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HURRICANE ISAAC: ASSESSING PREPAREDNESS, RESPONSE, AND RECOVERY EFFORTS

HEARING

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

SPECIAL HEARING

SEPTEMBER 25, 2012—GRETNA, LA

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HURRICANE ISAAC: ASSESSING PREPAREDNESS, RESPONSE, AND RECOVERY EFFORTS

TUESDAY, SEPTEMBER 25, 2012

U.S. SENATE,
SUBCOMMITTEE ON HOMELAND SECURITY,
COMMITTEE ON APPROPRIATIONS,
Gretna, LA.

The subcommittee met at 10 a.m., at 200 Derbigny Street, in Gretna, Louisiana, Hon. Mary L. Landrieu (chairman) presiding.

Present: Senators Landrieu and Vitter and Representative Richmond.

OPENING STATEMENT OF SENATOR MARY L. LANDRIEU

Senator LANDRIEU. Good morning. Let me welcome everyone to our Subcommittee on Homeland Security Appropriations field hearing. We will begin in just a moment. I would like to recognize Senator Vitter and Congressman Cedric Richmond, who is here with us today, and I appreciate them joining me on this field hearing. I want to begin by thanking Mayor Ronnie Harris, Jefferson Parish President John Young, and the parish council for hosting us this morning, this congressional hearing in historic Gretna.

Less than 4 weeks ago on the anniversary of Hurricane Katrina, Hurricane Isaac dumped over 18 inches of rain and caused a man here to lose his life in a fire that destroyed Laruth's restaurant. He was one of six people killed by this hurricane, which also pushed a wall of water 11 feet high onto Louisiana's shores, knocked out power to 871,000 households, and hovered over region frighteningly for almost 60 hours.

Last year in the United States, there were over 99 disasters that were so severe they were declared eligible for Federal assistance by the President of the United States. That is the most disasters ever recorded in a single year since the Federal Government began keeping records in 1953. It eclipses the previous record of 81 that was set in 2010, and it is more than one decade ago, in 2002 when the Federal Emergency Management Agency (FEMA) declared just 49.

In addition to the 99 disasters last year, there were another 508 events in the country that did not qualify for presidential disaster declaration, but which did prompt emergency declarations from State and local officials. That is one of the reasons it is so important for the Federal Government to maintain a robust disaster fund, and important for State and local governments to do the same.

Louisiana has certainly had its share of disasters, including the most destructive natural disaster in the history of the United States, Hurricane Katrina, and coupled with Hurricane Rita 3 weeks later that hit our State and the gulf coast. There is no comparison since records have been kept.

In addition, Gustav and Ike, the Deep Water Horizon several years later, then Tropical Storm Lee, which acted like a hurricane, and now Hurricane Isaac that was a category 1, but came on land like a category 3.

We all know disasters will happen every year. We cannot prevent them. But with smart planning, responsible budgeting, and effective response, we can significantly minimize the loss of life and property and prevent widespread economic or ecological damage.

This hearing is part of a comprehensive 7-year effort that I have undertaken as chair of this subcommittee, and previously as chair of the Disaster Recovery Subcommittee, to evaluate and improve our Nation's ability to cost-effectively prepare for, respond to, and improve our Nation's ability to respond to disasters, natural and man-made, of all types and sizes.

I chaired a previous hearing in October 2011 that laid the groundwork for disaster relief financing reform, which I am happy to say was enacted into law in December 2011. That hard fought battle helped to ensure that adequate appropriations to the FEMA Disaster Relief Fund is now available to Administrator Fugate.

For the first time in over a decade, FEMA received the resources it needed through its annual budget to help families and communities recover without having to stop projects recovering from past disasters in order to fund ongoing disasters. That is not happening today as a result of the fight and the battle that I led, and I am very proud of that and our subcommittee.

But the Federal role in responding to disasters cannot be limited to FEMA alone. Today we have two panels of officials from the Federal, State, and local level to explore how local government as a whole can better protect, prepare, and respond to these evermore frequent events. Today we will focus in particular on flood protection investments, or the lack thereof, and the process of recovery by families and communities through assisting them with assistance, food, housing, transportation, debris removal, et cetera.

We must do more to protect our communities in south Louisiana and in other parts of our State and country. We must do it as quickly as possible to reduce the loss of life and property and reduce the burden on taxpayers who continue footing the bill for disaster cost that could have been avoided.

A recent study by the Multihazard Mitigation Council found that for every taxpayer $1 invested in mitigation, the Federal Government will save $4 on future FEMA assistance. Up until 2000, the Federal Government provided assistance to repair disaster-damaged buildings without targeting any money to mitigate against the damage that occurred. I want to underscore this point: Until the year 2000, FEMA rebuilt what was there before storms, and a penalty was charged if you tried to improve the structure. We removed that penalty and are building in a much smarter way, rebuilding without penalties to rebuild stronger and better.

So to correct that failed policy, we passed a law 5 years ago that has resulted in billions of dollars to State and local governments for mitigation measures, like levee repairs, drainage improvements, wetland restoration, and home elevations, in order to lessen the consequences of future events.

If they are properly planned and executed, these projects will actually save taxpayers money in the long term. But let me be clear. We simply cannot protect southeast, southwest, or south central Louisiana or any part of Louisiana or any part of the Nation with mitigation grants alone. We need a more consistent, more robust funding mechanism for building our levees, securing our pump stations, flood protection, internal drainage, and wetlands restoration. We need the Army Corps of Engineers (COE) and the State to commit additional resources to this effort, and we need a multilayered system of defense that incorporates smarter planning and stronger building codes as well.

For the sake of historical context, since 1992 FEMA has spent over $131 billion through the Disaster Relief Fund. In 20 years, FEMA spent $131 billion of Federal funds. Louisiana alone out of that $131 billion has received more than $60 billion. That is including the $14 billion from COE, so it is a little bit exaggerated, the $60 billion, but that includes some COE funding from the Federal Government to recover from hurricanes that struck our State only between the years of 2005 and 2008. That is $60 billion between 2005 and 2008.

We can and must find a way to reduce costs to the U.S. taxpayers by reducing the loss of life and property in future events. Yet shockingly, we only spent $1.6 billion on COE's annual construction budget nationwide, a level that is 25 percent less than what we spent in 2007, and only one-hundredth of 1 percent of our gross domestic product (GDP). It is shocking.

Federal funding for transportation infrastructure, on the other hand, just to give comparison, like highways and airports, which is by no means adequate, however, to support the long-term economic growth, has increased as a percentage of GDP over the past 15 years, and has nearly doubled since 1998 from $29 billion a year to $52 billion.

So I just want to repeat transportation of all sources has doubled from $29 billion to $52 billion. The COE budget has decreased by 29 percent since 2007 for new construction. In stark contrast, the Federal COE budget over that same period has gone up by less than $200 million and declined as a percentage of GDP.

Most people in the world would probably expect that our Nation's Presidents and Members of the Congress finally realized the fatal consequences of underinvesting in flood protection after the Federal levee failure overwhelmed the most powerful Nation in the world, while the rest of the world watched. But leaders apparently still do not get it because COE's construction budget as a percentage of GDP has gone down every single year since Hurricane Katrina. We should be outraged by that fact. I am.

We owe it to the taxpayers of our Nation and, most importantly, to the citizens of Louisiana that are on the wrong side of the levee, and the citizens of the gulf coast to reverse the Federal Govern-

ment's trend of shortchanging vital flood protection, and incurring exorbitant disaster costs as a result.

Sadly, in this year, fiscal year 2012, COE spent only $6.4 million for construction in Louisiana, which is just 38 percent of its annual construction budget. That is short-sighted, dangerous, and irresponsible. Louisiana is desperately in need of more levees, pumps, flood control structures, wetlands restoration, and we need it now.

We are all grateful for the Federal Government's $14.5 billion investment in flood protection post-Hurricane Katrina that no doubt prevented tens of millions of dollars in damage from happening in this last storm during Hurricane Isaac, and helped protect communities inside the system. But people that live in those protection zones are not only the ones that are here today, and one does not have to look any further than Braithwaite on the East Bank of the river or in LaPlace; Indian village in Slidell; or Lafitte in Jefferson Parish to realize that we still have a long way to go.

The people who are here today still do not have the flood protection they need and deserve. They are rightfully upset, and so am I.

A flood protection effort of this magnitude should have started 50 years ago, but now our political agendas, short-sighted budget gridlock, gridlock in the Congress, a lack of knowledge in civic engagement, prevented that effort from beginning when it should have. And now we are playing a very dangerous and expensive game of catchup.

Our local governments, some of whom are represented here today, know where the protection gaps are within their communities. But sadly, we always seem to be working so much on recovering from previous disasters—Hurricanes Katrina, Rita, Gustav, Ike, now Isaac—we do have the difficult time focusing on investing in the future. We have built up resilience at the local level through some mitigation efforts, smarter planning, and better building codes, but we have a tremendous amount of work to do.

FEMA is only the tip of the spear when it comes to Federal Government response for the disasters, and I want to underscore tip, not the entire weapon. It is important to remember that FEMA plays also a coordinating role, and other Federal agencies are equally vital to our recovery, including the Small Business Administration, the Department of Housing and Urban Development, the Department of Agriculture, the Federal Highway Administration, and COE, all of whom responded to Hurricane Isaac, all of whom are on the ground here, but many of them have very few resources to operate.

Inevitably there will be more hurricanes and more flooding, but we cannot abandon and neglect this vital region. General, as you said in your opening testimony, which I read every word of both your testimonies this morning, you said, "Coastal Louisiana is home to one of the large port complexes in the world. It is the top producer of domestic oil, and it is the top fisheries producer in the lower 48 States."

That is, in fact, true. And we must find a way to protect it, not just for the benefit of the people that live here, but the people in the Nation that count on us to live here and deliver the goods. And that will require a more serious and sustained Federal investment

in flood protection through your agency, COE, and the emergency management system that better anticipates and accommodates whatever is thrown at it.

That is what we will examine in today's hearing, what is going right, what is going wrong, and where we go from here.

I will introduce our first panel in 1 minute, but first I want to spend a short time talking about what I observed personally during Hurricane Isaac.

I was here in Louisiana when the storm hit, as was our congressional delegation. I waited anxiously through 30 hours of rain with my family in Broadmoor, one of the lowest lying neighborhoods in the region, hoping the levees would hold and the pumps would work for the first time since 1978, and praying for all those in harm's way.

After the rain finally let up, I visited parish after parish, as did my colleagues. We spoke with citizens and local officials alike. I traveled by boat and air boat to survey the Braithwaite community in upper Plaquemines Parish. My visit came less than 30 hours after Jesse Schaeffer and his son, Jesse, Jr., heroically saved 120 neighbors during the worst part of the storm that saw water rising a foot every 10 minutes in the middle of the night in Braithwaite. And I firsthand witnessed the heroic efforts of the Plaquemines Parish sheriff and his deputies.

I surveyed other areas of Plaquemines Parish by helicopter and witnessed the devastation in Murder Grove and Ironton on my way to Grand Isle, where I walked the beaches and the ravished levees with Mayor David Carmadelle. I hosted Secretary Janet Napolitano on her visit to Louisiana post-Hurricane Isaac, where we visited one of the food distribution sites with Parish President Brister in St. Tammany, where storm survivors came for help from places like Indian Village, Lacombe, South Mandeville, Madisonville, and I will be visiting there this afternoon.

I toured Lafitte in a high water vehicle with Jefferson Parish President John Young, Councilman Chris Roberts, and Mayor Timmy Kerner to visit the citizens of Lafitte, who, just like the residents of Crown Point, Grand Isle, and Barataria, are storm-weary and worn out after another flood in their communities, which is so vital to this Nation's fisheries and oil and gas infrastructure.

And finally, I welcomed President Obama to St. John Parish where we surveyed the damage of the hardest hit areas with Parish President Natalie Robottom. In neighborhoods such as New 51, River Forest, and Cambridge subdivisions, which have never had flooding like that in 20 years, I held people as they wept with 6 or 7 feet of water in their homes.

I had the opportunity to thank the President for his assistance, for what his administration has provided so far. But I warned him of the woefully insufficient COE budget, and was encouraged by his offer to convene a high level meeting in Washington on this subject, which we will do in the next 2 weeks.

With that, I would like to introduce our first panel. The members, Senator Vitter and Congressman Richmond, will have an opportunity for questions to this panel, and they have come prepared to ask some tough ones. First, Mr. Fugate, who is the Adminis-

trator of FEMA, a position he has held for almost 4 years. After Mr. Fugate, we will hear from General Peabody, who is the Commander of COE, Mississippi Division in which Colonel Fleming, our Colonel, reports to.

PREPARED STATEMENT

So, Mr. Fugate, we will start with you. You understand the purpose of this hearing. If you could bring us up to date, you have got 5 minutes. And then we will have questions after General Peabody takes his 5 minutes of testimony. Thank you.

[The statement follows:]

PREPARED STATEMENT OF SENATOR MARY L. LANDRIEU

I'd like to begin by thanking Mayor Ronnie Harris, Jefferson Parish President John Young, and the parish council for hosting this congressional hearing today in historic Gretna, where less than 4 weeks ago on the anniversary of Katrina, Hurricane Isaac dumped over 18 inches of rain and caused a man to lose his life in a tragic fire that destroyed Leruth's Restaurant on Franklin Avenue. He was one of six people killed by the hurricane, which also pushed a wall of water 11 feet high onto Louisiana's shores, knocked out power to 871,000 households, and hovered over the region for 60 hours.

Last year, in the United States there were over 99 disasters that were so severe they were declared eligible for Federal assistance by the President. That is the most disasters ever recorded in a single year since the Federal Government began keeping records in 1953. It eclipses the previous record of 81 that was set in 2010, and it's more than twice the number of disasters declared one decade ago in 2002 when FEMA declared just 49. In addition to the 99 disasters last year, there were another 508 events that didn't qualify for Federal assistance, but which did prompt emergency declarations from State and local governments who mobilized to respond. That is one of the reasons it is so important for the Federal Government to maintain a robust Disaster Relief Fund. Louisiana has certainly had its share of disasters, including the most destructive natural disaster in United States history—Hurricane Katrina—and Hurricanes Rita, Gustav, and Ike, Deepwater Horizon, Tropical Storm Lee, and now Isaac. We know disasters will happen each and every year. We cannot prevent them, but with smart planning, responsible budgeting, and effective response we can significantly minimize loss of life and property, and prevent widespread economic or ecological damage.

This hearing is part of a comprehensive 7-year effort that I have undertaken as the chair of this committee and previously as chair of the Disaster Recovery Subcommittee to evaluate and improve our Nation's ability to cost-effectively prepare for, respond to, and recover from natural disasters and man-made events of all sizes and types. I chaired a previous hearing in October 2011 that laid the groundwork for disaster relief financing reform, which was enacted into law in December 2011. That hard-fought effort helped ensure adequate appropriations to the FEMA Disaster Relief Fund. For the first time in over a decade, FEMA received the resources it needed through its annual budget to help families and communities recover.

But the Federal role in responding to disasters cannot be limited to FEMA funding alone. Today, we have two panels of officials from the Federal, State, and local level to explore how government, as a whole, can better protect, prepare, and respond to these ever more frequent events. Today we will focus in particular on flood protection investments, or lack thereof, and the process of recovery; families and communities recover by assisting them with food, housing, transportation, debris removal, and other disaster-related needs.

We must do more to protect our communities in south Louisiana and in other parts of our State and country, and we must do it as quickly as possible to reduce loss of life and property and reduce the burden on taxpayers who continue footing the bill for disaster costs that could have been averted. A recent study by the Multihazard Mitigation Council found that for every taxpayer dollar invested in mitigation, the Federal Government saves $4 on future FEMA assistance. Up until 2000, the Federal Government provided assistance to repair disaster-damaged buildings without targeting any money to mitigate the damage that occurs. To correct that failed policy, Congress passed a law 5 years before Katrina in 2000, that has resulted in billions of dollars to State and local governments for mitigation measures like levee repairs, drainage improvements, wetlands restoration, and home ele-

vations, in order to lessen the consequences of future events. If they're properly planned and executed, these projects will actually save taxpayers money in the long term.

But let me be clear, we simply cannot protect southeast, southwest, or south central Louisiana by relying solely on FEMA's mitigation grants. We need a more consistent, more robust funding mechanism, for building our levees, securing our pumps, flood protection, internal drainage, and wetlands restoration. We need the Corps of Engineers and the State to commit additional resources to this effort, and we need a multi-layered system of defenses that incorporates smarter planning and stronger building codes, as well.

For the sake of historical context, since 1992 FEMA has spent $131 billion through the Disaster Relief Fund. Louisiana alone has received more than $60 billion from the Federal Government to recover from the hurricanes that struck our State in 2005 and 2008. We can, and we must, find a way to reduce the cost to U.S. taxpayers by reducing the loss of life and property in future events. Yet, shockingly, we only spend $1.6 billion on Corps of Engineers annual construction nationwide, a level that is 25 percent below what we spent in 2007, and only one-hundredth of a percent of gross domestic product (GDP). Federal funding for transportation infrastructure on the other hand, like highways and airports, which is by no means adequate to support long-term economic growth, has increased as a percentage of GDP over the past 15 years and nearly doubled since 1998 from $29.4 billion to $52 billion in 2012. In stark contrast however, Federal funding for Corps construction over that same period of time has gone up by less than $200 million and declined as a percentage of GDP. Most people in the world would probably expect that our Nation's Presidents and Members of Congress finally realized the fatal consequences of underinvesting in flood protection after Federal levee failures overwhelmed the most powerful nation in the world while the rest of the world watched. But our leaders apparently still don't get it, because the Corps of Engineers construction budget as a percentage of GDP has gone down every single year since Katrina struck, and we should be outraged by that fact. I am! We owe it to the taxpayers of our Nation, and to the citizens of Louisiana and the gulf coast, to reverse the Federal Government's trend of shortchanging vital flood protection and incurring exorbitant disaster costs as a result. Sadly, in fiscal year 2012, the Corps only spent $6.4 million for construction in Louisiana, which is just .38 percent of its annual construction budget. That's short-sighted, dangerous, and irresponsible. Louisiana needs levees, pumps, flood control structures, and wetlands restoration, and we need it now.

We're all thankful for the Federal Government's $14.5 billion investment in flood protection post-Katrina that no doubt prevented tens of millions of dollars in damage during Hurricane Isaac and helped protect communities inside the system, but the people that live in those protection zones are not the only ones who are here today. And one doesn't have to look any further than Braithwaite on the East Bank of Plaquemines Parish, the River Forest subdivision in LaPlace, Indian Village in Slidell, or Lafitte in Jefferson Parish, to realize that we still have a long way to go. The people who are here today still don't have the flood protection they need and deserve, they're rightfully upset about it, and so am I.

A flood protection effort of this magnitude should have started 50 years ago, but narrow political agendas, short-sighted budgets, gridlock in Congress, and a lack of knowledge and civic engagement prevented that effort from beginning when it should have, so now we're playing a very dangerous game of catch-up. Our local governments, some of whom are represented here today, know where the protection gaps are within their communities, but sadly, we always seem to be working so much on recovering from previous disasters—Katrina, Rita, Gustav, Ike, and now Isaac—that we have a difficult time focusing on investing for the future. We have built up resilience at the local level through some mitigation efforts, smarter planning, and better building codes, but we still have a tremendous amount of work to do.

FEMA is only the tip of the spear when it comes to the Federal Government's response to disasters. It's important to remember that FEMA plays a coordinating role, and other Federal agencies are equally vital to disaster recovery, including the Small Business Administration, Department of Housing and Urban Development, Department of Agriculture, Federal Highway Administration, and Corps of Engineers all of whom responded to Hurricane Isaac and are on the ground here in Louisiana.

Inevitably there will be more hurricanes and more flooding, but we cannot abandon or neglect this vital region of the country, which contributes over 17 percent to the Nation's GDP. As General Peabody said in his own testimony this morning, "coastal LA is home to one of the largest port complexes in the world, is the top producer of domestic oil, and it the top fisheries producer in the lower 48 States".

We must protect it, and that will require a serious and sustained Federal investment in flood protection through the Corps of Engineers and an emergency management system that better anticipates and accommodates whatever is thrown at it. That is what we will examine in today's hearing. What went right and what went wrong during Hurricane Isaac and where we go from here.

I will introduce our first panel in just a minute. But first, I want to spend a short time talking about what I observed personally during Hurricane Isaac. I was here in Louisiana when the storm hit. I waited anxiously through 60 hours of rain with my family in Broadmoor, one of the lowest lying neighborhoods in the region, hoping the levees would hold and the pumps would work, and praying for all of those in harm's way. After the rain finally let up, I visited parish after parish and spoke with scores of citizens and local officials alike.

I traveled by boat and airboat to survey the Braithwaite community in upper Plaquemines Parish. My visit came less than 30 hours after Jesse Schaeffer, and his son Jesse Jr. heroically saved more than 120 neighbors during the worst part of the storm that saw water rising a foot every 10 minutes.

I surveyed other areas of Plaquemines Parish by helicopter and witnessed the devastation in Myrtle Grove and Ironton on my way to Grand Isle, where I walked the beaches and ravaged Burrito levees with Mayor David Carmadelle.

I hosted the Secretary of Homeland Security, Janet Napolitano, on her first visit to Louisiana post-Isaac, where we visited one of the food distribution site in St. Tammany Parish, where storm survivors came for help from places like Indian Village, Lacombe, south Mandeville, and Madisonville, which I'll be visiting again this afternoon.

I toured Lafitte in a high water vehicle with Jefferson Parish President John Young, Councilman Chris Roberts, and Mayor Timmy Kerner to visit the citizens of Lafitte, who just like the residents of Crown Point, Grand Isle, and Barataria, are storm-weary and flat worn out after yet another flood in their communities which are so vital to this Nation's fisheries and its oil and gas infrastructure.

I welcomed President Obama to St. John Parish, where we surveyed damage in the hardest hit areas of LaPlace, such as the New 51, River Forest, and Cambridge subdivisions. I had the opportunity to thank him for the assistance his administration has provided so far, but I also warned him of the woeful insufficiency of the Corps of Engineers' budget and was encouraged by his offer to convene a high-level meeting in Washington on the subject.

With that, I would like to introduce our first panel. Each will have 5 minutes for comments and then time for questions. First, Mr. Fugate, who is the Administrator of FEMA, a position he has held for almost 4 years now. After Mr. Fugate, we will hear from Major General Peabody who is the Commander of the Corps of Engineers' Mississippi Division, a territory that runs from Canada to the gulf coast along the Mississippi River.

Mr. Fugate we will start with you.

[Fugate Testimony]

Thank you. Major General Peabody.

[Peabody Testimony]

[Thank the witnesses for their testimony then begin questions.]

[PANEL II]

Now we will hear from our second panel to get some local perspective. We have on this panel four parish presidents who represent some of the areas hardest hit by Hurricane Isaac—Jefferson, Plaquemines, St. Tammany, and St. John. We also have the State represented through the Coastal Protection and Restoration Authority; and industry represented through Shaw Coastal Inc. Each of you will have 5 minutes to offer opening statements and then we will move to questions.

Mr. Young we will start with you. [After John Young, the order is Billy Nungesser, Pat Brister, Natalie Robottom, Garret Graves, and Oneil Malbrough.]

[After all witnesses present their testimony start questions.]

STATEMENT OF CRAIG FUGATE, ADMINISTRATOR, FEDERAL EMERGENCY MANAGEMENT AGENCY

Mr. FUGATE. Thank you, Madam Chair, and Senator and Congressman. The response to Hurricane Isaac is a combination of several key pieces of legislation and tools. The response to Hurricane Isaac was based upon the capability and resources that the Congress has provided FEMA, most specifically the post-Hurricane Katrina Emergency Management Reform Act, which radically

changed the way that FEMA has been structured to approach disasters.

In Hurricane Katrina and other disasters, the Congress found that many of the authorities that FEMA had were not clear. Did we have to wait until the State was overwhelmed before we could even begin mobilizing resources? Did we have to wait for formal requests from the Governor to start expending resources to be prepared to support the State? Did we have the authorities to coordinate recovery activities beyond that of the Stafford Act?

During my confirmation hearing, Madam Chair, you reminded me of a to-do list that FEMA had not completed. Hurricane Isaac is really, I think, a culmination of that and the Budget Stabilization Agreement last year to fully fund the disaster account. If you remember last year during Hurricane Irene, we were questioning whether we had money to continue to respond to an active disaster. This year the Disaster Relief Fund currently has a balance of almost $1 billion going into the next fiscal year, meaning that not only can we respond to the current disasters, but we are prepared for the next disaster, whether it is a forecast event, such as a hurricane, or a no-knows event, such as an earthquake.

But other activities that have taken place in the last 3½ years that I have been at FEMA are also at play, one of which was a national disaster recovery framework. We learned after Hurricane Katrina you cannot expect State and local governments who are so overwhelmed in a disaster, to go through the Federal catalog and try to determine what Federal agencies can help them beyond the original help that is provided in the Stafford Act.

But not only are we able to implement that plan, we are working with the State to utilize that framework to coordinate some of the longer term recovery issues that some of the communities that were hardest hit by Hurricane Isaac faced. We have more staff. We have more resources. We have equipment that is ready to go. This response, based upon a storm tracked that originally was threatening the Virgin Islands and Puerto Rico throughout much of the gulf coast, and ultimately the majority of the impact on the Mississippi coast and here in Louisiana, also demonstrated that those investments that were made after Hurricane Katrina paid dividends.

Mitigation—oftentimes we talk about the amount of money that we will spend on mitigation and how much it saves us. I think Hurricane Isaac showed us that not only is it the reduction in damages, it is the preservation of key critical functions of local government. Throughout the gulf coast region, we saw numerous examples where structures that were hardened and elevated to protect them against a hurricane allowed local officials and first responders to remain in their communities and operate safely. This, in turn, sped up the response, and in many cases, the initial response to much of the impacts was the local responders, because they were able to stay in their communities. They had safe locations to work from. Their communications and other systems that had been enhanced since Hurricane Katrina allowed them to speed up their response.

The State and our partnership with the Governor's team at the Governor's Office of Homeland Security and Emergency Prepared-

ness (GOHSEP), as well as our Federal agencies, also has expanded beyond what the Government does. We know from the lessons of Hurricane Katrina that in many cases, it was the private sector that oftentimes was first in communities getting open and providing services.

This storm allowed us to exercise our National Business Emergency Operations Center, where we are coordinating with national chains as well as through States, Emergency Operations Center, and their connection with the business community, not to duplicate, but to complement where businesses are providing services so we can focus on those areas that are not being served.

As we saw with this storm, a slow-moving storm was a challenge because in many cases, although we had resources and teams ready to go, we couldn't respond until the storm meandered its way up through the area. That meant that in many cases, communities were not hit and then responding. They were hit and responding and still being hit and responding.

And I think the story of mitigation really comes back to not only is it the dollar savings and losses that were prevented. It is the ability of those key local responders and critical functions to remain operational through such a long-duration storm and continue to provide those services without necessarily having to wait for outside assistance to get there.

Many other lessons have been learned. Many other challenges have been revealed by this storm. We continue to work with our partners in the volunteer community, and faith-based communities, and the private sector, but most importantly, with our partners at the State and local level.

And I would like to end with this: I have been here for 3½ years. The team I get to work with is the best team I have ever had an opportunity to serve with. And I am very proud of the caliber of people that President Obama brought in. I was doing a little count. We have over seven former State directors who now are working at FEMA at senior levels. We have never before had that many representatives of State and local government. Our deputy administrator, Rich Reno, was formerly the emergency medical services chief for the city of Boston.

I think the President's decision to infuse FEMA with local and State officials who have been in the trenches and who have dealt with the same thing the parishes here have dealt with and the State of Louisiana has dealt with means that we may not always be right the first time, but we are working as a team, as partners, to get it right.

PREPARED STATEMENT

And with that, I will thank you, Madam Chair, Senator Vitter, and Congressman Richmond. And I will await your questions.

[The statement follows:]

PREPARED STATEMENT OF CRAIG FUGATE

INTRODUCTION

Good Morning, Chairwoman Landrieu, and members of the committee. I am Craig Fugate, Administrator of the Federal Emergency Management Agency (FEMA) and I am grateful for the opportunity to speak here today. I look forward to discussing

the preparations that took place before Hurricane Isaac made landfall, the coordinated response that took place during the storm and is continuing today, and the recovery efforts that lay ahead.

Tropical Storm Isaac formed in the Atlantic late on August 21, 2012, and continued westward into the Caribbean before turning northwest across western Haiti and eastern Cuba, passing west of Key West, Florida, and moving into the Gulf of Mexico. Isaac became a category 1 hurricane early on Tuesday, August 28. The hurricane's center made landfall along the southeast Louisiana coast at 6:45pm central daylight time with sustained winds of 80 miles per hour and gusts extending outward from the center up to 185 miles, primarily affecting the coastal areas of Southeastern Louisiana, Mississippi, and Alabama. The storm moved slowly back towards the gulf Tuesday night before making a second landfall in southeast Louisiana early on Wednesday, August 29. Tremendous storm surge reaching estimated heights as high as 12 feet in coastal and riverine areas and rainfall amounts estimated between 7 and 14 inches with isolated maximum amounts estimated near 20 inches inundated much of Louisiana, southern Mississippi, southern Alabama, and the western Florida panhandle. Tens of thousands were ordered to evacuate.

In the days leading up to landfall of Hurricane Isaac, FEMA worked with the whole community to support our citizens and first responders as they prepared. It is clear the authorities given to FEMA in the wake of Hurricane Katrina contributed to increased readiness and improved response throughout the storm. By leaning forward, the agency was able to support a prompt, coordinated response effort while effectively understanding the needs of survivors and planning for future needs.

PREPARATIONS FOR ISAAC

Long before Hurricane Isaac made landfall, FEMA was coordinating and collaborating with whole community partners to plan and prepare for a hurricane event. The State of Louisiana and FEMA's regional office have worked closely to develop catastrophic, worst-case scenario hurricane plans which were developed to be flexible and scalable for incidents of lesser magnitude. Emergency managers at all levels work together to review, update, and validate the Joint FEMA Region VI Louisiana Hurricane Operation Plan annually through planning workshops, table top exercises (TTX) and drills that foster relationship-building and decisionmaking that proves essential for response in disasters. For example, in May 2012, Federal, State, and local partners completed a Rehearsal of Concept (ROC) drill and a 2-day exercise combining a TTX with a functional exercise that simulated an air evacuation of survivors from the Louis Armstrong New Orleans International Airport.

In the days immediately before Isaac reached the gulf coast, FEMA worked with whole community partners to stage resources that would support response efforts that began as soon as conditions were safe. The agency's success coordinating these resources and the response efforts to follow were due largely to the lessons learned following Hurricane Katrina in 2005. In the aftermath of Hurricane Katrina, Congress enacted the Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA), which enabled FEMA to improve our processes in order to more efficiently and effectively provide services to the communities we serve.

PKEMRA required that FEMA "develop an efficient, transparent, and flexible logistics system for procurement and delivery of goods and services necessary for an effective and timely response to natural disasters, acts of terrorism, and other manmade disasters and for real-time visibility of items at each point throughout the logistics system." Recognizing the need to improve logistics capabilities, FEMA elevated logistics from a branch-level operation to a full directorate with the creation of the Logistics Management Directorate (LMD). LMD is now organizationally aligned with and fully integrated into response and recovery operations, enabling them to provide efficient, transparent, and flexible logistics capability to ensure an effective and timely response to disasters. This improved capacity was evident in the prompt procurement, delivery, and dispersal of goods and services supporting response and recovery efforts following Hurricane Isaac.

In addition to creation of the LMD, PKEMRA spurred creation of FEMA's Incident Management Assistance Teams (IMATs), who plan, train, and exercise with State and local partners to prepare for all hazards. The IMATs are FEMA's first responders for all disasters. They arrive on-scene early and work to establish Interim Operating Facilities (IOFs) before Joint Field Offices are established to manage response operations. IMATs also support the Unified Coordination Group (UCG), which brings together senior leaders who represent the interests of Federal, State, local, and tribal governments in an effort to promote effective coordination and planning across entities. In response to Hurricane Isaac, IMAT teams deployed

before the storm made landfall. Teams were positioned at the State Emergency Operations Center (EOC) and were directly involved in nearly every aspect of response efforts.

PKEMRA also grants FEMA the authority to lean forward and leverage the entire emergency management team in response and recovery efforts, a tool we take advantage of regularly and employed early for Hurricane Isaac. The agency is permitted to take actions necessary to save lives and protect property by positioning emergency equipment, personnel, and supplies to support response to notice events like hurricanes. Despite the inherent challenges of predicting hurricane landfall or anticipating the full extent of its effects, FEMA worked with State and local partners to alert, deploy, and stage resources beginning August 25, 2012, 3 days before Isaac made landfall. FEMA pre-positioned over 120 truckloads of commodities carrying almost 1.7 million liters of water and 1.7 million meals, in addition to cots, tarps, blankets, generators, and other resources to support caches already staged by the State in preparation for the 2012 hurricane season. A total of 158 individuals from FEMA and other Federal agencies deployed in advance of the incident to support pending response and recovery activities.

In the 72 hours prior to landfall, the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOSHEP) EOC, as well as both FEMA's Region VI Regional Response Coordination Center (RRCC) and the National Response Coordination Center (NRCC) were activated to support pre-deployment activities and situational awareness. By request from the State, FEMA also activated the national ambulance contract, allowing the agency to stage ambulances and para-transit vehicles to support evacuations of hospitals and nursing homes prior to landfall. Search and Rescue (SAR) resources from FEMA and other Federal partners were staged throughout the gulf coast.

COORDINATED RESPONSE AND RECOVERY EFFORTS

When Hurricane Isaac made landfall on Tuesday, August 28, 2012, FEMA and other Federal agencies had deployed personnel, pre-positioned commodities, and established State and Federal staging areas to stabilize the incident within 72 hours of landfall. State and Federal teams worked quickly to activate Points of Distribution (PODs), sites where survivors were provided with food, water, and other essential resources. Under the new National Disaster Recovery Framework (NDRF), two members of the Federal Disaster Recovery Coordinators (FDRC) cadre deployed almost immediately to hard-hit areas of Louisiana. These individuals were available to support the State's recovery leadership, and to monitor recovery impacts and issues in the aftermath of the storm.

By Friday, August 31, 33 PODs in 12 parishes were supporting survivor needs. Additional Federal resources were deployed to support medical shelters and other response activities, and approximately 300 Community Relations (CR) personnel were deployed and formed teams to provide disaster assistance information to survivors while conducting damage assessments and providing situational awareness. The pre-planning and coordination efforts between the State of Louisiana and FEMA's regional office enabled the State to respond rapidly through the State-Led Disaster Housing Task Force (SLDHTF), a task force of subgroups that meet daily to identify issues while developing a comprehensive housing plan that continues to guide disaster housing recovery efforts. The SLDHTF also works with the Housing Recovery Support Function coordinating agency under the NDRF, the U.S. Department of Housing and Urban Development (HUD), to identify ways to leverage existing State programs using HUD-based programs like the Community Development Block Grant (CDBG) Program and other funding mechanisms.

The authorities and guidance established in PKEMRA have also helped FEMA integrate the private sector into our preparedness, response, and recovery efforts. In 2007, in response to recommendations in PKEMRA, FEMA established a Private Sector Division (PSD) within the Office of External Affairs. The PSD helps to formalize FEMA's approach to private sector engagement by building bridges to businesses and other non-governmental organizations to develop meaningful public private partnerships and facilitate private sector innovation and networking across FEMA.

In August 2012, FEMA's PSD announced the creation of FEMA's first-ever National Business Emergency Operation Center (NBEOC). This new virtual organization serves as FEMA's clearinghouse for non-operational, two-way information-sharing between public and private sector stakeholders in preparing for, responding to, and recovering from disasters. Throughout Hurricane Isaac, the NBEOC worked to coordinate, communicate, and collaborate with private industry to foster relationships, improve information-sharing and situational awareness, and engage key

stakeholders who brought resources, capabilities, and expertise to bear during response and recovery efforts. The NBEOC was incredibly well-received during response efforts from private sector stakeholders who applauded the communication and coordination gained through the aggregation of multiple communications.

In the aftermath of Hurricane Isaac, FEMA's mobile outreach efforts have continued to simplify the process of identifying and applying for disaster assistance through DisasterAssistance.gov, a Web site established in 2008 to help survivors apply for FEMA Individual Assistance and find other forms of assistance. Between August 31 and September 18, 422,160 disaster survivors visited DisasterAssistance.gov to apply for assistance, update their information, and check the status of their application online. As of September 19, Hurricane Isaac survivors had submitted over 18,700 applications for assistance through smartphones, which allow survivors to apply for assistance and track submitted applications with the added flexibility of mobile access.

By constantly striving to support our citizens and first responders in efficient, streamlined ways, FEMA is working to fulfill the agency's mission while navigating the limitations of today's ever-strained economic environment. Following Hurricane Isaac, over 46 percent of registrants applying for individual assistance have opted to receive all correspondence from FEMA electronically. This option was made possible through the Electronic Correspondence (E-Corr) program, implemented on August 15, 2011. The program has helped FEMA to communicate with survivors in a convenient, efficient, and effective medium. In Hurricane Isaac alone, E-Corr is estimated to have saved the agency approximately $405,000 on postage, printing, and envelope costs.

LOOKING FORWARD

FEMA opened the first Hurricane Isaac Disaster Recovery Centers (DRCs) on Saturday, September 1, providing survivors with resources and information about FEMA and other disaster assistance programs. As of September 19, 27 DRCs in Louisiana and 16 in Mississippi continue to support survivor needs. Survivors in Louisiana have filed 182,683 registrations for disaster assistance, and survivors in Mississippi have filed 19,936 registrations. FEMA has approved nearly $67.1 million in assistance for qualified homeowners and renters in Louisiana and $9.1 million for qualified homeowners and renters in Mississippi. More than $7.6 million in public assistance funds have been obligated to help affected communities recover. In addition, as of September 18, nine business recovery centers had been opened by the Small Business Administration (SBA), which had approved low-interest disaster loans totaling over $1.4 million. The United States Department of Agriculture (USDA) has granted the State's request for the Disaster Supplemental Nutrition Assistance Program (DSNAP) benefits for eligible survivors, allowing more than 86,000 households to receive over $36 million in benefits.

In addition to providing disaster assistance, PKEMRA laid the foundation for FEMA to provide those affected by disaster with additional funding through the Hazard Mitigation Grant Program (HMGP), which provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. Prior to PKEMRA, the total amount of HMGP money allocated to disaster-affected areas was determined by calculating 7.5 percent of total disaster grants whose sum was less than or equal to $2 billion. PKEMRA amended the Stafford Act to allow HMGP funding to total 15 percent of total disaster grants for disasters $2 billion and under. The practical application of this modification means the communities and individuals affected by Hurricane Isaac may receive twice as much financial support through this grant program following the disaster.

While significant resources have supported response and recovery throughout Hurricane Isaac, FEMA's investments in mitigation in the years following Hurricane Katrina undoubtedly saved lives and money during this most recent disaster, and will continue to support recovery through the coming weeks and months. In the years since Hurricane Katrina, FEMA has worked to support preparedness efforts in the gulf coast and across the Nation through programs like the HMGP and the Homeland Security Grant Program (HSGP), which have been strongly supported by this committee. In 2007, a $96.9 million HMGP grant, one of the largest in history, was provided to elevate homes devastated by Hurricanes Katrina and Rita. By 2009, FEMA had provided $23.5 million to help all 64 of Louisiana's parishes and 17 other entities create detailed hazard mitigation plans, a requirement to qualify for the HMGP that only four jurisdictions in Louisiana had satisfied before Hurricane Katrina.

Since fiscal year 2007, the HSGP has provided nearly $315 million to the State of Mississippi and more than $428 million to the State of Louisiana to fund a range

of preparedness activities including planning, organization, equipment purchase, training, exercises, and management and administration. These activities continue to improve resiliency throughout the gulf coast, and contributed significantly to successful response and recovery efforts during Hurricane Isaac. As of September 19, 2012, FEMA has obligated almost $1.1 billion in Louisiana and over $280 million in Mississippi through the HMGP since Hurricane Katrina.

Immediately following Hurricane Isaac, FEMA Hazards Performance Analysis (HPA) field staff deployed to support response and recovery efforts, and to assess several sites where post-Katrina mitigation funding was utilized. Property acquisition sites where homes once stood had been converted into green spaces, and although surrounding areas suffered flood damage, the green space required no repair. Other sites were observed in neighborhoods with a mix of elevated and non-elevated houses. All non-elevated houses appeared to have suffered damage, but those structures elevated with funding from FEMA's HMGP appeared dry, even where flooding depth reached 3 to 4 feet. These observations by FEMA HPA staff, though limited, are reflective of the types of life and cost savings during Hurricane Isaac that were made possible by investments following Hurricane Katrina.

CONCLUSION

As we move forward with response and recovery activities in the aftermath of Hurricane Isaac, FEMA continues to collect and analyze lessons learned and after-action reports. FEMA personnel are actively tracking and assessing the implementation and application of PKEMRA legislation throughout Hurricane Isaac, gathering information which will be used to further improve disaster management in the future. We will continue to improve our response and recovery efforts by making use of the enhanced authority granted to FEMA by PKEMRA, and will continue to wisely invest in resources and programs that will support our citizens and first responders.

Thank you Chairwoman Landrieu, for providing me this opportunity to appear before you today to discuss preparations that took place in advance of Hurricane Isaac, the coordination that occurred throughout the storm, and the recovery efforts that remain in-progress. I look forward to answering questions you or other members of the committee may have.

Senator LANDRIEU. Thank you.

General Peabody.

STATEMENT OF MAJOR GENERAL JOHN W. PEABODY, COMMANDER, MISSISSIPPI VALLEY DIVISION, ARMY CORPS OF ENGINEERS

General PEABODY. Thank you, Madam Chair, Senator Vitter, and Congressman Richmond. I appreciate the opportunity to testify here today on behalf of the hundreds of COE professionals who have not only built the hurricane storm damage reproduction system, which you remarked on as performance during the storm, but also prepared for, responded to, and are continuing to help recover from Hurricane Isaac.

I am going to make five main points, and I've got a great written statement which I was editing last night. But I am going to dispense with that, I think.

The first point I would like to make—maybe six points—is that Hurricane Isaac reminded us once again that extreme weather events are dangerous and are capable of potentially overwhelming, damaging, or destroying the built and the natural environments. This is an important reminder that those of us who do not experience extreme weather events as often as the citizens of the coastal United States, especially Louisiana, have in recent years need to be reminded of.

COE extends our deepest and heartfelt sympathies to all the citizens of Louisiana and Mississippi who suffered losses from this storm, especially those who lost family members. We had a large number of our own New Orleans District employees who suffered

losses, some of whom continued to man their duty positions during the storm.

To build a little bit on Administrator Fugate's remarks, I would generally say that the emergency management and disaster response system that COE has developed, which builds on two authorities—the Stafford Act, for which we work as FEMA's public works and engineer agency, and the Flood Control and Coastal Emergency Act—enabled us to respond, in my view, quite well to this particular event.

All of our regions have specific operational plans for the types of weather events that could impact them in this region that primarily focused on hurricanes, flooding, and to a lesser extent, a potential seismic event in New Mandarin. But we energized our capacity. We pre-deployed about 11 folks prior to landfall and then another 300 COE professionals after landfall. And in concert with our contracting professionals and under the direction of FEMA, we were able to respond—and in close coordination with the State, we were able to respond quickly to the disaster. And we also were able to close the system around greater New Orleans to prevent the flooding that you remarked on, ma'am.

Third, it is important to continue to emphasize that the enormous investment of the Nation in the Hurricane and Storm Damage Risk Reduction System (HSDRRS), which to date we have obligated $11 billion—we have expended a little more than $10 billion—worked in this storm. That is a testament to COE's intensive scientific research, careful investigation of lessons learned from Hurricane Katrina, leveraging a wide number of professionals from both inside and outside COE, and the Nation's commitment to support executing this program, as well as a number of factors which I can address later if you have questions, that I think made a significant difference, probably the most important of which was we had full appropriations for the programmatic cost estimate due to a number of supplements that, Madam Chair, you, Senator Vitter, and your colleagues passed a couple of years after the storm.

Fourth, we must always and everywhere continue to investigate, research, and learn from each extreme weather event. Hurricane Isaac was unexpectedly, for many people, damaging. We tend to think of a category system and associate the likely damages with that. But because the system was so large and so very slow moving, it generated an enormous amount of storm surge and rainfall, which created flooding that, I think, many of the citizens who were impacted did not expect, and I do not think many of us expected.

COE is committed to going forward to researching the impacts from this storm, seeing where we had issues that did not work quite like they should have, and improving our operations and maintenance capabilities, and our construction methodologies to address that.

Second to last, it is very obvious, you can see from some of the photographs up here, that there is quite a contrast between the impacts to citizens inside HSDRRS and the impacts to many of the citizens in the coastal and Lake Pontchartrain areas outside of that system where much of the flooding occurred.

We are not finished with HSDRRS. We have got a few more years of work to do, not the least of which is focused on the New

Orleans to Venice 9-foot levees in Plaquemines Parish, where we continue to work diligently to execute this program as quickly as possible.

And I will finish with a couple of notes. Much of coastal and southern Louisiana continues to be at risk. COE is working very hard on a large number of study authorities. Not advancing as quickly as many would like, but we are working to ensure that we have confidence in the scientific underpinnings and the engineering judgments that will enable policymakers, such as yourselves, to make decisions on whether or not to continue investing in some of these areas.

PREPARED STATEMENT

So, ma'am, just to conclude, I just want to say COE is very proud to serve the citizens across the entire United States. We are proud of the partnership we had with our other Federal agencies, particularly FEMA, and the States—both States, Louisiana and Mississippi, in this event. And I look forward to your questions, and thank you for the opportunity.

[The statement follows:]

PREPARED STATEMENT OF MAJOR GENERAL JOHN W. PEABODY

OPENING REMARKS

I am Major General John Peabody, Commanding General of the Mississippi Valley Division for the U.S. Army Corps of Engineers (Corps), and President of the Mississippi River Commission. On behalf of the hundreds of U.S. Army Corps of Engineers professionals who prepared for, responded to, and are helping to recover from Hurricane Isaac, thank you for the opportunity to testify today.

As with many natural disasters, Hurricane Isaac brought with it forces that overwhelmed elements of the built and natural environments. It damaged and in some cases destroyed many engineered structures and property, flooded hundreds of homes and businesses, rendered many people homeless, and resulted in several deaths. The Corps extends our deepest sympathies to all of the citizens suffering losses from Hurricane Isaac—several of our own professionals suffered personal losses from this storm as well. Along with physical destruction, natural disasters also bring out the best in people. There are countless stories of heroism and compassion carried out by the citizens of Louisiana and Mississippi during this storm. The Corps is proud to be part of the communities that make up these States.

The safety of the public is the Corps' top priority. Every year the Corps, as part of the Federal Government's unified response to disasters, sends hundreds of experts to respond to disasters at home and abroad. The Corps assists the Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA) as the primary agency with expertise in public works and engineer-related support. As part of the National Response Framework, the Corps executes a multitude of functions in support of FEMA, including emergency power, commodities distribution, debris removal, temporary roofing and temporary housing, infrastructure assessment, inundation mapping, and technical assistance, among others. The Corps has dozens of Planning and Response Teams (PRTs) trained and ready to deploy in advance of and in response to natural disasters. For Hurricane Isaac, we deployed over 100 pre-positioned professionals from across the Nation ahead of Isaac's landfall and ready for a rapid response, and then deployed over 300 more in the immediate aftermath of the storm. The Corps received 40 mission assignments from FEMA totaling over $20 million. Although we did not need to execute the full capability of these mission assignments for this event, we were ready for a much more robust response requirement. For example, although we installed 9 generators to provide temporary power in Louisiana, we had nearly 160 generators deployed to Baton Rouge prepared and ready to be sent throughout the State, along with six dozen contractors and 20 prime power soldiers, and we conducted power assessments at two dozen critical facilities in Louisiana which will help the State better prepare for future events.

Each region and district in the Corps has standard operational plans prepared, updated and rehearsed on an annual basis for the kinds of disasters expected in the region. In the case of the Mississippi Valley Division, our primary response plans relate to hurricanes, floods, and a New Madrid Seismic Zone event. Our hurricane response plans are updated each winter based on the lessons from the most recent hurricane events as well as changed conditions on the ground. Our plans include the mobilization of up to three district command teams to provide robust senior leader support to the States of Mississippi (Vicksburg District) and Louisiana (Memphis District), and an Unwatering Task Force (Rock Island District) if needed, as well as general support from the other districts. Elements from all three of these commands were mobilized and deployed for this event in addition to seven PRTs, and dozens of augmentation personnel. As the affected district, the New Orleans District commander and his staff focus on executing actions in collaboration with State, parish, and local levee board officials to prepare the Hurricane and Storm Damage Risk Reduction System (HSDRRS) for storm surge, as well as the civil works structures and operating elements (locks and dams, operating vessels, etc.) that is within the district's jurisdiction. The Corps has the capability to mass its full resources and energy on any disaster, if required. In the case of Hurricane Isaac, the Mississippi Valley Division executed our operational plan, with some variations for potential unwatering and other requirements.

In addition to disaster response in support of FEMA, the Corps has inherent authorities under Public Law 84–99, Flood Control and Coastal Emergencies, to provide technical assistance to non-Federal authorities, to provide flood fighting assistance, and to rehabilitate projects in the Public Law 84–99 program following a natural disaster. During Hurricane Isaac, the Corps responded to mud slides on Mississippi's Lake Tangipahoa Dam by sending geotechnical and dam safety experts to make assessments and provide technical assistance to the State for consideration in its decisionmaking process, as well as developing and providing inundation maps to downstream areas in both Mississippi and Louisiana. We also provided unwatering advice and assistance to include pumps to the Lake Tangipahoa Dam as well as Plaquemines Parish to unwater the Braithwaite polder, which was flooded after non-Federal levees were overtopped by the 10- to 14-foot storm surge. We are currently assessing damages from Hurricane Isaac.

HURRICANE PREPAREDNESS IMPROVEMENTS SINCE HURRICANE KATRINA

Following Hurricane Katrina, the Corps has diligently prepared for the day that another hurricane would threaten the greater New Orleans area. Because of the work on the HSDRRS since then, the greater New Orleans area has a much greater reduced risk of flooding from hurricane surges now than it has had at any other time in history. Our experience from Hurricane Isaac bore this out. Along with our Federal, State, and local partners, the Corps strengthened and improved nearly 133 miles of levees, floodwalls, gated structures, and pump stations, forming the new greater New Orleans perimeter system. Construction of surge barriers at Lake Borgne, Seabrook, the New Orleans Outfall Canals and the West Closure Complex have pushed the line of defense outside of the city and removed about 68 miles of interior levees and floodwalls from exposure to storm surges. We also have improved internal drainage conveyances with pump stations under Southeastern Louisiana (SELA)—integrated HSDRRS perimeter and internal works. Much of the work planned for this element of the system continues.

It is important to emphasize that the Corps has not have accomplished this work on its own. This was absolutely a complete team effort, with full engagement by Federal and State authorities, local governments, levee authorities, levee boards, academia, industry, non-governmental organizations, peer reviewers, and other stakeholders. We have been able to accomplish this in a short time span by sharing responsibility and working collaboratively with the single focus to complete the HSDRRS. The Corps and its partners were enabled by a number of key factors. After Hurricane Katrina, the Corps received $14.6 billion for work on the HSDRRS. By the beginning of the 2011 hurricane season, the Corps was able to provide 100-year protection to the city of New Orleans. The Army is now focused on completing work on other components of the HSDRRS. In addition, the Council on Environmental Quality authorized alternative environmental arrangements for major elements of the greater New Orleans HSDRRS, to comply with NEPA while the system was under construction. We also applied innovative acquisition approaches on a large scale to deliver the work efficiently and effectively, and our non-Federal partners delivered the real estate requirements to sustain aggressive execution. In short, the greater New Orleans HSDRRS was executed efficiently and functioned effectively during Hurricane Isaac because the Corps was able to leverage the capa-

bilities and knowledge of the full panoply of experts, stakeholders, and authorities at every level.

The HSDRRS was developed by rigorous application of cutting edge scientific knowledge of storm impacts, and the concepts of engineered structural redundancy, and resiliency. The known impacts from Hurricane Isaac make clear, however, that while the greater New Orleans area has achieved substantial hurricane storm risk reduction, much of coastal Louisiana remains at risk. The contributions made by southern Louisiana to the Nation's economy are significant, as are its ecological resources. The Corps has many responsibilities to manage aspects of the Nation's water resources in this region. Situated at the confluence between the Mississippi River watershed and the Gulf of Mexico, coastal Louisiana is home to one of the largest port complexes in the world, is the top producer of domestic oil, and is the top fisheries producer in the lower 48 States.

Managing flood risk is a shared responsibility between all levels of government—Federal, State, and local—as well as the people at risk. Managing risk should include all methods of risk reduction: land use zoning; building codes; flood insurance; evacuation plans; ecosystem restoration and resiliency, and structural measures. The methodology for managing these storms must be multiple lines of defense—all of the things I mentioned, as well as barrier island creation, creation or restoration of marsh and swamp land—things that can be accomplished to lessen the impacts of these storms before they arrive at the doorsteps.

The Corps' primary role in flood risk reduction is to evaluate alternative approaches to reduce flood risk by performing feasibility studies and to make investment recommendations related to three factors associated with any potential project: whether it is technically feasible, environmentally acceptable and economically justified. The Corps must evaluate projects based upon sound engineering and science, and in accordance with law and established regulations including our principles and guidelines. In an effort to improve our performance, the Corps has begun an effort to transform our Civil Works program to adjust to the fiscal and infrastructure realities we face today.

Part of that effort includes a transition toward a new planning paradigm with the intent of executing feasibility studies in less time, at less cost, and with greater confidence in the outcome. The transformation of the Corps' Civil Works program ranks at the top of the Corps' current strategic priorities, and reforming our planning program is one of the key aspects of that effort. In a constrained fiscal environment, the Corps' priorities are based upon performance of the project in comparison to other projects, with the goal of recommending those projects that return the highest benefit for the investment to the Nation. To achieve this, the Corps is conducting more rigorous analysis to ensure that the "future without project conditions" are accurately portrayed, and that project benefits are accurately captured. This will result in an increased confidence in the Corps' judgments related to projects' technical feasibility, environmental acceptability, and economic justification.

HSDRRS PREPARATIONS, REHEARSALS, AND EXECUTION

Since 2006, the Corps has improved how it does business not only in design and construction of the HSDRRS, but in our operational and contingency planning for HSDRRS closure. The New Orleans District conducts annual structural assessments of the HSDRRS in partnership with Federal, State, and local leaders. We have been open and transparent every step of the way—for example, since the start of construction we have published a HSDRRS map each June that provides a snapshot of construction status, and where we focused efforts to effect interim and permanent feature closures. We have shared this strategic communication tool at public meetings and engagements, as well as with elected leaders through meetings and briefings.

Prior to the start of each hurricane season, the New Orleans District tests the operation of all major structures and conducts tabletop exercises centered on a variety of hypothetical storms. The purpose is to exercise our planned command and control procedures, as well as our technical steps for responding to a storm event, to test the procedures for closing and re-opening major structures, and to exercise collaborative partnership efforts among Federal, State, and local agencies. Major partners including the U.S. Coast Guard, Coastal Protection and Restoration Authority Board, New Orleans Sewerage and Water Board, the Jefferson Parish Drainage Department, the Governor's Office of Homeland Security and Emergency Preparedness, the Southeast Louisiana Flood Protection Authorities and the Louisiana Department of Transportation and Development all participate in the Corps' extensive planning process to ensure the successful overall operation of the HSDRRS.

Cultivating and maintaining partnerships within States, parishes, cities, and neighborhoods, as well as communicating the importance of shared responsibility for risk has been one of the strategic objectives in Louisiana and the Nation since Hurricane Katrina. To that end, we have conducted more than 500 public meetings and engagements in Louisiana to facilitate an open dialogue about the HSDRRS and risk; held regular meetings with Federal, State, and local partners; established a hotline to convey up-to-date construction impacts for open and transparent communication; and implemented social media channels, among many other efforts.

Another critical measure has been the cross agency and industry planning to ensure that risk from water borne vessels is mitigated and that U.S. Coast Guard Regulated Navigation Area (RNA) roles and responsibilities are clearly defined in advance of the start of each hurricane season. This is particularly important for the Inner Harbor Navigation Canal—Gulf Inter-Coastal Waterway detention basin and the Harvey-Algiers Detention basin. The U.S. Coast Guard, Corps, local levee districts, and navigation industry stakeholders meet regularly to review the RNA, which is necessary to ensure all vessels therein have approved mooring plans to reduce the threat posed by the possibility of break-away vessels. Finally, lessons learned from post event assessments and after action reviews have been implemented to improve emergency operations planning and seamless coordination with our partners.

PERFORMANCE DURING HURRICANE ISAAC

All of our efforts since Hurricane Katrina to plan, design, construct, and utilize the HSDRSS prior to each hurricane season resulted in the system essentially performing as anticipated during Hurricane Isaac. While the overall system performed as designed, that performance was not without its challenges. For example, the massive temporary pumps at the outfall canals along the south shore of Lake Pontchartrain are performing well beyond the time they were intended to be there. All pumps are machines that can break, just like cars and air conditioners. During Hurricane Isaac, we had 5 of 43 total pumps that we could not start at the 17th Street Interim Closure Structure from inside the control structure. The New Orleans District professionals were prepared for just such a contingency, with crews on site. Those crews braved the hurricane force winds and started those pumps manually, one of whom had his family and home flooded in Laplace while he executed his duty. Unfortunately, we had one pump fail to operate properly, resulting in the flooding of four homes in a neighborhood in Oakville inside of the HSDRRS. The cause of that incident is still being investigated.

In the aftermath of Hurricane Katrina, the New Orleans District instituted procedures for repeatedly rehearsing its established response to hurricanes prior to the beginning of each hurricane season. This ensures that the New Orleans District will be ready to respond quickly to such an event. The New Orleans District validated closure plans through desk top exercises, rehearsed structure closures and documentation of notifications in Louisiana's Levee Information Management System (LIMS) reporting system, and developed contingency plans to respond to possible issues to assist the New Orleans Sewerage and Water Board and Jefferson Parish Drainage Department. Already storm-proofed pump stations and those undergoing storm proofing proved their worth during Hurricane Isaac.

One of the keys to success was the use of the Local Government Liaisons (LGLs). These are Corps personnel that the New Orleans District deploys to, and embeds with, parish and levee authorities. Whenever local parish officials had a problem, their embedded LGLs got an answer within minutes. We prepared our contractors to close their construction gaps on time. We used our own in-house labor to effect transportation system closures on Highways 23 and 90 at the advent of tropical storm winds. We capitalized on lessons learned from previous hurricanes and the spring 2011 flood to work effectively with the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP). In anticipation that the major effects from this storm would hit Louisiana, I personally displaced to Baton Rouge ahead of landfall and set up a forward command post at GOHSEP, effectively embedding myself and several of our staff as another Corps link for the Governor and his staff.

During Hurricane Isaac, the Corps shared its projected storm surge hydrographs for the East Bank and West Bank of Plaquemines Parish from our Advanced Circulation Model. The local parish leaders used these storm surge model forecasts to inform their decisionmaking related to parish actions.

POST-ISAAC ASSESSMENT

Hurricane Isaac's impact to the coastal Louisiana area, including the greater New Orleans region and surrounding communities, was considerable. While the HSDRRS

prevented the storm surge from inundating the areas on the protected side of the system, significant flooding from storm surge and rainfall occurred in areas outside of the Federal levee systems including Slidell, Mandeville, Madisonville, LaPlace, Braithwaite, Lafitte, and other locations.

The Corps bases its decisions, designs, and construction on the best science and engineering available. Prior to the start of construction for the HSDRRS, the Corps conducted extensive surge modeling and analysis that indicated minimal to no flooding impacts to communities or areas outside of the system as a result of the HSDRRS. Hurricane Isaac was a large, slow-moving storm with a considerable amount of surge and rainfall that appear to have been the primary variables driving the flooding witnessed from this storm. Nonetheless, some have speculated that the HSDRRS caused unintended induced flooding to areas outside the system as a result of Hurricane Isaac. Congressional leaders, local and State officials have requested a comprehensive analysis to identify the effects that the HSDRRS had during Hurricane Isaac on the areas outside of the system.

The Corps has already begun this analysis. Engineers and scientists from the Mississippi Valley Division, Engineering Research and Development Center, the New Orleans District and the National Weather Service will participate in the effort. My guidance to the modeling team is to model the specific meteorological characteristics of Hurricane Isaac; conduct a comparative analysis to high water data that we collect through USGS; validate the 100-year elevations pre- and post-HSDRRS; conduct an Independent External Peer Review consistent with the Water Resources Development Act of 2007 through the Louisiana Water Resources Council; engage the State of Louisiana and Water Institute of the Gulf to participate in a simultaneous review; and finally to ensure that the National Weather Service characterization of the storm is included in our modeling parameters. The findings from this analysis will be released to the public once the appropriate internal quality assurance reviews have taken place, after which it will be subjected to independent external peer review.

Following the initial evaluations, a second phase involving detailed hydrodynamic modeling of specific areas impacted by Isaac will be conducted over a period of several months. The Corps will use the information obtained during this modeling effort to further improve our emergency planning and preparations for the next tropical weather event to hit this region.

CLOSING REMARKS

This concludes my testimony. The Corps is proud to serve the people of the United States and the gulf coastal region. Thank you for the opportunity to testify and I look forward to your questions.

WATERWAY DEBRIS REMOVAL

Senator LANDRIEU. Thank you. We will have our first round. First to you, Mr. Fugate, and please try to be as brief as you can because we really have a substantial number of questions.

The first question is on the waterway debris removal, which is a real problem for some of our local entities. As you know, we are surrounded by bayous, rivers, lakes, et cetera. At least four different Federal agencies have jurisdiction over water debris removal—FEMA, COE, Coast Guard, Natural Resources Conservation Service at the Department of Agriculture.

There is no uniform Federal procedure to determine responsibilities for water debris removal. Therefore, parishes might have to follow different rules, et cetera. In addition, bureaucratic tangles in agencies: different types of debris trigger types of rules. Sunken vessels must be treated different than vegetation or silt. It is a patchwork, it is a cluster, and it is a headache for those of us that live through these hurricanes season after season.

Please describe what you are doing to coordinate this, and how the Debris Task Force is operating, and what hope can you give to our parish presidents that this is going to be improved?

Mr. FUGATE. Hopefully it has been improved, this response, based upon work we have done with the States and the other agencies. It is, as you point out, because of the different funding authorities and because of the structure of committees, differing authorities to different Federal agencies have that overlap.

There is no single agency, so our job is to make sure that we coordinate among the agencies as much as possible to reduce the——

Senator LANDRIEU. Would it be possible after each storm to designate at least a lead coordinating agency for debris removal instead of having these parishes go from agency to agency, whether it is a limb, or a plastic bag, or a sunken barge?

Mr. FUGATE. It would be possible as long as we still have to deal with each Federal agency's different requirements and authorities that each has. But I will take the recommendation and look at what we are currently doing with the State. I know that one of the challenges that we have had working with GOSHEP is to make sure that it is Federal agencies we——

CASE MANAGEMENT

Senator LANDRIEU. Well, we are going to pursue that because this was a nightmare after Hurricanes Katrina, Rita, Gustav, and Ike, and we will hear from the parish presidents. I think it still is a nightmare. We have got to find a better way forward.

Second, case managers help to connect disaster affected families with resources like employment assistance, temporary housing, and food. We found this to be one of the key lessons after Hurricane Katrina, just delivering individual stovepipe assistance to families without having a case manager coordinating it didn't work. So the job people find you a job in Orleans Parish, but the housing people find you a house in east Feliciana Parish. It does not necessarily work.

So the case management came in to being for the first time in large measure after Hurricane Katrina because we realized you have got to deal with the family unit together and not individually. So the wife and husband can get their jobs back in the same area. The kids can figure out schools, et cetera.

Since we authorized Federal support for case managers after Hurricane Katrina, FEMA has entered into an interagency agreement with the Administration of Children and Families (ACF) through a contract with Catholic Charities. When Hurricane Isaac hit, local case managers deployed, but FEMA and ACF did not activate their contract with Catholic Charities. Can you tell me why?

Mr. FUGATE. Working with the State, it was determined to utilize the State capabilities to do the case management. Many of the elements of case management were being done through enhancements we made in our community relations and our national processing centers (NPCs). And we are currently in the State on implementing its case management grant to be able to fund those services.

Senator LANDRIEU. Well, we are going to look into how the State did their case management and hear from the parish presidents whether that is working or not or whether they would prefer to have the Catholic Charities contract, which I think many of them are familiar with some of the nonprofits and the faith-based organizations. And we are going to look into that.

Let me ask you, General Peabody. COE has agreed—Senator Vitter and I both asked, and he initiated it, and I supported his request—for an independent review of the impact of the New Orleans Metropolitan Area Flood Protection System on the communities that were left out, obviously the ones that you can see suffering on these charts.

When do you expect that this report will be completed and released to the public? Can you provide any detail up to this point regarding your initial storm surge modeling that was done by COE prior to the system's construction and the impact that it had on the outlying areas?

General PEABODY. Yes, Senator. That modeling is ongoing. We put together a team that includes professionals from the National Weather Service. In fact, the director of the National Hurricane Center visited here last week.

Senator LANDRIEU. And when is that going to be complete?

General PEABODY. We expect our internal modeling to be complete by mid-October. It will probably take us about 2 weeks to do a quality assurance review, after which time in probably early November we will publish the results. That would be probably the latest. Then we will put it forward to independent external peer review, which will take several months, and that is a timeline that is controlled by the independent reviewers.

Senator LANDRIEU. And what details can you provide about the initial storm surge modeling that you did before this system was built and its impacts to outlying areas?

General PEABODY. Yes, ma'am. We did extensive modeling of 152 storm tracks, literally thousands of variations on those storms. And what that told us was that there would be very minor induced flooding, but on the order of magnitude of one-tenth of a foot, maybe 2, 3, or 4 inches at the most.

However, the Hurricane Isaac storm track and pace was not one of the track and paces that was modeled. So while we do not believe it is likely that we are going to see significant induced flooding from HSDRRS as a result of Hurricane Isaac, that possibility can work, and so we are taking an open mind in looking at this objectively to see what our modeling shows us.

Senator LANDRIEU. This community is very interested in that study.

Senator Vitter. We will do a second round of questions as well. Go ahead.

Senator VITTER. Great. Thank you, Madam Chair, for hosting this hearing. Very much appreciate it. Thanks to all of our witnesses, first, for being here and, second, and more importantly, for all of your work through Hurricane Isaac. We all appreciate it.

I wanted to focus in my questions on the hurricane and flood protection issues since those are really paramount in a lot of our minds who live in the area, and also since I serve on the relevant COE subcommittee as the top ranking Republican.

General, let me go right to that and build on Senator Landrieu's question. I just want to confirm publicly, you all are doing an immediate analysis modeling of the Hurricane Isaac event, which was not done in terms of these other models prior to the building of the system. Is that correct?

General PEABODY. Yes, sir, that is correct.

Senator VITTER. Okay. And also pursuant to my specific request, that will be completely peer-reviewed by outside independent experts.

General PEABODY. Yes, sir, through the Louisiana Water Resource Council, I believe.

Senator VITTER. Okay. That council was created in the last water bill. I drafted the language. And it is completely outside and independent, but they do this work for COE. And so you all do have some control of their schedule. Can you nail down with them what their schedule will be, because we do not want a year-long peer review. We want a month peer review with some immediate usable conclusions.

General PEABODY. Yes, sir. Senator, we will be happy to convey to them the urgency of the information, but because it is an independent, to use the term—verb "control," I think is an overstatement. I think we probably have some influence. We will try to ask them to go as quickly as possible.

Senator VITTER. I will do this as well. If you can specifically ask them for a deadline and communicate that to me, that would be great.

General PEABODY. We will make that request, sir.

Senator VITTER. And just so that you all know, we have also asked the Water Institute of the Gulf, Dr. Charles Groat—the State has participated in that as well—to do a completely separate review of the same issue. I think it is very important to understand what happened during Hurricane Isaac, why did it happen, what, if any, any impact did the post-Hurricane Katrina system have on that flooding.

General PEABODY. We agree, Senator, yeah. The more sharp minds we can get looking at this, the better and more confidence we will have in our judgments. And Dr. Groat contacted me personally. I was grateful for his offer of assistance. He has team members who are embedded with us, and then they can do whatever they want with that information going forward.

Senator VITTER. Right. And, General, the good news is, we have said, that the post-Hurricane Katrina work performed as designed.

General PEABODY. Right.

Senator VITTER. The bad news, as we have also said, is that there was major, in some cases, catastrophic and unprecedented flooding outside that core system. And what is particularly disheartening about that, as you know, is that these are not areas we simply never talked about protecting. Most or all of these are areas with COE projects on the books that have taken forever and dragged on forever, and/or been canceled since the post-Hurricane Katrina work has been completed. And that is more frustrating. That is really maddening for those of us who live in the area.

I want to talk about five specific areas outside the system. Number one, and this is actually related to the system, Plaquemines and lower Plaquemines, and the New Orleans to Venice project.

Because prices and costs rose post-Hurricane Katrina, the original 34 miles of that protection was reduced to 20 because basically costs went up. First, did COE ever ask the Congress for the addi-

tional money needed to complete all 34 miles, which was what was envisioned in the post-Hurricane Katrina appropriation bills?

General PEABODY. Senator, I am not aware of any requests by the administration to the Congress for that purpose. But I will have to take it for the record to be sure.

Senator VITTER. Okay. The answer is no, and the obvious question is why not. The post-Hurricane Katrina appropriation bills talked about those 34 miles. Costs went up, and COE cut it to 20 with a big gap in the middle, and never even identified the price to do all of the work. Second, to deal with the costs going up in July 2011, COE itself hosted a 3-day project delivery summit with stakeholders. The outcome of that summit was, okay, we think it is better to build 50-year protection for all 34 miles and have that as a basis to build on for the future.

And that was the outcome of the COE-hosted summit. Yet nonetheless, 5 days before that was to be presented to your superiors in Washington, General Walsh unilaterally said, I do not care what you are talking about. We are doing the heightened post-Hurricane Katrina standards 20 miles only with a big gap in the middle.

Why was that decision made in Washington, and will it be reviewed now to consider the product of that July 2011 summit?

General PEABODY. Senator, Parish President Nungesser from Plaquemines sent Colonel Fleming a letter on this specific issue, I believe, last week, and Colonel Fleming shared that letter with me.

As a result of discussions that Colonel Fleming and I had, I have decided that I am going to review that precise issue. And let me be clear on a couple of things.

First, there are two aspects to this. One is level of protection, which generally equates to a probabilistic flood event. In the case of Plaquemines Parish, we are building to a 2 percent, or what is commonly called a 50-year level of protection standard. The thing that drove the cost estimate up was the application of the HSDRRS Design Guidelines without any consideration for variations to the Plaquemines Parish levees.

Now what I intend to do is take a very detailed look at exactly what came out of that 3-day summit, and then potentially, depending upon a site-specific risked-based analysis, potentially make modifications or alterations to those design guidelines for application to the New Orleans to Venice/non-Federal levees area, because the legislation is very clear that the primary purpose is to preserve Highway 23 as an evacuation route. And our current approach does not accomplish that.

What I cannot predict at this stage, Senator, is how long this is going to take. I do not think it will take too long, maybe 1 month or 2. And I cannot predict what the exact outcome will be. But I can commit to you that I am going to take a very hard look at this with the effort to try to find a way to deliver that system for the entire length of the authorized project for the Highway 23 reach. And we will take a look at it, and then we will let you know once we have done our analysis, as well as Mr. Nungesser and others, what we plan to do.

Senator VITTER. Right. I will save the rest for my second round. But I urge you to do that re-look. That is very similar to the re-look we met about and discussed regarding Morganza.

General PEABODY. Exactly, that same principle.

Senator VITTER. We have to do it to build some protection, not to have some perfect model that stays on paper and is never built.

General PEABODY. Senator, if I could just say one last thing. I think a certain amount of flexibility on the details of the application guidelines is an important principle. But the general principles of the design guidelines are also very important. And so I would not make any recommendations to change the principles behind the design guidelines. It is the application of the design guidelines I think that we need to look, as John Bostick discussed with you.

REGIONAL OFFICES

Representative RICHMOND. Thank you, Senator Landrieu, and thank you, Senator Vitter.

I will start with Administrator Fugate. And first let me just thank you for your effort and your work during the storm, and your willingness to partner and your willingness to not only listen, but to coordinate and cooperate with local agencies. And I know that when the President was here, in private when we met, everyone applauded your effort and the President's efforts. So I wanted to say it publicly because so often we do not say it publicly when people are working very well and diligently. Do we have lessons to learn? Absolutely. But it is very refreshing coming from Hurricane Katrina to today with the level of cooperation that we have and the sincerity of the effort.

Let me just start with an easy one, and I know that we are wrapping the presence of our FEMA office in the area. Are we changing or delaying that now that we have another event that we are going to have to continue to have a large response to?

Mr. FUGATE. No.

Representative RICHMOND. So we are still closing that office?

Mr. FUGATE. It will be phased down as the work is completed with Hurricane Katrina.

Representative RICHMOND. What will we do then for Hurricane Isaac? Will we set up another one? Are we transitioning?

Mr. FUGATE. Hopefully, we will not be here that long. One of our goals is to speedily right—and I think this is something listening to the parish presidents specifically. We want to get the debris and protective measures written and paid over the next couple of months, not next couple of years. And then we will work the permanent repairs and the mitigation through the regional office.

We will maintain a presence here with GOHSEP and the parishes as we get through those projects. But rather than creating a separate entity to manage Hurricane Isaac, we are going to use our regional structure and regional capabilities to manage it.

Again, Hurricane Katrina was extraordinary in its size. That work needs to continue. What we do not want to do is take away focus on the continued recovery efforts in Hurricanes Katrina, Gustav, and Ike. So we want to manage Hurricane Isaac as part of the regional structure and complete it as quickly as possible while continuing to be focused on post-Hurricane Katrina recovery.

RECOVERY EFFORT

Representative RICHMOND. One of the frustrations that I watched in post-Hurricane Katrina, and I would hope that we do not duplicate here, and I will just give you an example of the police station around the corner from my house, which was 3,000 square feet. If I can come in as a private citizen and get my house back in order and fixed, it does not make sense to me that it takes the Government or the city 3 years to do that police station.

And when you really drill down into the slowdown, it is because there is this big fight over the 50-percent designation or 50-plus-1 designation where FEMA will come in and pay replacement costs as opposed to fixing it. When you have that sort of probably internal conflict, in my opinion, it makes sense to continue to fight for 50-plus-1. But at the same time, you hold the community hostage, and progress is delayed.

So have we looked at addressing that or figuring out a way that we can somehow move forward with construction or repair in the process while the fight goes on? Thankfully, Senator Landrieu and our delegation inserted the language for arbitration into the recovery bill. But we just cannot have the fight over the 50-plus-1 designation.

Mr. FUGATE. Unfortunately, I have a fiduciary responsibility to make that case. Fifty-one percent should not be an argument. It should be what exists and what we find. And I think that is part of the process, as Senator Landrieu as chairwoman has told us many times. We need to be clear on what the program is so everybody understands the ground rules and we do not change them in process.

So it should not be a debate about what is 51 percent. It should be if there is more than 51-percent damages, it makes sense to replace the structure. When it is less than 51 percent, it is going to be cost-effective to replace that structure, to repair that structure, and mitigate it.

So we continue that balance. But the worse thing we can do is to speed this process up to the point of haste and only find ourselves with the inspector general coming in and begin de-obligating funds because we could not demonstrate that the structure was damaged to the point that it was more cost-effective to replace than repair.

So my goal in working the State and parishes is to get to the correct answer. What is eligible is eligible, and get construction going whether it is repair or replacement.

Representative RICHMOND. And I would like to work with you to see if we cannot somehow find a way to make sure that, one, it is accurate, but, two, make sure that we do not paralyze the recovery effort in the process.

Mr. FUGATE. And that I do agree. Oftentimes when FEMA could not get to a yes, we were prevented because we could not support it. And if we had, it would have been overturned. We have not always been forthcoming in saying we cannot do that. We oftentimes have delayed and asked for more information and hope that we will get a better answer.

As I talk to many of the parish presidents, I say, "Let me be honest with you. If the answer is no, I need to tell you no on the front end, not delay that answer and hope it gets better. And if the answer is yes, get to it definitely, and if it is maybe, let us find the right answer." But we want to be speedy, not hasty. As we have seen, and as many of the parishes are dealing with post-Hurricane Katrina issues, we have the inspector general coming in and finding that original decisions were not correct, asking for money back.

Our goal is to get it right the first time. I think I heard this loud and clear from the chairwoman, and she made it very clear to me. She said, "Craig, no matter what we do, let us get it right the first time. Let us not go in 6 months from now and start changing the answers." So that has been our focus.

Again, some of this becomes, as we get into insurance and other things, very technical. But my commitment to the parishes and the States has been, "Let us get to the answer quickly. Let us get resolution and know what the next steps are. And let us not just kick the can down the road because I may not like the answer I am going to give you, so I am going to delay it. If the answer is no, I need to tell you no so you know what the next steps are versus to keep any false hope or to merely delay saying something you may not want to hear. I need to give you what you need to know so you know what the next steps are."

Representative RICHMOND. Senator, I will yield back for the second round.

Senator LANDRIEU. Thank you. We are going to do a 4-minute round real quick because we do have some questions, and we will get to the parish presidents in just a moment.

But General Peabody, I want to say this as respectfully as I can. I appreciate your demeanor before this subcommittee. But from where I sit, your budget, to me, just looks like a disaster waiting to happen. And I know that you are very focused on the specific projects that Senator Vitter, and I, and the Congressman have raised about the Plaquemines Parish, and you can make some adjustments there, and we hope you can.

But let me just give you an example of why I am not sleeping well at night, and I do not know how you are. One, the west shore project was first authorized in 1971 in your budget—that was 40 years ago, that project is in one of the river parishes whom is represented here. There are two other projects, but because we could not have all 19 coastal parishes testify today, we have four parish presidents, but they are representative of dozens.

This study has been in your budget for 40 years, and it has not progressed one iota. Why is that? And why are you not concerned about it or seem to be worried about it, or press for additional funding to not only complete the study, but start building in St. John, St. James, and St. Charles, so this could have been avoided?

General PEABODY. Madam Chair, I sleep well at night because I think I was born with a special talent I guess.

Senator LANDRIEU. Well, we are glad for that.

General PEABODY. It is a gift. But, no, to be very serious, and I take your question very seriously, I think the reality of the situation—to put this in a larger context is, COE is just one very small element of a much larger Federal agency equation under which all

of our budgets are under pressure given the Nation's fiscal challenges.

Senator LANDRIEU. But how do you justify—when you appear before your superiors, what do you tell them looking in your region, which is the Mississippi, about how much funding you need, give us that for your testimony today. What is your backlog in your region, your authorized backlog today of necessary, authorized, and critical infrastructure projects?

General PEABODY. I do not have the precise number for the region, but I can tell you nationally our construction—just construction—this is not operations and maintenance backlog—is on the order of $60 billion. So that is significant.

Senator LANDRIEU. That is not operation and maintenance.

General PEABODY. No, ma'am, that is construction.

Senator LANDRIEU. It is construction backlog. I would like for the record of this subcommittee for you to submit your region backlog for operations and maintenance.

General PEABODY. Yes, ma'am. We will follow——

Senator LANDRIEU. And for construction, because our parish presidents are incredulous when I tell them—Senator Vitter is on the authorizing committee, he knows this. I am on the Appropriations Committee. Yes, we can help get your project authorized. But any indication that we could actually get it built any time soon, you would have to get behind $40 or $50 billion of other projects.

This is an unworkable—if it was not so sad it would be a laughable budget, but it is nothing to laugh about. And I do not under what system—do you not report this to the superiors? Do you not say this is our backlog? Do you not say, okay, our plan is to get 10 percent a year until we catch up? Because it looks like to us what COE does is simply ignore the pain and suffering around the country, and your budget reflects that. Neither your superiors or the President's budget reflect the need—it is not just this President, but former Presidents.

And once Hurricane Katrina came along, our delegation had to wrestle $14 billion out of the Army Corps of Engineers. I think the country was so ashamed, they gave it to us. It was an anomaly, extremely unusual, and probably unprecedented, and may not be able to ever happen again. But that is the kind of determination and action is necessary, not just after Hurricane Katrina, but day in and day out in Washington. There does not seem to be any sense of urgency about this.

General PEABODY. The reality is that our budget cap is set. It is then—when we send our budget proposals up to the higher headquarters, we start with a 75-percent baseline from the year prior, and then——

Senator LANDRIEU. That is your mistake. That is your mistake, and that has to be changed. You have to send your total requirements for the Nation. You cannot send 75 percent of your former year budget.

General PEABODY. That is the starting point.

Senator LANDRIEU. Well, I am going to change that starting point because it is not appropriate for your agency, for this agency. It may be for transportation. It may be for housing. It is wholly inad-

equate for the people that I represent, and I might be able to speak for other people in the country that would feel the same way.

And I do not want to take too much time. Senator Vitter, go ahead.

Senator VITTER. Okay. Thank you. General, let me go back to that list of areas hard hit that are not in the post-Hurricane Katrina system. And again, the angst and the outright anger many of us feel is that there are COE projects. And actually during the process of building the post-Hurricane Katrina system in a very expedited way.

These areas outside the system were reassured, oh, we have a project for you. We have a project for you. The problem is as that core post-Hurricane Katrina system was finished, we went back to the core normal, and those other projects either slowed to a snail's pace or, in some cases, were outright canceled.

Let us go back to the west shore and LaPlace, 41 years on the books. Still do not have an alignment. What is the schedule for a final alignment to move forward with authorization?

General PEABODY. Senator, the schedules depend upon appropriations, but we need approximately $1 million to finish the study, and 18 to 24 months. So if we got the appropriation, we could finish the study. But this particular study, to my knowledge, has never received any funding in the President's budget. It has all been from congressional ads at various points in time.

Senator LANDRIEU. It has been outlawed. Go ahead.

Senator VITTER. Has any action been taken with COE since the LaPlace flooding to accelerate or find that $1 million? In the grand scheme of things, that is a small amount of money, but tight of money. You all move around within the COE budget every month of every year.

General PEABODY. Senator, all of our projects, our entire backlog competes for the amount of money above the 75-percent baseline that all the regions get. So we generally get year over year about what we got the year before. Our budgets, as you pointed out, Senator Landrieu, however, have been under extreme pressure and have been coming down year over year.

Senator VITTER. Let me move on to the very impacted areas. Lower Jefferson. Lower Jefferson is exactly the sort of area I am talking about that was promised protection. Oh, do not get in the way of this post-Hurricane Katrina work. Let it happen. We have a project for you. Then their project was canceled. I mean, to those of us here locally, that sort of seems like a bait and switch. What do you tell the people of lower Jefferson who did not obstruct help for their neighbors to the north, and are now left out in the cold?

General PEABODY. Senator, I cannot speak to promises or decisions that were made in the past. But I was the decision maker on terminating that study. And the reason I made that decision was because we looked at several alternatives, and the best case scenario was that we could only get to about a .55, I believe, benefit-cost ratio.

So, there is no way that that can compete on economic basis with all the other—and we spent $10 million. We could have continued to spend money—the taxpayers' money—studying this problem. That was clearly never going to meet the policy requirements.

Senator VITTER. For that same area, section 205 projects are also available.

General PEABODY. That is correct.

Senator VITTER. Why can COE not move forward with smaller section 205 projects?

General PEABODY. There is a limit in general on those projects, Senator, I think, around $5 million or $7 million. Yes. And I think it is a matter of having alignments that allow to deliver a risk-reduction measure within that available cap.

Senator VITTER. Okay. The north shore. One great help to the north shore, including all the areas that were flooded by Hurricane Isaac, would be some sort of surge barrier near the Rigolets in the Chef Pass. That is exactly the sort of additional project that we were talking about to have COE study in the appropriation and authorization language immediately post-Hurricane Katrina.

In my opinion, COE read all meaning out of that language and did a very vague analysis so it would come up with no actionable items for new projects. Will COE look back at that language and look specifically at a surge barrier?

General PEABODY. Senator, I was not aware of that, so I will take that on. I will look at that. I will tell you that my understanding is that the last time we took a hard look at the barrier plan was in the 1984 reevaluation report, where concluded that the so-called high-level plan was more beneficial. It was less environmentally damaging, and it was more acceptable to the public.

Senator VITTER. I will send you the post-Hurricane Katrina language because I think it gets clear, not just the authority, but mandates to COE to look at significant additional protection like that.

And finally, I mentioned Morganza to the Gulf. We missed another deadline. Now since then we did have a productive meeting in my office to try to come up with an actionable plan. Could you describe the consensus coming out of that meeting?

General PEABODY. In broad terms, Senator, what the core is doing is an economic re-analysis, which we should have complete in the next 1 to 1½ months. And that analysis will take into consideration the likely rebuild rates in the event of future storms. Once we have that analysis, we will have a tentative benefit-cost ratio associated with that. And that will inform the specific analysis going forward to complete the project.

The other thing that we committed to doing was to look at the design guidelines from HSDRRS. And just like I committed to doing with Plaquemines Parish, General Bostick committed that we would take a hard risk-based, site-specific look at the study area of Morganza to the Gulf. And I would hope that we could find ways to reduce some of the costs associated with that project and make it more competitive from a fiscal stewardship standpoint.

Senator VITTER. Right.

Senator LANDRIEU. And we will make sure that is on the agenda, Senator Vitter, for our meeting in a couple of weeks.

Congressman Richmond.

Representative RICHMOND. General Peabody, some of my parishes up and down the coast are complaining about the Charleston method for mitigation, and the fact that it will triple their costs to do their own flood protection, and do some of their projects.

Why can we not grandfather those projects in that were before the decision to use the Charleston method? Why can we not just allow them to use the formal method to calculate mitigation needs?

General PEABODY. Congressman, I am not sure the basis that we would have for grandfathering, so I would have to take your specifics for the record and maybe follow up with you.

But I think the bottom line with the modified Charleston method, which is really just a name for an approach in Louisiana, is that prior to implementing this method, we were not following the intent of the law in executing our mitigation stewardship requirements—404(c) requirements in Louisiana. And so as a result of a very long, 3- or 4-year process of internal evaluation, extensive public engagement, the previous and the current district commanders, both of them moved forward with development of this process.

Now the average change—before I think the mitigation cost ratio was around 1.6. Now it is 2.4. So it has gone up, not insignificant, but not enormous. There are some cases where the mitigation costs have actually gone down. There are other cases where the mitigation costs are even higher than that 2.4 average.

Representative RICHMOND. Well, for especially St. Charles Parish, it becomes an issue with some of the things that they are trying to do. And what we would like to do is work with you all to makes sure that their budget and their plan to do levy protection and things to protect their citizens is not completely stopped because now the increased costs are just cost-prohibitive.

Let me move on to where Senator Vitter was just talking about—and Senator Landrieu, the modeling of the west shore and the flood protection are the results of Orleans and if it had an impact. I do not understand it. I guess most people I have talked to do not understand Government language. If we are already doing the modeling to see if the Orleans and Jefferson flood structures had an impact on the west shore, and you are telling me it is a million dollars to finish the study for west shore. Why can we not marry those and do them all together?

That is the frustrating part for us is really if there is a will to do it, there is a way to do it. And we are already asking for peer review, and we are already working on a modeling. Why can we not somehow combine those?

General PEABODY. Yeah, that is a great question, Congressman. I think it boils down to legislative authorities and language in those authorities. So when we get an authority to do a project, it tends to be very focused very strictly on that specific project. So our ability to combine purposes across different authorities is, in general, limited and in general, not always, but in general we are not able to do it. And so that is kind of a systemic issue.

Representative RICHMOND. The other thing is you mentioned the cost-benefit ratio on a number of things. And at least what my understanding is that—Senator Landrieu and I just came under fire from the L.A. Times, and we had to take a moment to educate them on the importance of south Louisiana to the Nation.

But it appears that we have to do the same with COE in terms of the cost-benefit ratio because we have to now argue that we should look at the fact that how important we are to the country

in terms of oil and gas, how important we are in terms of seafood, and that the areas we are protecting are the same places where the people who go out and catch the fish and work on the rigs, where they live.

And also if you look at this storm in the pictures, Interstate 10 was shut down. And if you look at our impact, not just the port, but the interstate to the national economy, those things, I think, would severely impact a cost-benefit ratio when we are talking about whether something is justified or not. And that would help us, I think, meet some of those needs, and I think it is something that should absolutely be considered what Louisiana does contribute to the economy looking at the Port of New Orleans, oil and gas, the interstate, rail, and all of those things.

General PEABODY. Congressman, I will take your suggestions and take a hard look at them, and convey your concerns to the higher headquarters.

Senator LANDRIEU. Thank you. I am sorry this is going to lead us to the end of this round. I do have two additional questions. I have several that I am going to submit for the record, two I will mention. I want to get your feedback in writing, Administrator Fugate, about what States use their rainy day funds and disaster funds, and what States are doing a good job of budgeting in advance, please submit the answer to this question for the record. We are going to have some questions to our State about that.

And then I want to follow up also the mitigation issue and the cost-benefit analysis. We are going to send you some detailed questions. We need responses.

General PEABODY. Sure.

[The information is available in the Additional Committee Questions for the Record on page 75.]

Senator LANDRIEU. What we are operating under now is just not practical. And so we are going to have to have some serious changes there.

But thank you all very much, and I know you are going to wait around to hear the testimony from our parish presidents. Thank you very much, and if the parish presidents, the second panel, will come forward: Garrett Graves representing the State, Oneil Malbrough representing—do we have enough chairs? And if not, we are going to have to seat the parish presidents and pull up an extra chair.

Thank you all very much, and thank you for, of course, your patience. I know that you are happy that we are here to be able to have this discussion publicly. I want to thank all of you for your leadership, the parish presidents, and what you have provided for your citizens in the last few weeks.

I want to thank particularly again Mr. Young, Parish President Young, for hosting us here. And why do we not start with you, Mr. Young, since we are in your parish?

STATEMENT OF JOHN F. YOUNG, JR., PRESIDENT, JEFFERSON PARISH

Mr. YOUNG. Thank you, Madam Chair.

Senator LANDRIEU. And please limit your remarks to 5 minutes, and I will be somewhat lenient. But we will do 5 minutes and then rounds of questions.

Mr. YOUNG. I will try to do that. Thank you, Madam Chair, Senator Vitter, Congressman Richmond. On behalf of the Jefferson Parish Council, my colleagues here at the table, and myself, I want to thank you for having this hearing in the historic city of Gretna, Louisiana, which is the parish seat of Jefferson Parish.

As we all know, the last 7 years have been very trying for this entire metropolitan community. We have been through Hurricanes Katrina, Rita, Gustav, Ike, the BP oil disaster. Let us not forget about Tropical Storm Lee because I would be talking about that in 1 minute. Lafitte, Crown Point, and Barataria were flooded from Tropical Storm Lee. Yes, a tropical storm that set on us for 5 days and, through the southeast winds, flooded those communities. And of course, our latest, Hurricane Isaac.

After Hurricane Katrina and the failure of the Federal levee system, the Federal Government, through much of your efforts, and your colleagues in the Congress, appropriated about $14.5 billion to protect us—increase our level of protection. Although Hurricane Isaac was not the most robust test of that system, the improvements in HSDRRS worked. Those areas within the levee protection system did not flood from storm surge or tidal surge.

Our primary threat for those areas within the levee protection system, as we anticipated prior to the storm making landfall, was excessive rainfall, because I can speak for Jefferson and Orleans, our internal drainage system is only designed to drain 1 inch the first hour and one-half an inch every 1 hour thereafter. So the Southeast Louisiana Urban Flood Control (SELA) Program has vastly improved our internal drainage system, but continued investment in the SELA Program is needed.

However, those areas outside the levee protection system did not fare as well. Areas in several parishes outside the levee protection system flooded, many for the first time. We have talked about St. John and LaPlace, Plaquemines, Braithwaite, St. Tammany, and Slidell. But let us not forget that Lafitte, Crown Point, and Barataria have flooded four times—four times—within the last 7 years. Lafitte, Crown Point, and Barataria were flooded from Hurricanes Rita, Ike, Tropical Storm Lee, and now Hurricane Isaac. In fact, Lafitte, Crown Point, and Barataria were flooded twice within 1 year when you look at Tropical Storm Lee and Hurricane Isaac.

Many of those citizens down there had just finished repairing their homes from the flood damage from Tropical Storm Lee, and this was tidal and coastal flooding, not rainfall flooding, when Hurricane Isaac hit. Hurricane Isaac, by the way, being the worst in 52 years.

The western enclosure complex was built to protect upper Jefferson, and you have mentioned that in your remarks, Senators Vitter and Landrieu. And we were promised at that time—and Mayor Kerner is here, and he can attest to this—that we would have Donaldson built to the gulf to protect Lafitte, Crown Point, and Barataria. But that has since been scrapped by COE because of a cost-benefit analysis.

That makes it even more imperative that we find a way to protect these communities. In the interim, it would be elevation, elevation of homes, and in the long-term ring levees in the coastal restoration system with locks and gates.

I have not mentioned the most famous island in the United States as we have talked about, Senator Landrieu, and that is Grand Isle, because Grand Isle is in a class all by itself. Grand Isle gets hit every time—every time. All of these communities were also—I am talking about Lafitte, Crown Point, Barataria, and Grand Isle, ground zero for the BP oil disaster.

Fortunately through your efforts and your colleagues' efforts, we have some relief coming in the RESTORE Act in the Gold Mesa, and we have a State master plan that I want to give credit to Gary Graves and the Governor—a $50 billion master plan where we will invest over $1 billion over the next 50 years.

But I want to stress that it is time for studies—the time for studies is over. We do not have the luxury of time. We are literally losing land mass the size of a football field every 30 minutes.

We talk about cost-benefit analysis, but here is what I want to stress. We need as a Nation to plant our flag in Grand Isle, Louisiana, because if we do not do that, the tides and waves of the Gulf of Mexico will be literally lapping at the door of metropolitan New Orleans in the not too distant future.

It is not just a State or a local issue, as has already been discussed. It is a national issue. We produce 30 to 35 percent of the oil and natural gas consumed in this country. We produce 30 to 35 percent of the domestic fisheries consumed in this country. The Barataria Basin is one of the most productive estuaries in the world.

We need to continue to build on the significant level of protection achieved since Hurricane Katrina. But we also need to take the steps and appropriate the necessary funds to protect those areas outside of the levee protection system, and I will talk about Jefferson Parish. I am sure my colleagues will talk about their particular needs—Lafitte, Crown Point, Barataria, and Grand Isle.

Just as an aside, I thought there would be some—well, there are some staff members not from here, and I know Senator Landrieu, and Vitter, and Richmond know this. But it is interesting to note that Lafitte, the town of Jean Lafitte is named after a famous pirate, Jean Lafitte, who hid out on those waterways. But one of the things he did was he assisted the American troops in the Battle of New Orleans, and to his credit, part of the victory was accredited to him. So that community is named after Jean Lafitte, the pirate.

These communities deserve protection. They are part of our community. They are part of our country. In all respect, if we can rebuild cities in foreign and sometimes hostile countries, we need to make them deliver upon a commitment to our fellow U.S. citizens and assure them that we will not only rebuild and rebuild better, but we also protect them from future events.

It is also not lost that Hurricane Isaac made landfall exactly 7 years to the day after Hurricane Katrina hit, and we still have some unresolved Hurricane Katrina issues. Number one, forgiveness of about a $55 million special community disaster loan, which we have not been successful in obtaining despite the efforts of you, Senator Landrieu, you, Senator Vitter, Congressman Richmond, and our entire congressional delegation. We have been penalized because Jefferson Parish had a false economy after the storm, but we helped rebuild the entire metropolitan area. There have been

events since Hurricane Katrina—the storms, the BP oil disaster, the sluggish national economy, and now Hurricane Isaac. These events, in my humble opinion, merit forgiveness of that community disaster loan, and we request that again. I know Administrator Fugate is here, and certainly we make that request again, and we thank you for your language in the bill. And we hope that the Obama administration does not oppose moving forward with that language in that bill.

The other thing that is quite frustrating is we are still trying to get reimbursement for improvements that we made as a parish with our own money post-Hurricane Katrina. And we were told that we would get reimbursed from that by COE. These are the monies we spent in constructing safe rooms, detention ponds, and pumps. And that has been authorized. We went through an extensive and frustrating audit process by COE. That money has been now approved, but now we are told by COE despite money in the budget, we need a specific appropriation.

Senator LANDRIEU. How much is that?

Mr. YOUNG. That is about $40 million, Senator, most of which comes to Jefferson. Some of it goes to New Orleans Sewage and Water Board, and some of it, I believe, goes to St. Tammany.

But again, this is a situation where we have been fighting with COE. Again, no disrespect to anyone who is here. We have a much better relationship with them since Hurricane Katrina. But I do want to make this editorial comment. COE needs some reformation at the top, but where they really reform is at the Office of Counsel because the MO on the Motacapalani Office of Counsel of COE is, the answer is no. What is your question? And I am not being facetious in that regard.

A lot of the disagreements we have based upon, and we have had discussion with you, Senator, and the rest of our congressional delegation. We go up to Washington. We get legislation passed. We think we are all on the same page, and then COE comes back to the Office of Counsel and says that is not the intent.

Senator LANDRIEU. They figure out a way not to do it.

Mr. YOUNG. Right. But again——

Senator LANDRIEU. Okay, 30 seconds.

Mr. YOUNG. We have relocation expenses. This is where we have relocated for the SELA Program for utilities. They did a reprogramming. It's just a coincidence, so they say, that the $60 million that was reprogrammed is now the amount of relocation costs that New Orleans Sewage and Water Board and Jefferson Parish have to come up with up front instead of paying it over 30 years, which was part of the legislation when we did the SELA in the local Chef at 25 or 35 percent. So we are asking for a 30-year payback on the relocation costs, as well as the entire costs of these ongoing SELA projects.

I am going to close by saying the path forward we have to look at our communities, those both inside the levee protection system and those outside the levee protection system. And obviously our priority outside the flood protection system should be ring levees and house elevations for Lafitte, Crown Pointe, and Barataria, upgrading existing pump stations, generators, and three additional pump stations, gates for Lafitte, Crown Point, and Barataria, ar-

moring the Grand Isle levees on the gulf side, and completing the segmented break well on the north side of Grand Isle, and restoring and armoring Fifi Island.

I would like to make one comment about areas within the hurricane protection system, Senator, if you would. We had have had a disagreement with COE about option 1, 2, and 2(a) and pump to the river. And all of you all have been very helpful in that regard. We did have a very successful response to Hurricane Isaac, but I think I would be remiss if I did not say this.

During the storm I got a call from Marcia St. Martin, and when you get a call from Marcia during the storm, you know it is not good news. She is not calling to tell me hello. We had an issue at the outfall pump station. Fortunately, it did not develop into a major issue, but again, for the record, we have been saying this since COE decided to go with option 1, our modified option 1, which they all admit is technically inferior to option 2 and 2(a) pump to the river.

You have to tandem pump between pump station No. 6 and the outfall station, which is now an interim station. We do not think that is the best way to go. We think that station, pump station No. 6, should be decommissioned. That canal should be taken down. The street level should be drained by gravity and should only have one station at the end for all three outfalls, because what happened was we were instructed—Marcia was because the Sewage and Water Board operates the pump station—to pull back on the pump when the rain was at its height.

And when I had a lot of people I was concerned about, we were keeping them dry thus far. If that delay would have lasted longer than it did, we may have flooded from rainfall. And that is the problem we have with tandem pumping. And because they would only let the water get so high in those walls. So that is an issue we need to look at it. And let us do it right this time while we have that opportunity.

Senator LANDRIEU. I really hope COE is listening to that final explanation, or we are going to be sitting here a couple of years from now wishing, wishing, we could have, we should have, but we did not.

PREPARED STATEMENT

Mr. YOUNG. And I am going to close now. I do not want to be sitting here a few years from now on another storm when something drastic happens, and despite what we have been saying—I want to be on the record—this is a disaster waiting to happen.

Thank you very much, Senator.

[The statement follows:]

PREPARED STATEMENT OF JOHN F. YOUNG, JR.

Exactly 7 years to the day that Hurricane Katrina devastated the gulf coast by exposing the inherent weakness of the levee protection and creating the most expensive catastrophic disaster in American History, Hurricane Isaac vividly reminded us of the destructive power nature possesses as it pummeled the Louisiana coast with relentless wind and violent storm surge while pinning us under a blanket of rainfall as it crept north through the State.

Jefferson Parish Emergency Management conducted a partial activation of its EOC and monitored the storm from over 150 hours outside tropical force winds impacting the coast of Louisiana. However, it was not until August 23 that NOAA pro-

jections began drifting the path of the forecasted Hurricane toward the west from the coast of Florida to Alabama with its eventual eye on Louisiana. This westerly trend would continue until landfall 6 days later.

On August 26, 2012, Jefferson Parish President John Young signed a declaration of a State of Emergency and the Emergency Operations Center went into full activation. In conjunction with Mayor David Camardelle, Jefferson Parish President John Young initiated a mandatory evacuation of Grand Isle for all tourists and gave island residents until Monday to seek alternate shelter locations. Shelters were open in Raceland in Lafourche Parish for these residents to shelter in place. Residents in low-lying areas of coastal Jefferson Parish outside levee protection such as Jean Lafitte, Barataria, and Crown Point were reminded to pay close attention to news reports in the event storm surge levels warranted emergency measures or evacuations.

Although typically not triggered by less than a category 3 hurricane, The Jefferson Parish Department of Emergency Management, in conjunction with the Department of Transit, the State Department of Health and Hospitals and our regional DRC of Hospitals began the process of evacuating all special needs medical residents to shelters, realizing the slow nature of the storm and its forecast for a potential category 2 would result in significant power outages. Those Special Needs Medical (SNM) residents who were ambulatory were able to be moved to facilities at the Louisiana State University in Baton Rouge. The SNMs that were non-ambulatory or required care-giver assistance were triaged and moved to both East Jefferson and West Jefferson Hospitals. In addition, the American Red Cross opened shelters throughout the State for citizens of Jefferson Parish to conduct self-evacuation. The ability of the State to mobilize its assets and conduct these operations was unprecedented and is a testament to the changes made in the wake of Katrina/Gustav. These efforts resulted in over 350 special needs medical residents receiving assistance during the incident from local, State, and Federal assets.

All pre-staging of assets and equipment took place in preparation of response activities. Each department conducted its required pre-landfall checklists to ensure all actions necessary to prevent, minimize or mitigate potential storm damage had been taken and that personnel and equipment were in place to respond to the effects as soon as conditions were safe enough to allow for actions without jeopardizing the safety of the responders.

After more than a day of relentless pounding by both wind and rain, which brought about one of the fastest rising storm surges experienced in Grand Isle, the wind began to relinquish enough to allow for response activities to begin. Even prior to the wind speed falling under 30 mph, the dedicated personnel from the fire departments, sheriff's office, public works, code enforcement, and administration began swarming the parish to identify unsafe conditions, such as debris, electrical wires crossing roadways, and localized flooding of streets to began taking appropriate measures to make it safe for our residents. In fact, before Entergy began dispatching their fleet of responders, the Jefferson Parish Department of Public Works and Streets Department had cleared all major roadways and arteries and were focusing their efforts on residential streets and smaller laterals. The sheriff's office established a command post in the Jean Lafitte, Crown Point, and Barataria area to begin the process of conducting search and rescue operations of residents stranded in their houses by the flood waters.

With nearly every resident in the parish without electricity, the parish, in conjunction with the State and FEMA established 7 points of distribution for ice, water, MREs, and tarps, one each in Grand Isle and Jean Lafitte and five throughout the East and West Banks of Jefferson Parish. Nearly 1 million MREs, 2.4 million bottles of water, 300,000 bags of ice and 25,000 tarps were distributed from these locations. In addition, the East and West Bank fire departments distributed these items throughout their respective districts ensuring the most vulnerable residents, being the elderly and handicapped, would receive these essential services.

Five shelters were opened up within Jefferson Parish utilizing recreational facilities to shelter residents whose homes had been damaged and to offer cooling shelters to the elderly and handicapped as a result of the extensive power outages. These shelters were managed by the American Red Cross and offered hot meals as well. The nursing homes and elderly residential living units were monitored by the Emergency Management Department, council members, EMS personnel and fire department personnel, and when Entergy was unable to restore power quickly enough, generators were provided or the evacuation of facilities transpired. At the height of shelter operations, nearly 450 residents sought shelter, food, and assistance.

In the aftermath, the State with assistance from the National Guard, Jefferson Parish Sheriff's Office, and parish government opened Disaster Supplemental Nutritional Assistance Program (DSNAP) sites for the distribution of aid at three loca-

tions in the parish. In 13 days, over 64,000 citizens/154,000 households were approved to receive benefits in the amount of $27,043,676. In addition, disaster recovery sites were opened in Grand Isle and Jean Lafitte originally and two more are proposed to open this week, one on the East and West Bank of Jefferson Parish, inside the levee protection system.

Although the National Guard was assigned to assist in the parish in responding to and/or addressing particular issues, it is imperative that the local emergency management director has the ability to redirect missions and task with the troop's onsite command to redirect this manpower for additional tasks in response to the current and changing picture of the disaster.

There are many lessons that this storm has taught us, but in the sake of brevity, I would like to focus on the following:

First and foremost, without the commitment of Congress and the administration to take all appropriate actions necessary to restore the marsh and barrier islands to reduce the impact of tidal surge on the coast of Louisiana, it is only a matter of time before the gulf waters start lapping at the door of metropolitan New Orleans. In light of the nearly $15 billion spent to upgrade the Flood Protection and Risk Reduction System to protect the area from a category 3 hurricane, it is significant to note that Hurricane Isaac was a slow moving category 1 hurricane and one need only look to Jean Lafitte, Crown Point, Barataria and Grand Isle, Braithwaite of Plaquemines Parish, and LaPlace of St. John Parish to understand that this storm brought an even higher storm surge than did Hurricane Katrina. Without significant and consistent investment in ring levees and in our marsh and barrier islands, our future is at serious risk.

Second, there are few communities in the world that have experienced the level of catastrophic events over the past 7 years as we have in the coastal parishes of Louisiana. We have been ground zero for both the largest natural and man made disasters in American history, Katrina and the BP Oil Spill. In fact, according to Kiplinger, Louisiana is ranked number one as the most disaster prone State over the past decade. Jefferson Parish received a Special Community Disaster Loan (SCDL) following Katrina. As a result of all of the construction and replacement of lost goods which created a false economy in our Parish, we did not meet the forgiveness criteria. This needs to be corrected and the SCDL needs to be fully forgiven, especially in light of our most recent devastation as a result of Hurricane Isaac.

Third, the process by which the Saffir-Simpson Scale identifies damages for insurance purposes has to be reviewed. The wind category strength of the storm cannot dictate a particular storm's actual devastation and a serious review needs to be conducted to determine how we measure the effects and the correct preventative and preparatory actions taken during the pre-storm hours.

Fourth, FEMA's response needs more flexibility to programmatic changes that increases the effectiveness of assisting the citizens, post-disaster. The programs and guidelines set forth to be eligible for FEMA funding directs criteria that need to be met to receive Federal funding. Affected areas that have been devastated should be eligible for an aerial PDA review that allows for expedited approval for Federal funding by obvious destruction of those neighborhoods.

Senator LANDRIEU. And we are going to go by seniority now. So I think that is you, Mr. Nungesser.

STATEMENT OF BILLY NUNGESSER, PRESIDENT, PLAQUEMINES PARISH

Mr. NUNGESSER. Thank you. Thank you, Senator. Thank you, Senator Vitter, Congressman Richmond, for having us here today.

I gave you all little handouts so I do not have to go through everything, where we are in this particular—Craig's team on the ground has been doing a good job in Plaquemines Parish.

[The referenced handout was not available at press time.]

The one issue that we are dealing with is the right on personal property. As you will see from those pictures, the dead animals are massive in the parish. And we do not go on those private properties until they clean up the debris. And initially, we went out and started cleaning the properties. Now they do not even inspect these properties. And only in the flooded areas, which we understand that is the only areas. We are asking for assistance on private

property, because the debris is 10–12 feet deep. It runs from the levee across Highway 23, and on the East Bank between the levees it is massive.

And we are asking that Craig try to expedite that. To date in the last week, only 17 properties have been cleared, and those animals out there rot. And until we get on those properties and start moving debris—you will see in the second picture that was one driveway that was cleaned, and the amount of dead corpses that were uncovered in that property. People cannot get back and start working on their home because of the smell and the sickness that this causes. We have put out that this is a major health issue in the parish to get these properties cleaned up.

We, too, have asked for the forgiveness of the Hurricane Katrina loan. Because of the 90/10—hopefully 90/10—split, it is going to put a financial burden on Plaquemines Parish for this storm once it is done. The good news is the Federal levees held up. Everywhere we had Federal levees, we did not—we saw those levees over top in a couple of areas, but they held up, and we saw no flooding in those areas.

I appreciate the general looking into covering the whole 34 miles on the West Bank. On the East Bank, we do not meet the criteria by COE for a Federal levee. Plaquemines Parish had a $30 million levee. They bonded out under construction. We just did not get it finished. It would not have mattered for this storm anyway.

But you can see the picture of the great wall in St. Bernard, and why the people on the East Bank of Plaquemines are so upset that they have got an 80-foot levee next to their 30-foot wall.

Senator LANDRIEU. Because you did not get the cost-benefit ratio.

Mr. NUNGESSER. Absolutely. And I got to tell you, Senator——

Senator LANDRIEU. Because the mouth of the Mississippi River is obviously not important to the country in any way, so that is no benefit to the mouth of the Mississippi. But go right ahead.

Mr. NUNGESSER. We got Federal authorization on the West Bank to bridge that gap. We have got Federal levees in south Plaquemines, and Federal levees in north Plaquemines. But we are going to bridge those 34 miles on the West Bank.

On the East Bank, we have got St. Barnard with a 30-foot wall. We have got 18 miles—just 18 miles of levee that is a parish levee. Then we have a Federal levee in south Plaquemines on the East Bank. Those people were trapped. We got some of them out by levee, some by air boat. Some people risked their lives rescuing people.

But to have that 18 miles with no Federal levee, but keep up the Federal levee in south Plaquemines——

Senator LANDRIEU. It does not make any sense.

Mr. NUNGESSER [continuing]. Does not make sense. And when you look at the coal facilities, the export and import of goods along both sides of the Mississippi and Plaquemines Parish, part of the reason we have such great walls is the amount of tonnage that moves out of Plaquemines Parish. And also all those fishing docks where that great seafood comes in are shut down for weeks.

PREPARED STATEMENT

We keep rebuilding and paying with Federal dollars to rebuild these areas. We asked the President, when we met with him weeks ago, this is an opportunity to get these two gaps in Plaquemines Parish in the Federal system, get them built. And as we saw in south Plaquemines, both sides of the river, they are up and running again. We just could not get there. It does not make a lot of sense to fund those Federal levees and not fund the gaps in between them.

Thank you so much.

[The prepared statement follows:]

PREPARED STATEMENT OF BILLY NUNGESSER

PLAQUEMINES PARISH LEVEE CONSTRUCTION

West Bank Back Levee From Oakville to St. Jude.—We are requesting the U.S. Army Corps of Engineers to return to the 1-percent 50-year protection design which will allow for enough money to complete the West Bank Back Levee all the way from Belle Chasse to Venice.

East Bank Back Levee From Braithwaite to White Ditch.—We raised the 18 miles of levee from Braithwaite to White Ditch to a uniform 8 feet in 2008 with parish funds to give our residents additional protection. We are currently raising the same levee to 12.5 feet with parish funds. We are requesting the U.S. Army Corps of Engineers to include this 18 miles of East Bank Back Levee into the Federal System and build it to at least the 1-percent 50-year protection design.

It does not make sense for the U.S. Army Corps of Engineers to control and maintain Federal levees on the upper ends and the lower ends of Plaquemines Parish and leave a section in the middle on both sides of the Mississippi River unprotected by Federal levees. This cuts our parish in half during a storm event and leaves our residents and businesses in danger of flooding as was seen by Hurricane Isaac.

[See the attached request sent to Senator Mary L. Landrieu on September 13, 2012:]

LETTER FROM BILLY NUNGESSER TO SENATOR MARY L. LANDRIEU

SEPTEMBER 13, 2012.

Hon. MARY L. LANDRIEU,
Chair, Subcommittee on Homeland Security,
Washington, DC.

DEAR SENATOR LANDRIEU: The New Orleans to Venice (NOV) Louisiana Hurricane Protection Project and the Non-Federal Levee (NFL) incorporation into the NOV project collectively received more than $1.4 billion from supplemental bills (3rd, 4th, 6th, and 7th) post-Katrina. At the time funding was approved, based on use of the Engineering Manual Guideline (EM), it was thought that the amount of funding received would be sufficient to complete the existing 50-year level of risk reduction (LORR) for the existing NOV projects and incorporate NOV into the existing projects. The intent of the funding included incorporation of the 34 miles of existing small public and private back levees on the West Bank of Plaquemines Parish from Oakville, Louisiana, to St. Jude into the Federal system.

In February 2010, the U.S. Army Corps of Engineers informed Parish President Billy Nungesser that the funding in hand was inadequate to complete the work due to a fundamental change in the post Hurricane Katrina Design Guidelines. The new Hurricane Storm Damage Risk Reduction System (HSDRRS) guidelines would require an additional $1.0 billion to complete. As a result of this decision Plaquemines Parish is now faced with the possibility of completion of only 20 miles of levee construction instead of 34 miles for the newly incorporated section from Oakville to St. Jude on the West Bank and leaving parts of the existing NOV projects unconstructed.

In July 2011, the U.S. Army Corp of Engineers hosted a 3-day Project Delivery Summit for the combined NOV projects. The objective was to optimize project features, establish a completion schedule, reduce costs, and deliver a system-wide protection plan within the budgeted and available funding. A plan was put together with over 100 participants including USACE, OCPR, and PPG. A comprehensive

system approach included analyzing the existing factor of safety, height deficiencies and overtopping. This summit resulted in a plan that would optimize all polders in the Federal and non-Federal sections, and implement the needs expressed by the parish and the State.

This plan was scheduled to be delivered to Major General Walsh on August 22, 2011. General Walsh, however, unilaterally decided on August 19, 2011, to implement the new HSDRRS design guidelines without reviewing or discussing the aforementioned summit results. This decision by General Walsh is not supported by the data from the summit. While we might agree that given that the infrastructure costs in other parishes are much greater, a 1-percent 100-year risk reduction system may be needed for Orleans, Jefferson, and St. Bernard Parishes, we believe that here in Plaquemines Parish our 2-percent 50-year risk reduction system satisfies community needs. To require this new 1-percent HSDRRS design for our parish is an enormous waste of Federal money on a design that delivers less protection, an incomplete protection system with gaps, and because of the resulting gaps in the levee system, does not achieve the congressional objectives for a complete "risk reduction system." In point of fact, the stated objective of the original authorization design was to protect all of LA State Hwy. 23, not a piece of it. The decision by General Walsh does not conform to the objective.

Two weeks ago Hurricane Isaac came through Plaquemines Parish resulting in more than 7.5 feet of water in the same areas where Federal levees were originally proposed to be constructed. If General Walsh's HSDRRS decision is allowed to stand we would still have flooded Hwy. 23 on the south end of the project.

Hwy. 23 is our only evacuation route. The primary reason for including this area in the Federal protection supplemental was to protect this evacuation route. As it currently stands we will now be 14 miles short of a complete "risk reduction" levee protection system. It means 14 miles of water over Hwy. 23, cutting our parish in half and making evacuation difficult if not impossible while ensuring a continued negative economic impact for both our residents and our businesses which, as we all know, will adversely affect the national interests.

Our simple request is to reinstate the original Engineering Manual (EM) guidelines. If the EM guidelines were to be reinstated for this project, we can complete the full 34 miles of needed protection thereby eliminating the flooding of Hwy. 23. This would in turn allow the doors of our homes, communities, and businesses to remain open. (As a sidebar; the EM guideline is the standard every levee system outside of the New Orleans area is built to).

It is noteworthy that the existing 90 miles of Federal levees from St. Jude to Venice and from Phoenix to Bohemia were built to the EM standards. It is also noteworthy that we had no failures or overtopping of the Federal levees during Hurricane Isaac.

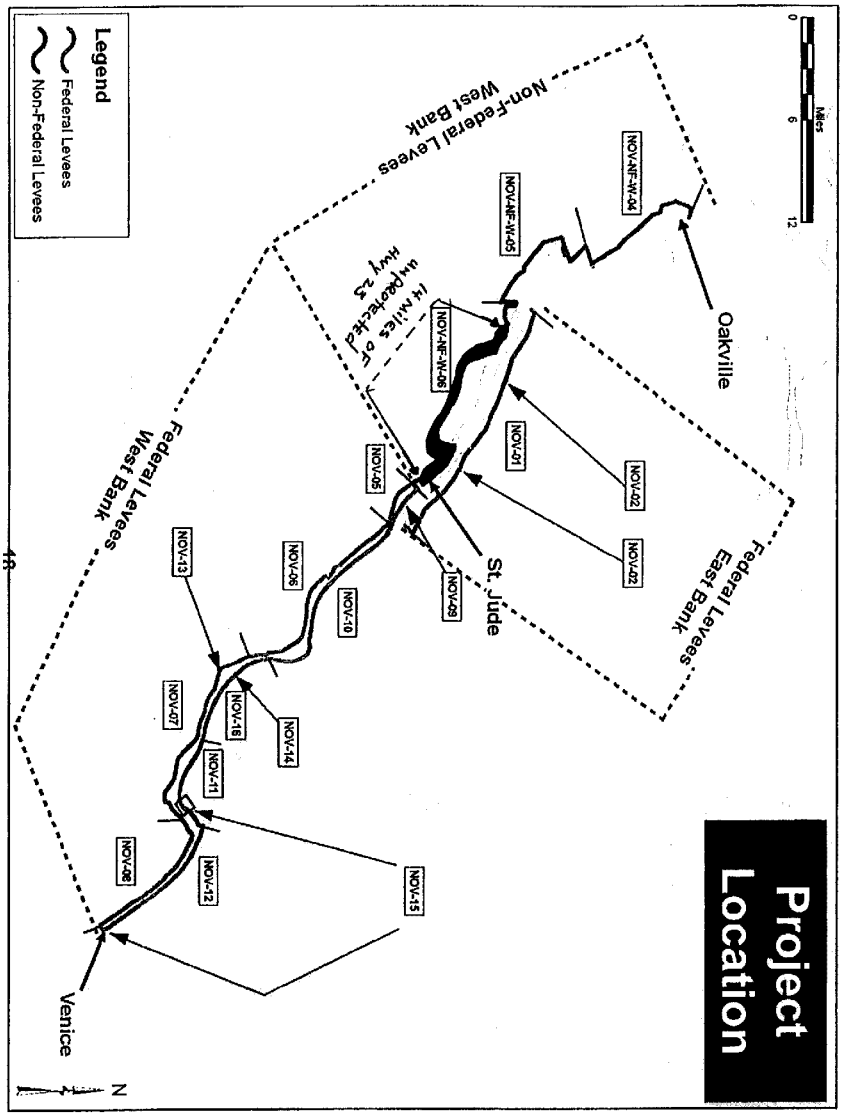
Enclosed are a few pictures of the effects of Hurricane Isaac. Had the levees been built to the EM standard as proposed, most likely our homeless residents would today be living in their homes and not a shelter; local, State, and Federal governments would be able to put much needed resources to other uses in this recovery; and the oil and gas industries would have been able to access their businesses and get back in business much sooner.

We ask for your support in helping to reinstate the original Engineering Manual Guidelines for the full 34 miles of the New Orleans to Venice (NOV) Louisiana Hurricane Protection Project (The "NFL"), and help us fast track construction of this important project.

Sincerely,

WILLIAM "BILLY" NUNGESSER,
Parish President, Plaquemines Parish.

[The referenced pictures follow:]


Project Location
Miles
0
6
12
Oakville
NOV-NF-W-04
NOV-NF-W-05
Non-Federal Levees
West Bank
NOV-NF-W-06
14 Miles of unprotected Hwy 23
NOV-01
NOV-02
NOV-22
Federal Levees
East Bank
St. Jude
NOV-09
NOV-08
NOV-10
NOV-13
NOV-14
NOV-18
NOV-07
NOV-11
NOV-12
NOV-06
NOV-15
Federal Levees
West Bank
Venice
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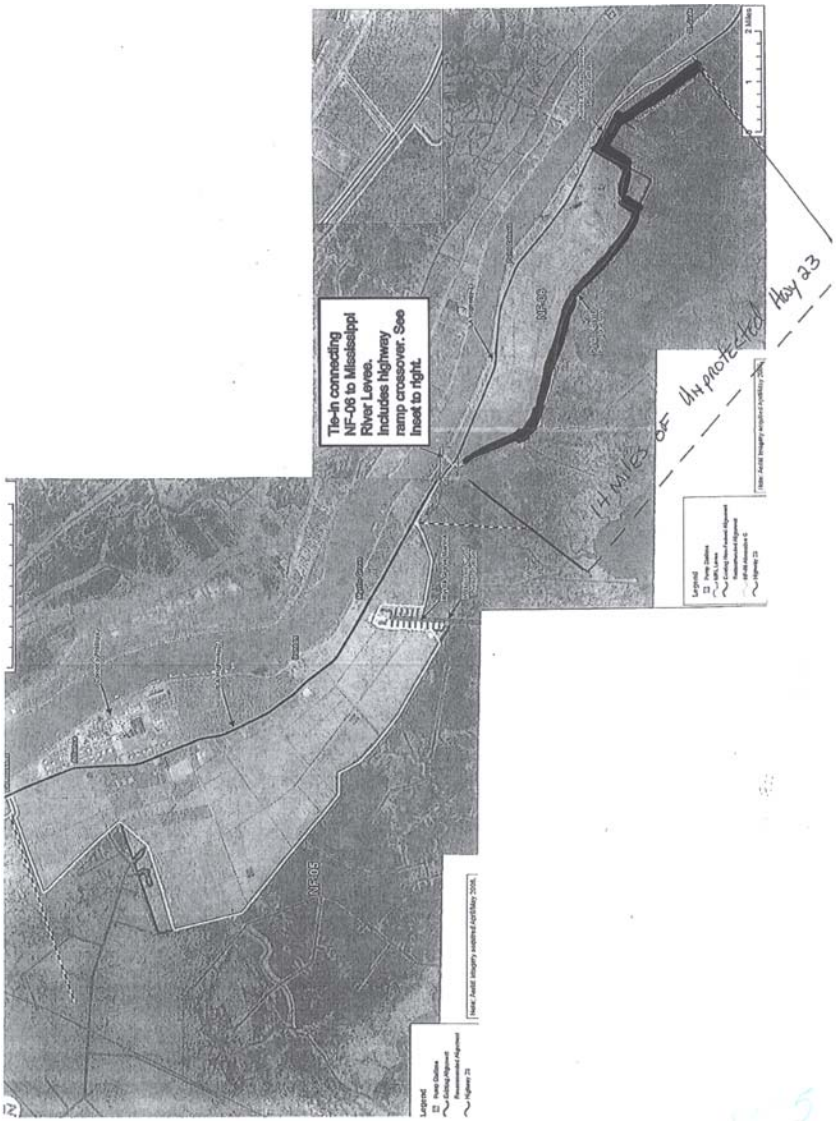
Legend
Federal Levees
Non-Federal Levees



Senator LANDRIEU. Thank you. Would it be Ms. Brister or Ms. Robottom? Okay. Next in seniority. Go right ahead. I am relatively new, so I am not 100 percent sure, but go right ahead.

STATEMENT OF NATALIE ROBOTTOM, PRESIDENT, ST. JOHN THE BAPTIST PARISH

Ms. ROBOTTOM. Madam Chairman, Senator Vitter, and Congressman Richmond, first of all, thank you for hosting us today.

Over the last 25 days, St. John the Baptist Parish has worked hard to recover from the devastation caused by Hurricane Isaac.

More than 7,000 homes were damaged, but through the grace of God no lives were lost.

St. John Parish has never flooded in the past. Flooding occurs in our streets and along the interstate, but not in our homes. Preparedness is ongoing. As our staff is trained, we update standard operating procedures and our residents were informed. We were prepared, but no one anticipated the disaster that unfolded in our community.

On Sunday, a hurricane watch was issued for Louisiana, and I, along with Governor Jindal and President Obama, issued emergency disaster declarations. The OC was partially activated in employee-secured facilities and pre-positioned generators and barricades. Police officers were sent out to the homes north of I–10 securing contact information for those electing not to evacuate.

On Monday, the OC was fully activated, schools closed, and sandbags distributed. Daily conference calls were held with GOHSEP, the weather service, States agencies, and surrounding parishes. And based on updates, slosh modeling, and historical data, a voluntary evacuation was ordered in our low-lying areas.

On Tuesday, Tropical Storm Isaac became a category 1 hurricane, and water levels rose at the lake, and hurricane force winds reached the parish at about 3 a.m. On Wednesday at 6:30 a.m., water was shut off in LaPlace, and search and rescue efforts began at 9 a.m. The sheriff's office, fire department, National Guard, wildlife and fisheries, Coast Guard, and a host of volunteers with their own boats continued search and rescue efforts for more than 48 hours.

Our residents were rescued by boats and high water vehicles, as our greatest fears were realized. Evacuation routes were shut down. I–10 and Airline Highway were under water. And portions of River Road were flooded. Ninety-five percent of our homes lost power, and 28,000 residents were without drinking water. Over 4,000 residents were transported to State shelters.

Storm surge closed St. John exists at I–10, I–55, and flooded I–10 between exits 206 and 209. This has never happened before. U.S. 61 was closed in St. Charles and St. James Parishes. Our residents were basically trapped.

Four weeks later, all parish services are restored, parish schools open. A disaster recovery center is open, and over 12,000 of our residents are registered, and over $20 million in FEMA assistance provided, $3.4 in disaster food stamps. This is a first for our residents. As I said before, we do not flood.

Displaced residents are home, but housing is problematic. There are no hotels, very few rental properties, and all of our residents in hotels are outside of our parish. Many homes were not in flood zones. Widespread flooding and closure of the parish's outlets is unacceptable for residents of St. John, the State, and this country.

Homeowners are currently being faced with elevation challenges with little to no funding. One-in-five Louisiana residents live in southeast Louisiana parishes, including Orleans and Jefferson, which are home to over three-quarters of 1 million people. With highway and interstate closures, north and westbound evacuation routes were eliminated.

We understand that people evacuate, and if they evacuate they can come back. But because we are an industrial corridor, there are other incidents that could happen following a storm with our roads closed.

Entergy's nuclear power plant (Waterford 3) serves 2.8 million utility customers in four States, and 12 percent of Louisiana residents. When evacuation routes are closed, Waterford, which is located in St. Charles Parish, is unable to restart, presenting potential problems, supplying petroleum and chemicals outside of the area. Hurricane Isaac curtailed refinery production, which resulted in increased gas prices around the country.

The river region supports billions of dollars of investments with over $30 billion more in potential investments in the pipeline. Investors want to know that they will be protected. This levee project has been under way for 40 years, the latest study since 1985, with an estimated cost between $300 and $600 million. All of the areas in the study flooded during Hurricane Isaac.

How many studies are needed before our residents are deemed worthy of protection? The vulnerability of parishes outside the Federal levee system was exposed, and despite predictions of our area becoming a funnel for Lake Pontchartrain, our levee project has received no Federal funding since 2010. The State, the Pontchartrain Levee District, and the parish are ready. We need help fast tracking COE and their approval, permitting, and funding.

PREPARED STATEMENT

No more studies. Hurricane Isaac was the ultimate study, and it failed. We need your help, and I humbly ask you to help us to protect our residents.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF NATALIE ROBOTTOM

Honorable Chairman and Senators—I am Natalie Robottom, St. John the Baptist Parish president. Thank you for allowing me to address the committee on behalf of our residents.

Over the last 25 days, we have been working hard to recover from the widespread devastation and flooding caused by Hurricane Isaac. More than 7,000 homes and 12,000 households have been affected by the hurricane, many of which were not in a flood zone. Through the grace of God, no lives were loss this time, but the loss of personal property and a lifetime of possessions and treasured memories have caused frustration and despair within our close knit community. St. John Parish has never flooded—water accumulates in our streets and along interstate interchanges—but not in our homes.

Hurricane preparedness is an ongoing effort within St. John Parish. Department heads and staff members were trained for months, attended one-on-one meetings, revised standard operating procedures, and participated in a hurricane table top to ensure preparedness for emergencies and other disasters. Public meetings were hosted throughout the parish to assist residents in developing hurricane plans for their families. Hurricane preparedness guides were distributed through utility bills, local libraries, government offices, and local businesses. Preparedness information was provided through news releases, advertisements, public meetings, and local events leading up to hurricane season. Residents were also encouraged to register for first call alerts that allow them to receive free weather and emergency information and parish updates through text messaging and emails.

The parish was proactive in its preparations and communications to its residents for hurricane preparedness and disaster planning, but no one anticipated the disaster that unfolded in our community.

The National Weather Service issued a hurricane watch for Louisiana on Sunday, August 26, with then Tropical Storm Isaac about 52 hours out from the coast of Louisiana. I, along with the Governor of Louisiana and the President of the United States, issued Emergency Disaster Declarations and the Emergency Operations Center (EOC) was partially activated. Situational awareness was communicated to residents, parish officials, and staff from that point forward. The parish continued storm preparations by securing Government facilities, pre-positioning generators at water systems, multiple drainage pumps, and lift stations. They also pre-positioned barricades in anticipation of road closures in low-lying areas and removed potential drainage barriers to ensure the parish drainage systems functioned properly. The Sheriff dispatched officers to the homes of residents north of I–10 encouraging their evacuation, but securing contact information for those electing to remain in their homes.

On the morning of Monday, August 27, the parish EOC was fully activated, the school system closed, and sand bags distributed throughout the parish. Approximately 30,000 sand bags were distributed until weather conditions worsened to a point dictating the stoppage. Daily conference calls were held with the National Weather Service, GOHSEP, State agencies, and surrounding parishes to obtain and provide situational awareness on Hurricane Isaac. Based on those discussions, SLOSH modeling, and historical data, a voluntary evacuation was issued for residents in low-lying areas. Parish officials continued to monitor weather updates, including wind speed, surge predictions, and other weather related warnings. Weather and preparedness updates were disseminated through press releases, social media, and media outlets as weather conditions changed.

On the morning of Tuesday, August 28, Tropical Storm Isaac was upgraded to a category 1 hurricane and water levels began rising slowly at the Peavine boat launch located on the northeast boundary of the parish. At approximately 2 a.m., Hurricane Isaac made landfall along the coast of southeast Louisiana as a category 1 storm with winds up to 75 mph. At approximately 3 a.m., St. John Parish began experiencing hurricane force winds. By then, all emergency responders and parish employees were hunkered down awaiting passage of the hurricane.

On Wednesday, August 29, at around 6:30 a.m., the Utilities Department was forced to shut off water service to LaPlace to avoid contamination of the system due to flooding and wind damage to a system located 10 miles north of LaPlace adjacent to Lakes Pontchartrain and Maurepas. Search and rescue efforts began at around 9 a.m. and remained in effect for more than 48 hours from the east side of the parish to the west side—from LaPlace to Garyville—from the Interstate to the River Road. In addition to the St. John Sheriff's Office and Fire Department, the Louisiana National Guard, the LA Department of Wildlife and Fisheries, Coast Guard, and other volunteers assisted in the search and rescue efforts.

This was not a drainage issue, but our greatest fears were realized when Lake Pontchartrain and Lake Maurepas emptied themselves into St. John Parish. The evacuation routes were shut down—I–10 and Airline Hwy. were under water and portions of River Road were also blocked.

The parish opened their temporary shelter to allow residents a safe haven until some 90 commercial buses could transport them to State-run shelters in north Louisiana. It is estimated that by Wednesday evening, over 3,000 residents were evacuated to State shelters, as search and rescue efforts continued throughout the parish.

Although the western edge of the parish had not yet experienced flooding from Hurricane Isaac, by the afternoon of Thursday, August 30, water levels began rising in Lake Maurepas causing the homes of residents from western LaPlace toward Reserve and Garyville to flood. Parish search and rescue efforts resumed and residents in the affected areas were transported to shelters in North Louisiana.

As evacuations continued, high winds and storm surge in Lake Pontchartrain and Lake Maurepas caused all exits at I–10 and I–55 to become impassable due to an excess of 6 feet of water. Exit 206 at Belle Terre Blvd. was not re-opened until September 1, and exit 209 at U.S. Hwy. 51 did not re-open until September 2. U.S. Hwy. 641 leading to I–10 at Airline Hwy., and Airline Hwy. at the St. John/St. Charles Parish line was also closed due to flooding.

Once flood waters began to recede, restoration of power began in areas safe to enter. According to Entergy representatives, 95 percent of parish households were without power initially. Scattered power outages remained for approximately 14 days. All residents in the city of LaPlace, the largest city in St. John Parish, were without drinking water for 4 days because utilities crews could not reach water wells in Ruddock to make needed repairs due to high water levels along U.S. Hwy. 51.

As of today, power has been restored to all but five customers, water has been restored parish-wide, a levee of Hesco baskets has been created around our LaPlace water system, and lift stations throughout the parish are being repaired.

Three days following the storm, a Disaster Recovery Center (DRC) was open and operating, registering over 12,000 residents through Thursday, September 20. Through that date, 10,000 home inspections were completed, with more than $18.3 million in Housing Assistance and over $2.8 million in Other Needs Assistance awarded. Over 5,700 residents have been determined eligible for Temporary Shelter Assistance, while over 600 are in area hotels. The Department of Children and Family Services (DCFS) was up and running on September 4, approving over 8,342 parish households for approximately $3.4 million in assistance through the Disaster Supplemental Assistance Program (DSNAP) over 10 days.

Residents displaced by Hurricane Isaac and transported to State shelters began returning home on Tuesday, September 4, and the American Red Cross managed local shelter operations at the parish civic center for 90 individuals. Housing continues to be a major problem as the parish lacks the capacity to house its residents due to limited hotel rooms and rental property. However, housing solutions are a key component for our community's recovery.

An Executive order has been issued allowing temporary housing, permit fees waived, and Temporary Housing Units approved by FEMA. My staff is working with the HUD, the Hotel Association, DOTD, the LA Housing Task Force, OCD, FEMA, and GOHSEP to address short- and long-term housing needs, as well as transportation to aid our recovery. The parish has implemented a business call center and resource center and is working with the SBA to help businesses through the process. We have also partnered with the Home Builders Association of New Orleans to educate residents against fraud and to provide information and respond to questions about rebuilding.

The parish is coordinating volunteer efforts and has established a volunteer assistance hotline to pair volunteers with those in need. A volunteer reception center was opened Saturday to assist residents who are uninsured, underinsured, elderly, disabled, or single parents.

The Debris Removal Program is underway, although not progressing as quickly as desired, but we are working with our Federal and State partners to expedite the process and reduce the safety and health issues posed by the long-term presence of this debris.

Despite the flooding of two public schools, all parish schools have re-opened with hopes of maintaining a since of normalcy and encouraging residents to remain in our parish. Both schools are operating in temporary sites and repairs are planned for permanent facilities.

The parish requested and received support during response and recovery efforts from multiple State and Federal agencies, other parish governments, local business, individuals, private nonprofits, and multiple faith-based and volunteer organizations. The outpouring of support received by our parish is greatly appreciated and will never be forgotten.

At this point, our main concern is securing a hurricane protection system like our neighbors to the east and preventing road closures that isolated our residents following Hurricane Isaac. Because of wide-spread flooding, all parish outlets were closed at one point. This is unacceptable for the residents of St. John the Baptist, the State of Louisiana, and the United States of America. Not only did this make it impossible for some residents to evacuate as water inundated our parish, but flood water remained several days after the storm interfering with our recovery efforts.

One out of every five Louisiana residents live in southeast Louisiana, which is inclusive of St. John the Baptist, St. James, and St. Charles Parishes. Two of the largest coastal parishes, Orleans and Jefferson, have over three quarters of a million people between them. With U.S. Highway 61, U.S. Interstate 10, and U.S. Interstate 55 were closed due to flooding from Lake Pontchartrain and Lake Maurepas, the most important north and west bound evacuation routes effectively eliminated.

Entergy's nuclear power plant (Waterford 3), provides critical power to petroleum plants and refineries in the river parishes and is located in St. Charles Parish. It is the largest Entergy facility serving approximately 2.8 million utility customers in four States, providing 12 percent of the electrical needs in Louisiana. When flood waters close the major evacuation routes for some 85,500 residents of St. Charles and St. John Parish living within 10 miles of the plant, Waterford 3 is unable to restart until evacuation routes are cleared and passable. Delays in restarting the plant presents a significant potential problem for our Nation's supply of petroleum and chemicals, in addition to problems faced by our residents.

More than 7,000 households were affected by Hurricane Isaac throughout St. John Parish. Some households will only have temporary housing needs, while others with

severe damage will have long-term housing needs. Without housing solutions within the parish, many residents may not return home. This compounds the impact to our community, as parish residents are an integral part of our government workforce, parish school system, and parish medical care system, just to name a few.

St. John the Baptist Parish and our neighbors to the west and south were under water. But the implications of Hurricane Isaac go far beyond the households and businesses of St. John the Baptist Parish. Although our parish was devastated, the regional and national impact to shutting down the interstate system and curtailing production of our refineries was felt around the country through increased gas prices.

Hurricane Isaac served to exacerbate the need for levee protection for St. John Parish residents. For over 40 years, levee protection for our residents has been discussed, but never completed. In 1971, a resolution authorizing the U.S. Army Corps of Engineers to include St. John the Baptist Parish in the West Shore—Lake Pontchartrain, Louisiana Hurricane Protection Project was offered in the House of Representatives. Despite being impacted by Hurricanes Katrina, Rita, Gustav, and Ike, and Tropical Storm Lee, this project has not received Federal funding since fiscal year 2010, and it is not currently in the fiscal year 2013 budget. Completion of this project is contingent upon Corps approval and Federal and non-Federal funding. The State, the Pontchartrain Levee District and St. John Parish are prepared to move this project forward, but we need help expediting the approval and permitting process, as well as securing Federal funding. As other projects have been fast-tracked—we know it is possible.

Approximately 120,000 people live in St. John, St. James, and St. Charles Parishes supporting billions of dollars of investments currently in the river region, with over $30 billion more in potential investments in this industrial corridor. We are awaiting results of a feasibility study on the West Shore—Lake Pontchartrain project evaluating three alignments to reduce the risk of storm damage for these three parishes. How many studies are needed before our residents are deemed worthy of protection?

Preliminary economic analysis from this study indicates a viable hurricane and storm damage risk reduction project in the West Shore—Lake Pontchartrain study area. The three alignments under consideration provide a 1-percent level of risk reduction for the East Bank of St. John the Baptist, St. James, and the western portion (Montz) of St. Charles Parishes. Estimated costs for the three alignments or alignments in phases are from $300 million to $600 million and include levees, floodwalls, navigation structures, pump stations, LERRDS, and mitigation. One alignment includes risk reduction for Ascension Parish. All of the areas on the western shore of Lake Pontchartrain incurred flooding as a result of Hurricane Isaac.

It is time to take action and move the West Shore—Lake Pontchartrain Hurricane Protection Project forward. I humbly ask the members of this committee to take time to review detailed reports, alignment plans and alternatives completed over the past decades of study. Hurricane Isaac was the ultimate study and it failed. We are not a helpless people, but we need your help to secure the only system that can protect our residents from this type of devastation—inclusion in the Federal Levee System.

Thank you.

Senator LANDRIEU. Thank you.

Ms. Brister.

STATEMENT OF PAT BRISTER, PRESIDENT, ST. TAMMANY PARISH

Ms. BRISTER. Good morning, Senator Landrieu, Senator Vitter, and Congressman——

Senator LANDRIEU. Can you pull the microphone closer to you, if you would? Thank you.

Ms. BRISTER. Is that better?

Senator LANDRIEU. Yes.

Ms. BRISTER. Okay, thank you. Thank you for your support during our time of crisis and for convening this hearing today.

It is on now? I will get closer. I can usually speak louder.

Hurricane Isaac brought a storm surge between 7 and 10 feet across St. Tammany Parish, as well as 15 to 20 inches of rain. St. Tammany experienced flood conditions on every river in the parish,

from Tchefuncte to the Pearl. These rivers and bayous could not drain into Lake Pontchartrain due its high level from the storm surge. The Tchefuncte River was actually flowing north.

Over 600 residents who chose to shelter in place had to be rescued by first responders, and over 1,500 shelters were flooded.

St. Tammany Parish is not the only community on Lake Pontchartrain that suffered devastating effects from Hurricane Isaac. We are part of a much larger ecosystem, the Lake Pontchartrain Basin. Every parish surrounding Lake Pontchartrain must come together to find a solution to flooding in the basin. It must be a plan that protects our citizens and does not put our neighbors in jeopardy, be that our neighbors in Lake Maripa or neighbors in Bay St. Louis.

The citizens of St. Tammany Parish understand how tight tax dollars are. We also understand that we must get the most of every $1 entrusted to government. There is a solution to flooding in Lake Pontchartrain that is far less costly than building huge levees along every square inch of lakefront property. Flood control at the Rigolets Pass provides the most cost-benefit ratio for the million citizens who live adjacent to Lake Pontchartrain and are subject to flooding from surge.

Hurricane Isaac also showed us the dangers of failing to maintain flood control structures already in place. While Hurricane Isaac was still making its way through southeast Louisiana, I was notified of the imminent failure of lock No. 2 at the Pearl River navigational canal located near Bush in northeast St. Tammany, necessitating the immediate evacuation of over 1,200 homes.

But for the courageous actions of our own public works employees and opening of the valves, and reducing the water levels in the lock, hundreds of homes may have been washed away, and thousands of lives put in peril. While his decision was delayed, I appreciate General Peabody's response to the near failure of lock No. 2, and his decision to allow parish personnel to adjust water levels at the lock. Thankfully, the crisis was averted, and the general has pledged that the structural integrity of the lock will be restored and maintained.

Hurricane Isaac provided a triple threat from storm water. In addition to surge from the lake and the failure of lock No. 2, the eastern side of the parish was under an apparent threat of catastrophic flooding from the Pearl River. The National Weather Service projected the Pearl to crest at historic levels, potentially flooding 5,000 homes. The timing of the crest and potential for flooding as forecast by the National Weather Service changed, and ultimately predictions of massive flooding did not occur.

Unreliable forecasting and predictions by our country's lead weather agency is unacceptable. I am therefore calling for a joint task force made up of Federal, State, and local experts to study the Pearl River Basin and model the effects of differing storm events in the basin based on current conditions. Those models are many, many years old.

I think that all can agree that the safety of our citizens is our foremost goal when preparing and responding to severe weather events. Local officials must have accurate information which they can rely upon in order to make decisions during times of emer-

gency. There is no place for political boundaries in the fight against storm water. Just as storm water crosses parish and State lines, a successful storm water management plan must cross those lines so that it will serve us all.

While we are working to find a long-term solution to the threats of surge and river rain flooding, there are smaller steps that we can take today to mitigate against future flood damage.

The post-Hurricane Katrina building elevation mitigation programs have made a substantial reduction in both the number of flooded structures and the dollar value of flood damage in St. Tammany. Raising flood prone structures works in St. Tammany Parish by reducing future flood insurance claims. We are asking that this program be continued and expanded in our parish.

St. Tammany invests millions of local tax dollars every year on storm water mitigation projects. We have been trying for many years to participate in the SELA Program. The W–14 Drainage Project has been in the COE system for over 15 years and is still not funded. The project is too large for local dollars, and we need Federal partnership in this endeavor. Over $14 billion has been spent in the past 7 years on levee protection for the south shore, but we have not been able to get a single project funded in St. Tammany Parish. We are also asking that funding be dedicated toward moving these SELA projects forward.

Administrator Craig Fugate has pledged a fair and swift decisionmaking process post-Hurricane Isaac, and we appreciate his forthrightness and his candor. We are hopeful that our recovery from Hurricane Isaac is smoother than prior disasters. In order for this to hold true, I encourage Administrator Fugate to ensure that his straightforward message translates into efficient and speedy processes for providing reimbursement of costs incurred in allowing for quick repair of public facilities and infrastructure. We will also add our voice in asking for our request for community disaster loan forgiveness to take place. It is more important than ever.

In closing, I would like to mention a special project. Hurricane Isaac closed the St. Tammany fishing pier just a few months after the first phase was opened. Both the pier and the new road leading to the pier were heavily damaged. As you know, this pier was being built from the remains of the twin spans after Hurricane Katrina destroyed the bridges.

PREPARED STATEMENT

The pier was a testament to the resiliency of our citizens after Hurricane Katrina made its final landfall in eastern St. Tammany. In partnership with many private and public agencies, we turned a symbol of destruction into a celebration of community. I am asking today that you help us find the means to rebuild our pier as quickly as possible. Tens of thousands of citizens across the region will thank you.

And I thank you for the time today.

[The statement follows:]

PREPARED STATEMENT OF PAT BRISTER

Good morning Senator Landrieu. Thank you for your support during our times of crisis and for convening this hearing this morning.

Hurricane Isaac brought a storm surge between 7 and 10 feet across St. Tammany Parish as well as 15 to 20 inches of rain. St. Tammany experienced flood conditions on every river in the parish from the Tchefuncte to the Pearl. These rivers and bayous could not drain into Lake Pontchartrain due to its high level from the storm surge. Over 600 residents who chose to shelter in place had to be rescued by first responders. Attached is a Hurricane Isaac snapshot which provides further details regarding the response to Isaac and its effects on our community.

St. Tammany Parish is not the only community on Lake Pontchartrain that suffered devastating effects from Hurricane Isaac. We are part of a much larger ecosystem, the Lake Pontchartrain Basin.

Every parish surrounding Lake Pontchartrain must come together to find a solution to flooding in the basin. It must be a plan that protects our citizens and does not put our neighbors in jeopardy, be that our neighbors in Lake Maurepas or our neighbors in Bay St. Louis.

The citizens of St. Tammany Parish understand how tight tax dollars are. We also understand that we must get the most out of every dollar entrusted to government. There is a solution to flooding in Lake Pontchartrain that is far less costly than building huge levees along every square inch of lakefront property. Flood control at the Rigolets Pass provides the most "bang for the buck" or "cost-benefit ratio" for the million citizens who live adjacent to Lake Pontchartrain and are subject to flooding from surge.

Isaac also showed us the dangers of failing to maintain flood control structures already in place. While Isaac was still making its way through southeast Louisiana, I was notified of the imminent failure of lock No. 2 at the Pearl River Navigational Canal located near Bush in northeast St. Tammany necessitating the immediate evacuation of over 1,200 homes. But for the courageous actions of our own Public Works employees in opening the valves and reducing the water levels in the lock, hundreds of homes may have been washed away and thousands of lives put in peril.

I would also like to thank General Peabody of the Mississippi Valley District Corps of Engineers for his response to the failure of lock No. 1 and his decision to allow parish personnel to adjust water levels at the lock. Thankfully, the crisis was averted and the General has pledged that the structural integrity of the lock will be restored and maintained.

Hurricane Isaac provided a triple threat from storm water. In addition to surge from the lake and the failure of lock No. 2, the eastern side of the parish was under an apparent threat of catastrophic flooding from the Pearl River. The National Weather Service projected the Pearl to crest at historic levels potentially flooding 5,000 homes. The timing of the crest and potential for flooding as forecast by NWS changed and ultimately the predictions of massive flooding did not occur.

Unreliable forecasting and predictions by our country's lead weather agency is unacceptable. I am therefore calling for a joint task force made up of Federal, State, and local experts to study the Pearl River Basin and model the effects of differing storm events in the basin based on current conditions.

I think that we all can agree that the safety of our citizens is our foremost goal when preparing and responding to severe weather events. Local officials must have accurate information which they can rely upon in order to make decisions during times of emergency. There is no place for political boundaries in the fight against storm water. Just as storm water crosses parish and State lines, a successful storm water management plan must cross those lines so that it will serve us all.

While we are working to find a long-term solution to the threats of surge and riverine flooding, there are smaller steps that we can take today to mitigate against future flood damage.

The post-Katrina building elevation mitigation programs have made a substantial reduction in both the number of flooded structures and the dollar value of flood damage in St. Tammany. Raising flood prone structures works in St. Tammany Parish by reducing future flood insurance claims. We are asking that this program be continued and expanded in St. Tammany.

St. Tammany Parish invests millions of local tax dollars each year on storm water mitigation projects. We have been trying for many years to participate in the SELA program. The W–14 drainage project has been in Army Corps of Engineers system for over 15 years and is still not funded. This project is too large for local dollars and we need Federal partnership in this endeavor. Over $14 billion has been spent in the past 7 years on levee protection for the south shore but we have not been able to get a single project funded in St. Tammany Parish. We are also asking that funding be dedicated toward moving these SELA projects forward.

I would like to take this opportunity to thank FEMA Administrator Craig Fugate. He has pledged a fair and swift decisionmaking process post-Isaac and we appreciate his forthrightness and his candor. We are hopeful that our recovery from Isaac

is smoother than prior disasters. In order for this to hold true, I encourage Administrator Fugate to insure that his straightforward message translates into efficient and speedy processes for providing reimbursement of costs incurred and allowing for quick repair of public facilities and infrastructure.

In closing, I would like to mention a special project. Hurricane Isaac closed the St. Tammany Fishing Pier just a few months after the first phase was open. Both the pier and the new road leading to the pier were heavily damaged. As you know, this pier was being built from the remains of the Twin Spans after Katrina destroyed the bridges.

The pier was a testament to the resiliency of our citizens after Katrina made its final landfall in eastern St. Tammany. In partnership with many private and public agencies, we turned a symbol of destruction into a celebration of community. I am asking today that you help us find the means to rebuild our pier as quickly as possible. Tens of thousands of citizens across the region will thank you.

St. Tammany Parish Government
Department of Public Information
Access St. Tammany, Channel 10
P. O. Box 628
Covington, LA 70434
Phone: (985) 898-5243
Fax: (985) 898-2798

Pat Brister
Parish President

September 21, 2012

Hurricane Isaac Snapshot - Updated
St. Tammany Parish

Emergency Operations:

August 22, 2012 Notifies all departments to begin precautionary preparations – Level 4

August 23 – 26, 2012 Department of Homeland Security & Emergency Preparedness staff monitors storm and confers with the National Weather Service and the Governor's Office of Homeland Security and Emergency Preparedness

August 27, 2012 Emergency Operations Center partial activation with call takers and representatives from Fire, Law Enforcement, Red Cross, Cleco, and WST to continue monitoring Isaac.

August 28, 2012 EOC was fully activated with over eighty (80) liaisons necessary to cover both shifts during a 24 hour period and the emergency declaration was signed by Parish President Brister.

Duration of Storm: The EOC completed approximately 1102 mission-tasks and submitted 17 state resource requests for Search & Rescue equipment, National Guard Troops, Food, Ice, and Water distribution, generators for critical infrastructure and fuel.

Call Takers in Emergency Operations Center answered over 6,500 phone calls.

Declaration of Emergency/Executive Orders

Declaration of State of Emergency, August 26, 2012
Closing St. Tammany Parish Justice Center, August 27 – 30, 2012
Closing St. Tammany Parish Justice Center, August 31, 2012
Declaring Mandatory Curfew, August 29, 2012
Terminating Curfew, August 30, 2012

Evacuations:

11:00AM Monday, August 27th

Parish President Pat Brister is calling a voluntary evacuation of St. Tammany Parish residents living south of Business Hwy 190 and south of Hwy 22. No shelters are open at this time. The parish is making preparations for shelter opening if needed.

The St. Tammany Parish Special Needs Shelter will open at Covington High School at 7:00AM, Tuesday, August 28th. For Special Needs Shelter information call 985-898-2323. This shelter is for persons with special medical needs who cannot go to a general population shelter.

9/1/12 2:41PM

St. Tammany Parish EOC is calling an immediate and mandatory evacuation for area between Locks 1 & 2 on the Pearl River Navigational Canal and South to Highway 36 between Bush and Hickory. Failure of Lock 2 is imminent! Buses will be picking up residents on Hwy 41 for immediate evacuation.

Parish Facilities Management

Dispatched 14 portable generators at over 20 locations
Delivered over 14k gallons of fuel to generators, maintenance barns and other facilities
Permanent generators maintained and fully operational - 12

Fire Districts

Responded to 496 calls in a three day period including
Call types: Medical, Rescue, Haz-Mat, Wires down, Trees down, Fires, Public Assistance, Auto Accidents and many more.

Damage Assessment

Residential Damage – Unincorporated St. Tammany

Single Family:	Flood Damage:	700 minor
		22 major
	Structural Damage:	238 minor
		2 major
	Both Structural & Flood:	90 – all minor

Multi-Family:	Flood Damage:	11 minor
		1 major
	Structural Damage:	1 minor

Disaster Recovery Centers:

Towers Building, 520 Old Spanish Trail, Slidell

1100 Mandeville High Blvd., Mandeville, LA 70471

Ice & Water Distribution Sites - Saturday, September 1, 2012 7:30AM

First Baptist Church in Covington, 16333 Louisiana Highway 1085

Lacombe Recreation District #4, 61100 North 12th Street

Heritage Park parking lot, 1330 Bayou Lane @ the corner of Pennsylvania, Slidell

DHH Boil Orders Issued: 196

St. Tammany Parish Government Revised Preliminary Cost Estimates

Debris pickup	**$2,180,000**
Emergency Response	**$849,475**
Road & Bridge Repair	**$250,000**
Utility Repair	**$150,000**
Parks & Recreation	**$1,000,000**

Shelters

General Population Shelters:

7 : 6 managed by American Red Cross, 1 independent
583 total persons in shelters (at high count)

Special Needs Shelter:

Patients:	40
Caregivers/Dependents:	29
Volunteers:	23
Volunteer Hours Logged:	800
Staff:	41

Tammany Utilities

Tammany Utilities experienced widespread power outages but only a minimal amount of physical damage to its water and sewer infrastructure.

From 8/3-/12 – 9/2/12 Tammany Utilities crews assessed, repaired and brought back to operational 37 water wells, 47 wastewater treatment plants, and 298 sewer lift stations.

The Department of Environmental Services coordinated with the Louisiana Department of Health and Hospitals on the status of 194 public water supplies operating within St. Tammany and provided relevant information to the public through the Parish Government's website.

Animal Services

Reunited 6 animals with their owners post-storm

goSTAT – Transit

August 28	Transported residents to Special Needs Shelter
September 1	Travelled Hwy 41 to assist with emergency evacuation

Communications

On-going communications with radio & television including WWL radio and Times Picayune embedded in EOC

Channel 10 provided feeds to TV and Radio across the region when they were unable to attend press conferences at the Emergency Operations Center. These feeds were used on broadcast stations.

Facebook

116,068 people saw content posted on St. Tammany Parish Facebook Page, 8/29 through 9/4

872,059 the number of 'reads' of Facebook Posts

Stpgov.org from 8/29 through 9/4

77,545 unique sessions

526,244 Page Views (5 times average)

77 Emergency Emails written

117,214 Emergency Emails sent to subscribers

104 Emergency Blog entries on stpgov.org

34 Press Releases Issued

Senator LANDRIEU. Thank you, Parish President Brister.

Let us move to Garret Graves.

STATEMENT OF GARRET GRAVES, CHAIR OF THE COASTAL PROTECTION AND RESTORATION AUTHORITY OF LOUISIANA, AND EXECUTIVE ASSISTANT TO THE GOVERNOR FOR COASTAL ACTIVITIES

Mr. GRAVES. Thank you, Madam Chair, Senator Vitter, and Congressman Richmond. Appreciate the opportunity to be here today. My name is Garret Graves, and I represent the Coastal Protection Restoration Authority (CPRA) of Louisiana.

First, Madam Chair, I would like to thank FEMA, COE, and the National Oceanic and Atmospheric Administration for their assistance in embedding in the emergency operation center in Baton Rouge during Hurricane Isaac. I think it was the most effective disaster response in regard to communication and coordination that I have been involved in. Administrator Fugate and General Peabody personally served on behalf of their agencies to ensure that all resources were in place, such as pre-positioning resources, providing technical assistance, and, of course, providing forecast and predictions regarding the storm's impacts in Louisiana.

You made a point in your opening statement with regard to mitigation. You indicated the study that was done that showed for every $1 we invest in mitigation, you have $4 in benefits. And I am sure you recall the Congressional Budget Office also did a study that indicated there were $3 in savings for every $1 invested. General Arnold, I heard him give a very energetic speech years ago where he said that he believes that it is in excess of $10 for every $1 invested in south Louisiana. Of course, I ran up to him after that speech and asked him for the citation of that, and he said, oh, I made that up.

But he said, but I believe it. And I think that in south Louisiana, Madam Chair, that it is case in point looking at the FEMA dollars that you indicated that have been spent in our State just over the last several years.

Another good example is a hurricane protection system, and I would like to thank the subcommittee, the members here, and, of course, COE for the work that was done there. Without the hurricane protection system, the work that was done, I have no doubt that your subcommittee would have been challenged with coming up with hundreds of millions of dollars in additional funding to compensate for the re-flooding in the New Orleans area from the same areas that flooded as a result of Hurricane Katrina.

The Inner Harbor navigation canal surge barrier alone hit an excess of 14 feet of water stacked up against us, which would have gone in and flooded areas of New Orleans and areas of St. Bernard Parish, which of course was prevented. More importantly, lives were saved. So once again, I want to say thank you to COE and thanks to our delegation for your efforts in securing those dollars.

But, importantly, as other members of this panel have discussed, outside the levee system it is a tale of two cities. We have heard the discussion in the communities of LaPlace, Lafitte, Braithwaithe, and other areas of Plaquemines Parish that have experienced extensive flooding. Taking those apart, and the members discussed this, the west shore project has been in the study phase for 4 years. Lafitte has had an authorization dating back to the

early 1990s for a number of continuing authorities projects that were consolidated into a $100 million hurricane protection project in 2007.

The Lake Pontchartrain barrier dates back to the 1960s. Of course the protection was provided for the south shore, but you still had vulnerabilities on the north shore and west shores that have not been addressed. And then moving over to the west, you have other bad examples, like the Morganza to the Gulf project, which has been in the study phase for 20 years with an excess of $70 million spent, none of that on construction.

To quote General Arnold once again, it seems that we are stuck on stupid. This is an academic exercise, and it is like someone who is in college and just a career student. At some point you have got to step out in the real world and actually get a job. And I feel like this academic exercise of studying is like being stuck in that career student situation.

Funding is important, and COE certainly needs more funding. Madam Chair, you address the real dollar decrease in COE funding that we have seen over the last several years. And it is important to provide the additional funds to COE. But I think importantly, we cannot just pour additional dollars into the broken system.

There was an alternative system that you guys set up for delivery of the hurricane protection system, and I think when you compare and contrast the delivery, the effectiveness of that approach as compared to the traditional approach that COE is performing the west shore project on, Lafitte, Morganza to the Gulf, and others, I think that you will see that you can generate much more cost savings by taking a more efficient approach. And there are other models that are out there—the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) process and SEAP. Pre-disaster mitigation run by FEMA perhaps could be expanded to improve upon the process.

I do not want to give COE a free pass here. I think that in many cases, they have made the job harder upon themselves by simply not following the law or getting stuck in dulu in some situations. Colonel Fleming often notes that the State and COE have a love-hate relationship, and I think that I agree with that. COE loves to slow us down and make things more expensive, and we hate it. And we have got to fix that.

The subcommittee seems interested in the relationship between the local governments, the State, and the Federal Government. And I think it is really important to take a look at that. Right now under existing law, the State and levee districts pay one-half the costs for all planning, engineering, and design. On the construction side, we pay 35 percent of the costs, but then, importantly, we pay 100 percent of the life cycle costs: the operations, maintenance, repair, rehabilitation, and replacement. And we also pay 100 percent of the costs for the smaller projects that often fill the gaps or do not meet the benefit-cost ratios, cost-of-effort ratios discussed earlier.

Over the last 5 years, we have committed collectively—the levee districts, the parishes, and the State—unprecedented levels of funding. In fact, exponentially higher than at any other time in history. In addition, the State has fundamentally changed its organi-

zational structure in establishing the CPRA as an implementation body. As a result of that, outside the hurricane protection system, we have built more miles of levees. We have protected more citizens, and we restored more per square miles of our coastal wetlands than any other time in our State's history.

But we are still not getting ahead, and that largely goes back to the sustainable management of our resources in south Louisiana. Right now, Madam Chair, as you are aware, we have lost 1,900 square miles. We are losing today 16 to 20 square miles of land per year as a result of the management—the Federal management of the lower Mississippi River system.

We can spend—we can tax ourselves to the tune of billions of dollars in south Louisiana, and we can develop the most efficient process in the world. But until COE manages the lower Mississippi River system in a sustainable manner, it is going to be difficult for us to get ahead.

I heard discussion earlier about the modified Charleston method of mitigation where COE is coming in and requiring others to mitigate wetlands, maybe two or in excess of two times the actual impacts that they cause. Yet COE is in a hypocritical situation in that they are the cause of the largest rate of wetlands loss in the Nation.

Madam Chair, the last thing I just want to make reference to is the oil spill. Prior to the hurricane, we had been in discussions with BP and the Coast Guard about trying to get them to clean up some additional layers where we knew there was oil. There are a million barrels of unaccounted oil in the Gulf of Mexico today, four or five times all that was spilled in Valdez.

BP was trying to move areas out of response, saying they were clean and no longer under threat of re-oiling. Yet our nightmare came true with Hurricane Isaac with the re-oiling that occurred everywhere from St. Bernard Parish on over to Lafourche Parish with, of course, in excess of 1,000 miles of tidal shoreline in between.

As in the oil spill where BP is going to pay one way or another, I think the Federal Government is going to pay one way or another. If we can get ahead of the problem and make proactive investments like in the hurricane protection system—sort of like in the hurricane protection system where communities are protected—or we can come in after the fact and spend exponentially more FEMA dollars on disaster response where you have disrupted communities, disrupted families as opposed to sustainable, resilient communities.

PREPARED STATEMENT

And I thank you for the opportunity to speak, and I, of course, would be happy to answer questions.

[The prepared statement follows:]

PREPARED STATEMENT OF GARRET GRAVES

Thank you for the invitation to testify today on behalf of the Coastal Protection and Restoration Authority of Louisiana and the citizens of our State. We appreciate the opportunity to share Louisiana's perspective on disaster preparedness, response and recovery. Unfortunately, in recent years, Louisiana has become quite experienced in these fields.

Over the last 7 years, Louisiana has been hit by Hurricanes Katrina, Rita, Gustav, Ike, and Isaac. In 2010, our State experienced the worst oil spill in our Nation's history, which continues to this day and has ramifications that could last for many years to come. And, in 2011, record high water on the Mississippi River system challenged flood protection systems statewide—yielding one of the largest flood-fighting efforts in Louisiana's history.

Local and State communication and coordination have improved to unprecedented levels. Senior Federal Emergency Management Agency (FEMA), National Oceanic and Atmospheric Administration (NOAA), and Corps of Engineers (Corps) representatives were fully integrated into our Emergency Operations Center in Baton Rouge for Hurricane Isaac. From my perspective, Hurricane Isaac emergency response efforts among all levels of government improved to some of the most efficient processes we have seen. For this, we thank our local, Federal partners, and the many volunteer and NGO services that were provided.

FEMA worked with Louisiana's Homeland Security and Emergency Preparedness Office to pre-position resources needed in Hurricane Isaac's aftermath. Though the hurricane was somewhat volatile in regard to models and trajectory, NOAA's forecast tools helped to inform flood-fighting efforts, evacuation orders and deployment of recovery resources prior to landfall. Still, the State of Louisiana renews its post-Katrina request for NOAA, in cooperation with other Federal, State, and local government representatives, to develop improved storm prediction and communication tools. The Saffir-Simpson hurricane category scale is based upon only a single storm characteristic—wind speed. Many other factors contribute to risks associated with a specific tropical event. Storm surge, storm speed, landfall trajectory, barrier islands, shoreline slopes, near-shore topography, vegetation, ridges, cheniers, roadways, levees and other factors are considerations when determining risks associated with a particular storm upon impacted communities. Threats from slower moving storms, like Hurricane Isaac, are often lost upon the public due to the lower Saffir-Simpson rating.

NOAA's Sea Lake and Overland Surges from Hurricanes model (SLOSH) and the Advanced Circulation (ADCIRC) used by the Corps each help to inform emergency managers. But that information can serve a more direct and useful purpose if it can be properly translated into language the public can understand—and clearly in an emergency the public craves that kind of information. Properly tailored, this information will help to save lives. We look forward to working with NOAA to develop improved tools to inform the public of the threat posed to them by an approaching tropical event.

The Corps of Engineers worked with State and local officials to assist on technical recommendations and resources related to flood-fighting and dewatering operations. The Corps also assisted in supplying a portion of the portable pumping plants used post storm.

We do want to highlight an important achievement—the performance of the greater New Orleans Hurricane Protection System (HPS). An estimated 14 feet of water stacked up on the Lake Borgne Surge Barrier alone. While Hurricane Isaac clearly did not test the limits of the HPS, the system prevented flooding and saved lives during Hurricane Isaac. I believe that FEMA saved hundreds of millions of dollars in disaster response costs from Hurricane Isaac due to the repairs and revisions performed to date on the HPS. We thank you for helping to ensure that much of the HPS work has been funded to date and strongly urge that you provide the resources and oversight to finish the job and get it done right this time.

It is essential to note that a number of the witnesses testifying before you today believe that the repairs and revisions to the HPS induced flooding in their communities—such as the north and west shores of Lake Pontchartrain, the Lafitte area, and the West Bank of Plaquemines Parish. A full analysis must be conducted to determine and address any adverse impacts of this work. We appreciate the Corps of Engineers' efforts to closely study the impacts of Hurricane Isaac to determine any flood implications of the HPS on these important communities. The Water Institute of the gulf has also been engaged to provide independent review and analysis of the Corps' study effort.

The CPRA must identify a growing concern regarding the management of the HPS that threatens the performance of the system in future storms. Recently, the Corps of Engineers has determined that it will transfer operation and maintenance of small segments of the HPS to the CPRA and levee districts rather than waiting for completion of actual projects or polders. Attempting to coordinate the management of adjacent polder or project segments of a levee or floodwall during a disaster by different organizations is entirely contrary to proven disaster management principles and contradicts on the record statements of senior Corps officials. This change in Corps policy is a dangerous precedent that could be expanded to other areas of

the country. Congress should provide strict guidance to the Corps on the transfer of responsibility for completed projects that are designed holistically to provide independent function or utility to ensure consistent management of protection infrastructure.

Hurricane Isaac confirmed two other important points. First, the storm demonstrated that relatively weaker hurricanes can still cause extensive destruction, flooding and even death. Second, Hurricane Isaac, once again, proved that the continued loss of our coastal lands and wetlands increases the flood risk of our communities. The evidence is empirical: towns that have been around for hundreds of years such as Lafitte, Braithwaite, LaPlace, Madisonville, and Slidell all flooded during Hurricane Isaac. The Gulf of Mexico has now replaced the 1,900 square miles of coastal lands and wetlands that have eroded, moving the gulf that much closer to our populated areas that have sustained centuries of tropical storms and hurricanes. A significant portion of our wetlands buffer is now gone.

I have heard many senior Federal agency officials and Members of Congress from outside of Louisiana say that the Federal Government simply cannot afford to fund projects to protect and restore Louisiana. The facts, common sense, and sound fiscal policy prove otherwise. Every consumer in the country has a stake in coastal Louisiana. One example is national energy implications of disasters in Louisiana. A few days after Hurricane Isaac made landfall, gasoline prices spiked an average of 25 cents/gallon nationwide. This translates to consumers paying an extra $100 million a day in higher gas prices. Following Hurricanes Katrina and Rita in 2005, consumers paid an estimated $300 million a day in higher gasoline prices and the 2008 hurricanes (Gustav and Ike) caused consumers to incur over $500 million a day in higher prices to fill their gas tanks.

In recent years, over $100 billion in disaster efforts in Louisiana have been administered by FEMA and other Federal agencies. In just the last 10 years, a fraction of this amount could have been proactively invested in hurricane protection, flood control and coastal restoration projects in Louisiana—saving over 1,000 lives, preventing the displacement or evacuation of over 1 million Louisianans and protecting hundreds of billions of dollars in economic activity and infrastructure in south Louisiana.

The Congressional Budget Office determined that every $1 invested in proactive disaster mitigation efforts results in $3 in cost savings. A report for FEMA developed by the National Institute of Building Sciences found that up to $4 in benefits resulted for every $1 in hazard mitigation. We believe that the Federal Government would realize even higher rates of cost savings and benefits from proactive hurricane protection and coastal restoration investments in Louisiana.

Again, the performance of the HPS during Hurricane Isaac exemplifies the benefits of protection investments. It must be noted, however, that the HPS work was performed in response to Hurricane Katrina floodwall failures and outside of the normal water resources project process. The conventional alternative leaves much to be desired.

While the Corps of Engineers must be commended for their relative expediency in conducting repairs and revisions to certain components of the HPS, a stark contrast lies in areas outside this levee system. In fact, an estimated 90 percent of the flooding that occurred as a result of Hurricane Isaac could have been prevented had the command simply completed authorized tasks. Let me repeat that for emphasis: an estimated 90 percent of the flooding that occurred as a result of Hurricane Isaac could have been prevented had the Corps of Engineers simply completed tasks previously authorized by Congress, authorizations that the Corps either ignored or failed to complete. I can cite many examples, such as the West Shore project, first authorized for project development in 1971. The project has been in the Corps' "study phase" for over 40 years. Had the project been constructed thousands of homes would not have flooded and flooding of Interstate 10 and U.S. Highway 61 could have been prevented. Flooding of these vital thoroughfares severed vital conduits for emergency response and recovery operations.

Several hundred million dollars for flood protection efforts in Plaquemines Parish have sat in Corps' construction appropriation accounts dating back to 2005 and 2006 with virtually no construction activities since that time. As you know, many areas of Plaquemines Parish were flooded by the hurricane. Congress authorized the consolidation and construction of several Corps flood protection projects (section 205 projects) in the Lafitte area in 2007. The Corps has not taken any action to protect these residents despite repetitive flooding over the last several years—each requiring millions of dollars in FEMA aid. Dewatering efforts in Lafitte continued for several days following Hurricane Isaac.

Every single parish in south Louisiana has an ongoing, bad example of Corps' delays and sky-rocketing costs. The southwest study (Calcasieu, Cameron, and

Vermilion Parishes) is on track to be 5 years late in developing a final plan for coastal restoration and hurricane protection. Congress authorized the construction of a portion of the Morganza-to-the-Gulf hurricane protection project several years ago and authorized construction of the entire project twice. Despite these repeated authorizations, the Corps has spent over $70 million and 20 years studying the project without a single construction activity. During this same period, over $1 billion in FEMA and Federal disaster response funds have been expended in this same area. The completed project was estimated to cost $550 million in 2000.

There is a clear choice here—fund and execute preventative measures to reduce the overall cost to U.S. taxpayers, and the pain and suffering of the Louisiana residents and business owners impacted; or let the necessary protection measures sit in study mode with no end in sight.

Another example is the Mississippi River Gulf Outlet (MRGO) closure and restoration report, which was required under Federal law to be submitted to Congress by May 2008. Four years later, the reports remains incomplete and the Corps threatens to abandon the project without a $1 billion "voluntary contribution" by the State of Louisiana to the project. The Louisiana Protection and Restoration analysis and design was due to Congress in late 2007 pursuant to Federal law. The Corps provided a response to Congress in 2010 that failed to answer a single question posed by Congress. Further, the report costs ballooned from the original estimate of $8 million to over $26 million. Again, the report was not even remotely responsive to Congress or in compliance with numerous Federal laws. Conversely, the State of Louisiana worked with parish governments, mayors, community leaders, and other stakeholders for 2 years to deliver a 50-year coastal master plan that was approved unanimously by the Louisiana Senate and the Louisiana House of Representatives.

In fact, the Corps has failed to comply with a single statutory deadline on any work in Louisiana since Hurricanes Katrina and Rita over 7 years ago. Over 15 deadlines required under Federal law on various proactive plans, reports and projects have been ignored by the command with zero accountability. Meanwhile, our State continues to flood and erode while FEMA spends billions of dollars reacting to hurricanes and flooding disasters. Numerous other misinterpretations of the law and regulatory obstacles have impeded State and local efforts to protect our citizens and restore our coast.

These problems are not limited to projects. For example, the Corps regulatory program requires private landowners and government agencies to mitigate for virtually any adverse impact they cause to wetlands. However, the Corps is responsible for the largest historical and ongoing wetlands loss in the Nation through their management of the Lower Mississippi River system. An estimated 16–20 square miles of wetlands are lost each year. In response, the Corps has not mitigated for a single acre of this loss. The Corps should lead by example and be held to the same standard established for private citizens and other government agencies.

Madame Chair, the arrogance and complete disregard for Congress and Federal law by the Corps of Engineers must stop. In recent years, a number of new military leaders within the Corps appear to recognize the fundamental problems within the command. While these developments are cause for optimism, the systemic nature of these problems and the bureaucratic resistance to change will require the direct involvement of the White House and Congress to solve.

Importantly, the Corps' impeding actions on State and local efforts, project inaction, and their hypocritical position on wetlands mitigation do not save the Federal Government money. In fact, they actually expose the Federal Government to greater Stafford Act liabilities by increasing the probability of homes flooding, of more families being displaced, a greater number of businesses being destroyed, adversely affecting employment opportunities, causing a declining ecosystem and reducing economic activity through business interruption. Recent Federal court decisions involving the Corps' actions and failure to properly maintain the Mississippi River Gulf Outlet have the potential to result in billions of dollars in judgments against the Federal Government. Common sense, which the American people are more swiftly demanding of our leaders, should lead the Corps' and the Federal Government to take preventative measures to prevent billions of dollars in damages before future storms have the opportunity to create them.

Madame Chair, these are all symptoms of more fundamental problems.

History proves that the Federal Government is going to pay one way or another. They can make proactive investments to reduce or eliminate vulnerabilities or hazards caused by Federal actions or the Federal Government can pay exponentially more responding to the death and destruction of a disaster.

To be fair, these problems began years ago and transcend Republican and Democrat administrations. Further, it must be noted that there are some truly good peo-

ple within the Corps of Engineers. Many of them recognize the dysfunction in the process and want just as much as we do to address these issues.

Still, the entire Federal water resources project development and implementation process must be revisited. This full-scale analysis should include whether the Department of Defense is truly the most appropriate agency to lead the Nation's wetlands restoration and flood control efforts to the unique, repetitive and intimate role of Congress in water resource projects. A number of other Federal and non-Federal project models exist that could result in significant time and cost savings.

These models include the Coastal Wetlands Planning, Protection and Restoration Act program, Coastal Impact Assistance Program, Gulf of Mexico Energy Security Act, Federal Highway Program, HPS repairs and revisions, and other examples.

Expanding upon FEMA's pre-disaster mitigation program may provide another venue for proactive, cost-saving, and life-saving flood protection investments.

Several billion dollars in projects have been identified for implementation. These authorized projects have been subjected to years of studies, planning, public comment, environmental reviews, and other processes. Outside of the post-Katrina HPS repairs and revisions, virtually no construction funding has been made available for any of these hurricane protection, flood control or coastal restoration programs in the last several years. Stakeholders in these authorized projects often base fundamental decisions upon the efficient and successful implementation of such projects. Decisions such as whether to continue living in a newly flood-prone area, whether to elevate a home, economic development decisions, public infrastructure investments and others are all predicated upon these projects. The uncertainty and unpredictability associated with a project in limbo could be even more dangerous than not providing protection or restoration at all. Our citizens deserve some predictability or certainty on project schedules.

Our estimates indicate that a newly conceived water resources project involving the Corps' process takes in excess of 40 years to implement. In south Louisiana, our threatened communities simply do not have that kind of time. In effect, the emergency exists today. A responsive project development and implementation process must correspond to the crisis we face.

Some have suggested that the States, counties/parishes, and levee districts simply fill the void created by the inability of the Corps to efficiently deliver projects. While this may seem like a simple solution, one must consider several decades of the roles and relationship among the various Federal, State, and local water resource entities. Historically, the Corps of Engineers funded the entire cost of many projects. Cost-sharing by non-Federal entities (State and local governments) is already extensive. The non-Federal cost share on most Corps-administered projects today is 50 percent for feasibility, planning, engineering, and design while construction costs are 35 percent non-Federal and the entire operations, maintenance, repair, rehabilitation, and replacement costs are covered by the non-Federal project sponsors (usually States, counties/parishes, cities/towns, and levee districts).

In recent years, State, parish/county, cities/towns, and levee districts have had increasing financial liabilities associated with Federal water resource projects, including more stringent project inspection requirements, expensive new levee standards, expanded requirements for fee-title real estate acquisitions from unwilling sellers and other expenses. Failure to act through attrition is unacceptable. These projects must advance. To implicitly add the entire financial burden of construction costs on these non-Federal entities in addition to other expenses is a serious reversal of decades of water resource policy that requires several years of financial and technical transition planning. Further, it is noteworthy that all federally authorized projects must go through a robust economic evaluation to ensure that the benefits of a project outweigh the costs—justifying Federal investment.

In Louisiana, the State has a constitutionally protected revenue stream to invest in restoration and protection projects. Further, Governor Jindal and the Louisiana Legislature have invested more dollars in hurricane protection, coastal restoration, and flood control over the last 5 years than any prior 20-year period in our State's history. In total, the CPRA, together with our levee districts have administered nearly $2 billion in hurricane protection, flood control, and coastal restoration efforts. Additionally, many of our communities have voted to impose both property tax and sales tax on themselves to help fund hurricane protection and flood control efforts. Our Governor, Legislature, and citizens have taken these bold steps despite the fact that we did not move to the disaster or vulnerability. Rather, the disaster moved to us as a result of Federal actions such as levee and river management on the Lower Mississippi River System.

Even if our citizens were to tax themselves billions of dollars a year, we would still not be able to offset the ongoing losses of up to 20 square miles per years of coastal wetlands loss caused by the Corps' and their refusal to mitigate their ac-

tions. The first step in a sustainable Louisiana is sustainable management of the coastal area by the Federal Government. In the fall of 2010, President Barack Obama established the Gulf of Mexico Ecosystem Restoration Task Force. The task force was charged with developing a strategy for the resiliency of gulf coast communities and the gulf ecosystem. The December 2011 strategy identified a number of reforms that must be enacted to stop the ongoing damage and increasing vulnerabilities to Louisiana's coastal area. Unfortunately, no action has been taken on these recommendations to date. One of the most important actions Congress could take would be to require the Corps of Engineers to carry out their actions in a sustainable manner thereby stopping the net growth of hurricane-vulnerable citizens and allowing restoration projects implemented to result in a net gain of restored wetlands rather than simply offsetting ongoing losses attributable to the Corps and the BP oil spill.

Noting the subcommittee's jurisdiction, I would be remiss without mentioning your recent letter to the U.S. Coast Guard regarding BP's failure to locate and clean oil in and near Louisiana's shoreline and other concerns. The State and parishes appreciate you raising these concerns to the Coast Guard and strongly urge you to continue pushing BP to fully comply with the Oil Pollution Act of 1990 and remove the up to 1 million barrels that are estimated to remain in the Gulf of Mexico. This amounts to four or five times the volume spilled during the entire Valdez disaster.

While BP denied the existence of additional oil, our concerns were affirmed when large oil mats and tarballs were exposed or re-suspended as a result of Hurricane Isaac. The proof could not be any more clear. Some of the very areas that experienced extensive re-oiling during the hurricane are the same areas that BP was pushing to remove from active cleanup operations just prior to the storm. The only successful clean up performed by BP is their $100 million whitewash campaign being perpetrated on the citizens of this country subjected to BP's extensive media campaign. While beaches in Florida, Alabama, and Mississippi have regular oil spill patrols provided by BP to remove tarballs, the company has refused to provide any type of comparable patrols in Louisiana despite our State receiving more oil on our shorelines than all of the other States combined. Further, when oil hits a beach, it is simply scraped away. When oil penetrates our coastal wetlands, tides, winds, and currents push the oil deeper into our wetlands where removal practices usually just leave the oil there to slowly degrade over years as it has a much longer term and greater environmental impact on some of the most productive ecosystems in the Gulf of Mexico. BP must be held fully accountable for oil removal without any further dependence upon the Federal treasury, State coffers, parishes, or taxpayers as required under Federal law.

Finally, Madame Chair, we want to thank you and your colleagues for taking the time to hold this important hearing in Louisiana. There are numerous lessons to be learned from Hurricane Isaac. The most important, of which is that proactive, comprehensive efforts to protect our coastal communities and restore our coast is achievable. Louisiana is the canary in the coalmine in regard to coastal sustainability. The Nation and world are watching to see what fate their States and nations can expect in the future. The State together with our parishes and levee districts have built or improved more miles of levees and restored more acres of coastal wetlands than ever before. We have an opportunity to demonstrates success to the world through the implementation of the Louisiana Coastal Master Plan. We need a functional Federal water resources program to achieve this goal.

Up to 20 percent of the Nation's maritime commerce, five of the top ports in the country, national energy prices, the top fishing area in the Continental United States and 2 million of some of the best Americans our country has to offer are all dependent upon our joint success.

Isaac taught us that we have the capacity to protect our communities. It also taught us that where we don't fund projects—we jeopardize the lives and property of our citizens.

Again, thank you for this opportunity to testify today. I look forward to your questions.

Senator LANDRIEU. Thank you. Thank you, Mr. Graves. And I have asked Neil Malbrough to testify about some new ways, new approaches, and some ideas that could expedite some of this work and the tremendous challenge before us. Thank you for representing an entire industry. We should have a whole panel, but, Neil, we think you can do it as well as anyone.

STATEMENT OF ONEIL P. MALBROUGH, PRESIDENT, SHAW COASTAL, INC.

Mr. MALBROUGH. Thank you, Senator. Again, I want to thank you for allowing me to be here, and I will try to talk about and discuss some things where we have not only talked about, but have been able to demonstrate some fairly significant cost savings and some of the flood control projects that we have worked on.

My experience goes back over 25 years. We have been primarily in the coastal protection flood risk-reduction business in different places. And we have designed and managed the construction of over 15 flood gates now, okay?

Early on in our process, we were attempting to build flood gates similar to what had been built in Golden Meadow and Rose. We knew we were going to be part of eventually of the Morganza to the Gulf project, so we had to build projects that met the core criteria. And quite frankly, the first two flood gates that were designed and built were built exactly like the Golden Meadow gates. They were, what we call, the monolithic type sector gates, concrete primarily, built in the channel.

Later on and in call cases we were using State and local funds only. Early on we realized in the Morganza to the Gulf there are 13 flood gates. We could not afford to build those kinds of gates, so we had to look back and do some things. We had to give up convenience. As Tony Alfred would say, we had to give up convenience for protection. We knew it was nothing with those sector gates. They worked perfect. If we had enough money, we would build them all exactly that way. Unfortunately, we did not have that.

So we began looking at other ways of doing that. And we have now built five in the system. We are actually building—right now as we speak, there is a 250-foot flood gate being built in the Homem navigation canal. We are building a 200-foot bayou in Grand Caillou. And we are designing a 400-foot for Bayou Chene. In all of those cases, when the client has been driven by economics and can only afford to do certain things, the alternative of what we are doing now and what we would like to have done if we had all the money in the world, we could not do.

So in every case, in the first five cases, we were forced to look at alternatives by the clients, and in all cases they selected what we call the steel barge gates. And all of them are publicly bid. The COE build is publicly bid. So the question is, why are they publicly bidding something, and we are all doing the process, and hear every day talking about building things—building more for less. And I am going to use the phrase loosely.

So I have tried to do that, and I have tried to look back at what we have done in the 15 gates that we have done, and decide how did we get to these cost savings, and what has been driving that. I have come up with 10 things, and I will go through them real quick like.

We always look at the least-cost alternative at each design phase as we go. We openly discuss that, and the client, the engineers, and the public are well aware of the decisions that we make at every one of those stages. Always do that. Not do it when we can, do it when we want. We always do that.

We always break the bid documents in areas of local expertise. We have driven—because we were using in some cases local money, we tried to build it with local funds. We have to publicly bid. We cannot restrict it to local people. But in our area, we have grown up in the oil patch. We have everything in the oil patches built out of steel, so we have expertise in industries, contractors, and people. So we have designed our projects around that local expertise, and we are here to say that in the case of the Homem navigation canal, the $50 million, about $32 million of that is actually being spent in Terrebonne by Terrebonne contractors, building something that meets the core criteria for the particular application. So we always do that.

We minimize the amount of bids, but always stay in what we call the contractor's experience. We make sure that there are a number of contractors who can bid specifically on what we do.

Always construct the best available alternative with the dollars at hand. Again, a very important component because we do not design a project outside the limit of the client. We are building the Homem navigation canal, as an example, where there are hydraulic pumps, there are backup pumps. The funding was there to build it right.

When we first built the first one in Petit Caillou, we did not have that. There was no automatic hydraulic systems. There was no pumping system to de-water and flood the system. We used gravity. We opened the sea chest and sunk the barge. We had four hand-operated winches closing the gate. Later on as the levee district funding came in place, we converted those hand-operated winches to automation. Now we have some elaborate system on some of the gates. But the idea was if we try to build a Cadillac, we do not have enough money, and having nothing there is the worst thing that could happen. So in all cases, we force ourselves to drive to that.

We tried to maximize wet construction instead of dry construction. Staying away from coffer dams and bypass channels, and all the systems that go there just dried the costs. When you look at the monolithic gate, there is a significant amount of construction that goes in the facility that leaves when the job is finished. So, the oil field has always been built on wet construction, and we try and eliminate dry construction whenever we can. In some cases, you cannot do away with it, but in 99 percent of the cases you can.

We try to maximize yard fabrication components in that construction. It is much cheaper to build in a yard and bring it to the site. If you noticed the 13 sites in Morganza to the Gulf, all are at remote sites. In the case of the Homem navigation canal, there is not even a road to get there. Grand Caillou, there is no road.

So we design the projects around yard fabrication components that were brought to the site. If you look in the pictures that I gave you all—I gave you all this book—the last picture shows the big Homem navigation canal. But the idea there is the buttress or the construction of the flood gate was actually built the way they build offshore platforms, built at Gulf Island, loaded on a barge, built with a derrick barge and sided, and matched to the site. Those techniques are what is being done.

[The referenced picture book was not available at press time.]

So when you look at those techniques, we can tell you that if we publicly bid, levees were about 33 to 50 percent cheaper by using the State process. On flood gates, we are somewhere between 50–85 percent cheaper by using barge gates instead of the sector gates.

The process, the policies, the manuals, do not allow that, but if you look at the first picture of the flood gate, which is that monolithic, and you look at the third picture there, you will see both of those gates are 12 feet high. Both of those gates have a 56-foot opening. And both of those gates have a minus 8-foot seal. When the gates are open, the navigation and the channel are exactly the same. The difference is that one costs 25 percent of the other one.

So what we are talking about is building more for less. If we had four times the money that we had, we would always build the gate, the first pictures. The idea is that you build to suit the project and to build what you can.

PREPARED STATEMENT

So that is what I am here to say. And the process, we are doing it now. We are doing it in a number of locations. And I think we have got to implement—we have got to build more for less because the dollars, as you know, are tighter and tighter.

[The statement follows:]

PREPARED STATEMENT OF ONEIL P. MALBROUGH

I'd like to first begin by thanking Senator Landrieu and the subcommittee for allowing me to testify today primarily to discuss some of the ways we have been able to demonstrate some fairly significant cost savings while designing, building and mitigating for flood protection, risk reduction, and hazard mitigation projects in coastal Louisiana.

My name is Oneil Malbrough and I am president of Shaw Coastal, Inc. (Shaw Coastal), which is a civil, coastal and environmental engineering firm located within the commercial State and local segment of Shaw's environmental and infrastructure division. Shaw Coastal has been in the design and engineering business for 25-plus years and has worked on many of the flood risk reduction projects in Ascension, Iberville, Jefferson, Plaquemines, Orleans, Lafourche, Terrebonne, St. Mary, and Iberia Parishes. We have worked on the design and construction management of 15 different size floodgates and saltwater intrusion structures in coastal Louisiana and are presently managing the construction of a 250' wide floodgate in the Houma Navigation Canal, a 200' wide floodgate in Grand Caillou Bayou and we are designing a 400' wide floodgate in Bayou Chien. A listing of these structures we have completed and/or are working on are as follows:

—Bayou Petit Caillou Auxiliary Structure;
—Lower Bayou Dularge Floodgate Structure;
—Humble Canal Floodgate Structure;
—Walnut Street Floodgate Structure;
—Bayou Black Floodgate Structure;
—Company Canal Saltwater Intrusion Structure;
—Bush Canal Floodgate Structure;
—Placid Canal Floodgate Structure;
—HNC Floodgate Structure;
—Bayou Grand Caillou Floodgate Structure;
—Bayou Lafourche Saltwater Intrusion Floodgate (in Bidding Phase);
—Bayou Petit Caillou Flood Gate Structure (in Design Phase);
—Four Point Bayou Floodgate (in Design Phase);
—Bayou Chene Floodgate Structure (in Preliminary Design Phase);
—Freshwater Bayou By-Pass Channel Structure (Preliminary Design only).

In addition, Shaw Coastal has designed and managed a significant amount of flood control levees, some of which have been designed to meet Corps, State and local design criteria. In light of this experience we feel that we have a significant amount of experience in designing, bidding and managing the construction of flood

control projects, both pre- and post-Katrina, and we hope our testimony will be helpful.

What I would like to talk to you about today is how we are presently designing and building projects in a manner that allows for cost savings, while still delivering a project that meets the appropriate sponsor's design criteria.

To summarize, we:

—Always include "least cost" alternatives at each design phase with constructability in mind.

—Always break down the bid documents in areas of "local" expertise. Minimize the amount of bids but stay in the available contractor's experience. Always try to receive as many qualified bids as possible, and structure contracts to allow smaller local contractors whenever possible to reduce per diem costs.

—Always construct the best available alternative with the dollars at hand. In other words, "Don't design a project outside the limits of the client" or as TLCD President Alford would say, "give up convenience for protection". For example, most of the structures that are only closed once a year do not have automation. These are operated manually by opening and closing valves significantly reducing the costs.

—Try to maximize wet construction techniques in lieu of "construction in the dry" techniques. Always compare steel to concrete, whenever possible and always stay away from cofferdams, whenever possible.

—Maximize yard fabrication components in lieu of building in the field.

—Minimize the risk to contractors. When risk is unavoidable, allow the owner to absorb as much as possible in lieu of adding cost to the project. For example, contractors are paid on actual cut of material moved or dredged to reduce their risk from material settling during construction.

—Minimize change orders.

—Use standard engineers cost curves in establishing engineering fees and minimize construction management cost and field changes.

—Always use side cast borrow for levee construction whenever possible and in most cases even if you have to double handle it.

—Minimize hauling distances when using hauled in fill and get annual hauled in prices whenever possible.

If these processes are forced into the design and bidding processes, then the cost will come down.

Our experience has shown us that comparative locally bid prices for levee fill has ranged from 33 percent to 50 percent less for hauled-in fill and over 50 percent less for side cast borrow fill. Our experience has also shown us that when building floodgates across navigable canals and channel we can build our "steel swing barge" floodgates for 35 percent to 85 percent less than the conventional monolithic type sector gates depending on the size requirements and floodwall lengths.

In closing, if these type "reduced cost" features can be included in our hazard mitigation projects, we should be able to "build more for less" and move closer to a sustainable coastal Louisiana that we're all trying to accomplish.

Senator LANDRIEU. Thank you so much. We are going to have a round of questions and probably go to about 12:30 p.m., and I appreciate your patience. I think this is so very, very important.

I want to underscore two things that I heard. Everything was important. But what Garret Graves said, and I think, General Peabody, I know that you were listening intently, and I think this is a point worth underscoring, that COE is itself responsible for a greater wetlands loss than all of these parishes sitting at the table when we leveed the Mississippi River and the inability of that river to overflow and to create the delta.

COE itself is responsible for significant wetlands loss when you look at it from the big picture, not the specifics. And so for COE to advocate for very, very steep mitigation requirements for other local governments if it does not even apply it to itself is a real issue at the very highest of policy level, which I intend to bring directly to the President of the United States and to the members of the Congress that I serve with. Because it is about time that COE itself takes responsibility for its impacts to the loss of wetlands in Louisiana, and those studies have been well documented from

every international, independent enterprise that has looked at what our bigger problem is.

Second, the big picture is that we cannot, as a State—it is not fair to ask the citizens of Louisiana to bear the entire cost or a significant cost for the draining of the entire continent. Forty to 50 percent of the continent drains through Billy Nungesser's parish and the river parishes. And what does not drain through rains through the rivers of the Pearl, the Tchefuncte, and the Washita. You could go on and on. I mean, we are the bottom of the barrel, and it is just inconceivable that the Federal Government's policies would be, well, that is the problem for the people of Louisiana to solve. No, it is not.

Which is why 15 years ago I looked at the pitiful COE budget and decided it would be a long time to fix it—I did not realize it would be that long—and started to find other money through revenue-sharing, and why we fought so hard and succeeded in that against all odds, and why we have focused recently on passing the RESTORE Act, which you are looking at the three of the co-sponsors. And for the first time in our Nation's history, we will receive when the BP penalty is paid anywhere from $5 billion to $20 billion that is going to be invested in the gulf coast with the largest portion of that coming to Louisiana.

So while I recognize, and I am alarmed at, the budget of COE, I am not waiting around for it to be transformed. I am going to push for it, but we are working on other avenues.

Now, to you, Mr. Graves, and I let you know that I would ask this question because it is very, very important to us. I am aware of what the Federal Government has provided, and I am going to get to that in just 1 minute here. Since 1990, the Federal Government has authorized and funded programs providing billions of dollars to our State.

First, the SEAP money, which is Federal money, came to the State for a total of $500 million. CWPPRA, which is again Federal money, has provided over $720 million in the last 10 years. The RESTORE Act, which we just passed, is going to be bring anywhere from $2 billion to $6 billion to Louisiana. And the Gulf of Mexico Energy Security Act, which was also passed, will bring in millions of dollars starting in 2017 unless I can get it advanced and the cap lifted, which we are working on.

In addition, the Federal money to the State has been $14.5 billion for the system we just talked about. Most of that has been obligated.

What is the State contributing to our master plan? And please do not reflect any of these dollars.

Mr. GRAVES. Sure.

Senator LANDRIEU. What is the State of Louisiana putting up, and how much have you put up in the last 5 years?

Mr. GRAVES. Sure. Madam Chair, first of all, I think it is important to point out that on the hurricane protection system dollars, the State has been asked to cost share. We have signed agreements cost-sharing $1.8 billion on the hurricane protection——

Senator LANDRIEU. $1.8 billion that the State has to put up of its own money, not using any of this money?

Mr. GRAVES. Right now, yes, ma'am.

Senator LANDRIEU. You cannot use any of this money. You cannot use CWPPRA or RESTORE Act money?

Mr. GRAVES. RESTORE Act money possibly. Possibly RESTORE Act money. Right now that is not how we budgeted it.

Senator LANDRIEU. Okay. If you did not use RESTORE Act money, where would you get your $1.8 billion from?

Mr. GRAVES. There is a State trust fund that was set up that is actually constitutionally protected that draws money from State oil and gas revenues.

Senator LANDRIEU. How much do you have in it?

Mr. GRAVES. The trust fund right now probably has a total balance of somewhere around $700 million.

Senator LANDRIEU. Is that the rainy day fund?

Mr. GRAVES. No, ma'am. No, ma'am. That is the coastal protection and restoration fund.

Senator LANDRIEU. Okay, $700 million, and that comes from where?

Mr. GRAVES. That is primarily from oil and gas revenues on State lands and waters.

Senator LANDRIEU. Okay. So you have $700 million to build the master plan. What else?

Mr. GRAVES. That is the balance of the trust fund, but we have committed about $2 billion in projects over the last probably about——

Senator LANDRIEU. Out of this trust fund.

Mr. GRAVES. Out of the——

Senator LANDRIEU. Not any Federal money.

Mr. GRAVES. Out of the trust fund. That includes—let me think. That does include some corporate dollars. To answer your question——

Senator LANDRIEU. Well, what I would like you to do is you could——

Mr. GRAVES. Sure.

Senator LANDRIEU [continuing]. Because I really need the answer to this question.

Mr. GRAVES. Sure.

Senator LANDRIEU. I need to know how many State dollars the State of Louisiana has put into this master plan of flood protection, not CWPPRA dollars, not SEAP dollars, not RESTORE dollars, not Federal revenue-sharing, your own hard cash, okay? And I need that submitted to the subcommittee.

Mr. GRAVES. Sure.

Senator LANDRIEU. All right. Let me ask one more question. The parish presidents all represented today you all have been thinking about and you have testified about how you are going to come up with your match. Right now, the match is 25 percent. In order to get to a 90/10, the State has to file damage in excess of $593 million. We have only filed $168 million, okay? We have to get to $593 million to be able to get to 90/10, and we have only filed to $168 million. So it is unlikely that we will get to a 90/10 match.

Now, our Governor has sent a public letter asking for 100-percent reimbursement. Now I want to say on the public record the Governor did not help in any way to put money into this fund when I asked him for his help. He declined. The fund has $1 billion in

it thanks to this delegation. He did not help put a dime into that fund, but he has asked for 100-percent reimbursement from it.

Do the State parish presidents know that you have the State Emergency Response Fund (SERF), which has a balance of $16.5 million. The FEMA reimbursement fund has a balance—this is State money—of $16.5 million. The Inter-Emergency Board Fund has a balance of $4.6 million. The budget stabilization fund, also known as the rainy day fund, has a balance of $443 million. I think we had a rainy day on August 29. Would you all agree? And last week, the State declared a surplus of $130 million. So right now today as we sit, the State of Louisiana has almost $500 million of unobligated funds.

Now that you know this, would you be inclined to ask the State to maybe put up your 25 percent or your 10 percent since your parishes have been hit over and over again, Ms. Brister?

Ms. BRISTER. Not only are we inclined to, but I have signed a letter to that effect to the Governor.

Senator LANDRIEU. Ms. Robottom?

Ms. ROBOTTOM. Yes, we have signed on as well.

Senator LANDRIEU. President Young—Mr. Young?

Mr. YOUNG. Yes, we will ask.

Senator LANDRIEU. Mr. Nungesser.

Mr. NUNGESSER. Yes.

Senator LANDRIEU. Thank you, because that would be a good place to start.

And then I will turn it over to Senator Vitter.

Senator VITTER. Thank you, Madam Chair. I want to follow up with Garret and Neil about COE reform. Both of them mentioned ideas in that regard. I have filed legislation to move the project around responsibility of many COE projects to the State and local government. That is the norm with highways. It is the great exception for some reason.

What do think that could do in appropriate cases to lower costs in the timeframe?

Mr. GRAVES. Senator, I think that the Morganza to the Gulf project is a perfect example and certainly one that Mr. Malbrough has a lot of experience in.

There are rumors going around right now that that project's cost estimate could reach numbers as high in excess of $12 billion. According to protection that the State, the parish, and the levee district have come up with, we believe we can do it for somewhere around a quarter to a third of that amount, saving billions and billions of dollars.

So I think without question we can cut the time periods probably in half if not better, and on the dollars saving as much as two-thirds on the project cost.

Mr. MALBROUGH. Yes. I agree, too. And my first inkling would be the funding structure that the highway department—Federal Highway Department structure would, in fact, drive significantly the thing.

The other thing is, and I talked a little bit about it in my original talk, is innovation. We have got to be able to use the construction techniques and things that we can do now that we do in most of the construction. And I do not want to get too technical, but when

you talk about semi-lightweight concrete, post inching, and construction, strand post tensioning, and a whole bunch of ways that you see this building was built and a whole lot of other things, in some cases do not meet that criteria. And technically, there is nothing wrong with that, and we should be looking at innovative construction techniques to do that.

And then the second thing is that to put in place a degree of urgency, the time element to what we are doing. We talk about in this we have participated in a number of studies, the Morganza to the Gulf feasibility study, the dollars to the gulf feasibility study, the Acadian Gulf of Mexico Access Channel feasibility study. We watched the west shore—Lake Pontchartrain levee district.

We have got to come up with some kind of system that drives the urgency of completing the thing in a timely manner because if you get too long, then the community you are trying to save has changed. And you end up with things that in some cases do not make sense. So we have got to do those three things: a funding structure change, innovation, and a degree of urgency to that planning effort.

Mr. NUNGESSER. Yes. You know, exactly what you are talking about, Plaquemines Parish has just bonded out $50 million for our coastal plan. And we work with COE. We partner with them to get a certified plan. And Craig Fugate wrote a letter that said they will recognize this plan once it is in place.

But the reason we decided to bond out $50 million of our money to start the plan, which will lower storm surge 5 feet to our parish, is because we believe by leasing a dredge for 3 years, we are going to cut the costs of moving material, I will go out on a limb and say by one-half.

We go out and do a dredge project, $7 million, $1.5 million is mob and demob. We come in, we go out 3 months later 100 yards from there and do another project. The mob and demob, we are spending more money than moving material. So why do we not long-term lease these dredges and put them to work on a long-term basis and get that cost down so we are moving material, building land, building protection?

And I guess if you take all the projects we have done and look at the money we have spent putting that pipe in my parish—we have put the pipe in four times since I have been parish president at a cost of over $2 million, taking it out and putting it back in the same place. So we are securing right-of-ways and putting pipes in that we will leave there so the money can go out in the marsh.

And, we got welding jobs. We do not need to pay these welders to put this pipe in place over and over again. And by putting these projects together in the long-term—and we are going to show it. By the first of the year, we will have a lease on a dredge for 3 years, and we are going to embarrass them, hopefully, into doing things in a smarter way and spending that money better.

Senator LANDRIEU. Yes?

Mr. YOUNG. Senator, just real quick, I support your effort in that regard, and obviously the model is the Federal highway, the way we deal with the Federal highway through the State and local governments, and we get the highway projects done.

But in the interim, we know that when COE is in emergency mode it can do a lot better than when it is in regular COE mode. And I will just point out the example being the western closure complex. That is the largest pump station in the world that COE got built since Hurricane Katrina, and it is operational today.

So when there is a will, as Congressman Richmond said, there is a way.

Senator LANDRIEU. And the money.

Senator VITTER. Thank you.

Representative RICHMOND. First of all, let me just thank the parish presidents. President Robottom, you came up to DC last week to express the needs of the residents of the Parish of St. John. John, you were up a couple of days before her, and, Billy, you and I have talked. And, Pat, I know what you are doing. So just thank you for, one, the coordinated effort to make sure that we are talking with one voice as much as possible. I think that that certainly helps.

Garret, you mentioned earlier—and the analogy I always use, especially during football season, although this is a painful one, is that we spend too much time in the huddle, and we do not go run the plays. That is what we are going to have to do, and it seems like we are just stuck on planning and not executing.

But one thing, Garret, we could do, and I think it would do a great service to Louisiana, is to make sure that we try as much as possible to speak with one voice. I will give Senator Landrieu a lot of credit, although I also introduced a bill to make sure that we did not have to pay-fors for disaster assistance in this country. It is the wrong way to go.

But when we are fighting for that, it hurts us tremendously when the Governor comes out and endorses a pay-for for disaster assistance when I did not get a chance to ask Administrator Fugate. But I am sure that if there was a need for Democrats and Republicans to agree on what to cut before we help people in Louisiana, we would be so far behind where we are right now.

So the need to speak with a consistent voice, I think is very important. And the ability for the State to use Federal resources and to ask for Federal resources to help the great citizens of Louisiana is also important.

So we need to just be consistent with do we want Federal help, do we not want Federal help, do we need pay-fors for disaster assistance? So the more we can be coordinated on that, I think it would help us.

Mr. GRAVES. Congressman, I could not agree with you more. And one of the greatest things about the job that I get to work on is everybody believes that our coasts need to be restored, and everybody believes we need hurricane protection. It is not a partisan issue, and it has been great being able to work on something that everybody believes in.

In regard to the Governor's letter and the budget situation and everything else, I think there are a couple of points that are really important. These communities that are flooded, whether it is LaPlace, whether it is Braithwaithe, the north shore—these communities date back 300 years; they have been around. They did not flood like this. They would not exist if they flooded on a repetitive

basis. Lafitte would not be around if they flooded four times every 6 years. Those folks would have moved.

As a result of the 1,900 square miles of land we have lost, these communities have become more vulnerable. And as Senator Landrieu said, they are vulnerable because of COE's actions. And so I think there is some justification for asking that FEMA participate financially in some cases more than they do in other areas. But I agree with you that we need to look at this holistically. We need to take a better look at this.

The State is the only one right now paying for the Morganza to the Gulf project, the Rose to Golden Meadow project, the work in Lafitte, the Louisiana Coastal Area project. And so I think we need to look at this holistically and figure out, instead of fighting about where money comes from and things like that, figure out who is going to do what. What is COE going to do, what is FEMA going to do, and what are the State, levee districts, and parishes going to do?

One of the most dangerous things we can do is have these projects out there that are in limbo without being to tell these people, you are going to have your project in 10 years. The people in west shore for 40 years have thought they are going to have protection. That is not okay. They do not know if they should move, if they should elevate their home, move their business, make economic development investments. That limbo situation is more dangerous than anything else, and I think it is very important that we look at this holistically.

The State has incurred billions of dollars in liability over the past few years in expenses that previously we did not cover. So, comments about the cost-sharing and things like that, I think it would be appropriate to look at it more holistically, including the increased vulnerability that our State experiences as a result of Federal action.

Representative RICHMOND. I want to be clear. I agree with you 100 percent, and I think FEMA should pay, and I think they should pay more. But my point is still the same. They cannot pay more if the Governor's position is we should have a pay-for before FEMA can do anything because the Congress that I serve in, Democrats and Republicans are not agreeing on anything. And if they had to agree on where to cut around the country, cut other people's funding to give us money, I think that it would not happy. And it would certainly slow our progress.

So when I say "one voice in funding," it is the fact that we are a great State that provides a great service to this country, and for that I think that the Federal Government should help us, especially for damages that they cause. But at the same time, I think that we need to be consistent in our position in terms of what we need.

And I say this privately, and I will say it publicly. Now, the needs of the State of Louisiana are great. And it is because of those needs and the fact that I think Congress people and our Senators are the best able to identify needs, which is why, in my opinion, you need to have congressionally directed spending, because you all get a chance to come and meet with us. You do not get the chance to meet with the President. You are going to have spending di-

rected from somewhere. It is either going to be the White House that has a larger disconnect with you all, or it can us where you all can actually talk to us and tell us the needs to have closure complexes and to do those things.

So, I would just caution that we do not have the luxury of being very partisan in Louisiana because our needs are too great, and our people are too vulnerable. And to that extent, the more we can talk with one voice and the more we can work in a bipartisan manner, the better we are going to be.

And the best example is the RESTORE Act, in which the delegation came together—Senator Vitter, Senator Landrieu, and the congressional delegation—to do really almost an impossible task, is just the best example of what we can do when we decide to put the party labels and just put Louisiana first.

So, Senator Landrieu, thank you for having this——

Senator LANDRIEU. Excellent way to end. As you all know, I want to thank our witnesses again. I thank Administrator Fugate, General Peabody, all our parish presidents, and particularly, Mr. Graves, you and Mr. Malbrough for giving your views as well.

ADDITIONAL COMMITTEE QUESTIONS

We will keep this record open for 2 weeks. I encourage the parish presidents to add to this record. Your statements and testimony were right on point. But you should submit your cost estimates and your requirements for your levees.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

[Responses from the Louisiana Governor's Office to questions for the record were not made available to the subcommittee.]

QUESTIONS SUBMITTED TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY

WATERWAY DEBRIS REMOVAL

Question. At least five different Federal agencies could have jurisdiction over waterway debris removal—FEMA, the Corps of Engineers, the Coast Guard, the Natural Resource Conservation Service (NRCS) at the Department of Agriculture, and the Environmental Protection Agency. There is no uniform Federal procedure to determine responsibility for waterway debris removal. Therefore, parishes might have to follow different rules for NRCS waterways, federally regulated navigation channels, ports and harbors, public drainage canals, and privately owned waterways.

Administrator Fugate you agreed to look into designating a lead Federal agency for debris removal during disasters. Will this recommendation be implemented?

Answer. After a disaster, local and State governments have primary responsibility for removing debris resulting from the disaster. If the local and State governments are overwhelmed, they may request direct assistance from the Federal Government, and FEMA will mission assign the U.S. Army Corps of Engineers (USACE) to remove the debris on behalf of the State and local jurisdictions. Generally after a disaster, FEMA Public Assistance (PA) assembles a debris management team for the size and scope of the disaster. This team is responsible for providing debris-related technical assistance to applicants for the timely, efficient, and accurate production of PA grants for debris operations. PA's major responsibilities in supporting debris operations include: identifying major debris issues and applicants with potential debris problems (based on PDAs and in conjunction with the State); developing and implementing a PA Debris Operations Strategy; reviewing applicants' debris management plans and contracts; coordinating debris-related mission assignments; and formulating, developing, and writing PA subgrants. This process is conducted through coordination with the State and applicants to identify needs and actions to be taken. During the process of identifying damage and scoping work, sometimes

debris removal work is identified that falls under the authority of another Federal agency due to the location of the project. In these instances, FEMA coordinates with the other Federal agency, the State, and applicants to assess the scope of work and identify available resources. For example, when an applicant requests public assistance for work that FEMA considers to be within the authority of another Federal agency, FEMA will ask the specific Federal agency with responsibility to review the request and advise FEMA whether the work would be eligible under that agency's authority. If the work is outside of that agency's statutory authority, FEMA will evaluate the work for eligibility under the Stafford Act. FEMA's role is that of a lead coordinating agency for the response to and recovery from a major disaster.

In that role, FEMA coordinates with other Federal agencies that have their own statutory authorities to implement and resources that they can bring to bear in support of State and local efforts to respond to a disaster incident.

Question. What else can be done, specifically, to lessen the confusion and inefficiencies of dealing with each Federal agency's varying requirements and authorities?

Answer. Memorandums of Understanding (MOUs) between agencies help to clarify roles and responsibilities for efficient response to disaster impacts. In September 2010, FEMA executed a MOU with USACE and the Environmental Protection Agency (EPA) to define the leadership and support roles and responsibilities in contaminated debris missions. FEMA is engaged with Natural Resources Conservation Service (NRCS) to develop a memorandum of understanding to delineate the authorities, roles, and responsibilities of FEMA and NRCS.

Question. How is the debris removal effort being coordinated in Louisiana for Hurricane Isaac?

Answer. FEMA established a debris operations cell at the Joint Field Office (JFO) for United States Army Corps of Engineers, NRCS, and FEMA. Currently, FEMA is funding debris operations in 52 parishes and has approved private property debris removal in four of those parishes. As of November 28, 2012, more than $61 million has been obligated for debris removal. NRCS has also prepared disaster survey reports as requested by several parishes and local governments for projects under the authority of the Emergency Watershed Program (EWP). FEMA and NRCS are working together to identify the projects that fall within each respective agency's authorities to maximize funding and avoid duplication. FEMA is also reviewing NRCS projects that exceed the funding available from the EWP and determining if FEMA's Stafford Act authorities can be applied to provide funding.

Louisiana has estimated debris removal costs to be $4.6 million within the waterways under NRCS jurisdiction, but the agency has only made $1 million available to complete the work because it is so low on funding. Once the money runs out, FEMA will not step in to cover the unmet need. This issue is not specific to Louisiana. The Emergency Watershed Program is over-subscribed by $127 million, with 16 States on the wait list. I have written to the President urging him to request additional funding for the program.

Question. As head of the Federal coordinating agency for this recovery, what is your plan to ensure timely removal of debris from NRCS waterways, so as not to exacerbate the threat of flooding and create more problems in the next disaster?

Answer. FEMA is coordinating with NRCS to identify the most efficient means of removing debris from NRCS waterways within each agency's respective authorities. Additionally, FEMA is engaged with NRCS to develop a memorandum of understanding to delineate the authorities, roles, and responsibilities of FEMA and NRCS. For example, with regard to Hurricane Isaac, FEMA, in coordination with NRCS, the State of Louisiana, and Plaquemines Parish, was able to find a solution that will provide assistance to the parish to address threats posed by debris affecting the parish's drainage system.

CASE MANAGEMENT

Question. Case managers help connect disaster-affected families with resources like employment assistance, temporary housing, and food. Congress authorized Federal support for disaster case management in 2006 after Katrina demonstrated the value of utilizing nonprofit organizations to help storm survivors locate the help they need to get back on their feet.

Mr. Fugate, you testified that instead of activating the Federal contract, "it was determined to utilize the State capabilities to do case management" but that FEMA is working with the State to implement the program and to potentially provide FEMA funding for the services provided by the State.

Paul Parsons, FEMA Disaster Case Management Lead and Program Specialist, along with other representatives from FEMA and the Administration of Children

and Families, submitted a Disaster Case Management Program Assessment on September 16, 2012. The assessment covered 21 parishes designated for Individual Assistance and included interviews with State and local emergency managers, social service directors, and voluntary agencies. The report identified a need for immediate and long-term case management in numerous Louisiana parishes and demonstrating vulnerability risks of poverty, low literacy rates, high pre-disaster unemployment, and a large population of children in those areas.

The assessment also identified: "diminished capacity" to "conduct immediate disaster case management" in six parishes; "limitations with resources and funding" and "diminished capacity" to "conduct long-term disaster case management" in seven parishes; low levels of "community agency activity in disaster recovery" in nine parishes; eight parishes without immediate resources available to conduct disaster case management; and across the entire disaster-affected area it cited "a high level of immediate needs including housing, counseling services, muckout/cleaning services and assistance with navigating the FEMA application process. . . a high level of long-term disaster caused unmet needs. . . (and) limited resources to meet long-term disaster caused unmet needs." For example, it states that "In St. John the Baptist Parish, there is a demonstrated need for both immediate and long-term case management. . . according to data collected from the Parish Office of Emergency Management and United Way there are no local agencies with experience in disaster case management, limited staffing resources and no infrastructure in place to provide disaster case management. Additionally, the local social services office is currently closed due to flooding, school and childcare offices are closed. . . (and) voluntary agencies. . . are having challenges in organizing and distributing (resources). In the longer term, there are numerous identified needs—as of the date of this report there are over 11,000 Individual Assistance registrations with 46 max grants and high proportions of persons displaced (and) there is a high level of severely damaged or destroyed homes." The report concludes that "based on the high level of disaster impacts, diminished capacity for disaster case management and the ability to connect disaster survivors to resources as well as increased vulnerability risks, an enhanced focus is recommended on Saint John the Baptist, Saint Bernard Parish, Saint Tammany Parish and Plaquemines Parishes." In addition to those four parishes, the report cited "a moderate need for Federal Assistance in Disaster Case Management" in another 12 parishes.

In other words, the report painted a stark picture of significant unmet disaster-related needs and a demonstrated need for disaster case management on the ground. After reviewing the report, the State of Louisiana asked FEMA for help. Dr. Rhenda Hodnett, Child Welfare Administrator at the Louisiana Department of Children and Family Services, submitted a request to Mr. Parsons on September 19, 2012, 3 days after the report was issued, specifically requesting six coordination specialists for a period of 30 days to help staff the State's 211 call centers and 35 case managers for a period of 90 days to work in eight affected parishes. The request indicates the exact number of case managers the State would like to allocate to each of those eight parishes. In her request, Dr. Hodnett references the contract that FEMA chose not to activate, in saying "It is my understanding that ACF maintains a contract with Catholic Charities USA and through this means, has the ability to expand the number of case managers currently providing services in these parishes as the need dictates."

Based on the finding of a demonstrated need for Disaster Case Management that FEMA and ACF reported on September 16, and the State of Louisiana's request for case management support from the Federal Government on September 19, I cannot understand why FEMA and ACF did not activate the Catholic Charities contract?

Answer. When a major disaster declaration is approved for Individual Assistance and it includes a request for Disaster Case Management (DCM) Services, FEMA automatically initiates a DCM assessment. This assessment is utilized to determine the level of need as well as the capability of partners at the State and local level. The assessment looks at the following factors: disaster impacts, case management capacity, vulnerability risk factors for certain populations, and FEMA registration information. Based on the DCM assessment completed for this event, it was determined that providing Immediate DCM Services through HHS ACF was not the most effective and cost-efficient method for providing DCM Services in Louisiana following Hurricane Isaac. The assessment revealed that there was a strong need for local resource coordination and the most efficient alternative for filling this resource gap was to mission assign AmeriCorps members to identify available local resources and connect localities in need with appropriate resources.

Question. Who had responsibility for reviewing the September 16 report and making the decision about whether and how to provide Federal assistance?

Answer. FEMA had the responsibility, via the Robert T. Stafford Disaster Relief and Emergency Assistance Act, section 426.

Question. Who made the final decision to rely exclusively on State and local capability and not the Federal contract?

Answer. FEMA made the decision based on the results of the DCM Assessment, which considers the following factors: disaster impacts, case management capacity, vulnerability risk for certain populations, and FEMA registration information.

Question. Has FEMA responded to the State of Louisiana's request for Federal disaster case management assistance dated September 19, 2012? If so, please provide a copy of that response.

Answer. [Copy provided separately.]

Question. The FEMA/ACF needs assessment references a score of 162 without explaining what data was used to develop that score or whether there are specific numerical thresholds to demonstrate a low, moderate, or high need for disaster case management. What were the specific data that resulted in this score?

Answer. The following data is used to complete the assessment for DCM: the Preliminary Damage Assessment data provided by the State in support of the request for a Major Disaster Declaration, Census Data, Bureau of Labor Statistics, Department of Education Statistics, FEMA Disaster Data (i.e., registration, inspection, damage assessments, etc.), as well as survey information regarding the capacity of the State and local governments and voluntary sector. Once the assessment is completed, FEMA asks local voluntary organizations, through coordination with the identified lead State agency for case management, to complete a Capacity Survey to capture specific resources identified as lacking in the initial needs assessment. The results of the surveys revealed that there was a strong need for local resource coordination and the most efficient alternative for filling this resource gap was to mission assign AmeriCorps members to identify available local resources and connect localities in need with appropriate resources.

Question. How many case managers have been deployed to Disaster Recovery Centers, and how many hours have they worked at each Center?

Answer. FEMA does not provide case managers in DRCs; however, State and voluntary agency partners do provide these services in DRCs. FEMA does not track the number of case managers in DRCs.

Question. How many case managers were deployed to shelters, and how many hours did they work at each one?

Answer. The American Red Cross provided case workers in the shelters. FEMA does not track that information.

Question. Has FEMA now funded a case management grant for the State of Louisiana? If so, for how much? If not, what do you need in order to proceed?

Answer. FEMA received the State's revised application for a DCM Grant on November 30, 2012. FEMA is currently in the process of finalizing its review of the State DCM grant application, which requests a grant of over $6 million.

RENTAL HOUSING—TRACKING PROXIMITY AND PLACEMENTS

Question. We don't know how many people are occupying FEMA-funded rental units, as a result of Hurricane Isaac, since FEMA tracks the number of people approved for rental assistance, but not how many placements there are. Further, despite an emphasis by FEMA on placing people in temporary housing closest to their permanent home, there is no information about the actual distances from their damaged home to their temporary housing unit for Hurricane Isaac survivors.

Why doesn't FEMA measure the distance between damaged properties that FEMA inspects and the rental units these households eventually occupy?

Answer. The Stafford Act provides FEMA the authority to provide financial assistance to applicants to rent alternate housing accommodations; which is further implemented in 44 CFR 206.117, which does not explicitly state that FEMA should or has the authority to limit the distance, or monitor the distance, from the damaged residence to the temporary rental unit. Although FEMA's authority or regulations do not require FEMA to measure the distance between the damaged residence and the temporary residence, FEMA does take into consideration the normal commuting patterns of the area and a reasonable commuting distance of the declared area when determining if a direct housing mission is needed.

Question. Why doesn't FEMA track the number of people who have been placed in a rental unit, instead of simply tracking the number of people that qualify for rental assistance?

Answer. The Individuals and Households Program provides assistance to a household, which includes all persons who lived in the pre-disaster residence who request assistance, as well as any person who was not present at the time of the disaster,

but who are expected to return during the assistance period (e.g., college student, infant, etc.). FEMA's application for disaster assistance (FEMA Form 009–0–1, OMB Collection 1660–0002) inquires about the occupants living in the primary residence at the time of the disaster. Since FEMA assists all persons residing in the pre-disaster residence on a single application, FEMA's assistance is provided to the household. However, FEMA does take into consideration the total number of occupants in the household when determining eligibility for continued financial temporary housing assistance (i.e., rental assistance).

TRANSITION OF RESPONSIBILITY TO OTHER FEDERAL AGENCIES FOR RECOVERY

Question. No matter the size of the disaster, a smooth transition from response to recovery, and a coordinated Federal, State, and local effort is critical. In September 2011, FEMA published the National Disaster Recovery Framework in recognition that a coordinated effort is needed. It intends to lay out how Federal agencies will effectively organize and operate to promote effective recovery and support States.

How exactly will the National Disaster Recovery Framework be executed to ensure a smooth transition that promotes a common sense and cost-effective recovery?

Answer. To ensure a smooth transition, the National Disaster Recovery Framework Support Group for Hurricane Isaac in Louisiana was integrated into the joint field operations as early as September 19 when the State of Louisiana appointed a State Disaster Recovery Coordinator (SDRC) and requested designation of a Federal Disaster Recovery Coordinator (FDRC), who was appointed by FEMA region 6 on September 21. By working closely with the SDRC and involving parish leadership from the heavily impacted parishes, who in turn appointed Local Disaster Recovery Managers, the joint NDRF Support Group was able to begin the process of leveraging existing Federal and private sector resources in order to build capacity and resilience at the State and local level. Currently, recovery support efforts are centered on St. John the Baptist, Plaquemines, New Orleans, St. Tammany, and Jefferson Parishes. In addition, six State agencies and three Non-Governmental Organizations (NGOs) have been approached and are taking part in these efforts.

Question. Please provide an example of this framework in action and how it will be used specifically in Hurricane Isaac recovery?

Answer. One of the first actions initiated by the FDRC was to execute mission assignments to the primary coordinating agencies responsible for implementing the recovery support functions (RSF). These agencies deployed field staff to the JFO and quickly began conducting initial mission scoping assessments, by sector, to identify opportunities to support the State and local officials and improve resiliency for future disasters. Currently, the Community Planning and Capacity Building (CPCB) RSF, whose lead agency is FEMA, is working with the Housing RSF and the State-Led Disaster Housing Task Force in four parishes: St. Tammany, Jefferson, Plaquemines, and St. John the Baptist. The CPCB RSF is helping to identity the housing needs of the parishes while also supporting the efforts of the State-Led Disaster Housing Task Force's specific housing plans. HUD is working with the State to provide resources and reallocate funds as necessary. Additionally, the CBCP, under the NDRF, will provide technical assistance to the parishes to help them implement existing recovery and rebuilding plans or proposed plans. The NDRF Support Group and the local recovery managers will jointly participate in community engagement efforts to identify potential recovery projects and initiatives, and identify a broad set of stakeholders for implementation. Additionally, the NDRF Support Group will identify performance measures, and metrics to track NDRF support implementation progress.

Question. Who, specifically, should Congress hold accountable for it working?

Answer. The signatory agencies and departments responsible for the implementation of the NDRF are accountable for it working. They are:

—Department of Homeland Security, Federal Emergency Management Agency;
—Department of Housing and Urban Development;
—Department of Interior;
—Department of Commerce;
—U.S. Army Corps of Engineers; and
—Department of Health and Human Services, and other Recovery Support Functions primary and support agencies.

STATE RAINY DAY FUNDS

Question. Administrator Fugate, you have experience as an emergency manager in Florida. Of course now, in your role as the head of FEMA, you have seen how different States across the Nation finance disaster response and recovery efforts.

Do many States establish special accounts to ensure funding is available to match the Federal support that is provided when a disaster strikes? If so, who does it best and why?

Answer. States may establish reserve accounts or "rainy-day" funds to provide an additional resource when disasters occur. The establishment and management of such State rainy-day funds is at the discretion of each State.

Question. In most disasters, the Federal share of disaster funding is 75 percent, and the non-Federal share is 25 percent. Does anything prevent the State from matching these costs, or is it wholly the responsibility of the parish to match the Federal contribution?

Answer. How the non-Federal share of FEMA public assistance grant funding is distributed is at the discretion of each State.

FOOD ASSISTANCE

Question. The Disaster–Supplemental Nutrition Program (D–SNAP) provides necessary food assistance to households that have been stricken by disaster. After the State bungled the D–SNAP registration process for Hurricane Gustav in 2008, it promised changes. Unfortunately, many of the same problems have returned in the wake of Isaac: confusing registration information, hours-long lines in the hot sun, and inconvenient opening and closing hours that make it difficult for many people to sign-up.

The State has made attempts to fix these issues, and it is understandable that some delays are inevitable when so many people need help. However, it makes no sense that the sign-up process is not more customer-friendly.

As the coordinator of disasters, what technical assistance is FEMA providing to both USDA and to the State to ensure that D–SNAP registration is coordinated with other disaster assistance services and this program is run as competently and efficiently as possible?

I understand that the savings accounts of families are being counted as funds available for disaster needs, potentially disqualifying some from D–SNAP benefits. These savings are for their children's college, retirement, or to buy a home. Families should not be penalized because their savings are not in a tax-deferred account, or an investment portfolio. Exempting stockholdings but not savings is inconsistent.

What solution can FEMA, in coordination with USDA, derive to make this disaster assistance fairer?

Answer. The delivery of recovery assistance by FEMA and the U.S. Department of Agriculture Food and Nutrition Service (USDA–FNS) are distinct services authorized under unique statutory authorities. The primary responsibility for providing emergency food assistance rests with State and local governments and therefore the administration of D–SNAP is governed by USDA–FNS and the respective States. Further questions on D–SNAP should be directed to USDA–FNS.

MANUFACTURED HOUSING

Question. FEMA is evaluating existing commercial sites in southeast Louisiana, also known as RV parks, for placement and installation of park model units for displaced storm survivors who can't reoccupy their homes.

Can you update us on the status of this direct housing mission to provide manufactured housing units to Louisiana families in need?

Answer. There were 72 families approved for a Temporary Housing Unit (THU). Of this number, 29 families have been housed, three families are pending lease-in, one has received an insurance settlement to replace their mobile home, and 39 families declined a THU for various reasons such as found a resource, staying with family or friends because repairs would be completed within a short timeframe, or they simply did not want to live in a THU or in a commercial park. In this disaster, we could not place units on private sites due to flood zones and size constraints.

Question. Is FEMA also planning to provide park model homes for people at private sites, such as a driveway, so they can continue to live on their property while they work on repairing their home?

Answer. No, FEMA does not plan to provide park model homes for people at private sites so that they can continue to live on their property while repairing their damaged dwelling. Our direct housing team has been able to locate enough commercial pads to house everyone that was approved for a THU. There currently are three families that are waiting to move into a THU in a commercial park. Those units are in the process of being installed and our goal is to have all three families licensed in by the end of the week. At that point, everyone who was approved for a THU for this disaster will be housed.

REMAINING HURRICANES KATRINA AND RITA ISSUES

Question. The State of Louisiana has made repeated requests to meet with FEMA officials in Washington to discuss the so called "Global Summit" issues, resulting from Hurricanes Katrina and Rita, which were first presented in Baton Rouge in July 2011. Kevin Davis, Director of the Governor's Office of Homeland Security and Government Affairs, wrote to you again on September 13, 2012, to reiterate his request for a dialogue on these issues, but FEMA has refused to schedule the meeting so far and denied the State a chance to clearly explain its decisions and to ask questions about the Agency's policy determinations. Thousands of applicants and billions in funding are affected by these decisions, and I'm confounded by FEMA's unwillingness to simply sit down and have a structured conversation with the State's officials who are managing the largest recovery effort in our country's history. There is absolutely a need for FEMA to act on the State's long outstanding and very reasonable request. What day and time will this meeting occur?

Answer. FEMA will continue to work with the State of Louisiana to complete recovery efforts for Hurricanes Katrina and Rita, including continuing our meetings on the "Global Summit," and will work with the State in finalizing a date and time for the next meeting.

QUESTIONS SUBMITTED TO THE ARMY CORPS OF ENGINEERS

CORPS BUDGET

Question. What is the national backlog in authorized construction projects; and in operations and maintenance for Corps of Engineers projects?

Answer. The national backlog in authorized construction projects is approximately $60 billion; for Operation and Maintenance (O&M), the national backlog is $2.8 billion for the O&M account and $122 million for the Mississippi River and Tributaries (MR&T) O&M program.

Question. What is the Mississippi Valley Division backlog in authorized construction projects; and in operations and maintenance for Corps of Engineers projects?

Answer. The Mississippi Valley Division (MVD) backlog in authorized construction projects is approximately $19 billion; for operation and maintenance the MVD backlog is $510 million for the O&M account. The full $122 million backlog in the MR&T O&M program is within MVD.

PROVEN FLOOD CONTROL SUCCESS

Question. Recently, I wrote the President encouraging him to seek additional funding for Corps flood prevention projects that would save lives, protect property, and reduce the costs of future floods.

Can you give me five examples of Corps projects, built in the last 25 years, that have subsequently saved lives and property during major disasters? Please provide estimated costs of those projects and estimated savings that were produced in subsequent disasters.

Answer. The following Corps projects have contributed greatly to the protection of human life and defense from significant property damage during major disasters.

Mississippi River and Tributaries Project.—Over the life of the project, which is still pending completion, approximately $612 billion in damages have been prevented, for an investment of $14 billion. Most recently, the system was severely tested during the floods of 2011. The system operated as designed, protecting approximately 4 million people and preventing approximately $230 billion in property damage and destruction.

Red River of the North—Grand Forks, North Dakota and East Grand Forks, Minnesota.—The project consists of levees and floodwalls to protect a combined population of nearly 60,000 residents. The project was certified as substantially complete in July 2007. In spring 2011 the cities protected by this project experienced their third largest flood of record. During this event, flood damages of more than $350 million were estimated to have been prevented by the project. The total estimated project cost is $394 million.

Mark Twain Lake and Clarence Cannon Dam—Ralls and Monroe Counties, Missouri.—This 55,000-acre multi-purpose project was completed in 1984 at an estimated cost of $380 million. During the period of 1993–2011, over $1.7 billion in flood damages were estimated to have been prevented by this project.

Muscatine Island, Iowa.—The project was completed in June 2000 at a cost of $7.85 million and reduces flood risk to 30,800 acres of commercial, residential and agricultural properties in Muscatine County, Iowa. The project was responsible for

preventing disastrous flooding in 2001 and 2008. In 2001 the project prevented $223,536,100 worth of damages and in 2008 the project prevented $333,542,000 in damages. This project protects approximately 43,000 residents in the county.

Cedar Falls, Iowa.—The project was completed in 2003 at a cost of $6,430,000. The project reduces flood risk to downtown Cedar Falls and consists of 5,500 feet of levee and 1,400 feet of floodwalls and protects approximately 36,000 residents. The city's entire small business downtown would have been devastated by the Cedar River 2008 Flood, but the Corps project provided full protection with record flood levels to the top of the levee with no flood damage or loss of life. This could be contrasted with downstream at Cedar Rapids with no Corps levee where the Cedar River devastated the entire downtown. In 1999 the project prevented $5,817,600 worth of damages. In 2004 the project prevented $4,308,700 worth of damages. In 2008 $34,838,700 worth of damages were prevented.

New Bedford, Fox Point, and Stamford Hurricane Barriers.—New Bedford, Massachusetts; Providence, Rhode Island; Stamford, Connecticut. These three projects combined, prevented over $9.7 billion in damages from storms in 2011 and 2012:

—The New Bedford Hurricane Protection Barrier lies across New Bedford and Fairhaven Harbor. Completed in 1966, at a cost of $18.6 million, it protects about 1,400 acres in New Bedford, Fairhaven, and Acushnet, Massachusetts, from tidal flooding associated with hurricanes and coastal storms.

—The Fox Point project, completed in 1966 at a cost of $15 million, provides virtually complete protection against tidal flooding from hurricanes and other coastal storms to about 280 acres of downtown Providence, Rhode Island.

—The Stamford Hurricane Barrier, completed in 1969, at a cost of $14.5 million, provides protection to about 600 acres, which includes principal manufacturing plants, a portion of the main commercial district, and residential sections.

CORPS BENEFIT-TO-COST RATIO ANALYSIS

Question. While the Federal Government has partnered with the State and local governments to construct vital, effective flood protection levees in Louisiana, there are far too many areas left unprotected, including the parishes represented on the second panel. This is in part because the Corps has determined that their protection projects do not have the positive benefit to cost ratios necessary to proceed with Federal involvement. However, as a result of the lack of investment in levees and flood protection, FEMA has been required to pay billions of dollars in response to storm events.

Additionally, the contribution to the Nation in terms of oil and gas and seafood production—and the cost to the Nation if these could no longer produce these commodities—is not currently considered in determining the benefit-to-cost ratios. As I understand it, the "first line of defense" benefits that barrier island communities provide for larger inland metropolitan areas when a storm hits are also not considered.

Does the Corps consider the amount of money FEMA has paid related to disaster damage in the area being studied for possible protection—or the probability that they will incur expenses in the future?

Answer. The Corps does consider emergency costs in the National Economic Development (NED) benefits calculations. However, these benefits are based on anticipated future expenditures, not historical expenditures. Emergency costs include those expenses resulting from a flood that would not otherwise be incurred, such as the costs of evacuation and reoccupation, flood fighting, cleanup including hazardous and toxic waste cleanup, and disaster relief; increased costs of normal operations during the flood; and increased costs of police, fire, or military patrol. Emergency costs do not include certain items, such as FEMA expenditures to reconstruct or repair damaged properties since these damages are already captured in the NED benefit analysis for all Flood Risk Management analyses.

Question. Does the Corps consider insurance payouts?

Answer. The Corps does not directly consider historical insurance payouts in the calculation of benefits. Nor does it include as a project benefit any effect that occurs prior to project initiation. Estimates of flood damages reduced (benefits) are calculated as the difference in estimated future economic damage (to structures, their contents, infrastructure, and other damages such as emergency costs) without a project and with a project. This is done using a risk based analysis considering both probability (likelihood of occurrence) and consequence (how bad is the damage). Historical damages, including FEMA flood claim payouts, represent data that are helpful in validating and calibrating estimates of future damage, but are not appropriate for inclusion as a project benefit. This framework for project benefit inclusion is es-

tablished in ER 1105–2–100 in section 3–3 Flood Damage Reduction, and in Appendix D Economic and Social Considerations.

Question. Does the Corps consider the economic impact of major refineries, petrochemical plants, and coal transfer facilities being shut down for days or weeks as a result of flooding?

Answer. The Corps considers all NED impacts of flooding. Contributions to NED are increases in the net value of the national output of goods and services, expressed in monetary units. In addition, flooding will often also result in economic impacts that are not national impacts. These are called Regional Economic Development (RED) benefits and include benefits such as employment shifts from one region to another. RED benefits impact a region, not the Nation as a whole. The total economic impact of major refineries, petrochemical plants, and coal transfer facilities being shut down for days or weeks as a result of flooding requires very complex analyses to determine the various NED and RED impacts.

Question. Can you describe the factors that are considered in determining a benefit-to-cost ratio and are these factors set by statute or Corps regulations?

Answer. The Economic and Environmental Principles and Guidelines for Water and Land Related Resources Implementation Studies (P&G) 1983, are the rules that govern how Federal agencies evaluate proposed water resource development projects. Typically, Corps Flood Risk Management (FRM) analyses are based on NED benefits, although health and safety and loss of life are also important considerations. The objective of NED is to maximize increases in the net value of the national output of goods and services. Within the Corps, this is done by comparing the difference in the value (benefits) produced by the project to the value of the resources (costs) required to produce those goods and services or construct the project. Benefits are increases in the net value of national outputs (goods and services) and typically fall under the categories of physical damages, income losses, and emergency costs. The costs (opportunity costs) are the costs of the resources required or displaced to achieve the plan, such as concrete and steel for building a floodwall.

Question. Are there any statutes that prevent the Corps from amending the factors that are considered?

Answer. The Corps economic evaluation procedures have been developed to reflect and comply with the P&G, established pursuant to the Water Resources Planning Act of 1965 (Public Law 89–80), as amended (42 U.S.C. 1962a–2 and d–1). The P&G are comprised of two parts: The Economic and Environmental Principles for Water and Related Land Resources Implementation Studies and The Economic and Environmental Guidelines for Water and Related Land Resources Implementation Studies. Together both parts provide the framework for Corps of Engineers water resources planning studies. Additionally, independent review requirements (pursuant to the Information Quality Act and section 2034 of WRDA 2007) establish transparent review processes to assure Corps analyses are policy compliant and reflect sound economic theory and practice.

BENEFITS/NEEDS OF NEW ORLEANS METROPOLITAN AREA HURRICANE PROTECTION SYSTEM

Question. Last year's historic flooding along the Mississippi River provided a perfect example of how wise and timely investment in construction and maintenance can save lives, property, and resources. Analysis of benefits to cost for that system are still being analyzed but after decades of investment in the system, may be as high as 38-to-1 after last year's flooding.

Has the Corps done any comparable preliminary analysis on the benefits to cost of the post-Katrina New Orleans metropolitan area hurricane protection system?

Answer. The Corps has collected some information on reported flooding that has occurred in the area since Hurricane Katrina. The Corps has not computed flood damages or damages prevented for the post-Katrina greater New Orleans Hurricane and Storm Damage Risk Reduction System.

Question. What construction needs still exist for the system? What are the estimated costs?

Answer. As of September 2011 construction of the greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) had progressed to the point where the system is ready to defend against a 100-year storm surge, a surge with a 1-percent annual probability of occurrence. Of the $14.6 billion program $11.0 billion has been obligated through October 2012.

Major elements of the HSDRRS program remaining to be constructed and their approximate estimated costs are as follows:

—*Armoring.*—$320 million;

—*Environmental Mitigation.*—$250 million;

—*New Orleans to Venice and Plaquemines Parish Non-Federal Levees.*—$1.0 billion;
—*West Bank and Vicinity—Mississippi River Co-located Levees.*—$280 million;
—*Southeast LA (SELA) Urban Flood Damage Reduction.*—$1.0 billion; and
—Permanent Canal Closures and Pump Stations.—$750 million.

Question. What are the annual maintenance costs for the New Orleans protection system? What levee boards, drainage districts, and other local entities operate in this system and how is the Corps working with these entities to ensure that the system will operate as effectively and efficiently as possible in years to come?

Answer. Average annual operation and maintenance costs for the greater New Orleans Hurricane and Storm Damage Risk Reduction System, including the Lake Pontchartrain and vicinity; West Bank and vicinity; and Southeast Louisiana flood damage reduction projects are estimated at $38.8 million.

The Louisiana Coastal Protection and Restoration Authority (CPRA) served as the sole non-Federal sponsor for execution of the Project Partnership Agreements for the Lake Pontchartrain and vicinity; West Bank and vicinity; and Southeast Louisiana (SELA) projects. Accordingly, CPRA is the responsible agency for operation, maintenance, repair, rehabilitation and replacement of the projects and/or features thereof. In practice, the following subordinate and/or cooperative State and local agencies will carry out operations and maintenance activities on behalf of the non-Federal sponsor:

—Southeast LA Flood Protection Authorities East and West;
—Pontchartrain Levee District;
—East Jefferson Levee District;
—Orleans Levee District;
—Lake Borgne Basin Levee District;
—West Jefferson Levee District;
—Sewerage and Water Board of New Orleans;
—Jefferson Parish;
—Plaquemines Parish Government;
—St. Charles Parish; and
—Algiers Levee District.

Operations and Maintenance Cost Estimates.—To help prepare the non-Federal sponsor, flood protection authorities, levee districts and drainage districts for execution of their O&M responsibilities for the Lake Pontchartrain and Vicinity (LPV); West Bank and Vicinity (WBV); and Southeast Louisiana (SELA) flood risk reduction projects, the Corps commissioned the development of O&M cost estimates that may be used for planning to accomplish O&M in accordance with authorizing legislation, project partnership agreements, and operations manuals. The estimates have been provided to the non-Federal sponsor to assist them in estimating their annual O&M requirements/costs and to support their budgetary planning actions. The estimates provide a basis to determine annual variations in funding requirements and a basis for staffing and identifying required equipment. The estimates can also be easily expanded to include additional features with similar characteristics and can be viewed by individual category and task costs such as mowing, fuel requirements, periodic inspections, etc. The estimate model provides the ability to readily accommodate adjustments in labor rates, overhead rates, crew makeup, and/or other cost factors.

Strategic Partnership.—To facilitate an integrated approach to flood risk management in the greater New Orleans and southeast Louisiana region, the Corps, and the State and local agencies have for several years maintained regular dialog through participation in monthly strategic partnership meetings at which all manner of issues are discussed.

System Management Plan.—The Corps has drafted a System Management Plan to facilitate the effective governance and long-term sustainability of the HSDRRS. The primary objectives of the System Management Plan are to:

—Promote long-term sustainability;
—Ensure that senior executives and decisionmakers are aware of system readiness;
—Provide training opportunities for staff;
—Improve communications;
—Promote public awareness of risk and reliability;
—Periodically compare system performance with IPET recommendations;
—Provide for integration of State plans, Federal studies and projects with the HSDRRS; and
—Define long-term resource requirements for system sustainability.

MITIGATION

Question. A barrier in moving forward with vital flood protection efforts is that the current system for mitigating damage to wetlands is not working in coastal Louisiana. I understand that we have to mitigate, but we simply cannot complete projects that double in costs with each mitigation effort.

Instead, a more collaborative link between mitigation and restoration efforts should be fostered. I understand that parish governments have proposed restoration projects through two programs with Federal oversight given to them by the Coastal Wetlands Planning Protection and Restoration Act and the Coastal Zone Management Act. Those projects have been rejected for meeting mitigation requirements.

Can you explain why these types of projects are rejected for meeting mitigation projects?

Answer. Under the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA), a task force composed of Federal and State partners evaluates numerous coastal restoration projects proposed by a variety of sources, including parishes. The task force must rank proposed projects based solely on which provide greatest environmental benefit relative to cost, and select those projects yielding the most benefit for cost expended for inclusion on annual priority project lists. Funds to construct selected projects are appropriated upon availability.

The Federal Mitigation Rule states that aquatic resources that are restored, established, enhanced or preserved to satisfy the requirements of other Federal programs may not also be used for compensatory mitigation for Department of the Army (DA) permits, although district engineers may evaluate and approve on a case-by-case basis situations where a consolidated project is used to satisfy more than one set of requirements, provided the same resource is not "double counted." For example, if 10 acres of wetlands were needed as compensatory mitigation for a DA permit, and 10 acres were needed for some other Federal program, a 20-acre project could be authorized to fulfill the requirements of both, but the same 10-acre project could not.

A coastal zone consistency determination from the State of Louisiana pursuant to the Coastal Zone Management Act (CZMA) is required for any project occurring in the coastal zone. If the project requires DA permit authorization and the State denies CZMA approval, then the Corps cannot issue a DA permit. Proposed projects must comply with the State's coastal zone management program.

Question. What can the Corps do to pursue a more comprehensive, system-wide approach to mitigation, in order to move away from seemingly impossible regulations for small scale projects that are perhaps not as effective?

Answer. The Corps must comply with implementing regulations of the Mitigation Rule. The Corps is obligated to ensure that each and every permit decision complies with the Clean Water Act, including the requirement to adequately compensate for unavoidable impacts to aquatic resources using a watershed approach. The Corps recognizes the importance of balancing program flexibility with consistency and the need to better serve the public and protect important aquatic resources. Therefore, the Corps, in collaboration with other Federal and State agencies, also considers the landscape context and amount and quality of the proposed impacts that may be authorized to determine the appropriate compensatory mitigation.

Question. What can the Corps do to make mitigation more affordable and to ensure that vital flood protection projects can move forward?

Answer. The Corps cannot and does not regulate the costs of mitigation; applicants for DA permits have several options for meeting compensatory mitigation requirements, including use of mitigation banks, in-lieu fee programs, and permittee responsible mitigation. The cost of mitigation is not determined by the Corps but does include the total costs for providing the ecologically successful mitigation for the long term. The Corps, in coordination with other Federal agencies, strives to review and approve mitigation bank proposals in an expeditious manner, to provide the mitigation banking industry with the approvals needed to afford this mitigation option to the regulated community. However, the best way to reduce mitigation cost is to propose projects that avoid and minimize impacts to aquatic resources to reduce the requirements for compensatory mitigation.

PLAQUEMINES LEVEES

Question. After Hurricane Katrina, Congress appropriated $1.4 billion for the incorporation of Plaquemines Parish non-Federal levees into the Federal system to elevate all 34 miles of back levee on the West Bank of the parish. However, following publication ofpost-Katrina levee design guidelines, the Corps decided that all new construction, including this project, must comply with the new standards. This

doubled the cost to complete the project, which means that if the Corps decision is upheld, the available funds will not be sufficient.

Recognizing the budget climate in Washington, local officials have advocated for the Corps to use the original design standards to achieve a 50-year level of protection. If the Corps agrees, completion of the project as originally designed with available funding could be possible.

Please describe the issues and the benefits with both approaches from your view.

Answer. An overarching principle of the Hurricane HSDRRS (post-Katrina) Design Guidelines is to construct a project using a system-wide risk-based approach. However, in the case of Plaquemines Parish there are multiple existing authorizations (100-year and 50-year HSDRRS, as well as Mississippi River and tributaries) and funding/authority requirements are insufficient to complete an integrated system and implement the HSDRRS Design Guidelines in all of Plaquemines Parish. These complexities prevent the closing of three polders (westbank Non-Federal Levees (NFL) from Oakville to St. Jude, westbank New Orleans to Venice (NOV) from St. Jude to Venice, and eastbank NOV from Phoenix to Bohemia), thereby preventing the levees from functioning as an integrated system, or meet the congressional intent to reduce the risk to the affected region.

The Corps will perform a risk-based analysis on the NFL to be incorporated into the New Orleans to Venice (NOV) project (from Oakville to St. Jude), with an objective of "closing the gap" on the westbank and tie into the existing NOV back levees at St. Jude, if possible.

Additionally, a risk-based analysis will be performed on the existing westbank NOV polder from St. Jude to Venice, with an objective of identifying priority reaches for construction within available funds. These analyses will include consideration of application of the Engineering Manual (EM 1110–2–1913) criteria, as requested by Plaquemines Parish. These analyses will inform possible adjustments to the HSDRRS criteria for application to the levee systems in Plaquemines Parish, which could allow greater levee lengths to be completed with available funds.

Question. When will the Corps make a final decision?

Answer. The Corps Risk Management Center has developed a scope and schedule, in consultation with the local Corps district and the non-Federal sponsors, to complete these risk-based analyses for NFL from Oakville to St. Jude and NOV from St. Jude to Venice. The goal is to have the results of the analysis by mid May 2013 and make a decision on path forward by end of May 2013.

Question. Does the Corps have any plans or pending applications to upgrade flood protection on the East Bank of Plaquemines Parish?

Answer. On the East Bank of the Mississippi River between Phoenix and Bohemia, the existing NOV Federal levee is deficient to the 50-year level of risk reduction elevation. The Corps does not have any plans or pending applications to upgrade flood protection on the East Bank of Plaquemines Parish, except in two areas for which funding is currently available. These two areas are the Pointe a la Hache and Bellevue Pump stations fronting protection projects.

Between Caernarvon to Whites Ditch, there are 18 miles of existing non-Federal back levee that are approximately 17-feet deficient to the 50-year design grade. Authorization and appropriations do not exist to provide improvements in this area.

The Mississippi River levees on the East Bank of Plaquemines Parish are not deficient to the HSDRRS design grade, and no upgrades for that purpose are required.

QUESTIONS SUBMITTED TO JEFFERSON PARISH

RAINY DAY FUNDS

Question. Most of the parishes that have Presidents testifying in the hearing have been declared eligible for Federal disaster assistance six times in the past 7 years (after Hurricanes Katrina, Rita, Gustav, and Ike, Tropical Storm Lee, and now Hurricane Isaac). In all of these disasters, FEMA authorized public assistance for Louisiana communities with a cost-share. Congress waived that cost-share for Hurricanes Katrina and Rita after 2 years of foot-dragging by the previous administration, but the current earmark ban prohibits Congress from taking similar action now.

The Governor has asked the Federal Government to pick up 100 percent of emergency response costs from Hurricane Isaac by eliminating the normal 25 percent match. My colleague, Senator Vitter, has written to the President in support of that request.

State Representative Jared Brossett recently raised the issue of State budgeting for disasters as Chairman of the Hurricane Recovery Committee in the legislature,

and he sent a letter on Friday to the Governor and Commissioner of Administration that I will include in the hearing record. According to information provided to my office by the legislature, the State of Louisiana has five separate reserve funds which could be tapped to assist parishes with their cost-share for Isaac recovery:

—The State Emergency Response Fund (SERF) has a balance of $16.5 million;

—The FEMA Reimbursement Fund has a balance of $35,000;

—The Interim Emergency Board fund has a balance of $4.6 million;

—The Budget Stabilization Fund, also known as the Rainy Day Fund, has a balance of $443 million; and

—And last week, the State declared a surplus of more than $130 million.

That comes to $499 million in Baton Rouge that the Governor has authority to use for the purpose of assisting local governments with their cost-share for this event. It's my understanding that parishes did not receive any assistance from the State to split or defray their cost-share requirements in Gustav or Ike and that the Governor has not offered to help parishes with their cost-share for this disaster either.

Have each of you now asked the Governor and/or the legislature to provide a portion of those State funds to help cover your 25 percent cost-share for Hurricane Isaac?

Answer. Jefferson Parish is in discussions with the Governor's office regarding this issue.

Question. If you have already made such a request to the State, what response, if any, have you received? If not, are you still inclined to do so?

Answer. As stated above, Jefferson Parish is in discussions with the Governor's office in this regard.

Question. Does your parish have money in its regular budget for disaster response and recovery efforts, including funding to satisfy Federal cost-share requirements and leverage Federal dollars under the FEMA public assistance program?

Answer. Jefferson Parish has in the past necessitated the borrowing of Special Community Disaster Loans to fund disaster recovery approximating $54 million.

Question. Do you have emergency legal authority to borrow or raise these funds when recovery priorities demand it?

Answer. Jefferson Parish has legal authority to borrow funds.

LOCAL USE OF HAZARD MITIGATION FUNDING

Question. Each of the parish presidents represented in the hearing has to make choices about flood protection projects to reduce vulnerability to future flood events through drainage improvements, levee repairs, home elevations, and other measures.

What are highest priority flood protection projects in your parishes and what are the costs associated with them?

Answer. Jefferson Parish has prioritized improvements to our pump stations, canals, and subsurface drainage system to bring them up to a level of service that will prevent property damage in the event of the "10-year storm" recurrence event. Once projects that will prevent property damage are identified, priority is placed on improving the pump stations first, then the outfall canals that drain to the pump stations, followed by the subsurface drainage system. To get the full benefit of an improvement, the downstream elements must also meet the required standard. Under the Southeast Louisiana Flood Control Program (SELA) and the Jefferson Parish Capital Improvement Program, over $1 billion will have been spent in the last 30 years upgrading the drainage system. At this time, we will continue our focus on home elevation and providing increased levels of protection to those communities in Jefferson Parish which are located outside the present hurricane protection system.

[Please see attachment A as follows:]

ATTACHMENT A—PUBLIC WORKS PROFESSIONAL SERVICE CONTRACTS

Project name/PW No.	Brief project description
Lake Cataouatche	Replacing the pump diesel engines. Replacing the pumps and pump controls.
Old Bayou Segnette	Replacing the pump diesel engines. Replacing the pumps and pump controls.
Westwego 1	Purchase and installation of three 100 cfs vertical pumps to increase the current existing capacity.

ATTACHMENT A—PUBLIC WORKS PROFESSIONAL SERVICE CONTRACTS—Continued

Project name/PW No.	Brief project description
Bainbridge Canal PW No. 2009–15–dr.	Provide design engineering, field assessment to include surveying and geotechnical investigations and engineering, construction management services related to the design and construction of drainage improvements to the Bainbridge Canal from Canal No. 14 to Veterans Boulevard, including the crossing under Veterans Boulevard.
Bannerwood PW No. 2008–23–dr ..	Installation of 54'' rcp on Willowbrood from Penwood to Surfwood.
Bonnabel Canal PW No. 2008–50–dr.	Provide design engineering, field assessment to include surveying and geotechnical investigations and engineering, construction management services related to design and construction of drainage improvements to the Bonnabel Canal from the south side of Veterans Blvd. to the south side of West Esplanade Avenue.
Butler Ditch PW No. 2008–56–dr ..	Improvements from Airline Drive to the I.C. Railroad consisting of the installation of a 10' x 8' u channel.
Canal 10 @ West Esplanade	Upgrading the existing culvert crossing along West Esplanade Avenue at Canal No. 10 from a 72'' RCPA to a double 6'x6' box culvert, or hydraulic equivalent, as identified in Hartman Engineering's January 2011 report entitled Evaluation of District 4 Canal Constrictions.
Canal 13 PW No. 2008–55–dr	Concrete slope paving of Canal 13 between Butler and Loyola.
Clearview and Mounes PW No. 2009–30–dr.	Installation of new 54'' x 88'' RCPA and 45'' x 73.5'' RCPA on Mounes between Clearview and Camp Plauche Ditch.
Cousins 1 Pump Station	Replacing all the Waukesha Engines for pump Nos. 2, 3 and 4.
Elise Avenue PW No. 2009–9–dr ...	Drainage improvements in the Elise Avenue/Camphor Street area consisting of the installation of a 140 cfs pump station in the area immediately north of West Metairie Avenue at Elise Avenue, including generator and discharge control structure installation, the reconstruction of the drainage structures at West Metairie and Parkaire Drive, and the upgrade of subsurface drainage along Elise Avenue between Ruth Street and Camphor Street.
Manson Ditch	Hydraulic study of the Manson Ditch Drainage Area. Defined as the combined drainage contributory areas of Camilla Gardens Ditch, Manson Ditch, Arnoult Ditch and Shrewsbury Ditch between the Mississippi River and IC Railroad Ditch and the Manson Ditch contributory area between the IC Railroad Ditch and West Metairie Canal.
Parish Line PW No. 2007–23–ps ...	A short term solution to increase the pumping capacity to 200 cfs. A long-term solution to increase the pumping capacity to 1400 cfs.
Planters Pump Station	Replacing all the Waukesha Engines for pump Nos. 1, 2, 3, and 4.
Westwego 1 + 2	Engineering improvements to Canal D between Westwego 1 and 2 by adding a box culvert between the stations. The design of a new pump equipment platform and shelter, designed for three pumps, and the installation of one variable speed 100 cfs pump.

Question. There are three main sources of funding to meet this need, Federal, State, and local.

First, what parish-wide or other localized taxes do residents pay toward construction of flood protection and drainage projects and how much funding does this generate on an annual basis?

Answer. Jefferson Parish receives in excess of $56 million per year in taxes relative to drainage projects to maintain and operate the drainage pump systems and canal/pipe infrastructure so as to ensure the maximum drainage protection possible for Jefferson Parish given budgetary constraints.

Question. Second, what does the State provide to support the known need? State revenue sharing generates approximately $700,000 per year.

Finally, after Hurricanes Katrina, Rita, Gustav, and Ike, parishes have millions in Federal funds for mitigation from FEMA. Much of these funds have not yet been obligated. Please provide how much your parish has received through Hazard Mitigation Grant Program funds and explain how you plan to use such funds within your parish to meet your priorities. When will these funds be obligated?

Answer. To our knowledge the only funding at this time that has not been obligated is the additional $15.5 million that has been allocated to Jefferson Parish for 1786 (Gustav, scope of work limited to elevations of Severe Repetitive Loss (SRL) and Repetitive Loss (RL) structures) and the $4.7 million for the Manson Ditch drainage project. The parish is in the process of submitting fundable applications for these two projects to GOHSEP/FEMA for approval/award/obligation. Additional funding may soon be allocated for Hurricane Isaac, but official documentation has not yet been seen.

[Please see attachment B as follows:]

ATTACHMENT B—JEFFERSON PARISH MITIGATION PROJECTS

(As of April 10, 2013)

Project ID	Program	Project type	Project status	Total project award	Federal share of award	Number of structures
1603–051–0006	HMGP Katrina/Rita	Residential Elevation	Active	$25,236,229.00	$22,478,271.00	185
1603–051–0007	HMGP Katrina/Rita	Residential Reconstruction	Active	4,820,259.00	3,052,991.00	16
1603c–051–0013	HMGP Katrina/Rita	Residential Elevation & Reconstruction	Active	7,457,453.00	7,030,737.00	44
1603c–051–0020	HMGP Katrina/Rita	Drainage Improvement	Active	10,250,789.00	10,250,789.00	.....
1603c–051–0026	HMGP Katrina/Rita	Drainage Improvement	Active	6,472,054.00	5,131,685.00	.....
1603n–051–0016	HMGP Katrina/Rita	Drainage Improvement	Active	3,164,202.00	3,164,202.00	.....
1603n–051–0027	HMGP Katrina/Rita	Drainage Improvement	Active	31,950,586.00	20,000,000.00	.....
1607–051–0001	HMGP Katrina/Rita	Residential Elevation & Reconstruction	Active	6,002,704.00	5,688,765.00	39
1607–051–0002	HMGP Katrina/Rita	Residential Elevation & Reconstruction	Active	10,800,135.00	7,744,429.00	45
1607–051–0004	HMGP Katrina/Rita	Residential Elevation	Active	4,048,442.00	4,048,442.00	31
1607–051–0006	HMGP Katrina/Rita	Residential Elevation & Reconstruction	Active	9,198,235.00	6,176,066.00	36
1607–051–0007	HMGP Katrina/Rita	Residential Elevation	Active	3,877,203.00	3,877,203.00	29
1607–051–0008	HMGP Katrina/Rita	Residential Elevation & Reconstruction	Active	6,027,395.00	4,248,445.00	26
1607–051–0009	HMGP Katrina/Rita	Residential Elevation	Active	3,491,562.00	3,491,562.00	29
SRL–PJ–06–LA–2008–005	SRL 2008	Residential Elevation	Active	8,682,660.00	7,814,394.00	51
SRL–PJ–06–LA–2008–006	SRL 2008	Residential Reconstruction	Pending Closeout	1,471,689.44	1,106,404.33	6
SRL–PJ–06–LA–2008–007	SRL 2008	Residential Elevation	Active	6,563,644.00	5,909,979.60	42
SRL–PJ–06–LA–2008–008	SRL 2008	Residential Elevation	Active	8,735,580.00	7,862,022.00	52
SRL–PJ–06–LA–2009–003	SRL 2009	Residential Reconstruction	Pending Closeout	928,913.00	714,533.00	4
SRL–PJ–06–LA–2009–004	SRL 2009	Residential Elevation	Active	5,734,575.00	5,161,117.00	35
SRL–PJ–06–LA–2009–005	SRL 2009	Residential Elevation	Active	5,382,956.00	4,844,659.40	35
SRL–PJ–06–LA–2009–013	SRL 2009	Residential Elevation	Active	1,691,943.75	1,522,749.37	11
SRL–PJ–06–LA–2009–015	SRL 2009	Residential Elevation	Active	1,297,563.75	1,167,807.37	8
SRL–PJ–06–LA–2009–019	SRL 2009	Residential Elevation	Active	811,187.50	730,068.75	4
SRL–PJ–06–LA–2009–022	SRL 2009	Residential Elevation	Active	401,136.25	361,022.62	3
SRL–PJ–06–LA–2010–004	SRL 2010	Residential Elevation	Active	4,384,536.25	3,946,082.62	31
SRL–PJ–06–LA–2010–010	SRL 2010	Presidential Elevation	Active	7,839,411.85	7,055,470.67	46
SRL–PJ–06–LA–2011–003	SRL 2011	Residential Elevation	Active	3,906,768.75	3,516,091.88	24
SRL–PJ–06–LA–2012–0001	SRL 2012	Residential Elevation	Active	4,289,525.00	3,860,572.50	26
1786–051–0001	HMGP Gustav/Ike	Residential Elevation	Active	7,709,899.00	5,782,424.00	45
FMA–PJ–06–1A–2008–002	FMA 2008	Drainage Improvement	Active	3,787,167.00	2,840,375.25	.....
				206,416,404.54	170,579,361.36	903

[1] For a more in-depth explanation of these projects, please contact the program management consultant, Solutient.

Total Awarded from HMGP	$140,507,147.00
Total Awarded from FMA	3,787,167.00
Total Awarded from SRL	62,122,090.54
Total Awarded for Drainage	55,624,798.00
Total Awarded for Residential	150,791,606.54
HMGP properties	525
FMA properties	
SRL properties	378
Total properties	903

DEBRIS REMOVAL

Question. Please describe your efforts so far to assess and remove storm-related debris—whether from roadways, neighborhoods, or waterways.

Answer. Jefferson Parish had two pre-event contracts for removal, processing and disposal of storm debris from right-of ways. The contracts are for unincorporated Jefferson Parish with the option for the towns of Lafitte and Grand Isle to, on a case-by-case basis, choose to be part of Jefferson Parish for debris removal purposes. In the case of Hurricane Isaac, both towns opted to be a part of Jefferson Parish for debris removal purposes. The contracts include prices for removing sand from roads and removal of debris from roadside ditches and drainage canals, although these tasks were not necessary following Hurricane Isaac.

The contract with Ceres Environmental Services, Inc. was used to collect, process and dispose of storm debris on the East Bank of Jefferson Parish. The contract with DRC Emergency Services, Inc. was used to collect storm debris on the West Bank of Jefferson Parish, including Lafitte and Grand Isle. Ceres also performed leaner and hanger removal from trees on the rights-of-way and the vegetative debris removal in Lafreniere and LaSalle Parks.

In accordance with LA R.S. 30:2413.1, vegetative debris on the East Bank was reduced by 50 percent volume and weight by bringing it to Wood Materials, 6148 River Road, Harahan, where it was chipped and used in compost.

Vegetative debris on the West Bank was reduced by 50 percent volume and weight by bringing it to Hwy. 90 C&D Landfill, 5000 Hwy. 90 W, Waggaman, where it was chipped and beneficially re-used as ground cover/roadbed material at the landfill.

Jefferson Parish collected 280,560 cu. yds. of storm debris (218,007 cu. yds. vegetative debris and 62,553 cu. yds. construction and demolition debris). We also collected 2,200 tons of bagged waste.

Jefferson Parish prepared an RFP for storm debris removal monitoring and management. Nine proposals were received, and an Evaluation Committee met on 8–21–12 and scored the proposals. The parish council was to select a firm at the 8–29–12 parish council meeting, which was canceled as Hurricane Isaac made landfall on 8–29–12. The parish president executed an emergency contract with SAIC, which had the highest overall score considering both technical capabilities and cost, to monitor Isaac debris removal activities. SAIC monitored all debris removal activities, including right-of-way collection, residential storm debris drop-off sites, debris management sites, right-of-way leaner/hanger removal, park cleanup, emergency street sweeping, PPDR activities, and will also be monitoring demolition work.

The contractors were placed on standby prior to the event, and the contracts were activated immediately after the event. Jefferson Parish employees and the contractors began assessing the amount and type of debris as soon as they could safely go outside. Jefferson Parish began right of way debris removal within 24 hours after the hurricane's passage and was finished with right-of-way debris removal by the end of September 2012. Private Property Debris Removal (PPDR) work was authorized by FEMA for the Laffite, Barataria, and Crown Point areas in lower Jefferson Parish, which was hardest hit and experienced some flooding of homes. PPDR work will be complete next week, with vegetative debris to be reduced by 50 percent volume and weight by a controlled open burn in a remote area of Parc des Families. FEMA also authorized demolition of some storm damaged residential properties in the Laffite, Barataria, and Crown Point areas. We anticipate demolitions in the La-

fitte area to be completed by early June 2013. The parish will use an existing contract that the Dept. of Inspection and Code Enforcement has with Durr Heavy Construction, Inc. to conduct demolitions. The contract is typically used for dangerous building abatement, and FEMA has approved its use for Isaac demolitions.

Hurricane Isaac generated a large amount of bagged debris, mostly leaves, due to persistent and long-lasting winds and spoiled food due to unpowered refrigerators. Jefferson Parish has a provision in its garbage contract to collect additional garbage/trash due to a disaster with a pre-contracted price. IESI was used to collect the extremely large amount of bagged waste generated by Hurricane Isaac. IESI disposed of all bagged waste at the Jefferson Parish landfill. In addition, due to the huge volume of bagged waste, the parish suspended IESI curbside recycling collection services for one week, and used the recycling trucks to collect bagged storm debris. Jefferson Parish also had the Public Works Department crews assist in bagged storm debris collection.

Orphaned containers were identified by the Jefferson Parish Department of Environmental Affairs, and removed by the U.S. Coast Guard and LDEQ in October/November 2012.

Question. Did your parish have a debris management plan in place before Isaac, including identified contractors and storage sites? How has the development of a plan, or lack thereof, impacted your success?

Answer. Yes, Jefferson Parish had a Debris Management Plan, which was approved by FEMA in November 2008, and has been used as a model by several other parishes. Our success in disaster debris removal is enhanced by:

—having a debris management plan;
—having pre-event contracts in place;
—having several sites throughout the parish designated and permitted by LDEQ as emergency debris sites;
—having residential storm debris drop-off sites available to our residents, as this quickens the debris removal process;
—knowledge and compliance with LA R.S. 30:2413.1 and the State Debris Management Plan;
—knowledge and compliance with FEMA and GOHSEP regulations; and
—seeking guidance from GOHSEP and FEMA throughout post-event activities.

Jefferson Parish anticipates receiving the maximum allowed reimbursement for all Hurricane Isaac debris removal operations.

RESPONSIBLE BUILDING

Question. Construction permitting, building code enforcement, and floodplain management are all local responsibilities.

Please describe your parish's efforts leading up to Hurricane Isaac to strengthen and enforce codes, promote responsible construction, and reduce disaster-related property damage.

Answer. Jefferson Parish strictly adheres to the technical codes proscribed by the Louisiana State Uniform Code Construction Council (LSUCCC) when reviewing and permitting development application and when inspecting sites for compliance. It is through a competent inspection process that our Parish promotes responsible construction and effectively reduces disaster-related property damage.

Question. Have you considered any new initiatives related to building codes or floodplain management since the storm?

Answer. With regard to the technical codes, the LSUCCC does not provide Jefferson Parish with any authority to modify these codes. However, we continually consider and occasionally amend the administrative sections to achieve optimal compliance. Hurricane Isaac did not present any new challenges, and therefore no new initiatives have been considered.

Question. Do you have a parish-wide drainage and rainwater control planning process?

Answer. Jefferson Parish's code of ordinances addresses the various requirements for new developments and existing properties for detaining rainwater and/or routing to the established drainage system as well as the maintenance of drainage right of ways, catch basins, and subsurface piping.

QUESTIONS SUBMITTED TO PLAQUEMINES PARISH

RAINY DAY FUNDS

Question. Most of the parishes that have Presidents testifying in the hearing have been declared eligible for Federal disaster assistance six times in the past 7 years

(after Hurricanes Katrina, Rita, Gustav, and Ike, Tropical Storm Lee, and now Hurricane Isaac). In all of these disasters, FEMA authorized public assistance for Louisiana communities with a cost-share. Congress waived that cost-share for Hurricanes Katrina and Rita after 2 years of foot-dragging by the previous administration, but the current earmark ban prohibits Congress from taking similar action now.

The Governor has asked the Federal Government to pick up 100 percent of emergency response costs from Hurricane Isaac by eliminating the normal 25 percent match. My colleague, Senator Vitter, has written to the President in support of that request.

State Representative Jared Brossett recently raised the issue of State budgeting for disasters as Chairman of the Hurricane Recovery Committee in the legislature, and he sent a letter on Friday to the Governor and Commissioner of Administration that I will include in the hearing record. According to information provided to my office by the legislature, the State of Louisiana has five separate reserve funds which could be tapped to assist parishes with their cost-share for Isaac recovery:

—The State Emergency Response Fund (SERF) has a balance of $16.5 million;

—The FEMA Reimbursement Fund has a balance of $35,000;

—The Interim Emergency Board fund has a balance of $4.6 million;

—The Budget Stabilization Fund, also known as the Rainy Day Fund, has a balance of $443 million; and

—And last week, the State declared a surplus of more than $130 million.

That comes to $499 million in Baton Rouge that the Governor has authority to use for the purpose of assisting local governments with their cost-share for this event. It's my understanding that parishes did not receive any assistance from the State to split or defray their cost-share requirements in Gustav or Ike and that the Governor has not offered to help parishes with their cost-share for this disaster either.

Have each of you now asked the Governor and/or the legislature to provide a portion of those State funds to help cover your 25 percent cost-share for Hurricane Isaac?

Answer. Yes for Plaquemines Parish.

Question. If you have already made such a request to the State, what response, if any, have you received? If not, are you still inclined to do so?

Answer. The Governor says funding is unavailable at this time.

Question. Does your parish have money in its regular budget for disaster response and recovery efforts, including funding to satisfy Federal cost-share requirements and leverage Federal dollars under the FEMA public assistance program?

Answer. No.

Question. Do you have emergency legal authority to borrow or raise these funds when recovery priorities demand it?

Answer. No.

LOCAL USE OF HAZARD MITIGATION FUNDING

Question. Each of the parish presidents represented in the hearing has to make choices about flood protection projects to reduce vulnerability to future flood events through drainage improvements, levee repairs, home elevations, and other measures.

What are highest priority flood protection projects in your parishes and what are the costs associated with them?

Answer. (1) Coastal Restoration Plan construction; (2) drainage improvements in Belle Chasse; and (3) federalized 1 percent levees in lower and East Bank regions that are 100 percent federally funded.

Question. There are three main sources of funding to meet this need, Federal, State, and local.

First, what parish-wide or other localized taxes do residents pay toward construction of flood protection and drainage projects and how much funding does this generate on an annual basis?

Answer. There are no parish-wide or other localized taxed leveed specifically toward construction of flood protection and drainage projects. Needed local funds are generated through bonding future general tax revenues as required and available. The parish has bonded out $50 million recently to try and address as many of these issues as possible.

Question. Second, what does the State provide to support the known need?

Answer. CDBG, HMGP, and LGAP funding opportunities although most are competitive.

Question. Finally, after Hurricanes Katrina, Rita, Gustav, and Ike, parishes have millions in Federal funds for mitigation from FEMA. Much of these funds have not yet been obligated. Please provide how much your parish has received through Hazard Mitigation Grant Program funds and explain how you plan to use such funds within your parish to meet your priorities.

Answer. Even though Plaquemines Parish was heavily damaged we received relatively little HMGP funding after Katrina, Rita, Gustav, and Ike.

Question. When will these funds be obligated?

Answer. These funds are all currently obligated and either under construction or completed. We have recently learned that an additional $64 million has been obligated in CDBG funding for Plaquemines and St. Johns Parishes. Plaquemines Parish hopes to receive at least 50 percent of that allocation.

DEBRIS REMOVAL

Question. Please describe your efforts so far to assess and remove storm-related debris—whether from roadways, neighborhoods, or waterways.

Answer. PWs are written and activity underway for roadways and neighborhoods. Waterways are still being evaluated by FEMA for approval. Levee debris removal is currently underway. Neighborhoods that are unimproved and are without residents along with waterways have not yet been deemed reimbursable by FEMA and the parish does not have the funds to remove debris.

Question. Did your parish have a debris management plan in place before Isaac, including identified contractors and storage sites?

Answer. Yes. Emergency response contracts were in place and debris removal locations and timeframes were mapped out.

Question. How has the development of a plan, or lack thereof, impacted your success?

Answer. Positive impact has been minimal due to the FEMA PW approval process. Work cannot be started until approved and approval has taken longer than expected. We do have a good working relationship with FEMA however and have every expectation for a positive outcome in the end.

RESPONSIBLE BUILDING

Question. Construction permitting, building code enforcement and floodplain management are all local responsibilities.

Please describe your parish's efforts leading up to Hurricane Isaac to strengthen and enforce codes, promote responsible construction, and reduce disaster-related property damage.

Answer. The parish adheres to the National Building Code for construction and has code enforcement officers to inspect work in progress. New FIRMs are being reviewed for BFE requirements. The parish was thrown a significant curve to overcome with the Biggert-Waters Act which was passed by Congress. The impact on the homeowners and the economy of this parish cannot be overstated. We must get Congress to amend or repeal at least portions of the act. For instance, we have homes that were elevated using Federal dollars to bring them into compliance with the current BFEs. Those same homes will now need to be raised again as a result of doing away with the grandfathering of rates. We have homes which were constructed as much as 4 feet above current BFEs in order to provide additional safety from rising water. Those homes will now be required to be 6 to 8 feet higher just to meet the new BFEs required by the new FIRMs or the homeowners will see their NFIP rates skyrocket or see their homes lose their value. East coast residents impacted by Hurricane Sandy are experiencing the same issues. Something must be done to correct this injustice.

Question. Have you considered any new initiatives related to building codes or floodplain management since the storm?

Answer. We are considering new FIRMs for elevations and construction requirements. We constantly consider ways and new initiatives to improve building codes and floodplain management. We have a floodplain manager on staff who is tasked with insuring we adhere to best practices and latest available information.

Question. Do you have a parish-wide drainage and rainwater control planning process?

Answer. Yes. We have a drainage master plan and a comprehensive master plan which address these issues.

QUESTIONS SUBMITTED TO ST. JOHN THE BAPTIST PARISH

RAINY DAY FUNDS

Question. Most of the parishes that have Presidents testifying in the hearing have been declared eligible for Federal disaster assistance six times in the past 7 years (after Hurricanes Katrina, Rita, Gustav, and Ike, Tropical Storm Lee, and now Hurricane Isaac). In all of these disasters, FEMA authorized public assistance for Louisiana communities with a cost-share. Congress waived that cost-share for Hurricanes Katrina and Rita after 2 years of foot-dragging by the previous administration, but the current earmark ban prohibits Congress from taking similar action now.

The Governor has asked the Federal Government to pick up 100 percent of emergency response costs from Hurricane Isaac by eliminating the normal 25 percent match. My colleague, Senator Vitter, has written to the President in support of that request.

State Representative Jared Brossett recently raised the issue of State budgeting for disasters as Chairman of the Hurricane Recovery Committee in the legislature, and he sent a letter on Friday to the Governor and Commissioner of Administration that I will include in the hearing record. According to information provided to my office by the legislature, the State of Louisiana has five separate reserve funds which could be tapped to assist parishes with their cost-share for Isaac recovery:

—The State Emergency Response Fund (SERF) has a balance of $16.5 million;

—The FEMA Reimbursement Fund has a balance of $35,000;

—The Interim Emergency Board fund has a balance of $4.6 million;

—The Budget Stabilization Fund, also known as the Rainy Day Fund, has a balance of $443 million; and

—And last week, the State declared a surplus of more than $130 million.

That comes to $499 million in Baton Rouge that the Governor has authority to use for the purpose of assisting local governments with their cost-share for this event. It's my understanding that parishes did not receive any assistance from the State to split or defray their cost-share requirements in Gustav or Ike and that the Governor has not offered to help parishes with their cost-share for this disaster either.

Have each of you now asked the Governor and/or the legislature to provide a portion of those State funds to help cover your 25 percent cost-share for Hurricane Isaac?

Answer. Yes, a request has been made to the Governor for assistance with the local match.

Question. If you have already made such a request to the State, what response, if any, have you received? If not, are you still inclined to do so?

Answer. I was informed that funds are not available to assist with the match.

Question. Does your parish have money in its regular budget for disaster response and recovery efforts, including funding to satisfy Federal cost-share requirements and leverage Federal dollars under the FEMA public assistance program?

Answer. St. John the Baptist Parish does not have adequate funds within our budget to support disaster response and recovery or to satisfy the local cost-share.

Question. Do you have emergency legal authority to borrow or raise these funds when recovery priorities demand it?

Answer. Yes, the parish has legal authority to borrow funds to address recovery priorities.

LOCAL USE OF HAZARD MITIGATION FUNDING

Question. Each of the parish presidents represented in the hearing has to make choices about flood protection projects to reduce vulnerability to future flood events through drainage improvements, levee repairs, home elevations, and other measures.

What are highest priority flood protection projects in your parishes and what are the costs associated with them?

Answer. The Westshore Lake Pontchartrain Levee Protection Project is the highest priority need relative to flood protection for St. John the Baptist Parish. The Corps of Engineers needs $1 million to complete an ongoing Feasibility Study for this project. An additional $550 million is required for construction of the "Locally Preferred Alignment" from the Upper Guide Levee to the Marvin Braud Pump Station, encompassing St. Charles, St. John, St. James, and Ascension Parishes.

Question. First, what parish-wide or other localized taxes do residents pay toward construction of flood protection and drainage projects and how much funding does this generate on an annual basis?

Answer. St. John the Baptist Parish supports all Public Works functions through a .375 percent sales tax that generates $4 million annually. These funds are supplemented by one-third of a 1-percent sales tax that generates $11 million annually; however, these funds are used for personnel, service and maintenance of roads, bridges and drainage. There is no dedicated tax for flood protection and major drainage projects are funded through bond issues and grant funds. Approximately $10 million in drainage projects have been completed in the last 3 years with another $7 million in design.

Question. Second, what does the State provide to support the known need?

Answer. There is no direct State support for drainage projects, however St. John has benefited from grant funds through the Office of Community Development—Disaster Recovery Unit. There have also been capital outlay requests to support levee construction through the Pontchartrain Levee District. Funding through the Coastal Protection and Restoration Authority is also anticipated for future projects.

Question. Finally, after Hurricanes Katrina, Rita, Gustav, and Ike, parishes have millions in Federal funds for mitigation from FEMA. Much of these funds have not yet been obligated. Please provide how much your parish has received through Hazard Mitigation Grant Program funds and explain how you plan to use such funds within your parish to meet your priorities. When will these funds be obligated?

Answer. In 2009, the Louisiana Recovery Authority in conjunction with the Office of Community Development, the Disaster Recovery Unit and HUD obligated $10.4 million to St. John the Baptist Parish for Mitigation and Hazard Mitigation projects for infrastructure recovery, home repairs, and community resiliency.

PROJECTS IN ST. JOHN THE BAPTIST PARISH [1]

Reserve Drainage Project—(GOSEPH/FEMA-sponsored)	$3,400,000
Foxwood Levee—(CDBG Mitigation)	1,700,000
Home Repairs—(Housing Mitigation)	2,200,000
Emergency Generators—(Mitigation)	1,100,000
Canal Clearing—(Mitigation)	1,200,000
Peavine Boat Launch—(Mitigation)	300,000
Community Resiliency & Land Use—(CDBG)	500,000

The parish received no HM funding for Katrina.

DEBRIS REMOVAL

Question. Please describe your efforts so far to assess and remove storm-related debris—whether from roadways, neighborhoods, or waterways.

Answer. The parish has focused on removing construction and demolition (C&D) debris and vegetative debris from roadways and neighborhoods for the past 6 months. During that time, in excess of 221,000 cubic yards of debris has been removed. Assessment of canals, storm drains and culverts is ongoing, but we anticipate additional removal efforts.

Question. Did your parish have a debris management plan in place before Isaac, including identified contractors and storage sites? How has the development of a plan, or lack thereof, impacted your success?

Answer. The parish's debris management plan was in place and was included in the Emergency Operations Plan before Isaac. Contracts were in place for both debris removal and monitoring prior to hurricane season, along with identified and permitted storage sites. Flooding of one of the permitted storage sites briefly delayed debris removal, but the situation was quickly remedied. This prior planning greatly enhanced the success of the debris removal process and allowed the parish to seamlessly move into debris removal once the storm water subsided.

RESPONSIBLE BUILDING

Question. Construction permitting, building code enforcement, and floodplain management are all local responsibilities.

Please describe your parish's efforts leading up to Hurricane Isaac to strengthen and enforce codes, promote responsible construction, and reduce disaster-related property damage.

Answer. St. John the Baptist Parish is a member of the National Flood Insurance Program (NFIP) and has participated in the Community Rating System Program (CRS) since 1991. The parish undertakes a series of activities to protect its citizens from losses caused by flooding and has significantly exceeded the requirements for NFIP participation and effective floodplain management.

In May 2010, St. John was awarded a CRS class 8 grade due to upgraded building codes and adherence to stronger State requirements for building. The Department of Planning and Zoning maintains elevation certificates, provides flood insurance rate maps to our citizens, conducts citizen outreach projects throughout the year, makes flood information literature available throughout the parish, i.e., library, Home Depot, etc. A digitized mapping system (GIS) is maintained and updated, annual notifications are provided to our repetitive loss property owners, and flood information is provided to insurance and real estate agents throughout the parish.

In June 2010, St. John was awarded a grant through the LRA's Comprehensive Resiliency Program. This grant focuses on community resiliency, as well as the capability to anticipate risk, limit impact, and bounce back in the face of turbulent changes. Also included in the grant is completion of phase IV of a comprehensive land use plan and revisions to existing zoning and subdivision ordinances.

In October 2010, St. John the Baptist Parish adopted FEMA's updated Flood Maps.

St. John Parish currently has an agreement with the South Central Planning and Development Commission to serve as the parish's third-party building official to assist with implementation of the Louisiana State Uniform Construction Code. Pursuant to La. R.S. 40:1730.21 et seq., the Louisiana State Uniform Construction Code and any amendment adopted thereto are hereby adopted as the regulations for governing the construction or placement of buildings and structures within the parish.

In March 2011, an updated Hazard Mitigation Plan (HMP) was adopted.

In June 2011, St. John the Baptist Parish became an active member of a Community Rating System User Group involving five-area parishes. The group is known as FLOAT (Flood Loss Outreach and Awareness Taskforce) and meets monthly to brainstorm ideas relative to mitigation and raising the bar toward higher flood regulations.

Have you considered any new initiatives related to building codes or floodplain management since the storm?

Answer. As of yet, St. John the Baptist Parish has not considered any new initiatives related to building codes or floodplain management other than possible acquisitions/elevations for Repetitive and Severe Repetitive Loss properties.

Question. Do you have a parish-wide drainage and rainwater control planning process?

Answer. St. John the Baptist Parish has parish-wide drainage which includes gravity flow from the Mississippi River to Lake Pontchartrain and numerous pumping stations. Drainage plans for new subdivisions and developments include a drainage study as well as possible retention ponds. Drainage for new construction is the responsibility of the developer. All drainage plans are reviewed by the Department of Public Works and the parish engineer prior to issuing a permit.

QUESTIONS SUBMITTED TO ST. TAMMANY PARISH

RAINY DAY FUNDS

Question. Most of the parishes that have Presidents testifying in the hearing have been declared eligible for Federal disaster assistance six times in the past 7 years (after Hurricanes Katrina, Rita, Gustav, and Ike, Tropical Storm Lee, and now Hurricane Isaac). In all of these disasters, FEMA authorized public assistance for Louisiana communities with a cost-share. Congress waived that cost-share for Hurricanes Katrina and Rita after 2 years of foot-dragging by the previous administration, but the current earmark ban prohibits Congress from taking similar action now.

The Governor has asked the Federal Government to pick up 100 percent of emergency response costs from Hurricane Isaac by eliminating the normal 25 percent match. My colleague, Senator Vitter, has written to the President in support of that request.

State Representative Jared Brossett recently raised the issue of State budgeting for disasters as Chairman of the Hurricane Recovery Committee in the legislature, and he sent a letter on Friday to the Governor and Commissioner of Administration that I will include in the hearing record. According to information provided to my office by the legislature, the State of Louisiana has five separate reserve funds which could be tapped to assist parishes with their cost-share for Isaac recovery:

—The State Emergency Response Fund (SERF) has a balance of $16.5 million;

—The FEMA Reimbursement Fund has a balance of $35,000;

—The Interim Emergency Board fund has a balance of $4.6 million;

—The Budget Stabilization Fund, also known as the Rainy Day Fund, has a balance of $443 million; and

—And last week, the State declared a surplus of more than $130 million.

That comes to $499 million in Baton Rouge that the Governor has authority to use for the purpose of assisting local governments with their cost-share for this event. Its my understanding that parishes did not receive any assistance from the State to split or defray their cost-share requirements in Gustav or Ike and that the Governor has not offered to help parishes with their cost-share for this disaster either.

Have each of you now asked the Governor and/or the legislature to provide a portion of those State funds to help cover your 25-percent cost-share for Hurricane Isaac?

Answer. Yes.

Question. If you have already made such a request to the State, what response, if any, have you received? If not, are you still inclined to do so?

Answer. I have not received any response.

Question. Does your parish have money in its regular budget for disaster response and recovery efforts, including funding to satisfy Federal cost-share requirements and leverage Federal dollars under the FEMA public assistance program?

Answer. No.

Question. Do you have emergency legal authority to borrow or raise these funds when recovery priorities demand it?

Answer. Yes.

LOCAL USE OF HAZARD MITIGATION FUNDING

Question. Each of the parish presidents represented in the hearing has to make choices about flood protection projects to reduce vulnerability to future flood events through drainage improvements, levee repairs, home elevations, and other measures.

What are highest priority flood protection projects in your parishes and what are the costs associated with them?

Answer. A high priority project is the elevation of Highway 11 in the Slidell area. This project is estimated to cost $2 million. The parish has other high priority flood protection projects within its boundaries, including the Slidell levee system. Portions of this levee system have been or are in the process of being built by the parish. The majority of the system is yet to be constructed pending identification of funding. The estimated cost to complete the system is over $100 million.

There are three main sources of funding to meet this need, Federal, State and local.

Question. First, what parish-wide or other localized taxes do residents pay toward construction of flood protection and drainage projects and how much funding does this generate on an annual basis?

Answer. We have no funds for flood protection. Our drainage tax generates $3 million parish-wide of which $800,000 is used for maintenance activities and the balance of $2.2 million is used for capital projects.

Question. Second, what does the State provide to support the known need?

Answer. The State has provided partial funding to St. Tammany for our Slidell levee project via the Capital Outlay process. This is the only State funding that has been received.

Question. Finally, after Hurricanes Katrina, Rita, Gustav, and Ike, parishes have millions in Federal funds for mitigation from FEMA. Much of these funds have not yet been obligated. Please provide how much your parish has received through Hazard Mitigation Grant Program funds and explain how you plan to use such funds within your parish to meet your priorities. When will these funds be obligated?

Answer. St. Tammany has received over $30 million in residential mitigation grants to elevate or acquire flood prone structures. With respect to FEMA mitigation funding for drainage projects, we have just received notice of award on three projects totaling approximately $17 million. We have previously been awarded three other drainage projects totaling about $2 million.

DEBRIS REMOVAL

Question. Please describe your efforts so far to assess and remove storm-related debris—whether from roadways, neighborhoods, or waterways.

Answer. St. Tammany Parish immediately after Isaac assessed all storm-related debris and activated its pre-storm contracts for right of way debris removal and monitoring. These efforts have continued and are almost complete pending a pass

to remove household hazardous waste, white goods and other regulated debris streams.

Did your parish have a debris management plan in place before Isaac, including identified contractors and storage sites? How has the development of a plan, or lack thereof, impacted your success?

Answer. Yes, we had a plan in place prior to Isaac.

RESPONSIBLE BUILDING

Question. Construction permitting, building code enforcement, and floodplain management are all local responsibilities.

Please describe your parish's efforts leading up to Hurricane Isaac to strengthen and enforce codes, promote responsible construction, and reduce disaster-related property damage.

Answer. St. Tammany Parish strictly enforces all State adopted construction codes and all required NFU guidelines. We have multiple flood plain managers on staff which are integral parts to our permitting process. We have an active hazard mitigation section which counsels those in flood prone areas on options for mitigating against future flooding.

Question. Have you considered any new initiatives related to building codes or floodplain management since the storm?

Answer. St. Tammany Parish has applied for planning grants to assist in identifying and prioritizing residential and commercial structures in flood prone areas. Such an effort is needed in order to proactively address the over 2,000 repetitive loss structures (and other non-listed flood prone structures) with the available funding.

Question. you have a parish-wide drainage and rainwater control planning process?

Answer. Yes.

QUESTIONS SUBMITTED TO THE COASTAL PROTECTION AND RESTORATION AUTHORITY OF LOUISIANA

STATE RESOURCES FOR FLOOD PROTECTION

Question. The Federal Government has authorized programs that provide billions of dollars to the State of Louisiana for flood protection and coastal restoration efforts. When all dollars are obligated, the Coastal Impact Assistance Program (CIAP) will have provided $500 million to the State of Louisiana, the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA) has provided over $720 million in the last 10 years, and the RESTORE Act is expected to bring $2 to $6 billion to Louisiana. By way of supplemental appropriations, the Federal Government also committed $14.5 billion to the New Orleans metropolitan hurricane protection system.

What is the average annual investment in flood protection and coastal restoration by the State, not including Federal "pass through" dollars? What is the total investment by the State since Hurricane Katrina, and what will the State invest in the next 5 years?

What are the sources of that revenue?

What are the costs associated with developing and maintaining the State Coastal Master Plan for the last 7 years and for the upcoming 5 years? How much in State funding has the State of Louisiana obligated to development and maintenance of the Plan over the last 7 years and for the future 5 years?

Answer. [Responses were not provided.]

OBSTACLES FROM THE CORPS ON MASTER PLAN

Question. From the State's perspective, what Corps issues must still be resolved in order for the State to move forward as efficiently and cost-effectively as possible with the Coastal Master Plan?

Answer. [A response was not provided.]

BENEFICIAL USE OF DREDGED MATERIAL

Question. We have regular dredging activity from the lower Mississippi River. What can the State do to augment the beneficial use of the dredged material to replenish our wetlands?

Answer. [A response was not provided.]

QUESTIONS SUBMITTED TO SHAW COASTAL, INC.

Question. Can you speak to the impacts of the Modified Charleston Method for calculating mitigation requirements for some of the projects with which you're familiar?

Answer. In short, the Modified Charleston Method is an "arbitrary and capricious" process and has "double or tripled" our mitigation cost which are primarily public projects. It is a "black box" approach with no method of contesting the results. This method has increased mitigation cost by two or three times and has not relaxed the "maintaining for 20 years" requirement: which over a 20-year period could extend the cost five to ten times greater due to severe storm events. The method is not flexible. For example, the analyst has a spreadsheet that has very limited range of categories to classify wetlands such as either low-quality wetlands or medium-quality wetlands or high-quality wetlands. If in doubt, and an analyst classifies a low-quality as a medium-quality area, the results on required mitigation can be greatly impacted by this simple classification error.

Question. What are the top three changes that could be made in the Corps process for planning, engineering, and designing (and construction) that would expedite projects and make the process faster and more cost-effective?

Answer. [Follows:]

(1) The decision process for water resources projects, hurricane protection, waterway improvements, and port development and improvements is not a functional process. The time it takes to authorize a study, appropriate the study funds, go thru a 5- to 8-year study process as outlined in the Corps Principles and Guidelines, authorize a plan and then appropriate the funds to build the project is so long that in most cases the needs and requirements of the projects have changed before it is finished. In the private sector, decisions and funding has to be made in a manner that is driven by the needs and requirements of the project or the project is guaranteed to fail before it starts.

—*(A) Hurricane Protection.*—If after 30 years of construction, a project that should have taken 5 to 8 years to complete is not finished, then the needs and requirements for that project in year 31 would certainly have changed and therefore the project is not functional to the intent it was built, and is probably doomed to fail.

—*(B) Waterway Improvements.*—If the requirements of a existing waterway or channel take to 10+ years to plan, engineer, and design, and then 5 to 8 years to construct, then the planners, decisionmakers, engineers, appropriators, and builders need to either shorten their decisionmaking process or make sure they are at least 15 to 18 years ahead of the actual needs of the waterway system to deliver the benefits for which the waterway has been constructed.

A good example would be that the Mississippi River, the Gulf Intracoastal Waterway and the Nation's Inland Waterway Systems cannot function properly in 2013, based on a design of a waterway transportation plan produced in the 1930s. Imagine how our Nation's highway system would function if we were still only using our 1930 roads and bridges and we didn't have such a sophisticated Interstate Highway System. One of the main differences in our Federal Interstate System and our Federal Water Resources Program is the there is a dedicated transportation funding source (should be growing with inflation but it's not) and the improvements are planned and engineered in a timely manner and construction is funded in 5-year increments.

—*(C) Port Development and Improvements.*—Publicly funded port improvements problems are somewhat similar to the problems in (1) and (2) above, but the main difference is that the timeframe between identifying the needs and when the improvements are required are even shorter. The increased domestic port capacities required to support the "new" Panama Canal Expansion Project is a good example of this problem. Everybody knows that the funds and construction of the domestic improvements to this major navigation project should have already be started and that we be not be able to reap the benefits associated by this project until later and we might lose them altogether to other Caribbean ports.

(2) Construction "in-the-wet" should become the normal not the exception. It has been our experience that when time and money are the driving forces for the Decision Makers constructing the project "in-the-wet" greatly reduces the construction time, therefore getting the project benefits earlier, and greatly reduces the cost of cofferdams, de-watering systems, by-pass channel, temporary navigation fendering and lighting systems and many other cost that don't have anything to do with the completed structure. In addition to the time and cost savings with proper O&M the structure life can be made to be similar to "poured-in-place" concrete structures.

(3) Making everybody involved in the planning, engineering and design, bidding, construction and construction management responsible and accountable for their cost and delivery dates. It is also key to the program's success that the funding streams for the five functions listed above be implemented in a timely manner with project outcomes and benefits as the driving forces toward decisions and implementations.

TRUE COSTS OF PROJECTS

Question. Can you speak about this and provide specific examples?

Answer. [Follows:]

—*Houma Navigation Canal Complex.*—a 250'W x 24'D x 18'H movable barge-type floodgate with 750' of floodwalls built for $49.0 million compared to an estimated $85 million earthen dam.

—*Bayou Grand Caillou.*—a 196'W x 12'D x 18'H movable barge-type floodgate with 450' of floodwalls built for $25.5 million.

—*Bush Canal Floodgate.*—a 56'W x 10'D x 18'H movable barge-type floodgate with 350' of floodwalls built for $15.1 million.

—*Reach F Levee, Reach H2 Levee and Reach H3 Levee Projects.*—Built for $11.97 per cubic yard and $8.98 per cubic yard respectively. (H2 included a significant amount of rock bank stabilization along a portion of the borrow canal.)

Question. Why do you believe Shaw's estimates are so much lower? Give examples.

Answer. Shaw's recent projects (Houma Navigation Canal Complex, the Bayou Grand Caillou, the Bush Canal Floodgate, and the Reach F levee projects) have been within budget and successful partly for the following reasons:

—Use of "in-the-wet" construction techniques as discussed above that greatly shorten construction schedules and equipment, material, and labor requirements.

—*Decentralization and Flexibility of the Decisionmaking Process.*—The local levee districts and the Louisiana Office of Coastal Protection and Restoration (OCPR) often employ the same professional consultants that the Corps use, but the local board and OCPR allow the professional engineers to design the projects without using overly cumbersome guidelines and engineering manuals that don't provide the flexibility that novel designs require.

For example on the structure projects, there is no engineering manual that the Corps can consult to build a steel sheet pile wall braced with steel piles that is the key component to these projects. There is no manual so the Corps cannot build it.

For example on the levee projects, the Corps requires the use of borrow pits that the Corps certifies. This limits competition and can increase hauling distance. On the Reach F1, Reach H2, and Reach H3, the land adjacent to the project was tested and met Corps requirements for clay. Therefore it was dredged using an excavator and placed directly on the levee alignment without requiring hauling from a remote borrow pit.

Question. Would the projects in question still be built to "Corps standards?"

Answer. Yes, with certain qualifications.

CONCLUSION OF HEARING

Senator LANDRIEU. We are really going to try to push the envelope. We do not have an answer, but we can promise you we are going to give it our best effort.

Thank you, and the meeting is adjourned. The subcommittee staff will close this on October 9. Thank you so much.

Mr. GRAVES. Thank you, Madam Chair. I appreciate it. Thank you to your staff as well.

Senator LANDRIEU. Thank you.

[Whereupon, at 12:35 p.m., Tuesday, September 25, the hearing was concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

MATERIAL SUBMITTED SUBSEQUENT TO THE HEARING

[CLERK'S NOTE.—The following outside witness testimony was received subsequent to the hearing for inclusion in the record.]

PREPARED STATEMENT OF HON. FREDDY DRENNAN, MAYOR, CITY OF SLIDELL, LOUISIANA

Chairwoman Landrieu and members of the committee: Thank you for allowing me to submit a statement for the record on behalf of the city of Slidell, Louisiana.

Hurricane Isaac has caused severe damage to the State of Louisiana. The city of Slidell had more than 200 flooded households within its Old Town area, many of which are just getting back to pre-Katrina conditions. Alleviation of flooding threats is crucial to long-term confidence and economic recovery as well as the emotional wellbeing of residents. Fortunately, the source of flooding from Isaac has been identified and a remedial action, which is cost effective and expedient, is possible.

Bayou Pattasat drains a large basin comprised of much of the old section of Slidell and serves as a vital outlet for storm water runoff. Unfortunately, the areas surrounding the pump station at the end of this canal are lower in elevation than the adjacent railroad tracks under which the bayou passes. As lake levels rise, this area is overtopped allowing flood waters to flow up the canal, under the tracks, and into the residential areas as happened during Katrina and now Isaac. The protection system would be 2,000 feet in length with an average height of approximately 5–6 feet above the current grade.

The cost of gutting and debris hauling from the affected homes alone should be at least $2,500,000. This cost does not take into account the economic impact to families or the interruption of service. Conversely, the project cost for construction of the proposed protection project is estimated at a mere $985,000.

While the economic cost to the citizens of Slidell can be quantified and cataloged, the emotional and long-term impacts on a community caused by a flooding event are difficult, if not impossible, to fully capture. This project provides a prompt and cost-effective solution to a problem, which, unabated, will remain a certain risk each storm season. We hope that this letter will provide the impetus to move forward with a project sure to serve the community of Slidell well in the near future and many storm seasons to come.

Again, thank you Madam Chair and members of the committee for allowing this statement to be entered into the record.

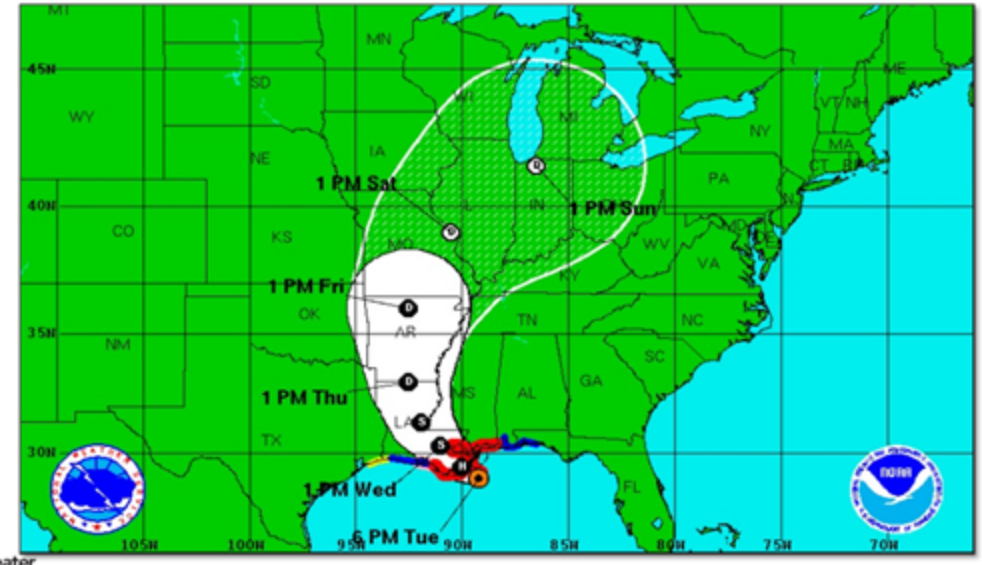
PREPARED STATEMENT OF GREATER NEW ORLEANS, INC.

Contents

1. Introduction
2. GNO, Inc. Response
3. Preliminary Impacts as of 9/28/2012
   - Economic
   - Workforce
   - Infrastructure
   - Environmental
   - Brand
4. Opportunities
5. Philanthropic Response
6. GNO, Inc. Plan of Action
   - Immediate
   - Mid-term
   - Long-term

Introduction

Seven years to the day of Hurricane Katrina, Hurricane Isaac made landfall on the Greater New Orleans region.



Introduction

Footprint of Hurricane Isaac at 3:00PM August 29, 2012 in Louisiana

People subjected to winds in excess of 50MPH	1,417,740
Households subjected to winds in excess of 50MPH	588,397
Utility (electrical) accounts out of service	700,000+
Businesses subjected to winds in excess of 50MPH	59,928
Employees affected at these businesses	617,584
Reported annual sales at these businesses ($000)	141,358,868 (excludes offshore activities)

www.gcConsulting.com • University of New Orleans Research & Technology Park
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- Isaac strong Category 1 storm vs. Category 3 for Katrina
  - *BUT*, sustained storm winds for 50+ hours
  - *BUT*, storm surge within two feet of Katrina
- The new $15B flood protection system performed well
- Unprotected areas experienced severe flooding, some unprecedented; areas to the north had river flooding and dam instability
- Sustained wind for 50 hours caused significant infrastructure damage. Power outages affected over 40% of Louisiana
- Total cost of Isaac ~$10B (See Slide 6)

GNO, Inc. Response

- Resource Guide on GNO, Inc. website
- Situational Analysis calls to 75+ top business
- Business/Parish emergency assistance (e.g., w/ Nat'l Guard)
- Manned "virtual activation" of Business Emergency Ops Center
- Helped establish St. John Economic Recovery Call Center
- Execution of Preliminary Economic Impact Report

Isaac Recovery Information

Hurricane Isaac Economic Recovery Resources, by Parish:
Jefferson | Orleans | Plaquemines | St. Bernard | St. Charles | St. James
St. John the Baptist | St. Tammany | Tangipahoa | Washington

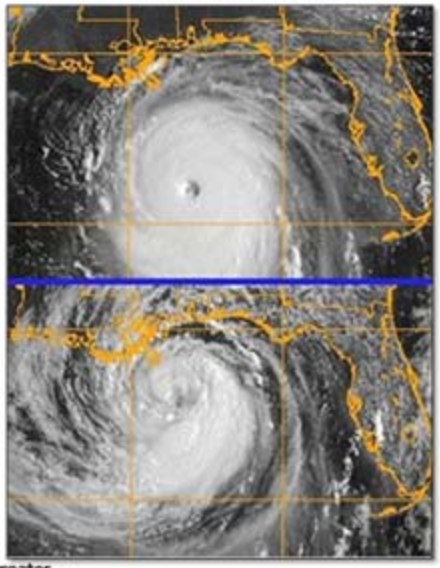
- *Business Recovery Centers Opening for Isaac Victims*
- *Track Entergy outages* | Report Entergy outages at 1-800-ENTERGY | *Track CLECO outages* Report downed CLECO lines at 1-800-622-6537
- *Louisiana Public Assistance Resources*
- *Hurricane Isaac Relief Fund Now Accepting Grant Applications*
- Register for Federal assistance at *DisasterAssistance.gov*, via a smartphone at *m.fema.gov* or by calling (800) 621-3362 or TTY (800) 462-7585.

Follow us on *Facebook* and *Twitter* for more updates.

PRELIMINARY ASSESSMENT (5)

Impact - *Economic*

Using Hurricane Katrina and Irene as comparables, the estimated economic impact of Hurricane Isaac is $10 billion.



Hurricane Katrina

Year:	2005
US GDP Impact:	0.95%
Max. Impact:	**$150B**

Hurricane Isaac*

Year:	2012
US GDP Impact:	0.07%
Max Impact:	**$10B**

* Projected damages comparable to Hurricane Irene

Source: HIS Global Insights, *Wall Street Journal*

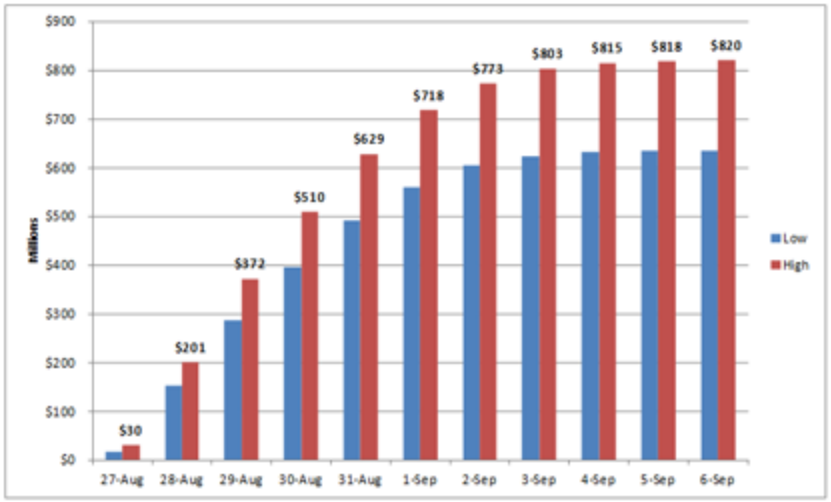
PRELIMINARY ASSESSMENT (6)

Impact - *Economic*

Output Losses (GDP) may have totaled $820M.

(Some of losses may be offset by increased activity preparing for the storm or during repairs after the storm. But others such as a reduced output in the manufacturing or petrochemicals sectors are much more likely to represent net losses in production for the year.)

GDP Impact of Hurricane Isaac



Sources: LSU Department of Economics

Impact - *Economic*

Different sectors were impacted in specific ways, although none as severely as during Gustav or Katrina:

Energy

- Louisiana is #1 producer of Oil, #3 of Natural Gas in the USA
- Isaac concerns included rig evacuation, refinery shut-downs and pipe damage
- Infrastructure damage was ultimately minimal
- Estimated production losses = 13 million barrels of lost oil production and 28 billion cubic feet of lost gas production

Trade

- The port of New Orleans and South Louisiana (combined) is the largest, by tonnage, in the world
- Port closed for a week, but infrastructure damage was limited
- Typical economic Impact estimated at $300M/day; still being calculated

Sources: HIS Global Insights, Port of NO, LA Dept. of Agriculture

Impact - *Economic*

Farming

- Estimated statewide damage = $100 million+
- Up to 20% of the state's annual $1.1B sugarcane crop impacted ($60M loss of pre-storm value)
- Small farms underinsured

Fisheries

- Fishermen suffered from lack of electricity – no ice and diesel – interrupting production
- Extensive dock and boat damage in certain areas
- Excessive debris has also impacted trawling

Impact - *Economic*

Debris impacts fishing industry

Impact - *Workforce*

Over 220,000 individuals were displaced and/or evacuated, impacting ability for workers to return to their jobs.

St. John the Baptist Parish

Workforce impacts included:

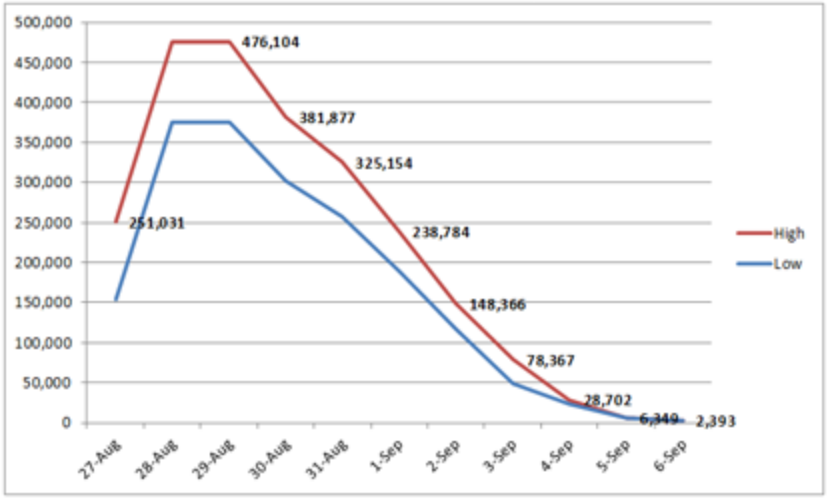
- Individuals unable to return home/to work due to storm damage (13,000+ homes estimated)
- Individuals unable to return home/to work due to power outages (900,000+ at peak)
- Individuals unable to work due to lack of support services (e.g., fishermen)

Sources: GOHSEP, Nola.com

Impact - *Workforce*

At the same time, workforce impact due to closed businesses may have peaked at over 475,000 workers.

Impacted Business Employment Effect of Hurricane Isaac in the Greater New Orleans Region



Source: LSU Department of Economics

Impact - *Infrastructure*

Sustained winds for over 50 hours, and massive surge in unprecedented areas, caused significant infrastructure damage.

- **Electrical** – Over 900,000 users without power
- **Roads –** N.O. cut off from Baton Rouge (I-10)
- **Homes –** Over 13,000 damaged
- **Water system –** Over $60M damage (Orleans)

Sources: LPSC, CNN, S&W Board

Impact – *Environmental*

The most significant environmental impact of Hurricane Isaac will be the further erosion of protective coast and barrier islands.

Fourchon Beach after Isaac

- Storm surge tore up Louisiana coast marsh grass, contributed to land loss and left behind large "wrack fields" made of torn-up vegetation
- Effects were greatest in the areas of upper Breton Sound near St. Bernard and upper Plaquemines parishes
- Over 50% of sandy coast and 80% of the Chandeleur Islands inundated by storm surges and subject to erosion.
- Tar balls and tar mats from the 2010 Deepwater Horizon oil spill uncovered
- Impacts on aquaculture minimal
- Coastal damages largely due to reactivations of previous damages by Hurricanes Katrina and Gustav
- **Stolthaven New Orleans Facility spill**

Impact - *Brand*

On one hand, Isaac demonstrated the effectiveness of Greater New Orleans' new $15B flood protection system.

Impact - *Brand*

On the other hand, Isaac reminded individuals of Katrina and reinforced the idea that we are especially prone to hurricanes.

The Washington Post | Politics | Opinions | Local | Sports | National | World | Business | Tec

wp OPINIONS

Five myths about Hurricane Katrina

5. New Orleanians learned their lesson and are more likely to evacuate sooner.

Don't count on it. Even as storm tracks showed Isaac on target to plow right up the Mississippi, most New Orleanians stayed put — and many a bar stayed open. Here and there across the city, neighbors pulled grills out onto the sidewalk and observed another tradition: hurricane barbecues. After all, anything in the freezer was likely to go bad as soon as the electricity failed.

Opportunities

New Orleans is poised to be the leader in flood protection and disaster mitigation – an economic opportunity.

Global Relevance

- 53% of USA population is coastal
- Globally, 634M people at risk of flood/surge living in coastal areas within 30 feet (9.1 m) of sea level
- two thirds of the world's cities with over five million people are located in these low-lying coastal areas

Local Investment

- RESTORE funding = $5 – 20B
- $50B Coastal Master Plan is law
- GNO, Inc. $2.5M water management plan

Precedent

- Dutch drive 4% of GDP via selling water management services

The New York Times

New York Is Lagging as Seas and Risks Rise, Critics Warn

Flooding Threat Grows

Unlike New Orleans, New York City is above sea level. Yet the city is second only to New Orleans in the number of people living less than four feet above high tide -- nearly 300,000 New Yorkers, according to the research group Climate Central.

The waters on the city's doorstep have been rising roughly an inch a decade over the last century as oceans have warmed and expanded. But according to scientists advising the city, that rate is accelerating, because of environmental factors, and levels could rise two feet higher than today's by midcentury. More frequent flooding is expected to become an uncomfortable reality.

Philanthropic Response

Philanthropic response limited compared to past disasters

- **The Greater New Orleans Foundation Hurricane Isaac Fund**
  Grants are being awarded for direct emergency relief including food, water, clothing, & shelter; longer term rebuilding and recovery grants for areas such as housing, the re-opening of schools and the strengthening of communities against the ravages of future storms included
- **Foundation for Louisiana**
  Activated its Disaster Resilience Fund to support emergency relief throughout the state to sustain and expand the success of preparedness and recovery programs the Foundation has provided statewide
- **Corporate Response**
  - In-kind donations of food, water, personal items, free storage, and medical supplies
  - Allocation of funds to affected parish non-profits and service organizations: Red Cross, Feeding America, United Way for Greater New Orleans, Salvation Army, Greater New Orleans Foundation, Greater Baton Rouge Food Bank, Animal Rescue New Orleans, Rebuilding Together, and others

GNO, Inc. Plan of Action

Immediate

1. Emergency assistance for impacted parishes and businesses
2. Outreach to regional businesses, parish officials, EDOs and utilities

Mid-term

1. **Economic Impact Report –** Analysis of the impact of Hurricane Isaac on: economy, infrastructure, workforce, environment and brand
2. **National Perception Study** – Patterned after national post-Macondo analysis; appropriate follow-up determined

Long-term

1. **Public Policy –** State and Federal policy action based on Integrated 3-Pillar Water Strategy; Development of a "FPI" to measure and educate
2. **Preparation and Resiliency –** Work with business community and utilities to reduce impacts of future events
3. **Economic Development** – Support of growth of water management industry to create jobs

GNO, Inc. Plan of Action

Long-term Plan: Support for Integrated 3-Pillar Water Strategy

PRELIMINARY ASSESSMENT (20)

PREPARED STATEMENT OF NEW ORLEANS SEWERAGE AND WATER BOARD

Chairwoman Landrieu and members of the committee: Thank you for allowing me to submit a statement for the record on behalf of the New Orleans Sewerage and Water Board (S&WB).

Hurricane Isaac was a large, slow-moving storm that produced more rainfall than Hurricane Katrina. It produced over 20 inches of total rainfall in New Orleans, which was the highest in the metro area. The S&WB drainage system relies on 24 pump stations to empty the city of rainwater. Since Hurricane Katrina, about $1 billion has been spent repairing and modernizing the system; however, the system can only remove an inch of water on the streets within the first hour after the pumps are activated and half an inch per hour thereafter. While we did have street flooding in many of the usual, low-lying areas, overall the S&WB's drainage system performed very well. Our system benefited from on-site power and, despite battling power outages, it pumped at full capacity throughout the storm. The system also benefited from redundancies, which provided multiple layers of back up, and much improved coordination and communication with the Corps of Engineers and other government entities.

However, we did face challenges when an issue arose with several of the Corps' pumps located at the Interim Control Structure on the 17th Street Canal. This matter is of great concern to both New Orleans and Jefferson Parish. As you know, our systems frequently must work in tandem to properly drain areas within the Hurricane Storm Damage Risk Reduction System (HSDRRS). This ability was hampered by the Corps inability to remotely trigger their pumps at the 17th Street Canal. Because the Corps was unable to remotely start their pumps, the S&WB was forced to slow down pumping operations at Pump Station 6 in order to avoid overtopping at the 17th Street Canal. The Canal was not full at the time so this pumping lull did not worsen street flooding. However, this scenario could be avoided if the Corps would allow us to decommission Pump Station 6 and our other two interior drainage pumping stations, which are located on the Orleans and London Avenue canals, and not rely on tandem pumping.

The improved pump stations are significant features of the Southeast Louisiana Urban Flood Control Program (SELA). While there are hiccups, overall SELA is a good model of a coordinated, multi-jurisdictional drainage and flood damage reduction program. Construction of SELA projects has been ongoing since 1997. The S&WB and the Corps have set an aggressive construction schedule to complete the remaining nine SELA projects in Orleans Parish and are committed to completing them by 2016. The current estimate to construct these projects is $600 million. Pursuant to the Project Partnership Agreement, the S&WB will be required to fund approximately $40 million of this cost immediately. SELA must be fully funded and work expedited for New Orleans and Jefferson Parish to reap the maximum benefits. To that end, it is paramount that the financing of land, easements, rights of way, relocation of utilities and disposal of soil area (LERRDs) be allowed to move forward with the 30-year repayment plan outlined in Public Law 110–329.

Lastly, the S&WB sustained approximately $60 million in damages from Hurricane Isaac alone. Flying debris damaged facilities and caused a fire, fallen trees ruptured underground pipes, winds tore roofs off our buildings, and drainage canals were littered with trash, which had to be cleared. In an effort to mitigate destruction from future storms, it is imperative that continued storm proofing and fortification be expedited and funded.

Due to numerous improvements in the last 7 years, the S&WB's drainage system performed well and helped prevent major flooding within Orleans Parish. Moreover, as work continues on SELA projects, it is anticipated that our system will perform even better in future storm events. The importance of all SELA projects cannot be overstated. Because these projects aid in the drainage of the entire area within the HSDRRS, it is vital that they be completed as soon as possible and allowing the non-Federal partners to finance LERRDs over 30 years will ensure this happens. Furthermore, while there was much improved coordination and communication with the Corps, issues with the 17th Street Canal and tandem pumping need to be reexamined and addressed as soon as possible.

Again, thank you Madam Chair and members of the committee for allowing this statement to be entered into the record.

[This prepared statement was submitted by Marcia St. Martin, Executive Director, New Orleans Sewerage and Water Board.]

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