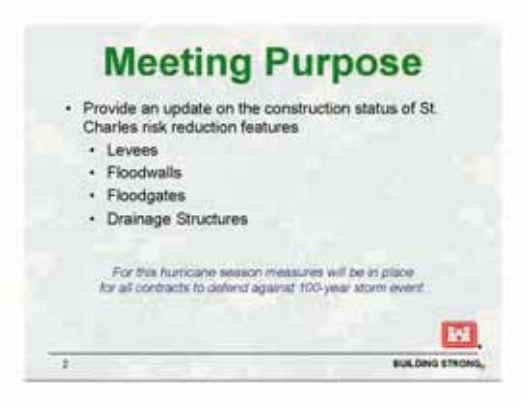
Public Meeting Summary

St. Charles Parish Construction Update
May 9, 2011

Location	St. Charles of Borromeo Catholic Church
Time	Open House 6:00 p.m. Presentation 6:30 p.m., followed by a discussion
Attendees	Approx. 21
Format	Open House Presentation
Handouts	• Corps Approval Process Brochure • 2010 Status map • St. Charles Parish risk reduction fact sheet • Bonnet Carre Spillway fact sheet • Morganza Floodway fact sheet
Presenter	Carl Anderson
Facilitator	Nancy Allen

Nancy Allen: I'm a member of the public affairs staff with the Corps and I will be facilitating this evening's meeting. We want to thank you all for being here tonight.



The purpose of this evening's meeting is to provide you with an update on the risk reduction construction on the east bank of St. Charles Parish. We will get through all the slides and then open it up for questions and comments. All of the information from tonight's meeting will be on our website at nolaenvironmental.gov and we will have all that information for you later. Carl Anderson will be presenting tonight; he's with the protection and restoration office. We also have Brett Herr the branch chief here. So the purpose of this meeting tonight is to give you a construction status of the St. Charles risk reduction features including levees, floodwalls, floodgates and drainage structures. For this hurricane season measures will be in place for all contracts to defend against 100-year storm event. We are less than a month away from hurricane season and that's really good news for the whole region that we are now in a place to defend against a 100-year storm.

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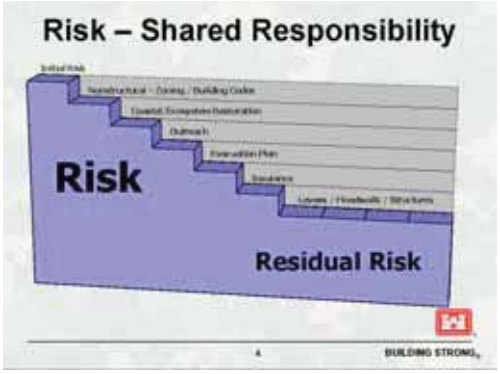


We like to open up our meetings with this slide that talks about reducing risk because reducing risk is a shared responsibility and we all play a role. We use this to show that we start with our initial risk and through a variety of ways that risk is reduced. We have non-structural methods like zoning and building codes, through coastal and ecosystem restoration, through outreach and education to having an evacuation plan and insurance and then lastly we have levees, floodwalls and other structures. We live in Southeast Louisiana so there will always be residual risks. We do remind you as we prepare for hurricane season that you have your hurricane plans in place; have your evacuation plan, your emergency kits ready and please head local warning concerning evacuations.

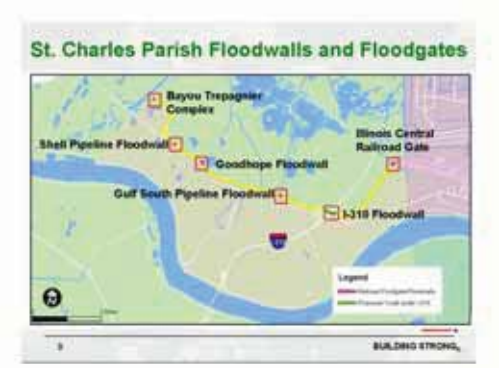
Just to set the stage a bit, the projects we will be talking about this evening are all part of the Hurricane and Storm Damage Risk Reduction System. This $14.4 billion system was authorized by Congress and it's a combination of levees, floodwalls and other risk reduction features that stretch around the East and West Banks. It's about 120 perimeter miles and all of that will be able to defend against the effects of a 100-year storm this hurricane season.

Carl Anderson: I'm a senior project manager for the St. Charles area. You can see on this slide that the levee starts here at the Bonnet Carre Levee and it stretches all the way to the airport; it's about 9.5 miles. We awarded 14 contracts to build this with seven of them substantially complete with the rest being close to completion. Some of these levees were as much as six or seven feet low and we've added six to 10-feet of dirt to all these levees and we've added four to five-feet to the walls.

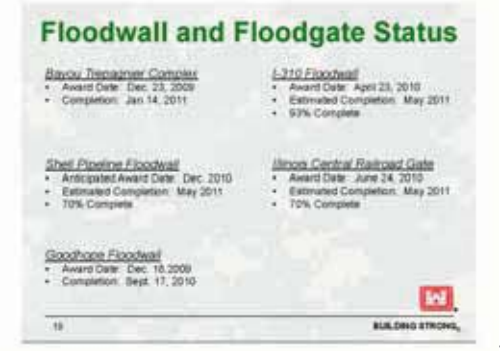
We have split the levees into four reaches.

We start with Reach 2A and it was awarded in December 2009 and is complete now. All we are doing now is trying to get the Bermuda grass to grow. The earth work was done around late fall so we couldn't get the grass to grow as it's a summer grass. The same thing in Reach 2B. This levee here was about elevation 13.5 and we de-graded the whole levee down to elevation 3 and put this high-strength fabric down and rebuilt the levee up and what that did was keep the footprint within the existing right-of-way, meaning that the berms are much smaller and we were able to save some money on dirt, and we got it up to elevation 16.5. This is a success story near Ormond. At Reach 1A, we are about 87% complete. We have some ramps to build and some more work on the berms. We also have Reach 1B, which is about 90% complete there. We have hauled almost all the dirt we need for all the levees out here so the majority of the truck traffic and work is done.

This is a photo of the high-strength fabric that we put out in one long piece, about 100-feet long, and then we put the dirt back on top. We got the levee back in shape and then got the grass to grow. This is rye grass and we are also planting Bermuda.



This slide shows the floodwall and floodgates. We have a total of five of them.



Work at Bayou Trepagnier is done. This is near the pump station that the levee district built behind Shell. I-310 is also nearly completed. You can see this one as you go over I-310. The Shell Pipeline; the wall is in place but there is some earth work to do, so slope paving, but this is substantially complete. The Illinois Central Railroad Gates, this is the one where we are placing a gate that

closes across the railroad line. The majority of the walls are up but we are still working on the gate. We are looking to complete this by the end of the month. The Goodhope Floodwall is a gate that was completed in September of last year.

This is the pump station on the flood-side and you can see we have the new walls. This is a slide during construction. These slide shows an actuator, a motor that attaches to a valve in the discharge pipe so if they have to shut the engine down they can close the valve so that the water can't come back up and around. All of this can be operated from within the pump station.

These are slides of the relocated Shell Pipeline. We had to fit it between the piles, the sheet piles, and we passed it through the piles. You can see where we drove all the H-piles and here is the new wall with the tie-ins into the levees.

This is a slide of the Goodhope Floodwall. This is the gate on the flood-side and it's a swing gate that is very easy to close.

This work was a bit challenging as we had to build this wall underneath the Interstate 310 Bridge. There is the main bridge and then all the entrance and exists ramps that we had to work around. We drove a lot of piles and you can see the end result; we have a wall that is very substantial and then right under the bridge we are pouring a lot of slope paving for erosion control. You can see this notch up in here and in between the girders; we will be putting a metal plate to keep the wave wash from coming over the wall.

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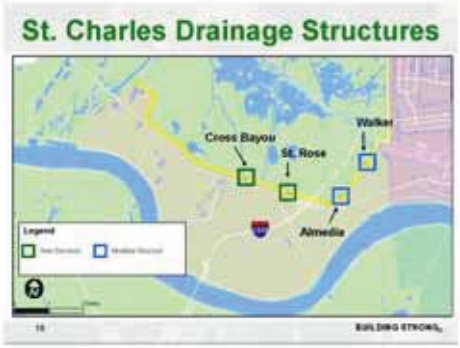
This is the railroad gate. These photos come from the airport side looking into St. Charles Parish so we have a wall here and there is the railroad track. This is the St. Charles side of the tracks and you can see they are pouring concrete nearly every other day, either base slab or the wall. They are moving quickly on this project as you can see the different stages.



I now want to talk about the drainage structures. We have four them that we are working on.

We have the Cross Bayou Drainage Structure that is about 75% complete. The new structure is in place and about 75% of the tie-in walls are in place. This also ties into the new pump station that the levee district is building and that wall is all in place. The discharge pipe is in place and they are working on the main building of the pump station right now. We have the St. Rose Drainage Structure; it's a little further along than Cross Bayou. This structure has all the walls in place and we are installing the gates right now. We are also demolishing the old structure. What we did with the two structures, we built a new one in front of the old one on the flood-side so that we could use the old structure until the new one was in place. At Almedia and Walker, we modified these two structures and those were completed back in October.

This is a picture of the main structure and you can see where the piles are. Here are some of the walls here and right here, we are down in the hole on the flood-side looking back. There will be six gates here. These structures are gravity drainage for rainfall. When the lake gets high, the parish will close the gates and they have some temporary pumps. The timing is to have the new

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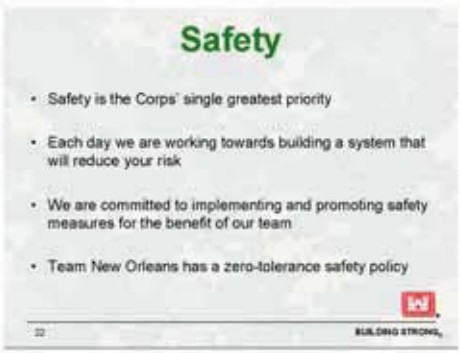
Cross Bayou Pump Station completed and once that is done, they won't need the temporary pumps here.

This is an aerial photo of St. Rose. This is the existing structure here and we built the new structure and tie-in walls on both sides of it.

This is Almedia and here is the temporary pump that I spoke about. They are all installed here and there are the fuel tanks. We did build a new wall that was four to five –feet higher than the old wall and in some cases it may even be six feet higher. The levees were built to 16.5 west of I-310 and 16.5 east of I-310 so we've added about five feet of dirt to what was out there before.

Nancy Allen: We do take quality of our products very seriously. We do have an aggressive quality control and assurance plan. We have onsite Corps employee oversight of every contractor to monitor them and ensure the sites are safe. There is a lot of signage and they are knowledgeable of all site activities. This is very important to the Corps.



Safety, of both the public and our jobs sites, is our single greatest priority. We are working toward building a system to reduce risk, but we want to build that system in the safest way possible. We've worked several million man hours with a strong safety record. We did unfortunately have two recent contractor fatalities and following those accidents we completed a safety stand down at every single project. Those accidents are under investigation to capture lessons learned and we do have a zero-tolerance safety policy so we take that very seriously.

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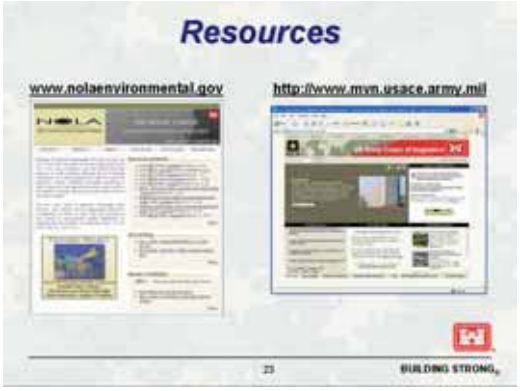
We always want to hear from the public as we conduct regular meetings throughout the system. If you signed in tonight you will be added to our mailing list. We do have a construction impact hotline if you have any questions or concerns about any of our project sites. You can call this number and you will reach a Corps employee here in New Orleans and can answer your question and provide you feedback on the measures taken. Comments can always be submitted at nolaenvironmental.gov. There is also a main telephone number that you see listed here and lastly, we have an email at AskTheCorps@usace.army.mil.

We are using several networking sites. You can find us on Twitter, which are very short updates. We have Flicker, which is photo site and then on Facebook. On Facebook, we are usacenola and we are using that to provide frequent updates on flood fight measures and other hurricane risk reduction construction. If you are looking for updated information on the high water in the Mississippi River, Facebook is a good place to start.



We also have two websites: www.nolaenvironmental.gov has all of our public meeting summaries, slides and environmental documentation. We also have our normal district website and that is www.mvn.usace.army.mil. This site also has information on the flood fight.

We now want to hear from you and answer your questions. Please just raise your hand and Sarah will come to you. We are making a transcript of this meeting so that's why it's important to use the microphone and state your name when you ask your question for the record. Please be respectful and we are asking that you limit your comments to three minutes. We will also be available afterwards to answer any questions.

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Male Speaker: What is the responsibility of the Corps after everything is completed as far as the operation and maintenance of the levees.

Carl Anderson: We turn the project over to the Pontchartrain Levee District and they will be doing the everyday operation of maintenance. They do have a deal with the parish as the parish operates the drainage structures. The floodgates will be the responsibility of the Pontchartrain Levee District.

Male Speaker: I'm curious about the floodgate that is going over the railroad tracks. Right after Katrina you built one. Are you taking that one down and constructing another one?

Carl Anderson: What we did was demolished the old one and put a stronger and taller wall and floodgate there. Basically we tore down all the old walls and built new ones and add four to five feet to those walls.

Male Speaker: I live by the levee and see it, but I was curious because we got flooded because of that floodgate right there.

Carl Anderson: They weren't completed yet unfortunately and that was the problem.

Male Speaker: Then three months after Katrina they built a floodgate…

Carl Anderson: They finished building it, yes.

Male Speaker: How did you come up with the height of the system in St. Charles Parish being 16.5 when the New Orleans area is a little bit higher? How did you arrive at that number?

Carl Anderson: We did extensive hydraulic modeling, it's a huge model that they run storms, different size storms and different tracks, and they have points in the model. They will use all the information and determine that for a 100-year storm surge the elevation is this. They also have what they call a wave model and the height of the wave and the length of the wave and they take that information and mathematical equations and then develop how high the levee or wall needs to be. They do that throughout the system and it just happens that for this particular levee, the height is 16.5. The approach to determining the height is the same throughout the whole system.

Male Speaker: For the last 12 year I've been conducting an extensive study on the system. I'm going all the way back to Betsy; every hurricane, tropical storm, opening of the Bonnet Carre Spillway. I've used the Corps' water control website and I plotted every one of these. There is a serious problem with every gate from Cross Bayou to [Inaudible] Canal in the top opening. The top opening at Cross Bayou is only .7/10 of a foot elevation and this is a serious problem and I have the data to prove. I've tried to communicate with the Corps and I've met five times with a hydraulic engineer on a study he was doing on the internal drainage inside the lake for St. Charles Parish and I pointed this out to him. I also pointed this out to the project

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engineers back when the Cross Bayou Gate was dedicated. I looked at the level of the water in the gate and the water in Cross Bayou was normal but the top of the opening was underwater. I inquired from the engineer that was there what was the height and size of this and he said they sized it to take care of all the water that can get through [Inaudible]. I then asked what do you do when the water goes over the [Inaudible]? Well I have continued researching and I have 99% of the charts that I plotted, the top opening is under water. A year ago I talked to an engineer to see what they were doing about the drainage structure and the levee and he said they weren't doing anything about it. Now, you are coming through and replacing them all. What made the Corps change their mind because the engineer I talked to said they weren't doing anything to the gates.

Carl Anderson: I don't know who you talked to so I'm not sure what he said, but we've replaced all the structures. We have modified Almedia and Walker and we've built two gates that are identical to what was out there, but that's for hurricane protection.

Male Speaker: What is the top elevation of the new gates that you are putting in?

Carl Anderson: I'm assuming they are the same as what they were before.

Male Speaker: Will you get the information please? I brought a power point presentation of what I'm talking about showing you just exactly what the problem is. We had an event in December 2009 and Airline Dr. was under water for five days. The lake will push water in and we got eight inches of rain in two days and then the level inside the levee went up 3.5 feet, which put water on the Airline. The lake went down and it took almost a week and a half for the level inside the levee to go back to normal and this is what happens with everything I've plotted. It takes weeks for that water to come back down. You said you've built the same and if they are we are in trouble. These elevations are ok with pumps in the levee, you close the gate you pump the water out. I will say it to your face, they have mis-designed these gates at Cross Bayou, St. Rose, Walker and Almedia Canal; they don't work. [Inaudible] when the lake comes in the gates hold the water out; that's not so. My chart shows that when the surge comes up, just a normal rise in the lake, water pours through the gates and I have the documents to prove it. When it goes out it takes a long time. I would like to have that information if you can get it to me.

Brett Herr: I can't address all your concerns, but when the hurricane system was designed it wasn't designed to address the interior drainage issues in St. Charles Parish; it's a hurricane protection project and it was designed to handle the 25-year rainfall so anything bigger is not going to be handled by the drainage structures. The other thing is that after the big rainfall last December, which was a 50-year rainfall event, we identified lots of problems with the drainage canals within St. Charles Parish. The parish did a lot of clearing on those canals to get the water to the drainage structures much quicker so that is definitely going to help.

Male Speaker: Was this after the event when the water was trapped behind the levee? I've also been communicating with the levee board, have been doing that for 12 years, and it's been a thorn in my side because you said it's for a 25-year storm and I don't that rain in December was a 25-year storm?

Carl Anderson: That was a 50-year storm. That's why there was so much rain.

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Male Speaker: You said you use some program that models some type of storm surge. Does that program take into account the fact that the water has to go through the wetlands first before ramming up against the levee?

Carl Anderson: Yes, they include the shore line, the railroad embankment, all of that is part of the program. They then put in a friction factor for the trees.

Male Speaker: Are all your sites are linked if you want to see this on the web?

Nancy Allen: Yes, if you go to the main website you will see links to Facebook, Flickr, Twitter.

Male Speaker: I've heard for many years that the federal government doesn't pay for flood-related projects. This is a flood control project for incoming hurricane storm surge, fair enough, but the parish is building pumping stations that will get the water out in the event of a wet storm. So you have two things happening. If you have a storm surge you close the gates, if you have a wet storm you have to get the water out, the gate can't open. If all you have are flood gates and then you have to open them after the water subsides on the lake side and you have a full basin on our property side, we've got a lot of time to see it get out. My question is this. The federal government has spent a lot of money building these floodgates and then the parish and state come by and build pump stations, but I've often wondered why we don't just make the levee high enough and build the pumping station if you get the floodgates because hydrostatically, you don't have a lot of potential for the flow to get out anyone. It still provides you the height of the levee to protect the storm surge coming at you during a hurricane. Is there just no potential for the federal government to work with the state and local agencies to use that money to give us both protections at one time?

Carl Anderson: When we were doing this original project we had the gravity drainage structure; that's what the authority allowed us to do. There was a place where we asked the parish if they wanted to kick in at the time to help build a pump station and they couldn't afford it back then. What is happening now, we have the gravity drainage structures and that is what we can replace. The Levee District are the ones that got everyone to contribute and what they built by Trepagnier and they are currently building Cross Bayou and there are permits to do two more pump stations. At this time, I don't have the authority under this particular project.

Male Speaker: You have your authorities and the federal government has its guidelines and the local government has to deal with the drainage. They are separate issues and I can understand that. It's sad that we spend a huge amount of money putting in a flood control structure so that you can get gravity flow when a dynamic device like a pumping station can do it a whole lot faster. If we spend the money together wouldn't the public be better served?

Carl Anderson: There is an additional requirement to have gravity drainage. You have substantial amount of wetlands south in here, and along back here, and under an agreement with the resource agencies, we have to allow water to go back and forth; to interchange between

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the outside and inside. That requirement is there so if you just build a pump station it doesn't solve it.

Male Speaker: We got here in 2008 and I wasn't clear of the drainage structure and you just kind of answered it; the gravity drainage structures. What purpose do they serve and how do they interact with the pumping stations. You kind of answered it but can we have more information on the gravity drainage that you need to have. It doesn't ensure the flooding that the gentleman spoke about where that whole area was flooded for weeks. These structures don't serve those issues, the issue of intense rain water just flooding and sitting there.

Carl Anderson: When we originally designed the project we broke these areas up into storage areas and we sized those structures, the gravity drainage structures, to pass the 25-year storm. We tried to match with and without the project so we tried to match those stages. So we have the four structures here; this one is basically gone now because of the pump station and we were able to get rid of the drainage structure there because there are no wetlands behind it anymore so there was no need for the interchange. The interchange is an important thing that we have to have. Now, with the new pump stations coming on line, it will be driven to how high the lake gets as to when you turn the pumps on. You can rely on gravity drainage during a normal rain and it saves the parish or levee district money on pumping.

Male Speaker: The inner canals that you built in Reach 1B, is that to allow gravitational flow? What is the actual purpose of that inner canal? We have a levee at the end of Fox Lane near Almedia that protects us from the inner canal and that inner canal will get higher, almost up to our levee, and we get flooded because the inner canal was the gravitational flooding. It's a soup bowl for us; the levees are just keeping the inner canal. Is it necessary to have that inner canal on the inside because that causes up a soup bowl effect.

Carl Anderson: There is a canal that runs parallel to the levee and then it ties into the drainage structure and also ties into the canal that runs along Airline Highway. That's where all the rainfall goes; it finds it way along the canal near Airline Highway and then the water has to get out from there. That's how we made the interconnection; we just interconnected everything from there. Even with Ormond, they have a levee system around it and it has a pump station. I think the ground is lower on the inside than the outside. You might have the same problem in your area and unfortunately, you may have to think about getting a pump station to take care of that area.

Male Speaker: The control structures, what dictates when they are going to open and close them and how long does it take to get them all closed?

Carl Anderson: All those drainage structures are run by the parish and they have gauges on both sides to see what is going on. They are also watching the lake. I don't know the exact trigger for that, but they usually leave them open. The only time you will see them closed is if we start getting a high lake and the water is starting to come in from the lake; they can close those gates fairly quickly. I think within 15 to 20 minutes the gates can be closed.

Male Speaker: Do you know if these sites are going to be manned?

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Carl Anderson: They monitor and then they have to send people out, but the do monitor the gauges. There is a gauge right here at Cross Bayou, once we get the project completed, there is a gauge on the outside and one on the inside and there is also a gauge out by the Bonnet Carre that they can watch. It's pretty close to real time so you can see if it starts rising.

Male Speaker: You say you've been involved with the project for how long?

Carl Anderson: Originally back in the 1980s; I originally worked on the design report.

Male Speaker: Where you working for them when the SELA project was approved?

Carl Anderson: I worked on the SELA project for a little time in St. Charles Parish.

Male Speaker: St. Charles wasn't a part of the SELA were they?

Carl Anderson: No, but they got a feasibility study…

Male Speaker: That study is about 10 years old and it's not completed yet and this is my concern also. I met with the engineer that was doing the study on five occasions and I have some problem making them understand the problems with the gates. Those two gauges that were mentioned at Cross Bayou I've been using for 12 years. That gauge was in [Inaudible] Katrina knocked it out so rather than put it back over there where they had to use a boat to get it, they monitored the spillway and I know where the gauge is. The problem I'm talking about with the water trapped behind here because of these gates, those gates in St. Rose are essentially the same height as the ones at Cross Bayou so you have the same problem there that we have at Cross Bayou. The water piles up behind, it can't get out even when the lake goes down. Now there are no gauges there and I'm pushing the Levee Board to put two gauges there so we can start looking at it. [Inaudible] and the Corps should pay for them. We've had to go to others to pay for our pumps. I talked to an engineer in the 1990s and he said we don't install pumps, we build levees. When the SELA project came in, they put pumps all over the place and St. Charles Parish was completely left out; we weren't even considered for the SELA project. I got to blame our politicians for that; our politicians didn't do anything about it. We should have had pumps put in the levee five or 10 years ago if they had done a study. In 1991 when I found out they had gauges in there I contacted the Corps and asked for the justification of the gauges. A week later he sends some information. The Vicksburg office sent a memo to the New Orleans office that because the parish wasn't installing pumps we need you to install gauges in the wetlands and to study the interaction between the levee, the wetlands and the protected side of the levee. New Orleans sent a copy back and concurred. I then wrote back to the Corps that I wanted a copy of the study; the engineer said that doesn't designate a study. I've got all the documents and they should have done a study and they didn't do it. That's 20 years ago.

Brett Herr: Just to let you know, you talk about the SELA project and we have installed some pumps in Jefferson and Orleans Parish. Prior to the SELA authorization in both those parishes, the parishes paid for those pump stations, the Corps did not. We built the hurricane protection system and the parish was required to provide interior drainage. After the

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May 1995 flood, Senator Johnston got the authorization and that's the first time the Corps has been involved in interior drainage and that allowed us to do improvements in both Jefferson and Orleans and you do have an ongoing study in St. Charles, neither one of us are involved in that, but that is your avenue to getting reimbursement for the pump stations that are currently being constructed. If you come up with a positive recommendation there is a chance you can get reimbursed for the costs for the pump stations.

Male Speaker: Did St. Tammany get some of the SELA money?

Brett Herr: St. Tammany was part of the authorization but we have not built anything in St. Tammany yet.

Male Speaker: Can you identify where the pumps are supposed to be on the maps and how many there are?

Carl Anderson: The new pump station is going right there in the old canal. There is another pump station over here, this one is about 500 cfs and this one here is 372. The new one has 496 plus a smaller one here. That on in Cross Bayou will be a good sized pump station so a lot of water will be able to pumped out of the canal that goes along Airline Highway.

Male Speaker: It seems like the Shell Pump Station serves Shell more than anyone.

Carl Anderson: Well it helps this whole area here, all the way from the river to there.

Male Speaker: Well it could have been a little bit more to the east.

Brett Herr: Shell did pitch in a lot of money toward the pump.

Male Speaker: Yeah, they are the beneficiary…

Brett Herr: But that's Trepagnier; they also paid several million dollars into this new one here.

Male Speaker: So as an uninformed lay person here is what I understand. The Army Corps of Engineers has built us a levee system that will protect us from the 100-year storm surge from the lake. It doesn't address the flooding associated with the storm because of rainfall on our side that's a parish issue. When you say the 100-year storm, what does that mean? Is that a Katrina-like storm?

Carl Anderson: It gets into statistics. When they run this model, we don't deal with categories because all that involves is a wind speed, it's one item of a storm. We need to keep track of numerous things in a storm especially the storm surge. We run statistics on what we think that is a 1% chance of occurring in any given year.

Male Speaker: Bottom line is don't live over 100 years.

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Brett Herr: It's also important to note that in addition to looking at the design for the 100-year event, we also look at the 500-year event and make sure that the top of our levees and floodwalls and make sure they are above the storm height that would be created by the 500-year storm. You could get some overtopping from the 500-year, but you won't have significant flooding.

Male Speaker: The Corps has built drainage structures along this levee that are kept open most of the time and provide a gravity drainage system for 25-year types of rain, but not 50-year?

Carl Anderson: It's going to drain, but it will start backing up. Once the pump is finished you will be in good shape.

Male Speaker: Who is the individual in the parish who is responsible for the rainfall drain issue?

Nancy Allen: Department of Drainage.

Male Speaker: I do appreciate all your explanation of the technical aspects. One thing you said caught my attention though. The pumping capacity is huge but is there any concern as to the velocity effects on the levees that surround the pumps? The reason why I ask this question is that Ormond put in some tremendous pumping capacity on the north side of the subdivision and they are lucky to turn them on because when they do, the velocity starts ripping the sides of the levee in and they get tremendous amounts of erosion. As a result of that, I almost flooded because I'm on the older side and as a result of that they are reluctant to turn the pumps on. I even went to the parish president to talk to him about it and he said that's the reason. We had no flow. Hydrostatically, one side of the levee equaled the other side of the levee and there was no flow. My point is there, if there was a concern there on the levees interior to Ormond, would there be a concern about the levees that surround this floodgate structure and is anyone really looking at that?

Carl Anderson: We looked at the plans and specifications and reviewed them. The intake channel is rip-rapped a good distance so you won't see erosion at that place. At the pump station, it's pretty far away and you have a wall where the pipes go over the wall and they discharge a good distance away from the wall, which that is all rip wrap. The way it's laid out in the plans it looks adequate so you want have erosion.

Brett Herr: In Ormond, you have pipes going up and over a levee. In Cross Bayou and Trepagnier you have the pipes going up and through a large T-wall which is pile founded. Even if you had some erosion it won't jeopardize your protection.

Male Speaker: The second two proposed pump stations are they going with them now or are they just proposed?

Carl Anderson: The Levee District has a permit right now and they are looking for funding.

Male Speaker: What about funding for SELA and other hurricane protection projects? The federal government is looking for every opportunity to cut spending and I know some projects might be in jeopardy in Southeast Louisiana. Do you have any comment on that?

Carl Anderson: We are fully funded for the hurricane protection so we have the funds to do that. I don't know about the urban flood study.

Brett Herr: Under the flood control study, they have to finish the report first, which would go up to Congress for authorization. If it gets authorized then you can start requesting funding and you compete with other projects throughout the country.

Male Speaker: Although we have a pumping station on the canal, it would seem that it's not adequate that there are numerous pumping stations along Jefferson Parish lakefront. With a 10-inch rainfall, it will take that one pumping station quite awhile to drain. Any comment on that? Does anyone know what the real need is here for adequate pumping?

Carl Anderson: The Levee District has just hired an AE firm to look at that. He has a permit to put in another pumping station around St. Rose and another one along Walker Canal but they are working on a study to see what the capacity should be and where is the best location.

Male Speaker: Theoretically, depending on how much water gets in this basin, it could take a week for it to drain out.

Carl Anderson: I don't know the results of how quickly the pump station can pump out; I have not looked at the report, but it's a good size pump.

Male Speaker: Looking at the map and looking at the sections north of the airport runway. I know you recently came back and did some additional lifts on the lower section. Is the elevation adequate on the existing levees?

Carl Anderson: This is a T-wall and it goes from the airport to the lakefront. We are currently building a new one out the right now. In Jefferson Parish, all the levees along the lakefront have been enlarged and we've done a lot of work on the floodgate and we are working at pump stations. We are also working on the Causeway.

Male Speaker: What about the West Lake Pontchartrain extension?

Carl Anderson: That is another study that is going on but I don't have an update.

Nancy Allen: Everything that is green on this map is part of the federally authorized $14 billion system. It is all either under construction or at the 100-year elevations. Our mission was to be able to defend against a 100-year storm surge by June 1, 2011. Areas outside of the green are covered by or being incorporated into the federal levee system and some are in different systems. Everything outside the green is part of other studies, authorizations or projects, but everything in the green is a consistent 100-year system that will be in place by June 1st. Thank you for coming tonight and we will stick around if you have any other questions.

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Greater New Orleans Hurricane & Storm Damage Risk Reduction System

St. Charles Parish Construction Update

May 9, 2011
St. Charles of Borromeo Catholic Church

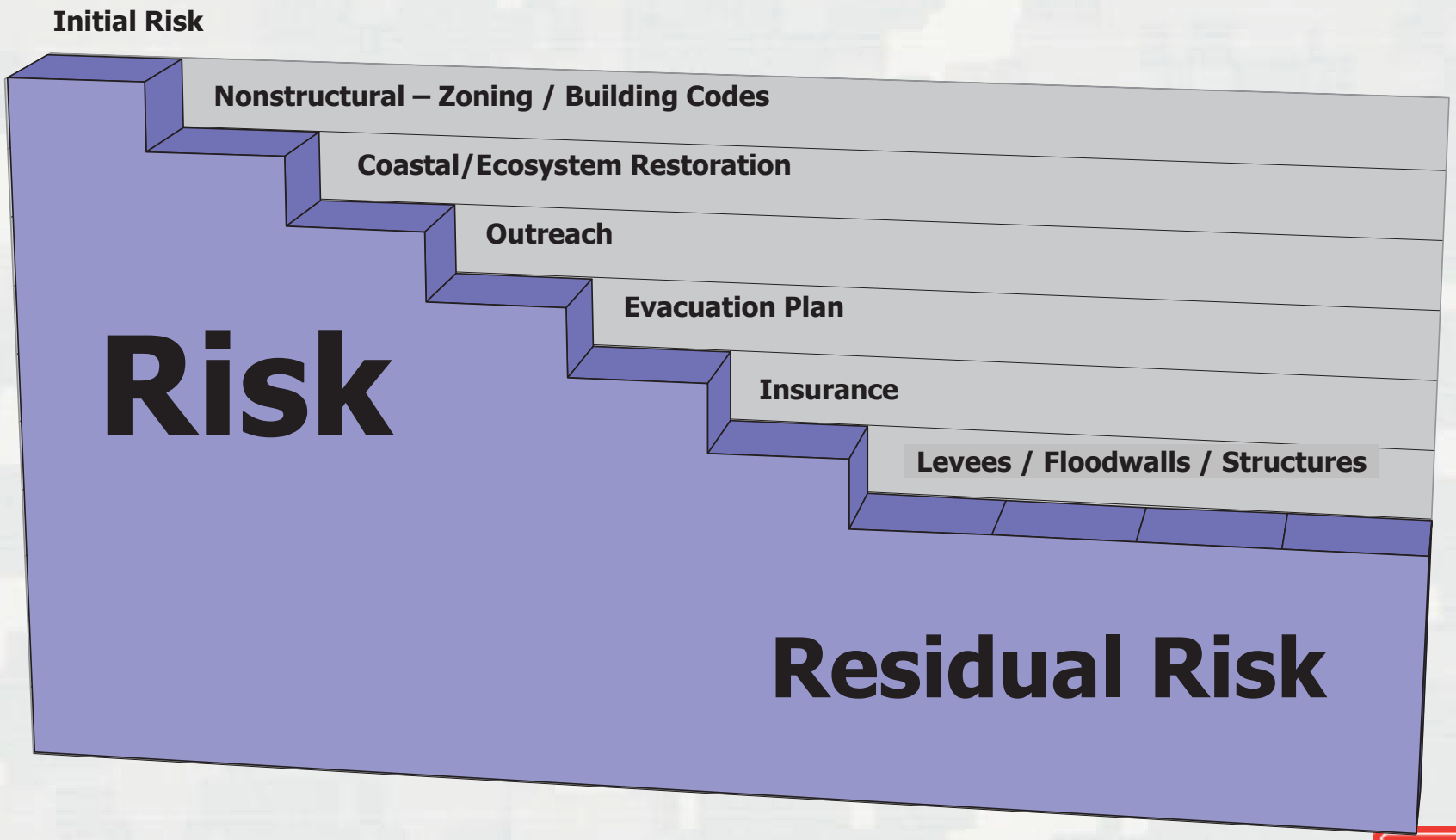
US Army Corps of Engineers
BUILDING STRONG®

Meeting Purpose

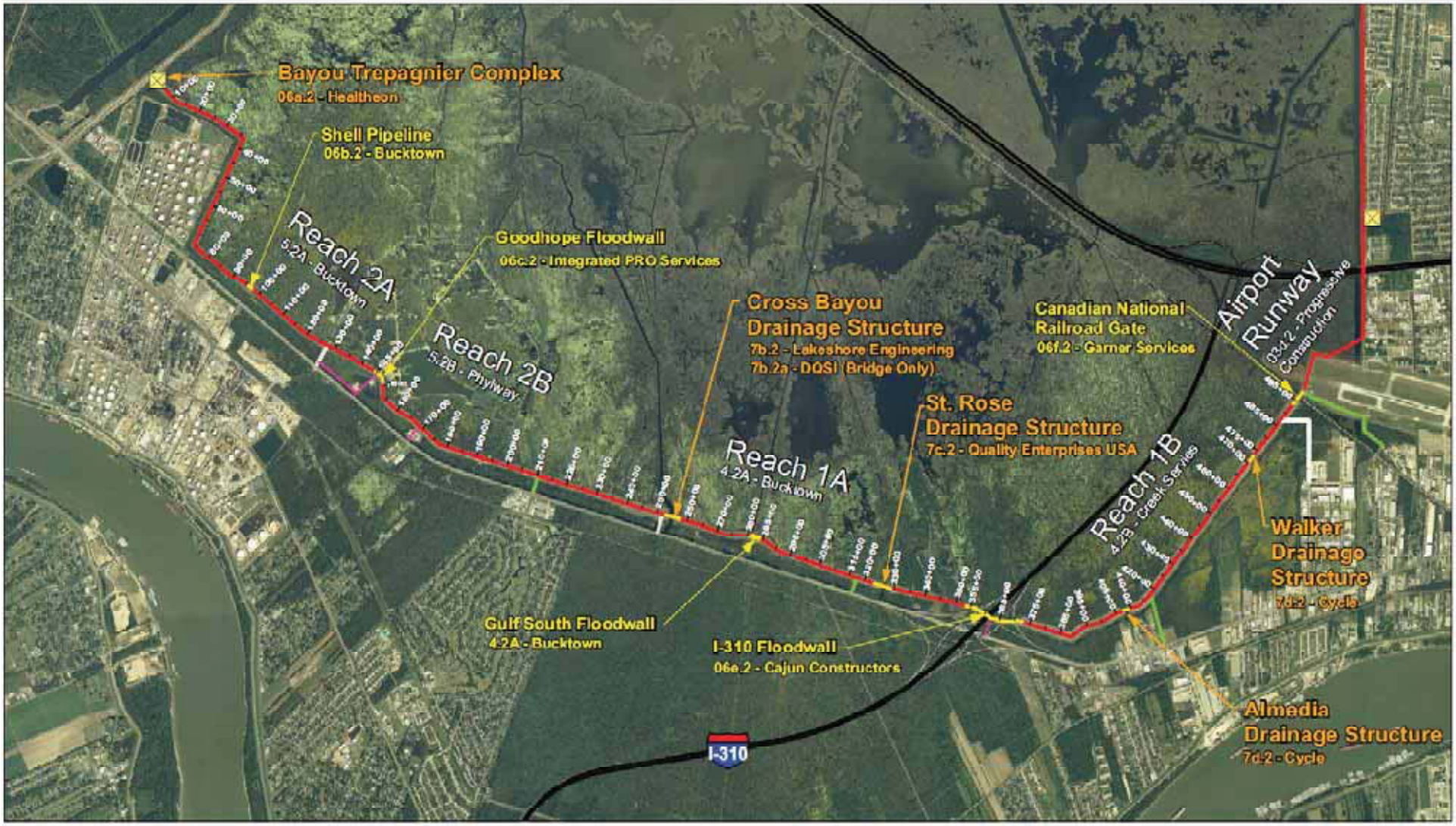
- Provide an update on the construction status of St. Charles risk reduction features
  - Levees
  - Floodwalls
  - Floodgates
  - Drainage Structures

For this hurricane season measures will be in place for all contracts to defend against 100-year storm event.

Risk – Shared Responsibility



Hurricane and Storm Damage Risk Reduction System (HSDRRS)



Lake Pontchartrain & Vicinity - St. Charles Parish

St. Charles Parish Levee Reaches

Levee Status

Reach 2A

- Award Date: Dec 3, 2009
- Completion: Jan 4, 2011

Reach 2B

- Award Date: Nov 24, 2009
- Completion: Dec 23, 2010

Reach 1A

- Award Date: Sept. 28, 2009
- Estimated Completion: May 2011
- 87% Complete

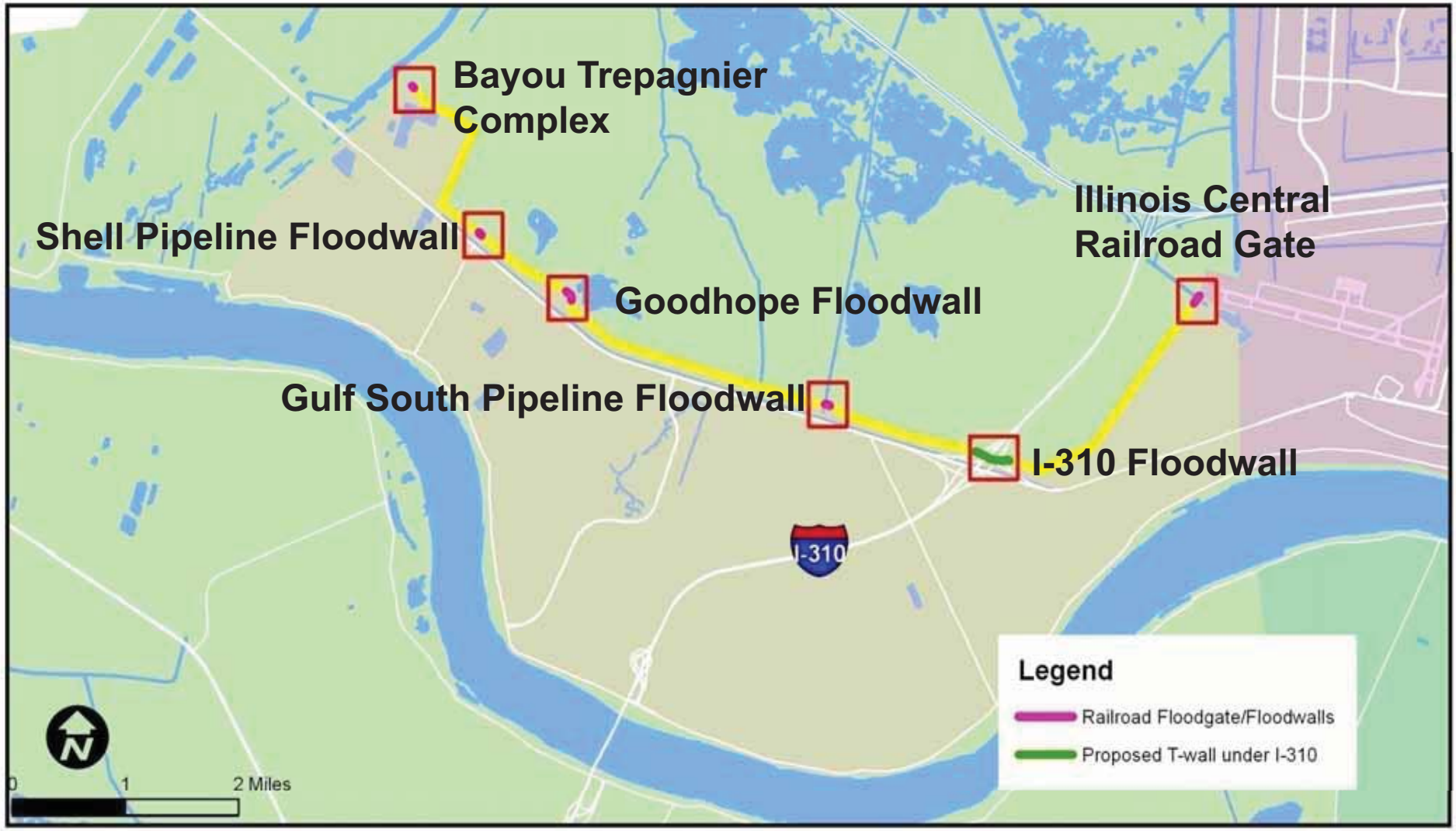
Reach 1B

- Award Date: Dec 17, 2009
- Estimated Completion: May 2011
- 90% Complete

BUILDING STRONG®

Levee Construction

St. Charles Parish Floodwalls and Floodgates



Floodwall and Floodgate Status

Bayou Trepagnier Complex

- Award Date: Dec. 23, 2009
- Completion: Jan 14, 2011

I-310 Floodwall

- Award Date: April 23, 2010
- Estimated Completion: May 2011
- 93% Complete

Shell Pipeline Floodwall

- Anticipated Award Date: Dec. 2010
- Estimated Completion: May 2011
- 70% Complete

Illinois Central Railroad Gate

- Award Date: June 24, 2010
- Estimated Completion: May 2011
- 70% Complete

Goodhope Floodwall

- Award Date: Dec. 18.2009
- Completion: Sept. 17, 2010

Bayou Trepangier Complex

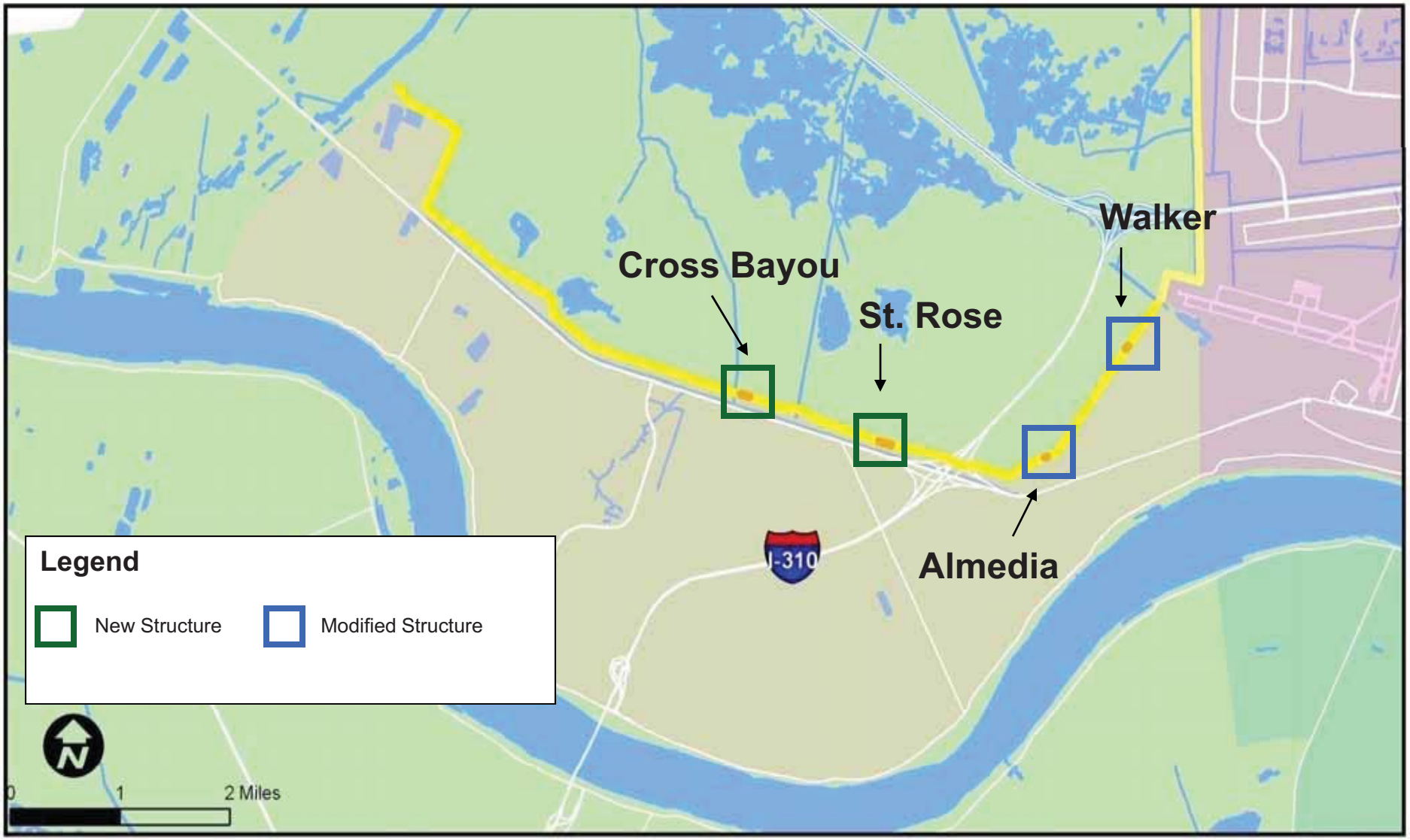
Shell Pipeline Floodwall

Goodhope Floodwall

Interstate 310

Illinois Central Railroad Gate

St. Charles Drainage Structures



Drainage Structure Status

Cross Bayou Drainage Structure

- Award Date: March 2, 2010
- Estimated Completion: May 2011
- 73% Complete

St. Rose Drainage Structure (and portion of Levee Reach 1A)

- Award Date: Dec. 30, 2009
- Estimated Completion: May 2011
- 87% Complete

Almedia & Walker Drainage Structures

- Award Date: Aug. 14, 2009
- Completion: Oct. 4, 2010

Cross Bayou Drainage Structure

St. Rose Drainage Structure

Almedia & Walker Drainage Structures

Onsite Inspection
Quality Control/Quality Assurance

- Onsite Corps employee oversight
- Monitors the construction contractor
- Ensures sites are safe and signage is clear
- Confirms traffic control measures are maintained and meet safety standards
- Knowledgeable of site activities

Safety

- Safety is the Corps' single greatest priority
- Each day we are working towards building a system that will reduce your risk
- We are committed to implementing and promoting safety measures for the benefit of our team
- Team New Orleans has a zero-tolerance safety policy

Opportunities for Public Input

- Regular public meetings throughout the Hurricane and Storm Damage Risk Reduction System (HSDRRS) Area
- Make sure to sign in tonight to get on our meeting notification mailing list
- Construction Impact Hotline: 1-877-427-0345
- Comments can be submitted at any time at

www.nolaenvironmental.gov

Questions and comments may be submitted to
Telephone: 504-862-2201
E-mail: AskTheCorps@usace.army.mil

US Army Corps of Engineers
New Orleans District

Social Web Networking Communities

and what they mean to you

twitter is an online messaging and social networking system that allows people to share their daily life experiences minute-by-minute, hour-by-hour, and/or day-by-day via their computer or mobile phone. Team New Orleans is joining in and taking on the opportunity to tweet with the public and offer reports on developments, additions, changes, and upcoming public meetings and events that will affect local communities. Check it out by going to **twitter.com/teamneworleans**.

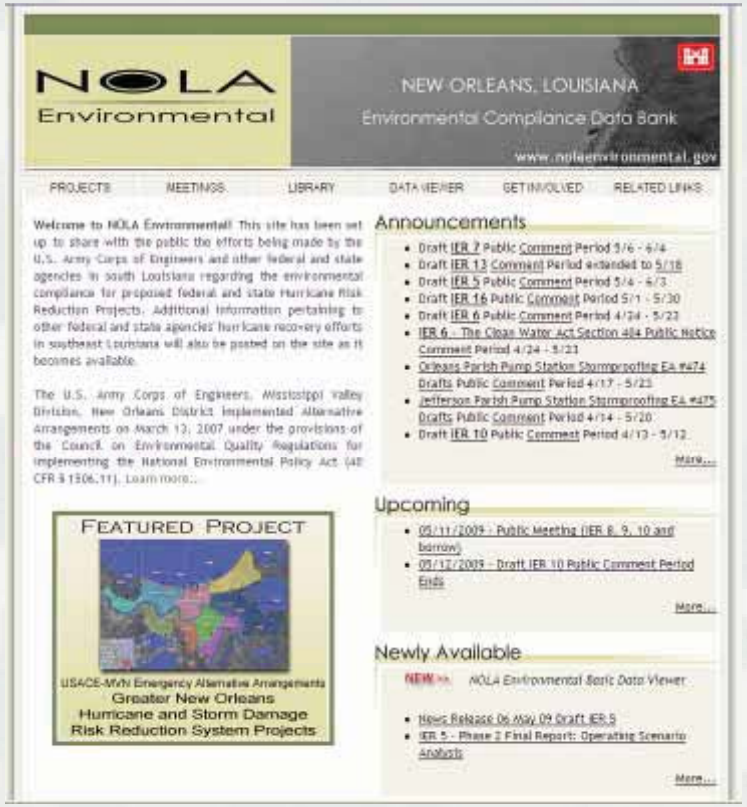
Flickr is an online community platform for global photo management and sharing applications via the web. Team New Orleans has become a part of the movement and is using Flickr to visually explain our projects. Check out our photos at **www.flickr.com/photos/37671998@N05**.

flickr

facebook is a global social networking Web site that links people from across the world and is currently ranked as the most popular of its kind. Team New Orleans is following in the trend and is using Facebook to update the public about projects, events, activities and public meetings. Become friends with Team New Orleans by visiting **www.facebook.com**, **search New Orleans District**.

Resources

www.nolaenvironmental.gov



http://www.mvn.usace.army.mil

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