



Riverside



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Dredging close to home

*Corps' Dredge WHEELER called on to work
in the New Orleans harbor*

March - April 2010



inside **Riverside**



Jefferson Parish

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Vision “Zero” is a key component to success

When I arrived here in 2007, I instituted a Vision “Zero” safety policy. Under this policy, each team member was challenged to fulfill his or her role in creating a district-wide safety culture that revolved around the goal of zero safety incidents. The word “accident” has been removed from our vocabulary.

As part of our Vision “Zero,” we installed awareness signs at the entrance to each of our project sites. These boards list the number of days since the last lost-time incident and the number of lost-time incidents for the current year. The idea of these signs is that constantly communicating the message of safety to every employee as often as possible keeps safety at the forefront of all we do.

I try to read these signs every time I enter one of our project sites. Recently, as my boat approached the Catfish Point Control Structure, I read the Vision “Zero” for Safety board posted at the structure’s dock. The first line read, “Years without

a lost-time incident-59.” I had to read the sign twice to make sure I was reading it correctly. A total of 59 years without a lost-time incident is an amazing record. At nearly six decades, this is an unsurpassable respect for safety that has been passed down through generations. Furthermore, given that the structure itself is 59 years old, this is a commitment by the crews of Catfish Point that began at the structure’s inception; a level of commitment that we should all try to emulate.

Throughout the 30,000 square miles that comprises the

New Orleans District, we have an unprecedented workload underway. Whether it is our civil works, hurricane and storm damage risk reduction, emergency operations or American Recovery and Reinvestment Act projects, all of us are under enormous pressure to deliver under rapidly approaching deadlines.

Now more than ever, we must remember to keep safety in the forefront of everything that we do. Everyday, each of us works tirelessly to deliver the missions that we have undertaken. Over the last years, your efforts have developed great momentum as

we near the completion of our missions. We cannot afford to let carelessness or a disregard for safety derail the work we have worked so hard to achieve. In addition to the impact an injury will have upon you, your family and your team, every injury puts us all further away from accomplishing the mission that we dedicated so much effort to deliver.

Only with a safety first mindset, is it possible for all of us to make our working environments and activities a Vision “Zero” reality. Then we can all achieve project site safety awareness signs as impressive as Catfish Point’s.

As for the crew at Catfish Point, I would challenge you to maintain your tremendous record. However, at 59 years and counting, I have no doubt that is already in your plans.



From Left: Catfish Point Control Structure Lockmaster Charles Hebert, crewmember Joey Breaux, crewmember Alvin Leblanc, and New Orleans District Commander Col. Alvin Lee stand in front of the structure’s Vision “Zero” for Safety sign.

Building Strong Essayons

Col. Al Lee

Coming to an end

The West Bay Diversion yields invaluable information for future coastal restoration measures

By Lee Mueller

As part of the U.S. Army Corps of Engineers, New Orleans District's ongoing efforts to protect and restore Louisiana's coast, the West Bay Sediment Diversion Project was built in partnership with the state of Louisiana in 2003 for \$3.1 million under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program.

The project was designed to restore and maintain approximately 9,800 acres of fresh to intermediate marsh in the West Bay area, located on the west bank of the Mississippi River in Plaquemines Parish, by diverting fresh water and sediment from the river.

Over the years that the diversion has been active, the marsh creation benefits in the diversion's receiving area were not achieved. Also, increased maintenance costs needed to dredge sediments from the neighboring Pilottown Anchorage area in the Mississippi River exceeded the capacity of the CWPPRA program. Therefore,

on Wednesday, January 20, 2010, the Coastal Wetlands Planning, Protection and Restoration Act Task Force met at the New Orleans District to approve construction of coastal restoration projects and to discuss the future of the West Bay Diversion. The Task Force voted unanimously to close the West Bay Diversion during the low water period of 2010.

The West Bay Diversion was designed and constructed with the intention to capitalize on the sediments carried by the Mississippi River by funneling approximately 20,000 cubic feet per second of water through the diversion into neighboring open water and marsh. At one point, during an extremely high river flow in May 2008, the diversion discharged approximately 51,000 cubic feet per second of water.

"The West Bay Diversion Project is the first major constructed uncontrolled sediment delivery project in coastal Louisiana and has been considered a demonstration for other planned diversions along the Mississippi River," said Melainie

Goodman, CWPPRA program manager.

However, when the diversion's receiving area was studied, there was no evidence of underwater land growth or emergent marsh developing as a direct result of the sediment diverted through the channel. This can be attributed to many factors, such as the depth of water in the receiving bay, tidal storm surge, subsidence, incoming sediment grain size, or water velocities entering the area from the river.

In addition, the diversion project ended up causing shoaling in the Mississippi River navigation channel and the neighboring Pilottown Anchorage area. Shoaling happens when the river's flow energy is diverted and subsequently causes sediment in the river to accumulate and shallow river depth, which in turn creates problems for marine traffic.

The Corps of Engineers agreed to absorb the cost of dredging the shoaled material caused by the West Bay Diversion in the navigation channel using the

project's authorized Operations & Maintenance funds. The CWPPRA program has been responsible for dredging a portion of the shoaling in the Pilottown Anchorage area. However, over time, these dredging costs sky-rocketed and became too expensive to continue.

"Although a difficult choice, the Task Force decided to close the diversion because the long-term costs of dredging the anchorage compared to the uncertainty of benefits that would accrue was too great a risk to the CWPPRA Program to justify," said Goodman.

Through the West Bay Project, the Corps of Engineers is acquiring important information on the lower Mississippi River through extensive data collection and comprehensive modeling efforts. This analysis will be complete before the diversion is closed and the information will provide valuable lessons learned as the results are integrated into the planning and design of other river diversions.

"This is adaptive management, making decisions based on science

and the performance that's occurring on the ground, to assure the resources of the river are being used to their highest priority," said Col. Alvin Lee, chairman of the task force and commander of the Corps' New Orleans District.

The Coastal Wetlands Planning, Protection and Restoration Task Force, or Breaux Act Task Force is charged with carrying out small-scale restoration efforts in coastal Louisiana. The U.S. Army Corps of Engineers, National Oceanographic and Atmospheric Administration, U.S. Fish and Wildlife Service, Environmental Protection Agency, Natural Resources Conservation Service and the State of Louisiana are represented on the task force.

Below from left: In 1950, the signs of coastal loss in the West Bay are already visible. In October 2003, the Corps began construction of the diversion in the hopes of stimulating land growth with the introduction of freshwater and sediment into the bay. The sediment collected during the construction was used beneficially in the project. Upon completion, approximately 20,000 cubic feet per second (cfs) was funneled through the diversion. However, during a particularly high river flow in May 2008, nearly 51,000 cfs passed through the diversion.



1950



August 2003



October through November 2003 (construction)



August 2004



May 2008

West Bay Diversion

Dredging close to home

The Dredge WHEELER called in to work in the New Orleans Harbor Story and photography by Ricky Boyett

The New Orleans District Dredge WHEELER is maintained in *ready response* status. This means that if private industry fails to submit a responsive and responsible bid for work, the vessel is capable of responding to an urgent dredging need within 72 hours. While this need can occur anywhere in the world, the importance of the Mississippi River to the local, state, and national economies keeps her extremely busy.

Earlier this year, sediment buildup in the river required the dredge to operate just a few miles down river from her dock at the New Orleans District. Because of sedimentation at the Port of New Orleans, the WHEELER was called in to dredge the New Orleans harbor.

The Port of New Orleans is one of the busiest in the nation. In addition to the many cargo vessels, cruise ships, such as Carnival's ship TRIUMPH (top), use the harbor as a port of call every week. The economic impact of these ships to Louisiana's economy is tremendous. In fact, it is estimated that every passenger who comes to New Orleans as a result of a cruise spends an average of \$300 per day. To foster this impact, the port's must maintain the depths necessary for these large ships to dock in the harbor.

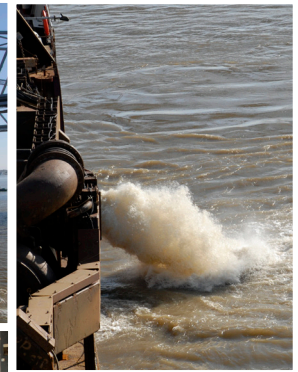
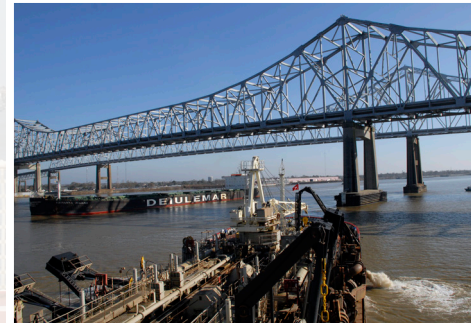
When a situation of this importance arises, few vessels can respond with the capabilities of the WHEELER, the largest dredge in the Corps fleet. Despite its size, as a trailing suction hopper dredge,

the WHEELER can easily operate in a high traffic waterway, creating very little impact to the passing commercial vessels (middle left).

Furthermore, in addition to its mobility, the operating capacity of the ship is invaluable when a rapid response is needed. When all the pumps and drag arms (middle right) are operating, the vessel can fill Her hopper with slurry (a combination of sediment and water) in a little over ten minutes. However, the dredge's pumps allow the water in the hopper to be replaced with sediment. With a maximum load of 7,872 cubic yards of sediment, the crew can remove about 100,000 cubic yards during a single day's operations. This capacity equals roughly 7,000 dump truck loads. And when the WHEELER is called into action, it runs 24 hours a day, seven days a week. With each of the 38 crew members working 10 to 12 hour shifts, they stop only to refuel and resupply (bottom left).

Generally, the WHEELER works in the Southwest Pass, often unseen by most residents and tourists. But in the New Orleans Harbor, many were able to

watch and photograph the rare site. Even Operations Managers Michelle Ulm and Raymond Newman (bottom left) took the opportunity to board the vessel for an on-site meeting with Capt. Edward Morehouse. The topic of the meeting, what else...the Mighty Mississippi.



400 attend Corps industry day

by Amanda Jones
Photography by
Anne Marino

To continue to get highly qualified bidders actually bidding on Corps projects, Team New Orleans recently held a Louisiana industry at the New Orleans Marriott at Lakeway in Metairie.

Businesses were able to make face-to-face contact with Corps project managers and contracting officers, network with large and small businesses and assess the bidding environment.

The focus for this event was for Louisiana businesses and the morning session was geared toward that, with 204 business men and women in attendance.

With seating capacity limited, the Corps added a second identical afternoon session because of the overwhelming interests from companies outside Louisiana. This session was attended by 196 men and women.

Each session kicked off with welcoming remarks from Senator David Heitmeier and Team New Orleans leadership, and ended with a networking opportunity for the business representatives to mingle with each other and Corps team members.

Top left: Ned Foley with the New Orleans District Office of Small Business programs opened with the presentation portion of the event, speaking to a capacity crowd of Louisiana businesses (top right). Immediately following the presentations, local business men and women were able to talk with Corps team members such as Contracting's Chief Tim Black (middle left), and Deputy Chief of the HPO's Rick Kendrick (middle right), New Orleans District Commander Col. Alvin Lee (bottom right) as well as with each other (below).



East bank of Jefferson Parish status update and Reach 2

The Lake Pontchartrain and Vicinity project along the lakefront of Jefferson Parish consists of five levee reaches currently under construction and scheduled for completion late this summer.

In July 2009, the contract for one of these reaches, the ongoing Reach 2 levee enlargement project, west of Williams Blvd., was awarded to provide 100-year level of risk reduction. However, once the contractor removed the grass and disked the surface, a significant amount of objectionable material (construction debris) was

discovered within the existing levee from the previous levee enlargement.

The previous Reach 2 levee enlargement project was undertaken in November 1999 to expand the capacity of the Elmwood Pump Station. The project's contract specified two sources of material that could be used in the expansion. In response to truck traffic impacts to the local neighborhoods, the U.S. Army Corps of Engineers decided to use material from the Elmwood location.

However, the contractor proposed using alternate material that would reduce costs for levee construction west of Williams Blvd. While

aware that the material contained some debris, the Corps believed that visual inspection techniques would be sufficient to identify and remove this objectionable material, allowing the alternative source to meet necessary criteria.

In compliance with new criteria and using lessons learned from Katrina, the portions of the levee that contained the debris were no longer considered acceptable and had to be removed before the new enlargement construction could begin. To identify the extent of the material, several inspection trenches were dug throughout the reach. Once the depth of the material was identified, the top 2 to 2.5 feet of levee was removed. This material will then be replaced with suitable material from an approved

borrow site.

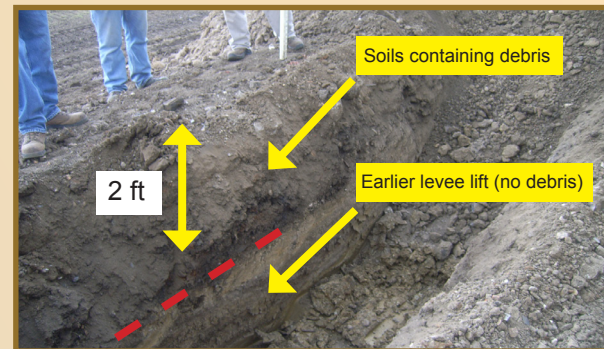
Typically, for an East Jefferson project, the clay would come from the Bonnet Carré Spillway borrow pits, a source that has been determined to meet or exceed 100-year storm surge protection criteria. However, during the Mississippi River's high-water season, seepage through the spillway can impact access or excavation work. To avoid these potential impacts to an already delayed project, the Corps has approved use of the Willow Bend borrow pit located on the West Bank. The material from this site has been through an extensive evaluation and has been determined to meet the Corps' more stringent levee

material criteria. This decision to allow the material to come from another site can help the contractor rebuild the current levee by this hurricane season and to get the construction of the new levee elevation back on its schedule of 100-year protection by June 1, 2011.

And as for the removed objectionable material, it will not go to waste. This material will be used to build additional acres of a wave attenuation berm along the Lake's shoreline. This berm is not a component of the actual levee, so it is possible to create it using lower quality materials. During a tropical storm event, this work will help reduce the size of the waves that reach the levees.



Left: To inspect the levee, the layer of grass was removed. Once the top layer was removed, the concentrations of objectionable material (insert) were clearly visible. Inspection trenches (right) were then dug to determine the extent of the debris. Once the levels were determined, the compromised layers were removed and replaced with clay for the Bonnet Carré Spillway.



Black Engineer of the Year honor for most promising government engineer

by *Dominique Rouzan*, photography by *U.S. Navy Petty Officer 2nd Class Elizabeth Vlahos*

Young, articulate, conscientious, intelligent—those are some of the many positive characteristics that describe New Orleans District Structural Engineer Jeremy Laster.

A Jackson State University graduate who earned a bachelor's degree in civil engineering, Laster certainly has a lot to be proud of.

Because of his superior work ethic, dedication, and technical performance throughout his two years working in the Structures Branch of the Engineering Division, he is now the 2010 winner of the Most Promising Engineer of the Year Award. He was honored at the Black Engineer of the Year Award (BEYA) Science, Technology, Engineering, and Mathematics (STEM) Global Competitiveness Conference on February 20, 2010, in Baltimore, Md.

The BEYA is considered one of the most prominent and admirable honors that could be achieved in technology management and engineering. And according to Laster, winning this award is a very humbling experience.

"I am truly blessed to receive

this award from BEYA. Coming from the small town of Bay Springs, Mississippi, it reflects not only on me, but the people who have impacted my life unknowingly," said Laster.

As a Corps employee who has continuously exceeded the standards set for success, Laster said that he believes this recognition has motivated him to work even harder and encourage others to do the same.

Since being hired in June 2007, Laster has been assigned approximately 10 or more flood risk reduction projects, which surpasses the norm for most recent graduates. To reach the 2011 completion goal for the 100-year level of protection associated with the Greater New Orleans Hurricane and Storm Damage Risk Reduction System, Laster continuously works 60-hour weeks performing rigorous and detailed structural designs to produce plans and specifications for several structures. His designs for cofferdams, floodwalls, and gated structures are based on intricate post-Katrina design guidelines. Laster also manages current A/E task orders, in-house designs, and engineering during

construction (EDC) projects where he is responsible for design and submittal reviews.

New Orleans District Assistant Chief of Engineering Division John Bivona said Laster had the positive characteristics and performance abilities needed to represent the BEYA award with allegiance.

"Jeremy has demonstrated an outstanding commitment to excellence in all his engineering assignments, including field work, and an equally dedicated performance in meeting all expedited 2011 HSDRRS designs," said Bivona.

As a result of Laster's hard work and diligence, Bivona said he feels, "his recognition as a BEYA Most Promising Engineer exemplifies the award's objective and his exceptional performance continues to serve as the standard for all our entry level engineers in the Engineering Division."

In addition to receiving on-the-job training from the New Orleans District, Laster was chosen to participate in an impressive two consecutive summer internship with Entergy's Grand Gulf Nuclear Station in Port Gibson, Miss.

prior to starting his career with the Corps. He feels the experience was a great one with a lot of challenges.

"It taught me a lot about being a leader and some of the day-to-day operations of a civil engineer. It also helped me evolve my technical skills in civil engineering, which I am now applying here at USACE," said Laster.

"I love being here in the city of New Orleans because it has a lot to offer. It gives me that down home southern feel, but yet it is a city that has tremendous business and industrial potential," said Laster.

Though Laster spends a lot of time on the job, his competitive nature does not stop at his professional career. Laster is the same way when it comes to sports. He enjoys watching the Saints, Hornets, and his alma mater's football team play. He also enjoys watching movies, spending time with coworkers, and volunteering with different programs and community activities throughout the city.

Laster gives much

credit to his mother and family for where he is today. He received lots of encouragement to go to college, put forth his best effort, and follow his passion.

"My family played an influential part in motivating me to achieve greatness," said Laster.

Laster plans to use his BEYA as inspiration to continue to be the best he can at all he does. He said he feels that this recognition is a positive start to his career and believes this honor is "the foundation for a much more promising future."



Jeremy Laster

U.S. Army Corps of Engineers names Geotech branch chief as the Engineer of the Year

by Amanda Jones, photography by F.T. Eyre

Earlier this year, Geotechnical Branch Chief and Supervisory Civil Engineer Richard Pinner was named as the U.S. Army Corps of Engineers' Engineer of the Year and one of the 10 finalists for the 2010 Federal Engineer of the Year at a luncheon in Washington, D.C.

Pinner was nominated for his leadership, engineering management and technical expertise in working with federal, state, and local agencies, as well as members of the science and engineering communities to successfully revise essential geotechnical criteria following Hurricane Katrina.

Pinner is actually the lead geotechnical engineer for

assessing and recommending the new engineering criteria for levee stability, seepage, soil testing, and embankment construction specifications. His team facilitated a successful revision of several essential geotechnical criteria, including increasing factors of safety, addressing new methodologies in slope stability and seepage analysis, and accumulating essential field data on soil properties and strengths. These revisions allowed urgent flood risk reduction system work to proceed on time.

Pinner manages an enormous amount of field engineering activities, including 3,000 bores, 1,500 cone penetration tests, and over 100,000 soil tests. These activi-

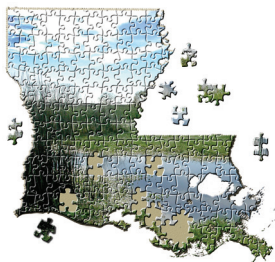
ties are critical in establishing storm damage risk reduction.

"Richard's effective engineering management of diverse technical activities was critical to the success of the Hurricane and Storm Damage Risk Reduction System," said Walter Baummy, chief of Engineering Division, in Pinner's award nomination packet.

Pinner has received numerous awards for his engineering work, including the Achievement Medal for Civil Service in 2007 from the U.S. Army Corps of Engineers and the Distinguished Outstanding Federal Supervisor from the New Orleans Federal Executive Board.



Richard Pinner



Building the path forward

New Orleans District holds a series of town hall meetings to discuss coastal protection and ecosystem restoration

by Ricky Boyett, photography by Cheryn Robles

One of the greatest threats facing Louisiana is the continual loss of its coastal lands. Each day, Louisiana loses approximately one football field in wetlands every 38 minutes. These lands are a vital resource critical to the local, state and national economies. Moreover, with more than 2 million residents living in coastal Louisiana, preserving these areas is instrumental in protecting the people, culture and a way of life that is uniquely Louisiana.

Because of the vastness of the issues facing South Louisiana, maintaining an open dialogue between the federal, state and local authorities; the members of the science and environmental communities; and the residents that live in the area is a critical component in the fight for coastal Louisiana. The issues are simply too great for any

single group to combat alone. With this understanding, the U.S. Army Corps of Engineers sought to open the channels for communication during a series of town hall meetings held throughout South Louisiana.

Over a three day period, the Corps met with residents in the Lake Charles, Morgan City, and New Orleans areas. During each meeting, New Orleans District Commander Col. Alvin Lee presented an overview of the coastal protection and ecosystem restoration programs and projects planned or underway in South Louisiana, as well as an in-depth look at selected projects that have a direct impact on each area.

However, the intent of these town halls was not to only provide the residents with an overview, but to present them with the opportunity to share their concerns and to ask questions. To ensure this

opportunity, each meeting began with an open house and ended with a public comment period.

Understanding that the residents must have the best available information to make the most informed decisions, the Corps provided a coastal brochure, project maps, and an electronic collection fact sheets for every Corps coastal project.

Overall, these meetings were to serve as the means to create a dialogue that will need to remain open and constant if South Louisiana is to have a chance of recover from the decades of land loss.

“These meetings will be the first of many designed to keep the residents of South Louisiana abreast of the work being done in these areas,” Lee told the audiences. “Throughout the process, Corps leadership and project managers will return with project updates and to answer any questions you may have.”



Coastal protection and ecosystem restoration projects in South Louisiana

