



US Army Corps
of Engineers
New Orleans District

Public Meeting Summary

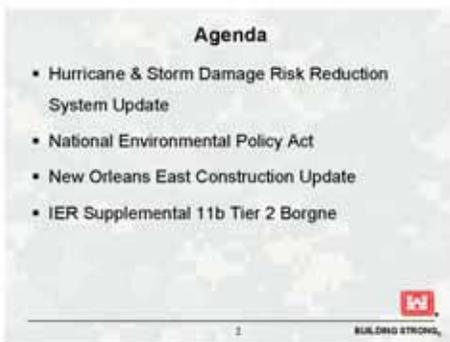
New Orleans East – Construction Update & IER 11b-Tier 2 Borgne

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| Location | St. Maria Goretti Church |
| Time | Open House 6:00 p.m. Presentation 6:30 p.m., followed by a discussion |
| Attendees | Approx. 30 |
| Format | Open House Presentation |
| Handouts | <ul style="list-style-type: none"> • Approval Process Brochure • 2010 Status map |
| Facilitator | Nancy Allen |



Nancy Allen: We are here for a Corps of Engineers Construction Update and public meeting on IER 11b. If you are here for another meeting, you are welcome to stay with us, but I believe there are other groups meeting as well. I'm Nancy Allen with public affairs of the Hurricane Protection Office. Our commander Col. Sinkler couldn't be here this evening and sends his apologies. I want to thank you for being here and taking the time to be with us. I want to introduce a few members of the Corps staff we have with us. There is Ron Elmer who is our IHNC Branch Chief, Captain Brock Schmidt who is the officer in charge of Orleans Parish, Bill Maloz and

Chantrell Carriere, Laura Lee Wilkinson and Lee Walker from Environmental. We have TK Tieu with us from Councilman Fielkow's office and Gerry Gillen from the Orleans Levee District.



Tonight we have a dual purpose meeting. We are going to give you a brief overview of the Hurricane and Storm Damage Risk Reduction System and also go into more detail of the progress in New Orleans East. We are also here to discuss IER Supplemental 11b Tier 2, which focuses on improved protection in the Inner Harbor Navigational Canal. That IER is currently out for public review so we will be taking your comments tonight and those will be part of the official record. We are going to ask that you let us get all the way through the slides and then we will take your comments and questions.

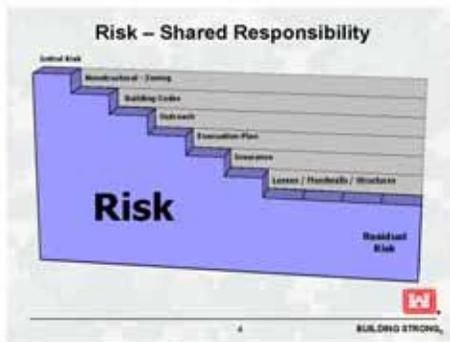
Everyone was given a speaker request card when you came in and if you do have a comment or question you would like to ask, we ask that you fill that out and hold it up in the air, someone will come get it and we will be calling in the order that we received the cards.

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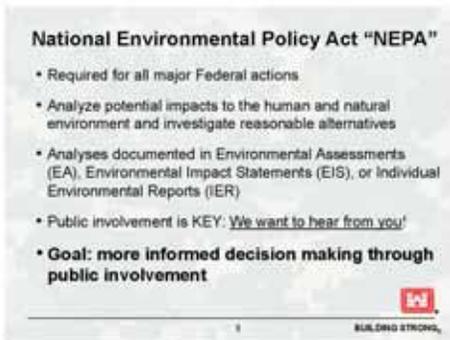


This is the entire Hurricane and Storm Damage Risk Reduction System and I want to provide you on a brief update on the system. This is a \$14.4 billion dollar system that was authorized and fully funded by Congress and we are well on our way of the goal of providing 100-year protection by June 1, 2011. Our office, the Hurricane Protection Office, is overseeing construction on the East Bank of Orleans Parish and St. Bernard Parish, including outfall canals and the IHNC. Along the New Orleans metro lakefront we are more than 95% completed as we finish up some floodwall construction on the east and west ends of that stretch and some ramps along Lake

Shore Drive, which we are in the process of finishing and opening. We will give you more details about New Orleans East this evening. The surge barrier is here and the wall is complete. We are now working on three navigable gates. That is a 26-foot tall surge barrier out in the waterway here. I think some of you have seen it and if not, we would like to give you a tour. In St. Bernard, we are building 23-miles of T-wall, two sector gates and two floodgates and all that construction is underway.



We used to refer to this as the Hurricane Protection System and recently we began calling this the Risk Reduction System. Buying down risk and reducing risk is what is important. All of us share in a responsibility in reducing this risk. In this diagram, we show everyone's initial risks and then there are a variety of things you can do to lower your risk and everyone has a role; whether it's building codes, flood insurance, zoning and then structural things like levees and floodwalls. We do remind you we are still in hurricane season and hopefully we will get through the season without having a storm this year, but we do urge you to have an evacuation plan ready and if local officials call for an evacuation, please follow those orders.



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**

IER 11 Supplemental is a NEPA document, that's the National Environmental Policy Act. Before the Corps begins any major project we have to do an environmental process that allows us to look at the human and environmental impacts of any project. These can be documented in several ways including an environmental assessment, an environmental impact statement, or an individual environmental report, an IER and that's what we are going to talk about. All the projects under construction have already been through this NEPA process, but we are here tonight to tell you about the proposed project along the Inner Harbor Navigation Canal listen to you and get your feedback. With that, I'm going to turn it over to Captain Schmidt and he will talk about the New Orleans East Construction.



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New Orleans East Risk Reduction Projects

- Construction value: \$800 M - \$1 B
- Floodwalls: 7 miles
- Levees: 20 miles
- Gates: 5
- Interstate Crossing: 1
- Pump Stations: 6

BUILDING STRONG

Capt. Brock Schmidt: I'm the officer in charge of Orleans Parish and I'm here to give you an update on the project in New Orleans East. New Orleans East is getting about 800 million to one billion dollars in construction. The projects we have going on are 105 adjacent to the lakefront; 106, a gate at Haynes Boulevard; 108, which is a completed project along the Bayou Sauvage; 109, which goes on the east side of Bayou Sauvage; 110, which is the cross at the railroad tracks; and 111, which connects into the surge barrier along the GIWW.

LPV 105: Lakefront Airport

Project Description

- Replace existing floodwall to 15 ft.
- Raise levee to 17.
- Construct 60' wide floodgate across Downman Road.

Construction Status

- LPV 105.01 (West Floodwall) - 9% complete
- LPV 105.02 (East Floodwall) - 2% complete
- Road closure at Downman Road and Hayne Boulevard will remain in effect through November 2010.
- All work will be finished in June 2011.

BUILDING STRONG

The 105 project that goes along the lakefront, has been moved south from its original location. Originally, the project was along the Lakefront Airport; it's been moved to the south side of the railroad tracks. The reason for that is we wanted to move the protection a little closer to that area and have an easier crossing for Downman Road where there will be two gates involved in that project. If you go out there, you will notice the construction is focused on the Downman Road area. There should be two lanes opened there around the November 11th timeframe, and the road itself should be completely opened in January. The overall project will be completed in April of next year and this project continues all the way out to Crowder. The overall project is being raised about two feet.

LPV 106: Citrus Levee

Project Description

- Raise levee to 17
- Install positive cutoff / drainage culverts for Citrus / Jahncke Pump Stations.

Construction Status

- LPV 106 - 2% complete
- 100-year elevation will be attained in April 2011.

BUILDING STRONG

Project 106 is driving sheet pile along the Lake Pontchartrain Levee here. The reason why sheet pile is being put in place, in order to raise the levee 2.5 feet they are going to, they would have to have extended it out and take part of Downman Road. So what we did is drive sheet pile about 35-40 feet down and put a two foot concrete cap on top of that.

LPV 107: Lincoln Beach Levee & Gate

Project Description

- Replace existing floodwall with a levee to 17
- Construct a new floodgate to 15 ft.

Construction Status

- LPV 107 - 9% complete
- All work will be finished in January 2011.

BUILDING STRONG

Project 107, this is Lincoln Beach and there is a gate there and they are replacing that with a new gate, about two feet higher than the existing gate. All these projects are due to be completed by June 1, 2011. Most will be completed by early to mid-May of next year.

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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LPV 108: Paris Road to South Point



Project Description

- Raising 33,100 feet of levee to between 17' and 18'
- Adding new floodwall at Collins Pipeline.

Construction Status

- Levee Raise - 100% complete
- Floodwall at Collins Pipeline - 100% complete.

10 BUILDING STRONG

Project 108 is completed and it's the earthen levee to the north side of Bayou Sauvage. What they did was raise it about 2.5 to three feet; most of it on the protected side of the levee system. It all includes the Collins pipeline, a T-wall section in that area. The project is complete and we are looking to turn that over to the Orleans Levee District in the next couple of months.

LPV 109 (Southpoint to CSX Railroad)



Project Description

- Raise 7.5 miles of existing levee to 100-year elevation (increased avg. elevation by 6 ft and avg. base width by 250 ft)
- Construct a 50-foot-wide gate at Highway 11 and a 38-foot-wide gate at Highway 90.

Construction Status

- LPV 109 - 26% complete.
- All work will be finished in June 2011.

11 BUILDING STRONG

Project 109 is a pretty unique project. It started out at the southern most point at 18.5 feet high and continues to about 14 feet at its northern point. This project is being raised to 25 feet at its southern point and 18 feet at its northern point. In order to raise that levee to that height, we actually had to triple the foot size of it. In order to do that, we had to put in a sand blanket and wick drains in order to keep water. We actually recaptured what was Bayou Sauvage at the time and it's going to be about 3.4 million cubic yards of clay, which is being added to the existing levee. That equals to over a Superdome's worth of clay at this point.

LPV 109 (Southpoint to CSX Railroad)



12 BUILDING STRONG

Along 109, there are three highway crossings. This is 110, which is what we call 109 LPV and right here what you can see are the sand blankets and the wick drains. Each one of these drains is punched about 35 to 40 feet into the ground. It's a thin piece of material about that wide and about this thick, and actually pulls the water from underneath and pushes it back into Bayou Sauvage, which is what you are looking at right here. This is the clay that is being placed on it. They will place about 3.4 million cubic yards.



This is an overhead shot. Right here is the existing levee on 109 and where this sand is, that will be the new foot.

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LPV 110: CSX Railroad Gate



Project Description
 -Replace existing railroad gate and floodwalls and raise them to an elevation of 30 feet



Status
 -The Corps awarded the contract in April 2010.
 -Construction will begin soon, and 100-year elevation is expected to be attained in May 2011.

14 BUILDING STRONG

LPV 110, the railroad crossing. LPV 110 is the replacement of a railroad gate for the CSX Railroad in the middle of Bayou Sauvage, so it's not commonly seen, but it's out there. What we have done is the contractor isn't going to start this work until December first so he will spend the next month preparing and mobilizing. All his submittals are in and the gate is being built at this time. When he starts in December, he will start demoing this region here and replace the gate by June 1, 2011.

LPV 111.01: CSX RR to Michoud Canal



Project Description
 -Raise 5.4 miles of existing levee to hundred year elevations via deep soil mixing (increased elevation by 5 ft and base width by 70 ft)
 -Raise T-wall around Pump Station No. 15
 -Add a floodwall tie-in from the levee to the IHVC Surge Barrier.

Status
 -The deep soil mixing operation is 61% complete.
 -Project completion: June 2011

15 BUILDING STRONG

LPV 111; this is a 5.3 mile stretch of levee that is adjacent to the GIWW. In this particular project, what they have done is instead of expanding the foot of the levee, they have deep soil mixed. They have actually taken and mixed 1.7 million cubic yards of cement and earth below the surface. The reason for that is the current soils in Louisiana allows a ton of subsidence. What we have done is essentially create 18-hundred concrete columns below the levee. The levee at its western most point is +32 feet and at its eastern most point is +25. Once you get past the levee there will be a 32-foot T-wall that will tie into the surge barrier.

LPV 111 (CSX Railroad to Michoud Canal)



16 BUILDING STRONG

As you can see here, this is a deep soil mixing project and the existing levee

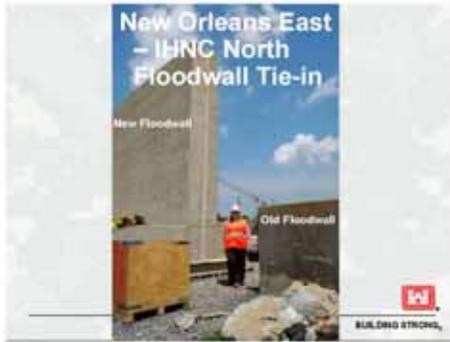


This is deep soil mixing actually occurring. It takes about an hour for each one of these times. What they do is drive down into the middle of the earth and it takes an hour down and an hour back up.



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This is the flood wall and this is Nancy Allen standing next to the floodwall, so if this is about five feet, you can see the height of the floodwall. It is built on a six foot section of the levee.



This is the tie-in right here. The earthen levee is out here to the east and this is the corner tie-in and back through here it ties into the existing surge barrier, which is 26 feet with the navigable waterways.



Ron Elmer:

I'm Ron Elmer and I'm the program

manager for the Inner Harbor Navigation Canal system. Most people know that the IHNC has the Industrial Canal, that's a local term used for the IHNC that run from the Mississippi River where the lock is to the north at Seabrook where the airport is. This is the GIWW going to where the surge barrier is being built and this is the MRGO. On this picture you can see in inset of what the Seabrook structure will look like. It's going to be a 95-foot wide sector with two 50-foot vertical lift gates on either side for additional flow. We just started construction on this. The existing channel is closed for

navigation and currently we are filling a big hole and we have started construction of the T-walls that tie-in from the land onto where these structures are going to be built. Nancy earlier mentioned that he barrier wall, and this inset here shows you a depiction of what that looks like, but the barrier wall itself is 100% complete. It's approximately 10,000 feet long from the north side of the GIWW all the way across MRGO where it ties into the MRGO levee system that is being built along St. Bernard there. The only opening that currently exist in this 10,000 feet is 150-foot wide opening where navigation is currently being passed through for the barges; it's being passed through right here. What we are doing with the IER that is out for public review is looking at restoring and remediating existing levees and floodwalls along the GIWW and the IHNC that do not quite meet current design guidelines. There is approximately 33 miles of levees and floodwalls along this system and there is approximately 4.6 miles that we are going to have to address with this remediation work. This inset here is a vertical lift gate that is a part of the barrier and it's currently under construction. This is for small recreational boats to use as it's only 56-feet wide with a 35-foot clearance once the gates are in place. This system will be in place by next hurricane season. This depiction up here shows the two gates that will be built along the GIWW; one is a barge gate and the other is a sector gate. The barge gate abutments are done; the barge gate itself is under construction in Sulphur, LA and it will be shipped over here in March or April and we will then be able to

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hook that up and get it ready for operation next hurricane season. Come next hurricane season we expect to have this entire system in place where we can close it for the 100-year storm surge and you will have a 100-year level of protection. Same with the mediation work we plan on doing along here as that will also be done by next hurricane season and the Seabrook structure will have the 100-year level of protection, but there will still be working ongoing on the gates. However, the cofferdam system that we are building to create an area to construct these gates, that cofferdam system will meet the 100-year level of protection next year. You will have the 100-year level of protection through here as well as along the MRGO and the New Orleans East area.



This is an area photo of the barrier. This is the MRGO and this is the GIWW and this is heading back towards the IHNC; you can see the city in the background. This barrier wall itself is complete with the only opening is right here and it's 150-foot wide where barges are currently traveling through on the GIWW. This is Bayou Bienvenue and this is where the vertical lift gate is being constructed.



This is another picture of the barrier wall on the flood side where the storm surge would come up against the wall.



This is the back side of the barrier wall where you see the piles that support the wall.



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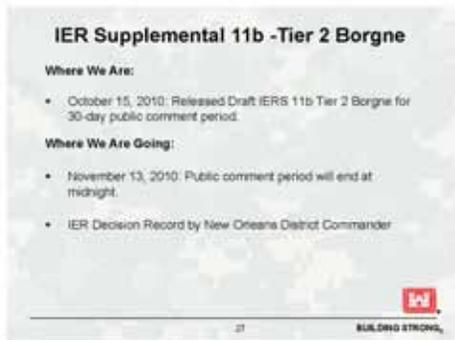
This is a photo of the Seabrook structure. This is going to be the 95-foot wide sector gate and the two vertical lift gates on either side.



This is a current picture by the bridge where we are building the sector gate and two vertical lift gates. The gate is being constructed about 540 feet south the Ted Hickey Bridge. We exercised the construction option back in July of 2010 and we expect the cofferdam system to be in place by spring of 2011. Like I said earlier, that cofferdam system will provide that 100-year level of protection in the beginning of next hurricane system while we finish up the gates.



Like I said earlier, the canal is closed and will be for the next 12 months while we construct the gates and this sign identifies to boaters and others that access to the lake is closed.



The IER Supplemental 11b-Tier 2 Borgne is now out for public review. It went out on October 15th and will be out for a 30-day public comment period. The 30 days will end on November 13th and hopefully, unless there are significant comments, we are hoping that a decision record will be signed shortly after that and we get started on the construction and remediation of the levees and floodwalls along the IHNC and GIWW.

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Purpose and Need



Restore and reinforce portions of 4.6 miles of levees and floodwalls along the Inner Harbor Navigation Canal so that they meet the necessary factors of safety for stability and seepage, as dictated by current Hurricane & Storm Damage Risk Reduction System design guidelines.

28 BUILDING STRONG

The purpose of the work we are doing is to reinforce portions of 4.6 miles of levees and floodwalls along this system. We do have another slide that shows the area where we need to do the work. The reason we are doing the work is that the design guidelines that we must follow have become more stringent and they have changed since Katrina for higher factors of safety and different type of analysis we have to do for seepage and stability. We have done an analysis of 33 miles of levee and floodwalls and we found approximately 4.6 miles that do not meet the guidelines and those are the areas we will go into and do this restoration work.

Project Overview of Proposed Action

- Reach 1 – approximately 1,200 feet of deficient areas
- Reach 2 – approximately 16,700 feet of deficient areas
- Reach 3 – approximately 6,300 feet of deficient areas

Types of Remediation

- Deep Soil Mixing – for strengthening the canal levees.
- Concrete Slab – for resisting deflection (bending) of canal floodwalls.
- Stability Berms – for strengthening the canal levees.
- Buttress Wall – for strengthening the canal floodwalls.
- Relief Wells – for intercepting seepage.

29 BUILDING STRONG

This is the proposed action on the three reaches and the approximate length of deficient areas in those three reaches. These are the different types of remediation work we will be doing. We are using deep soil mixing when there is a stability problem. We have concrete slabs that will also help us in resisting and making suspect areas more stable. We are adding stability berms in some areas and we are also using buttress walls and for seepage problems we are using relief wells. In the back we show examples of each one of these methods for solving the problems we have. They have been used before and they work well.



30 BUILDING STRONG

Here in the red areas along the GIWW and the IHNC, these are the areas we will be doing work. We are almost finished the analysis and there is the potential that we may reduce some of these areas down and may not have to do as much work that we are showing on this particular drawing.

Proposed Construction Schedule

- Contracts would be advertised in early 2011.
- Construction would complete by June 1, 2011.
- All restoration / reinforcement construction would occur entirely within the existing levee / floodwall Right of Way.

31 BUILDING STRONG

For the remediation work, if everything goes well with the IER and we get the decision record completed in November, we anticipate advertising the contracts in early January 2011 and the construction that we are doing will be completed by next hurricane season. All the work we are doing will go within the existing footprint of the levee and floodwall. There is no need for us to get additional right-of-ways.

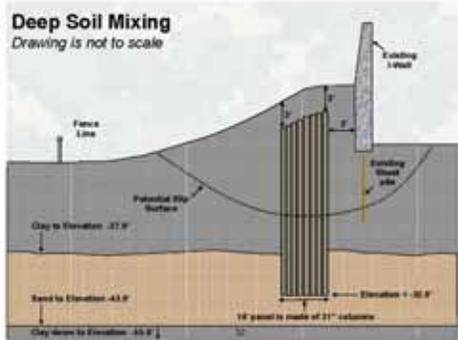


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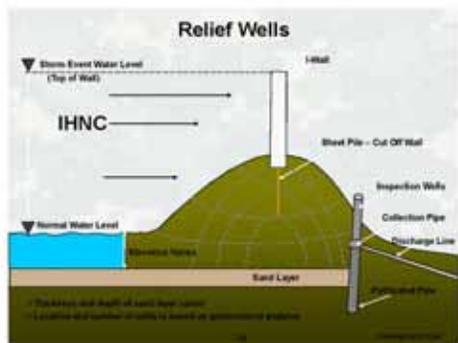
If you look at these areas labeled by letters, these are staging areas that we are proposing to stage equipment and from what I understand, most of these sites are no in residential areas or close to houses. These are approximations of what we think we will need for staging, but I have a feeling the number of areas actually used will be less than this once we get done.



This is a depiction of how deep soil mixing works. What you do here is auger down and mix cement in with the soil and what this does is....if you look at this slope line here, this is a failure plain. Based on analysis when water gets up against the wall, the force on the wall wants to make this soil rotate and fail and what deep soil mixing does is interrupt that failure plain and prevent it from happening.



Here are pictures of some soil mixing jobs we have done in the past. There is a lot of this happening on the on-going hurricane protection system right now.



This is a relief well and this is what we use to solve seepage problems. What happen is in some areas, you have sand layers below the levee system and when the water in the canal goes up along the wall, the pressure of all this water pushes water through the sand layer. This pressure can get high enough that it makes the sand move and that is the last thing you want happening under the levee is having the dirt moving. It will cause the levee to fail. So what we do is put in these relief wells and it interrupts that sand layer and it controls the flow of water; it's not that much water but enough to make the dirt move. The water is collected into the relief well and feed into the city drainage system.

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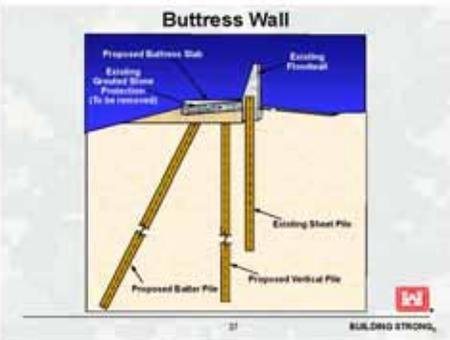
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Here are some pictures of relief wells. These are along the IHNC on the northern end and you will see a lot of the relief wells in place.



This is another method of solving a stability problem that isn't so bad to use the soil mixing, all you have to do is add an additional amount of dirt on the backside to compensate for the additional force that is being created when the water goes up against the wall.



This is what we call a buttress wall. What you currently have is an I-wall with a sheet pile underneath it and you will have these erosion blankets on the back side from when water splashes over to dissipate the energy of the water going over the wall. What we are going to do is remove these things, drive piles and put in a new stability slab to compensate for stability problems we are finding in some locations.



During construction, there will be some elevated noise from equipment being used. Road access may be limited at some times and we will be working extended hours, six days a week up to 12 hours per day. Trucks will be utilizing approved haul routes to minimize the impacts of increased traffics on the road. There is a hotline for questions and complaints and you can contact this number here.

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Currently Available for Public Review

- IER 11.b Supplemental – Improved Protection on the Inner Harbor Navigation Canal
 - Public review until midnight on Nov. 13, 2010
- IER 12 Supplemental Addendum - Belle Chasse Tunnel Construction Impacts and "Westbank N" disposal site
 - Public Review until midnight on Nov. 18, 2010
- Comments can be submitted by:
 - Calling 504-662-1544
 - E-mailing mnenvironmental@usace.army.mil
 - Or at any time at www.nolaenvironmental.gov

30 BUILDING STRONG

Nancy Allen: In addition to IER 11 we are getting public comment on, there is also IER 12 Supplemental that is also available for public comment. You can put your comments in by phone, you can e-mail or you can submit them on www.nolaenvironmental.gov.

Upcoming Public Meetings

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| <p>Monday, Nov. 8, 2010 IER 11.b Supplemental public meeting Light City Church 8177 Saint Claude Ave New Orleans, LA Open House 9 to 6:30 p.m. Presentation 6:30 p.m.</p> | <p>Wednesday, Nov. 10, 2010 LCA - Myrtle Grove Construction Report Scoping Meeting - Lafourche South Lafourche Levee District 17904 Hwy. 5235 Galliano, LA 70354 Open House 9 to 6:30 p.m. Presentation 6:30 p.m.</p> |
| <p>Tuesday, Nov. 9, 2010 LCA - Myrtle Grove Construction Report Scoping Meeting - Crown Point Joseph's Hall 8131 Bourgeois Blvd Crown Point (Metairie) LA 70072 Open House 9 to 6:30 p.m. Presentation 6:30 p.m.</p> | <p>Thursday, November 18, 2010 LCA - Myrtle Grove Construction Report Scoping Meeting - Passapatan's Woodland Plantation 21897 Highway 23 West Point a La Houche (Port Sulphur), LA 70082 Open House 9:00 to 6:30 p.m. Presentation 6:30 p.m.</p> |

40 BUILDING STRONG

We have several upcoming meetings; I know several of you asked about LCA public meetings and three of those are scheduled in November as well as Monday, Nov. 8th we will be having another meeting about IER Supplemental at Light City Church in New Orleans at St. Claude Ave.

Opportunities for Public Input

- Regular Public Meetings throughout the Hurricane and Storm Damage Risk Reduction System (HSRRS) Area
- Make sure to sign in tonight to get on our meeting notification mailing list
- Comments can be submitted at any time at www.nolaenvironmental.gov
- Individual Environmental Reports (IER) 30-day Public Review

Questions and comments regarding Hurricane Risk Reduction Projects should be addressed to:

Patricia Lemoine
P.M.-03
P.O. Box 60267
New Orleans, LA 70165-0267
Telephone: 504-662-1544

E-mail: mnenvironmental@usace.army.mil

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There are numerous ways that we take public important, which is very important to us. If you signed in this evening you will be added to our mailing list and you will get announcements on all of our public meetings. You can always go to nolaenvironmental.gov to get the latest information. All of our records are there as well as reports. Any comments you would like to submit regarding to this IER can be sent to this contact information here.

Resources

www.nolaenvironmental.gov <http://www.mvn.usace.army.mil>



27 BUILDING STRONG

There are two website you should know about, which is nolaenvironmental.gov and the other is our district homepage, which is mvn.usace.army.mil and again we do have a construction impact hotline and we do record every complaint we get and do our best to rectify the situation.

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We are also on Facebook, Flickr and Twitter. If you are looking for some updated photos of all the projects, you can go to Flickr. We use the other two sites for meeting and event notes.

We are now going to open it up for your comments and questions. We have no speaker requests cards so if anyone has a card with them they can hold their hand up. Otherwise we will just open the floor. We do ask you to keep it to three minutes and we ask that you speak into the microphone because we do record these meetings and all the meeting summaries go on nolaenvironmental.gov as they all become part of the public record as well.

Gregory Hamilton: I just want to be sure I understand this. You were talking about the additional work on the GIWW, the 4.6 miles, and you were calling that remediation and restoration work; that's in addition to a lot of work that has been done.

Ron Elmer: Yes, there has been a substantial amount of work done since Katrina. They added a lot of erosion protection behind all the walls in case of splash over. There were areas we have already done seep soil mixing, but those were areas we considered extremely critical. What we are finding after Katrina, it took two or three years to come up with revised design guidelines that we had to follow. We have just recently finished the analysis of all the levees and floodwalls and there are these areas in red that do not quite meet those guidelines. Instead of meeting a safety of 1.4, it might be 1.38 so we are going in, and we don't consider these areas critical because all these areas were hit by Hurricane Gustav and we did have between 11 and 12 feet of water inside the IHNC, and none of these walls gave us a problem. They are strong, but they fall just short of meeting the guidelines and that is why we are doing this work. This is the secondary line of protection. Once you have the barrier and Seabrook in place, the majority of the storm surge will be stopped, but the barrier is designed to be overtopped and there will be water going into the IHNC. So we have to make sure those walls can hold that water safely and meet the guidelines.

Gregory Hamilton: You did say you were on schedule for June?

Ron Elmer: Yes, all that work will be done before next hurricane season.

Gregory Hamilton: And right now the cofferdams that are under construction at the gates on the barrier, they presently have the capacity of about five feet?

Ron Elmer: Right, but those cofferdams will be out come next hurricane season as the gates will be in place. We will still be doing some mechanical work as such, but the gates will be able to be closed for a storm event and provide the 100-year level of protection.

Melanie Ally: The Orleans East Lakefront Airport floodwall I see is 16.0 to 21.5 from Downman Road to Read Blvd., I see that it's a yellow line that says it doesn't meet the 100-year risk reduction. Is that already completed? When it is completed will it then meet the 100-year?



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Capt. Brock Schmidt: No, it's not complete. Currently that is under construction now and it does not currently meet the 100-year level of protection. When it's completed around May of next year, it will meet the 100-year level of protection.

Melanie Ally: The MRGO outlet, which we were told it's [Inaudible] for flooding in this New Orleans East, will that meet the 100-year level of protection?

Capt. Brock Schmidt: What's been done is that the surge barrier that Ron was talking about will actually block any water that would come up the MRGO. The MRGO was closed off 40-50 miles down from New Orleans and the surge barrier is eight to nine miles from the center of the city so that water will not actually enter into the MRGO, it won't actually come into the IHNC with any force, which is a critical piece here. What happened during Katrina was water came in with force, but now when it hits the surge barrier it won't have any force if it were to enter the IHNC. That entire area is now part of the secondary protection so water with force hits the surge barrier it stops at that point and any water that comes in after that will trickle in like it would into a soup bowl as opposed to coming in with force and hitting the walls with force. Essentially it will raise up to 100-year level of protection and water will not enter through MRGO with any force into this area.

Nancy Allen: The MRGO is here and there is one closure south of here off the map and that is closing with a rock dike. We then constructed the surge barrier here across the GIWW, Lake Borgne and MRGO and that is 26-feet high so that will essentially block 100-year storm surge plus. So all of this becomes a secondary line of protection and we will be remediating all of those and the entire system will be at the 100-year level of protection by June 1, 2011; it is a common level of protection across the system.

Male Speaker: What is the estimated total cost of all the protection?

Ron Elmer: East and West Bank there is approximately 14 billion dollars.

Nancy Allen: It is a 14 billion dollar system and that is fully funded and we have all the funds in the bank and we are spending it.

Vanita Rogers: You mentioned the well that you were building to offset the water that would go into the drainage system, the relief well, have you considered that it will be hurricane season with the rain, but have you also considered the pumping stations in those particular areas for the amount of water?

Ron Elmer: Yes. There are seven pump stations that pump water into the IHNC and the GIWW in that area and the amount of water that these relief wells collect isn't really a lot of water; it doesn't really add that much to the system. What you want to do is keep that water from moving through the sand and making the sand move to make the levee unstable. We have taken into account, all the pumping stations and their capacities and we assume they are running at 100% capacity even though that rarely happens and we've been very conservative in our analysis of how much water will go into the system so we are exaggerating what we think will get there and that is what we are doing to determine how much water will be in there.

Vanita Rogers: You also showed the four areas of remediation. Can you say where the lowest one?

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Ron Elmer: The lowest one right here and that is actually a piece of wall that is right next to the existing lock on the west side. It's not much of a wall and there is some remediation work that has to be done. That is actually on the Corps property for the lock.

Vanita Rogers: Now the red one, right there. Now where is that one located?

Bill Maloz: Right by the Florida of the bridge.

Ron Elmer: Just north of the Florida Bridge.

Vanita Rogers: So it's on the other side of the bridge.

Ron Elmer: Yes, it's on the lake side of the bridge.

Vanita Rogers: And the others one will go right down the rest of the canal right there.

Ron Elmer: Yes, there are different areas scattered throughout the system that we are looking at.

Gregory Hamilton: There was a report about two months ago that some of the funding for the Corps for reinforcing the pumping station in certain works had to be reduced because the overall costs was greater than anticipated for all the projects; they had to shift money around. Have you made any progress in restoring that money?

Nancy Allen: That's the storm proofing projects you are talking about. The Corps was authorized a certain amount for storm proofing project for some Orleans pump stations, Sewerage and Water Board projects, and some Jefferson Parish pump stations. Those parishes were actually the ones who looked at the amount the money we were given by Congress and made the decisions about what projects they wanted to have done. They took all the projects and prioritized them and made decisions about which projects would be funded and what wouldn't be funded. So it is up to Congress now if they choose to grant additional money for the storm proofing projects, but at this point the two local entities have decided how they want that money spent on the different projects. In New Orleans, it's Sewerage and Water Board.

Gregory Hamilton: So no real progress has been made?

Nancy Allen: No, we've had this same amount of money from the beginning but some of the bids came in a little higher so we did some shifting of priorities along with the Sewerage and Water Board. I am going to clarify something. Everyone was given a status map tonight and just knows that this map is dated June 2010 so this was just a snap shot as of June 2010; what were the areas most at risk and what were the areas that met the 100-year criteria. At this point, nearly everything that is red is under construction for the 100-year system. If you were to do a map now it would look different. If you were to do a map three months or six months from now, it would continue to change. The goal is to get to green by June 1, 2011 and we are well on our way of meeting that 100-year level of protection. This map is five months out of date.



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Vanita Rogers: The deep soil mixing, a comment was made with how Louisiana soil is, so how are you judging which ones will be mixed with the cement and where are you going to be putting that.

Ron Elmer: They are doing an analysis of how strong that cement they are putting in there has to be. Every area is different. You have to analysis the existing condition of the soil in that particular area as the soils vary throughout the system. You have to design the concrete mix with the soil that is in place because you are mixing the soil and pumping the concrete to make a column. In every location it's a determination on the type of soil you have and how much strength you have in the concrete and that analysis is done to determine the exact mixture of cement and soil when you are doing these things.

Nancy Allen: I also think she's asking why we do deep soil mixing in some places and not others.

Ron Elmer: If you are asking why we use deep soil mixing and not something else, the deep soil mixing is in areas where you have the greatest stability problems; that gives you more strength. In some areas our stability problems are very minor and it doesn't take that much work and you don't need that type of system to get it to where it meets the guidelines. You can do it by adding an additional berm or something else.

Vanita Rogers: I'm just looking at the area and to me all the soil is like the same.

Ron Elmer: It varies. It's all bad I can tell you that but it does vary from area to area.

Vanita Rogers: I know, but to me it's like it's not that much variation. Also, are you considering that they are not fortifying that pump by Florida Ave. Bridge?

Ron Elmer: I don't know what work they are doing on that pump station right now.

Vanita Rogers: That was one of the ones they cut so I don't think anything will be done for that particular pump and that's where you are putting your remediation work is being done right there on the wall where the pump is not going to be working. Are you putting a well there or what?

Nancy Allen: The storm proofing projects are improvements to existing pump stations that will help them better operate during a storm and make it so that in some cases the operators can stay there. So that pump station will be functioning, they are just not upgrading any of the elements with additional funding from Congress. The pump station will still work and that pumping is added into the capacity in the IHNC.

Vanita Rogers: Somewhere in that there, that particular area is the lowest area; therefore, if you are not going to strengthen the pump that is already being subjected to the water from a hurricane and it needs remediation, are you doing something else there? Are you doing the well there...

Ron Elmer: At that particular site I'm not sure what the remediation method is off hand.

Bill Maloz: The fronting and storm protection we are not doing, that is associated with the pump and they have the same design criteria that we do so that is being taken care of for the 100-year level of protection. We can show you in the back what we are doing so you know what those soils are below that ground and why we use what we use.

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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Heather Egger: I have a question about the access channel behind the Lake Borgne Surge Barrier. This canal was constructed so that it could be accessed by heavy equipment?

Ron Elmer: Yes, and barges. We had to work off barges because it was over water. We dug an access channel across that triangle from the GIWW to the MRGO. That access channel will be structurally closed off when we finish the job. There will not be access through that area by boats. Are we filling in the canal? No. We will be putting erosion protection on the banks on both sides, but the canal will be shut off. We do have to keep it open in case we need future heavy equipment needs for any major repairs that come up because that is the only way you can get equipment into that area to do any repair work. The equipment must come in by barge.

Female Speaker: I just want to clarify a point with the deep soil mixing. I know as you go down in the earth you go through layers of dirt, sand and clay and such. So how far down are you doing the deep soil mixing?

Bill Maloz: It varies, but about 30-feet maximum.

Female Speaker: So that's above the sand?

Nancy Allen: No, it's through the sand.

Ron Elmer: What these things have to do is interrupt this failure plain. Our analysis shows that once you get the water on top of the wall, the soil will fail and start moving so what we have to do is interrupt that failure plain and keep that dirt from rotating and that is what that does.

Female Speaker: I was just wondering why you didn't go all the way to clay.

Ron Elmer: Because it's not necessary. We have to interrupt that failure plain and the problem is here; the problem is not down there.

Female Speaker: No, I just wonder would the extra length make it stronger.

Ron Elmer: The depth of how far they go is based on the weight of the material being pushed. It's the matter of the forces you are trying to counteract.

Melanie Ally: I understand that the T-wall levees are the strongest. The levees that you are going to be completing in the New Orleans East area, are they going to be the T-wall levees?

Capt. Brock Schmidt: The T-walls will be put up along the Lakefront Airport. On the existing earthen levee, they are driving sheet pile there and putting a cap on it. The reason why is because the way it's structurally done, the sheet pile drives down deep enough you won't see any failures on either side. The existing I-walls that are there will be replaced with T-walls.

Nancy Allen: T-walls along the levees have pluses and minuses. They are all being built to the same standards so some of the construction in New Orleans East is replacing I-walls with T-walls and some of it is levees. We will stick around and are a happy to go over the maps in the back and the illustrations ... sir, go ahead.



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John Koeferl: I just came from a meeting in the Lower 9th Ward and I know there is quite a lot of interest of having you come and present this.

Nancy Allen: November 8th we will be at Light City Church. That request was made at the last meeting and we scheduled that within a couple of days.

John Koeferl: I think the area that concerns us most is this old levee and I know you've addressed it, but it's the levee along the six miles along the main part of the Industrial Canal and the surge barrier. We think that it's too low and we know you are going to fix the worse spots, but we still feel it's too low and we are going to get the water first in New Orleans East and the Lower 9th Ward and St. Bernard when the water rises in there, which it is sure to do. Many people feel that you should build your headquarters there and get off that high levee Uptown and come on down. I'm not being vicious here; I'm being real because that's where it is. You all don't seem to see that. I don't know where you go home to every night, but we go home and it doesn't feel good being in a place that we feel that is being taken care of; it's always last. When the money ran out, there's no more money to build that levee there and that's where the water came in. We've just gone ahead and built where there were levees and seawalls along the Industrial Canal, but there was never a real levee along there and there is still not because of how the legislation was worded. You are going to put the toxic sediments there from the Industrial Canal project and you are going to use it as land to build a new lock, but not to build a levee that we feel we need. That's our complaint and you really don't seem to be looking out for us and we are feeling it. We don't think this work is complete until we are protected and that's both in the Lower 9th Ward and St. Bernard and New Orleans East. I know you are working hard at it, but I don't think you see it from our point of view.

Ron Elmer: What I can tell you is that every individual within this risk reduction system when it's complete, everyone will have the same the level of protection. No one is being treated or given preferential treatment. Everyone will have the same level of protection no matter where you live.

John Koeferl: You will have a little bit more above the Corps office and Uptown. You will have a little bit more.

Ron Elmer: Sir, every person living in the metropolitan area behind this system when it's done, will have the same level of protection. That is what we are building.

John Koeferl: You have to excuse me as I have all this stuff building up in me. There was an article in the Times Picayune this week about someone claiming the flood protection factors that the Corps was using, the model, really needs to be examined by the National Science Foundation or...

Ron Elmer: Which it has been done...

John Koeferl: By the National Science Foundation?

Nancy Allen: By the National Science Academies of Science and many other organizations, several times over...

John Koeferl: Would you be willing to do that...well, I would like to see that, it's available?

Ron Elmer: We can document that different review processes we went through and all the different organizations, universities, as they have reviewed the model, the design guidelines we are



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using. It's been approved across the board, not only by the Corps, but by a number of individuals and institutions outside the Corps.

John Koefler: But yet there are still some people that have....

Ron Elmer: Yes, there's always going to be some people that don't believe....

John Koefler: But there are scientists and they are people...

Ron Elmer: What I can tell you is that we have a majority of the scientific community and academia agreeing with what we are doing. The majority.

Nancy Allen: Our commitment to the Southeast Louisiana Flood Protection Authority at the meeting was that we would provide them any assistance that they needed if they chose to have another review of the model. The model is 152 storms on a variety of tracks, with a variety of characteristic. I think it is something like 10,000 combinations of tracks. There is a slide that shows all the historical tracks, theoretical storms, etc. It took five super computers, I think, at both the engineering research and design center in Vicksburg and at different universities to run this model and to run and produce the 100-year level of protection and translated it to the heights and elevations throughout the system. So it's not a simple process to review, but we certainly support SLFPA need to do that and we've already committed to giving them all the information they could use.

Are there any other questions or comments? You did receive a survey when you came in and if you could fill that out that would be very helpful. We will be talking about IER 11b Supplemental again on Monday, November 8th in the 9th Ward at Light City Church on St. Claude Ave. and we invite you all to attend. You can always find the information on our public meetings on nolaenvironmental.gov. We will stick around to answer your questions and if you would like to submit written comments, you have until Nov. 13th to do so. Thank you for coming.