



US Army Corps
of Engineers
New Orleans District

Public Meeting Summary

Seabrook Floodgate Complex Construction Update Oct. 13, 2011

Location	St. Gabriel the Archangel
Time	Open House 6:00 p.m. Presentation 6:30 p.m., followed by a discussion
Attendees	Approx: 10
Format	Open House Presentation
Handouts	<ul style="list-style-type: none"> Seabrook Oct. 2011 Fact Sheet Corps Approval Process brochure
Facilitator	Rachel Rodi

Greater New Orleans Hurricane & Storm Damage Risk Reduction System

Seabrook Floodgate Complex Construction Update

St. Gabriel the Archangel
Oct. 13, 2011

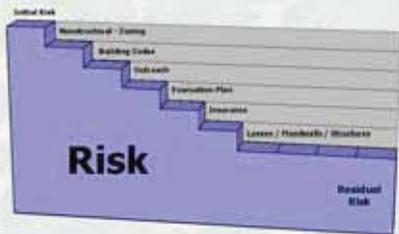


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Rachel Rodi: My name is Rachel Rodi and I work in public affairs at the Corps here in New Orleans. Today we are talking about the Seabrook Floodgate Complex Construction Update.

Risk – Shared Responsibility



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I'm sure a lot of you have seen this slide before. It's about risk; we know that the Corps has this great new system in place with levees, floodwalls and structures but there are other ways you can buy your risk down like buying flood insurance, following building codes, making sure you have an evacuation plan and following zoning.

National Environmental Policy Act "NEPA"

- Required for all major Federal actions
- Analyze potential impacts to the human and natural environment and investigate reasonable alternatives
- Analyses documented in Environmental Assessments (EA), Environmental Impact Statements (EIS), or Individual Environmental Reports (IER)
- Public involvement is KEY: *We want to hear from you!*
- Goal: **more informed decision making through public involvement**

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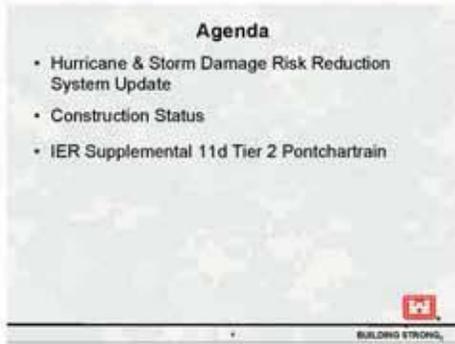
The reason we are here tonight is that before we started this project we came out here and did an Individual Environmental Report. Since then there have been some construction delays so we are going to have to do a Supplemental Environmental Report and that is part of the NEPA process, which is the National Environmental Policy Act. We have to do it for all major federal actions and it analyzes the impact to humans and the environment and investigates reasonable alternatives. The reason we are here is because we want to hear back from you, the people who are impacted by this project.

The following notes were recorded by USACE contractors. These notes are intended to provide an overview of the presentations and public questions and comments, and are not intended to provide a complete or verbatim account of the meeting. This account is not intended to be a legal document.



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Public Meeting Summary



Quickly, Eric will go through the Hurricane and Storm Damage Risk Reduction System and give an update on that and tell you the construction status of this project and then talk about the Supplemental that is coming up for this project.



Eric Stricklin: This is a photo of the New Orleans metro area and the Hurricane Storm Damage Risk Reduction System. This system is currently at the 1% risk reduction, formerly known as the 100-year protection; so the system you see outlined is in place. The area we are talking about is the Seabrook Gate, which is part of the IHNC system.



The IHNC system consists of three components; the Lake Borgne Surge Barrier, the Seabrook Gate and then the interior levees and floodwalls along the IHNC and the GIWW.



On the Lake Borgne Barrier; it consists of about a two-mile barrier wall and it has three gates – a 56-foot wide vertical lift gate and that is here and it also has two 150-wide openings; one is a sector gate and a barge gate. The structure stands at 26-feet tall and the gates are on site and the system is functional, however; the hydraulic and mechanical equipment is still being hooked up and that is scheduled to be complete by June 1, 2012.



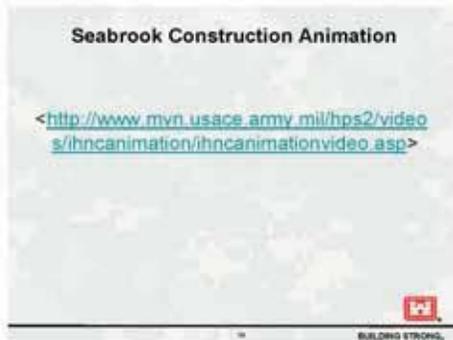
Public Meeting Summary



The interior levees and floodwalls are made up of about 33 miles; that is outlined by the yellow line. After Katrina there was a team put together to evaluate existing design criteria for these types of structures and in evaluating that, they developed new criteria and made it more robust. What we did was take that criteria and analyze all 33 miles of levees and floodwalls. Any area that didn't live up to that standard we've gone in and done some form of remediation work. The areas that we worked on are shown here in red; there's about 4.6 miles we worked on.



Some of the things we did included installing more relief wells to handle ground water seepage issues. We also installed buttress walls; essentially what we did was get behind an existing wall and we drove extra piles. In this case we used concrete piles, which is being shown here. That's topped off with a concrete pad and connected to the wall and that helps with stability issue. We also did some deep soil mixing, which is essentially replacing bad soil with good soil; it's actually a concrete or cement slurry that is poured down into the ground and forms columns and again helps with stability.



Right now we are going to show you a video, and animation on how the structure is going to be built at Seabrook. It is also available at www.mvn.usace.army.mil.



Eric Stricklin: This is an aerial shot from last month on what the site looks like right now. This is the north wall of the cofferdam, it is a little different than what you saw in the video. Here is the south wall and the permanent T-walls have already been constructed; these go off to France Road and to the east they go to Jordan Road. In connecting those walls to the cofferdam, that is what is providing the 1% risk reduction right now. We were careful to design the cofferdam to meet the current hurricane damage risk reduction criteria. You can see here the gate foundation is being placed, this is for the sector gate and the vertical lift gate shown in here and here and we are working on getting the



Public Meeting Summary

concrete for the towers. I think the most important thing is the schedule and the reason we are doing another round of public meetings is to disclose what has happened with some of the delays we've experienced. The project that we thought we would complete at the turn of the year has been delayed. The reasons for the delays can be broken into three different categories – Mother Nature is the first. Another is unforeseen conditions that we encountered and then finally some design changes that we had to make. The first challenge is that we had the Mississippi River flooding and the problem there is we get most of our supplies from the river. We have things shipped down the river and they come through the IHNC and we were waiting on our piles for the foundation and that cost us a substantial amount of time waiting for navigation to open up on the river again.

Most recently we had Tropical Storm Lee and that gave us more water than we were expecting and when we get high water in the channel, we actually flood this excavation; we actually fill it back up with water to maintain stability. In doing that, you have to un-water it again and it's messy especially when you don't have your foundation so we ended up with a foot of silt that had to be cleaned out and that cost us a significant amount of time. Those are a couple of the natural things that happened.

The unforeseen condition; when driving the piles for the cofferdam, these are sheet piles driven in a circle throughout. We found out that there are some old timber piles out there, presumably from an old bridge or something that used to be out there. That caused us to have to adjust our pile driving operation and time in getting these down. On top of that we had some unsuitable materials. Once the cofferdam was un-watered, we had to get in here and shape this area for us to work and when we did that we ended up with a soupy material that we couldn't do anything with so we had to remove that. We ended up moving something around 20,000 cubic yards of material so that is something else that cost time.

Most recently, we had casting issues. These are pieces that are made in a foundry and they are used for the sector gate. They take a long time to make and four of the ten casting we have on this job didn't work out as well as we had hoped so we are recasting those and that is contributing to the delay.

The final thing was design changes. One of the things we had with Seabrook is that it had a later starting time in the system, but we had the benefit of lessons learned from the other projects. One of the examples is the concrete used on other projects and one of the lessons was on low-heat concrete. It's a great idea to use but it takes longer for it to cure and we couldn't afford that time so we switched it up and went back to a more regular concrete and incorporated a cooling system, but the cooling system cost us a little more time. Another issue that came up was these towers that are made out of concrete; these were originally going to be steel towers. Through working with our local sponsors and our folks, we made a decision to switch these to concrete. It's going to help out in terms of life cycle costs and it had other added benefits, but in making that change it did cost us some time.

So, with all this said, we are looking to complete this structure in mid-summer. It could be as late as September, but we do have a plan to get it completed July 15th or right around there. That's what the schedule is. As far as when the channel will be open to recreational navigation again, it's going to be at the same time the project completed. Unfortunately, all the work we have left



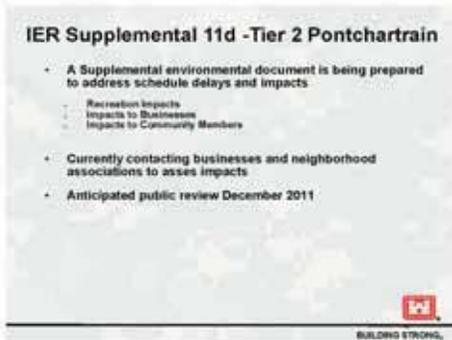
US Army Corps
of Engineers
New Orleans District

Public Meeting Summary

to do is very congested through here as we will have multiple barges out here and unfortunately there is no way to have safe navigation so it will also be mid-summer before boats have access again.



This is a rendering of what the project will look like. You can see the 95-foot wide sector gate here and the two 50-foot wide vertical lift gates.



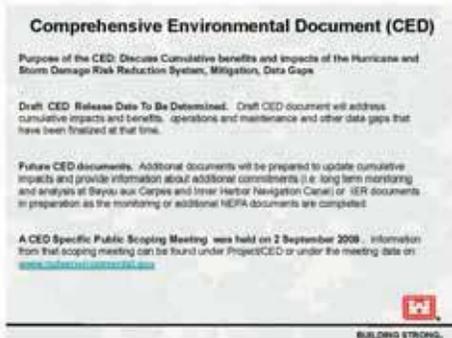
Again, we are here to talk about the supplemental to IER 11 and disclose the delays and collect information as far as what impacts you are going to experience. One of the things is some of our environmental folks will be contacting people and asking them questions about the impacts. Our environmental team is also available tonight to talk. If you want to answer a questionnaire and disclose what impacts you are feeling they can take that. The actual document looks like it will be out in December for public review; there will be at least one more meeting once that document comes out, if not more.

This won't be your only shot to make comments and get on the record.



I know some of you have heard pile driving at night and I'm here to say that at least for awhile we are done with that; we have all the piles in the ground so we are done with that so there is nothing we have to do at night, but we will have some increased traffic on the haul routes. There will be some elevated noise, though mostly during the day time. There is an impacts hotline you can call and make complaints there if needed or you can call if you

need information. Someone will get back to you.



Rachel Rodi: I saw you shaking your head; you heard the pile driving? Cheryn answers that for us and there is a magnet over there with the number on it if y'all need to take one home. We are doing a comprehensive environmental document on the whole hurricane system

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US Army Corps
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New Orleans District

Public Meeting Summary

and that should be coming out in the next few months in a draft review and it again, documents the impacts to the whole system. We are also working on mitigation so anything that was disturbed during construction we are working to fix back in-kind.



So now it's your turn to give us input. If you don't want to do that tonight, that's fine as you can email or call us.

Female Speaker: How is it when Tropical Storm Lee and Hurricane Irene came in that the [Inaudible] are had some flooding and then there was difficulty evacuating the water that came in and we want to know have you rectified that problem?

Eric Stricklin: I'm not aware of evacuating water after Tropical Storm Lee...

Female Speaker: Some people were complaining on the news that they were being flooded and the water wasn't going back out like it should, that it was staying in because of the barrier down there, I think in Chalmette.

Eric Stricklin: The gates were open so the water could get back out so I'm not sure Lake Borgne would have had an impact on that. I know that we did get a lot of rain and parts of the city did have trouble with drainage.

Female Speaker: We didn't have any problems on my street but I'm worried how other people are going to handle it.

Male Speaker: You said that you had some delays and I assume that by summer of 2012, if unfortunate luck it would be September, right? If we should get a category 5 is what you have out there now is going to be sufficient enough to protect us?

Eric Stricklin: First off, this cofferdam and the T-walls do provide the 1% risk reduction, reduction that was formally known as the 100-year protection. We don't look it so much as category storms anymore, but rather, it's a combination of all storms and they perform an analysis to see what kind of water levels you will see statistically at any given time. The 1% risk reduction is obtained with this structure. We are not going to pull that out unless we have operable gates; it's not going anywhere. The height of this cofferdam is +10, so it's about 10-feet above the normal water level.

Male Speaker: Where I lived I had over 20-feet in Katrina; my house was completely covered by Katrina as I live in the Lower 9th Ward, two blocks above the parish line.



US Army Corps
of Engineers
New Orleans District

Public Meeting Summary

Eric Stricklin: Well there are two more lines of defense now for that area. One is the Seabrook Gate and that will stop any surge from Lake Pontchartrain from entering the IHNC system and then there is the Lake Borgne Barrier, which will stop Lake Borgne from entering. Neither of those lakes can get into neighborhoods anymore as we are stopping the surge at the source.

Male Speaker: The pile driving that you use is making a lot of noise while another driver was demonstrated I the Industrial Canal didn't make that much noise.

Eric Stricklin: We do have several types of pile driving. The one that most people would hear and dislike is the impact hammer, it is the pounding. Another is a vibratory hammer and it clamps onto the pile and then vibrates and pushes it into the soil; that one is quieter. There was another one in this area and a company called Giken owns it, it was a hydraulic press. What it does is take sheet piling and grab it and push it into the ground. It was very quiet. It does depend on what you are driving and what you are driving into as to what you need. The silent one is sometimes hard to come by and it's something you use when you have dense sand that's hard to drive through.

Male Speaker: How deep did you say the pilings were being driven for this cofferdam?

Eric Stricklin: In the center of the channel they go down to -70, that's 70 feet below the water.

Male Speaker: Are you going down to solid ground or that peat moss?

Eric Stricklin: The nice thing about Seabrook is that this area is all sand and sand is a good foundation material, at least most of it is. What we did was build this over a scour hole, there was a 95-foot deep scour hole caused by the bottleneck here at the bridge and surges over the past few decades so we filled it with sand. The great thing about that is that we could put anything we wanted to in there and give it any of the properties we wanted it to have. We filled it and compacted it and got the density we wanted and then proceeded with the pile driving.

Male Speaker: When this is finished, if we ever to get to widen the canal will that still be... I know it was 110 feet at one time, but I don't know what it is now. The cofferdam is enough with the larger barges that may come through it later on?

Eric Stricklin: The width of the gates is 95-feet wide and it matches exactly what the width of what is underneath the railroad bridge is. So if they couldn't fit through the railroad bridge before, they can't fit through our structure either. In this particular area, it's mostly recreational traffic, mostly fishermen going out to the lake. Most of the commercial traffic goes out through Lake Borgne.

Male Speaker: That area right there, how deep is the Industrial Canal?

Eric Stricklin: Where we are at it's about -35 or 40; it depends on what part of the channel you are looking at.



Public Meeting Summary

Male Speaker: If we ever have an ocean going vessel come in we are deep enough to have [Inaudible].

Eric Stricklin: It might be deep enough, but I don't think a ship will get in. Lake Pontchartrain is too shallow.

Male Speaker: You never can tell what is going to happen over the year and what you are doing now might be obsolete.

Eric Stricklin: All of our numbers in the design criteria is based on 2057 so we are trying to get ahead of it.

Victor Gordon: I have a couple of comments to make. First, I want to give assurance to people who live in this area that at night time they can sleep and that whatever work you are doing won't interfere with rest, especially for senior citizens. We don't want work going on at 3 or 4 in the morning and we've been assured before but I want to make sure you keep that.

Eric Stricklin: Have you been disturbed in the past few months?

Victor Gordon: I have had no direct complaints but I'm just trying to remind you that you made us a promise.

Eric Stricklin: And we plan to keep it. The reason I asked that is that we have been working overnight the last few months.

Victor Gordon: I know you are going to have some documents for 2011 and I'm assuming you are going to make an extra effort to get the word out.

Eric Stricklin: We take out ads in the local paper; we even take out ads in the USA Today and we contact the local media.

Victor Gordon: I think it's important that as we get to this stage that more people get involved. I want to make sure that all the citizens are aware of what is going on and I hope you make an effort to communicate the process to everyone. I would suggest you send messages to all the churches, but you can't set it a month ahead of time and people will put it in the calendar, you have to do some reminding. I know that Channels 4 and 6 are good at making announcements. We have three or four universities in the area that are interested and they will get the word out. We have grocery stores where people go and we also have the Baptist Seminary where there is heavy traffic.



Rachel Rodi: If you have more comments you can call us. Here is our number and website. Eric will also be available to answer questions.