brownfield sites in the region.

The Port of New York and New Jersey is the largest on the East Coast, providing over 269,900 direct and indirect jobs in port related activities and $11.2 billion in personal income in port related activities to the states of New York and New Jersey.

The project goal is to complete the 50 foot deepening in 2014 and turn it over to an established dredging maintenance program, the same year the wider, deeper Panama Canal will accommodate the larger ships.



This map of the Port of New York and New Jersey facilities shows major associated channels being deepened by the U.S. Army Corps of Engineers in partnership with the Port Authority of NY and NJ.

"To ensure the uninterrupted flow of commerce, planned maintenance dredging of the major navigation channels, berthing piers and anchorage areas will continue because fine-grained waterborne sediment settle and accumulate on the bottom of waterways, causing shoaling which interferes with safe navigation," said Wisemiller.


New York District
Annual Picnic and
Awards Ceremony

2013 Commander's Awards

Commander's Leadership Award
Donald Cresitello (PL)

Commander's Leadership Award
Stephen Couch (PL)

Commander's Leadership Award
Daniel Falt (PP)

Commander's Employee of the Year Award
Matthew Emigholz (EN)

Commander's Engineer of the Year Award
Encer Shaffer (EN)

Commander's Professional of the Year Award
Luis Rosario-Lluveras (EN)

Commander's Supervisor of the Year Award
Jason Shea (PL)

Commander's Team Leader of the Year Award
Paul Kara (CO)

Commander's Administrator of the Year Award
Deloris Ward (CO)

Commander's Admin Support of the Year Award
Madonna Skoviak (CO)

Commander's Field Representative of the Year Award
Kam Yin Chan (CO)

Commander's Outstanding Government Improvement Award
Esther Tinort (RE)

Commander's Outstanding Scientific Achievement Award
Diana Kohtio (PL)

Commander's Outstanding Scholarship Award
Lynn Rakos (PL)

Commander's Health and Safety Award
Richard Gitter (CO)

----- Group/Team Awards-----

-- Commander's Project Delivery -- Team of the Year Award
Afghanistan National Security Forces Team

Lisa Assim, Freddy Bilbao-LaVieja, Bea Casem, Thomas Dannemann, Matthew Emigholz, Renee George, Robert Gerrits, Seth Greenwald, Matthew Guilday, Michael Hogg, Mark Jurcic, Rudy Khalil, Mukesh Kumar, Chi Lau, Matthew Lubiak, Jason Parker, Loretta Parris, Robert Philbrick, Peter Poruczynski, Albert Rumph, Stanley Sedwick, Thomas Sessa, Shahid Shaikh, Laura Smith, Shaukat Syed, Paul Tumminello, Rafal Turek, Kevin Whorton, Cynthia Zhang

-- Commander's Teamwork Award --
Cornell-Dubilier Electronics Superfund Site Team

Francis Bales, Anita Calat, Amy Darpinian, Matthew Dolly, Richard Gajdeck, Ronny Hwee, Neal Kolb, Kenneth Maas, Robert Moore, Heather Morrow, Patrick Nejand, Brian Packowski, Robert Pender, Madonna Skoviak, Lawrence Smith, Shelley Thomas, Bradley Trost, Eugene Erbanik, Delores Ward

-- Commander's Outstanding Service to the Army Award
Real Estate Metro Acquisition Branch

William LeShore, Zophia Morea, John Pipp, Alissa Pittman, Tasha Singleton, Clarence Wiggins

-- Commander's Outstanding Contribution Award
NY and NJ Harbor - Jamaica Bay Multi-Project Initiative

Lisa Baron, Melissa Alvarez, Karen Ashton, Shewen Bian. Stephen Couch, Linda Doherty-Guenther, Daniel Falt, Gerald Giacchetti, Scott Helmer, Leonard Houston, Mike Morgan, Anthony Schiano, Ellen Simon, Laura Smith Jamal Sulayman, Steve Weinberg, Peter Weppler, Bryce Wisemiller, Gail Woolley

Awards were announced at the Employee Recognition Town Hall Picnic on July 18 at Forest Lodge in Warren, N.J.

District continued environmental remediation work in 2013

New York District's Environmental Remediation program continued in 2013, with remedial investigations and cleanup activities progressing at sites in New York and New Jersey.

"New York District has continued to make progress on Environmental remediation sites throughout New York and New Jersey, working closely with our partners to reduce potential hazards ranging from Hazardous, Toxic and Radioactive Waste to potential military munitions," said Allen Roos, chief of the Environmental, Interagency and International Services Branch. The EIIS Branch was formed in 2013 by combining the District's International and Interagency Support Branch and its Environmental Branch, both of which were already under the Programs and Project Management Division.

In the District's FUSRAP program, a $450 million base contract was awarded in May to perform environmental remediation services at the Maywood FUSRAP Superfund site located in Maywood in Bergen County, N.J. The work will involve large scale excavation and disposal of low level radioactive material soils and address contaminated groundwater consistent with the two approved Records of Decision. The work is expected to last for approximately nine years and is subject to the availability of funds.

In the District's Formerly Used Defense Sites program, remedial work continued at various sites, including the former Schenectady Army Depot-Voorheesville Area in New York and the former Raritan Arsenal in New Jersey.

The District celebrated another milestone at the former Schenectady Army Depot-Voorheesville Area this fall with the completion of the landfill cap and cover work at Area of Concern 1, the Southern Landfill. Work continues regarding other identified Areas of Concern.

In New Jersey, the Corps began digital geophysical mapping in various sections of the former Raritan Arsenal in New Jersey in both Edison and Sayreville. Crews worked to identify potential subsurface anomalies through the end of the year. This work was done in the Raritan River, in nearby wetlands where dredge spoils from the river may have been deposited in the past and in other areas identified for further investigation. Intrusive investigations to remove anomalies of interest will begin in early 2014.

The District's BRAC program continued in 2013 as well, with progress continuing at the former Seneca Army Depot in New York and the District's remediation role growing at the recently closed former Fort Monmouth in New Jersey.

The District also continued supporting EPA's Superfund program at various sites in New York and New Jersey.

Remedial investigations around the former Raritan Arsenal included digital geophysical mapping of overgrown marshy areas to identify metallic anomolies underground that could potentially be related to discarded munitions. In certain areas, contractors had to clear overgrown marsh grass to allow for mapping, using equipment like the Marsh Master above on the left to clear pathways like the one shown above on the right. (photos by Hector Mosley, New York District public affairs)

District supported various partners through IIS program

In addition to its traditional Civil Works and Military Construction missions, the U.S. Army Corps of Engineers can lend its expertise and project management capabilities to partner agencies through its International and Interagency Support Program. Through IIS, New York District can execute a wide variety of projects working with partner agencies on a cost-reimbursable basis.

In 2013 the District's ISS Branch and its Environmental Branch were combined into the Environmental, International and Interagency Support Branch **(more on the Environmental Remediation portion of the EIIS Branch's mission in 2013, see page 19)**.

In 2013, the District's IIS program, also often referred to simply as the "Support for Others" program, ranged from supporting Veterans Administration facilities to working with New York City's Office of Emergency Management on a prototype program for emergency temporary housing for urban settings to continuing to providing project management and other reachback support for overseas contingency operations in Afghanistan **(see page 13)**.

This rendering shows the proposed Urban Post-Disaster Housing Prototype to be constructed in Brooklyn in partnership with the New York City Office of Emergency Management and others. (Rendering Courtesy of American Manufactured Structures and Services)

New York District manages a wide variety of work at VA facilities through the IIS program, including upgrading electrical systems at the VA Medical Center in the Bronx in New York City. In order to ensure there were no impacts to operations at the facility during the electrical work, the District enlisted the support of the Soldiers of the 249th Engineer Battalion (Prime Power), generally better known for their work with temporary emergency generators after disasters like Hurricane Sandy. In the Bronx, they helped install and maintain generators at the facility during the electrical work to ensure the medical center's important work could continue while the needed electrical upgrades took place.

A Soldier from the 249th Engineer Battalion (Prime Power) works on a generator at the VA Medical Center in the Bronx on November 2, 2013. Soldiers from the 249th helped keep the facility powered while New York District managed upgrades to the facility's electrical system. (photo by Nick Holmes, New York District, Construction Division)

Though the project was in the works prior to Hurricane Sandy, there was a renewed interest in the New York City Office of Emergency Management's Urban Post-Disaster Housing Prototype Program. The City is working with the Corps and other partners on the prototype program, which is creating a multi-story, multi-family interim housing solution that will work in urban areas across the country.

New York District awarded the construction in summer 2013 for the prototype to be built in Brooklyn. Initial construction is slated to take place in early 2014, with residents moving in soon after and monitoring taking place over time.

– *Commander's Reflections cont'd from 2*

outstanding volunteers who assisted during the aftermath of Hurricane Sandy. The Recovery Field Office completed its critical debris removal mission in June as well thanks to a very talented team of volunteers who spent many long hours working through complex challenges at the local, state and federal levels to ensure success.

In July the District began sand placement at our Flood Control and Coastal Emergency (FCCE) projects, taking the first steps toward restoring many of the coastlines throughout our area of responsibility.

August started off on a high note when the Army's top civil works leaders visited the region. Lt. Gen. Thomas Bostick, the Commanding General/Chief of Engineers along with the Honorable Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works; Brig. Gen. Kent Savre, and representatives from area Congressional offices observed ongoing coastal restoration work along New York City's shores.

One of the largest projects undertaken by the Corps' New York District was repairing and restoring hurricane and storm damage reduction projects in New Jersey from Sea Bright to Manasquan Inlet, and in October, the District achieved a milestone as it awarded its last contract for FCCE projects damaged by Sandy.

October 29, 2013 saw the one year anniversary of Hurricane Sandy, which served as time to take pride in all that we've accomplished while also acknowledging there is still a great deal of work to be done. Millions of cubic yards of sand have been placed along New York and New Jersey as crucial restoration efforts continue today along coastal areas in the District's area of responsibility. If another Sandy were to hit today, we would expect much less coastal damage to areas where beach nourishment and restoration has taken place.

In addition to coastal restoration, the New York District has been a champion of the harbor deepening project in the Port of New York and New Jersey along with ecosystem restoration as exemplified by several of our successes. The Port of New York and New Jersey is continuing to progress. The District is ensuring safe navigation, protecting coastal infrastructure and natural resources which are critical to the region.

The District's Formerly Utilized Sites Remedial Action Program continues positively in the communities of Maywood, Lodi, and Rochelle Park in Bergen County, New Jersey. Radioactive waste generated during the early years of the nation's atomic energy program is being removed from these communities.

New York District has accomplished much over the last year and I'm looking forward to 2014 knowing we will again have great opportunities to study, design, contract, construct, build, and renovate projects that matter and are essential to our Nation and the economy.

Congratulations on an extremely successful year and team accomplishments. The District has set the standard for the Division and in USACE. I'm confident we will continue to meet future challenges with the strength and perseverance necessary to continue accomplishing our important work for another year of exceptional service to the Army and the Nation.

Thank you once again for another year of outstanding achievement and another year of exceptional service. I'm proud to serve as the Commander of this winning team.

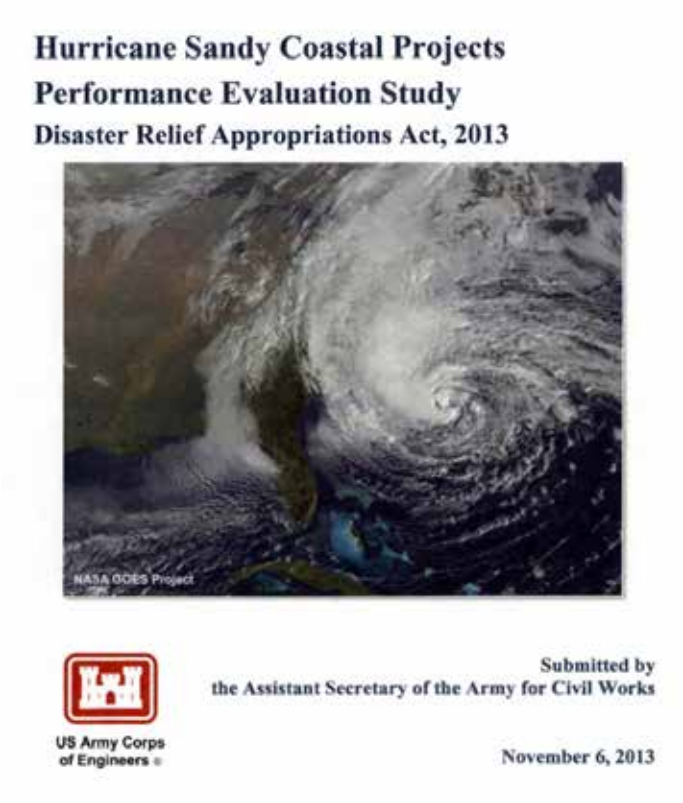
Essayons!

– *Project Performance cont'd from page 8* ——

New Jersey region, the project features still provided some level of risk reduction benefits. It appears that the overall damage from the storm would have been much more severe if these projects had not been in place. Overall, coastal storm risks were greatly reduced in areas with completed risk reduction projects.

As part of the Study, the USACE team identified potential barriers to implementing coastal storm risk management projects and overall comprehensive coastal storm risk management and developed recommendations for potential improvements to how coastal risk management projects are planned, designed, constructed and maintained in the future.

The main recommendations for potential improvements to how coastal risk reduction projects are formulated are as follows:



• While in the past, projects were developed to specifically address coastal risks, their scopes (whether because of limits to authorizing language, funding constraints or other reasons) often did not consider how to address the impacts of back-bay flooding of barrier islands. Consideration should be made on how to address these issues to provide more comprehensive protection or identify the residual risks to ensure public and agency awareness.

• The efficacy of natural and engineered dunes in reducing risks of coastal storm damages should be further evaluated. Some projects with either high storm berms or those with berms backed by significant dunes generally performed better than projects involving a berm alone.

• A broader range of project benefits should be considered to more accurately evaluate the impacts of extreme storm and flooding events. These include community resilience and recovery which would be enhanced by explicitly protecting critical infrastructure and basic services.

• The data for evaluating project performance, including measurements of water levels, nearshore waves and currents, coastal winds, and pre- and post-storm topographic and bathymetric surveys, is not always readily available following storm events. USACE should identify a limited number of strategically located projects at which to collect nearshore wave/current and coastal wind data, in coordination with other federal, state and local agencies and partners; it should also conduct regular surveys of those projects (such as before storm season and after significant storms).

• Once a project is authorized and constructed, it can be difficult, if not impossible, to make changes or updates to the project to account for changes in external factors or risk reduction technologies or methodologies. Projects need to include an adaptive management plan or strategy for changing the design within their original authorization to respond to these factors, such as changes in local weather patterns or sediment transport, shifts in development trends or public tolerance for storm risks, changes in coastal flood risks due to climate change or changes in technology or methodology.

The entire Hurricane Sandy Coastal Projects Performance Evaluation Study can be downloaded at:

www.nan.usace.army.mil/SandyPPE

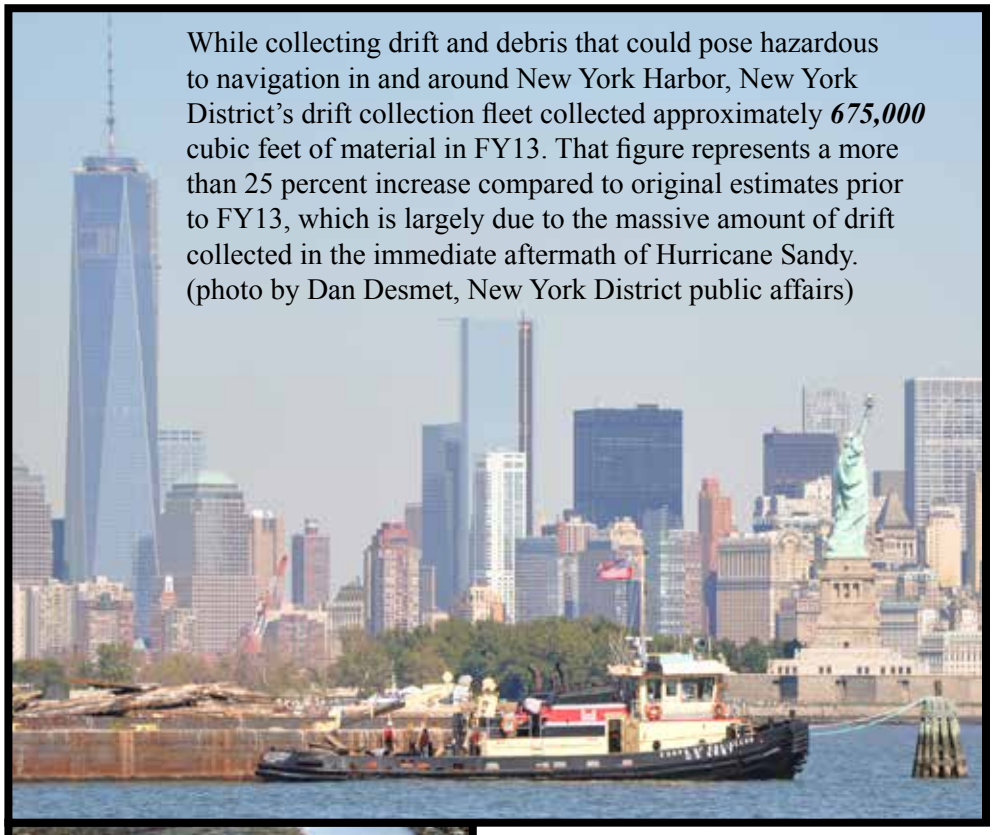
2013 Operations Numbers At A Glance

Regulatory Branch Numbers At A Glance

New York District's Regulatory Branch makes permit decisions for individuals, municipalities, and developers whose projects would impact wetlands or waters of the United States in order to ensure compliance with Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act and Section 103 of the Marine Research, Protection and Sanctuaries Act.

Permits are broken into Nationwide General Permits, which are a group of activities that are typically minor in nature and that would have no more than a minimal adverse environmental impact, and Individual Permits, which are more complex, require public notice and opportunity for public comment, coordination with federal and state resource agencies as well as a detailed analysis of environmental impacts.

In FY13, the Regulatory Branch issued 1,181 General Permits and 241 Individual Permits. Some highlights include issuance of the permit for the construction of the New NY Bridge (formerly Tappan Zee Bridge), as well as the issuance of many permits to help the region recover from the impacts of Hurricane Sandy.



While collecting drift and debris that could pose hazardous to navigation in and around New York Harbor, New York District's drift collection fleet collected approximately ***675,000*** cubic feet of material in FY13. That figure represents a more than 25 percent increase compared to original estimates prior to FY13, which is largely due to the massive amount of drift collected in the immediate aftermath of Hurricane Sandy. (photo by Dan Desmet, New York District public affairs)

The lock at Troy Lock and Dam, north of Albany on the Hudson River, saw ***2,278*** lockages with ***3,161*** vessels passing through in 2013 totaling ***9,572*** tons of cargo. The lock operates May 1 through November 30 and is the only lock operated by New York District. **(File Photo)**

US Army Corps of Engineers
New York District

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