Public Meeting Summary

Individual Environmental Report 8-10 Bayou Bienvenue and Bayou Dupre Control Structures, Caernarvon Floodwalls, and Chalmette Loop Levee St. Bernard Parish
Monday, May 11, 2009

Location	St. Bernard Parish Council Chambers 8201 W. Judge Perez Dr. Chalmette, LA 70043
Time	Open House 6 p.m.-7 p.m. Presentation 7 p.m.
Attendees	Approx. 39
Format	Open House Presentation Discussion
Handouts	• Borrow • Status Map • Presentation • MRGO Fact Sheets
Facilitator	Jim Taylor, public affairs

Jim Taylor, public affairs

The Corps thanks you for being here. Chris Gilmore will be giving the presentation tonight. Before the presentation, I would like to introduce Col. McCormick commander of the Hurricane Protection Office. Col. McCormick is responsible for what is going on here for a few weeks until he goes to Afghanistan.

Col. Mike McCormick, Hurricane Protection Office commander

Thank you for coming this evening. Tonight is part of the public disclosure process mandated by the National Environmental Policy Act or NEPA. The NEPA process is required for all federal actions. It tells us to analyze all the impacts associated with the natural and human environments. We're required to disclose the information in the form of public meetings. Chris will discuss the projects for this area. The mission for the Hurricane Protection Office and Team New Orleans is to execute the authorized and funded 100-year Hurricanes and Storm Damage Risk Reduction System by June 2011. Before the Corps does any project, we have to have direction, authorization and funded by Congress. In most cases we have a local match but this system is largely federally funded. We're funded and authorized to do this work. In delivering this

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.

mission, we are committed to public safety, as a priority, and we are accomplishing this work as a team. The team is composed of local, state and federal organizations and agencies. We are committed to best science possible in engineering science and environment evaluation to identify the impacts. There is a lot of work is about to happen in the area. Already there is pile driving at the IHNC Lake Borgne Surge Barrier. The first pile was drove on Saturday morning. We are continuing to pile drive to reduce the risk of flood damage to the Greater New Orleans and St. Bernard area.

Question 1. Dan Arcenaux: How is a 26 ft wall at Bayou Bienvenue going to protect us when we have a 3 foot wall at Bayou LaLoutre?

Response 1. Col. McCormick: Its 26 feet because that is the 100-year authorized elevation. The still water elevation is 18.5 feet. Due to geography of the area and Lake Borgne we get wave run up and that is why we have 20 foot levees. Chris will cover this more in his presentation.

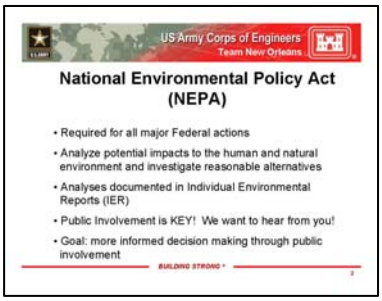
Jim Taylor, public affairs

I'd like to thank the parish for allowing us to use the facility. Before we begin I would like to introduce a few people.

Craig Taffaro	St. Bernard Parish President
Mike Ginart	Councilman District D
Wayne Landry	Councilman at Large
Mike Honnicutt	FEMA

Chris will go through the presentation and then we will open the floor for discussion. Please hold any questions until the end of the presentation because he may answer it.

Chris Gilmore, senior project manager

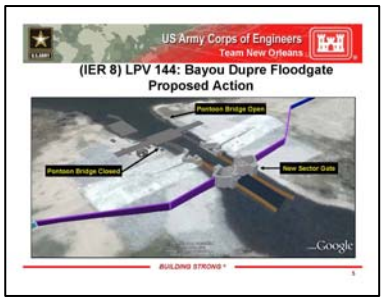


Tonight we are discussing Individual Environmental Reports 8 through 10 in St. Bernard Parish. As Col. McCormick said we have to comply with the National Environmental Policy Act. It's required for all federal actions and a 22 foot T-wall is a major action. We have to analyze the potential impacts to the human and natural environments and investigate all reasonable alternatives. We've looked at many alternatives in these IERs. IERs 8 and 10 are currently available for public review. Public involvement is the key to us making an informed decision and better project. We want to hear from you.

Public Meeting Summary

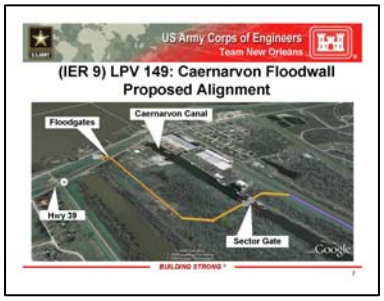
This is a map of the St. Bernard section of the Hurricane and Storm Damage Risk Reduction System. LPV 144 through149 make up the risk reduction system in this area. Before the IHNC Surge Barrier tier 2 Borgne was approved we were looking at doing something at Bayou Bienvenue. [Inaudible] IER 8 LPV 144 focuses on the Bayou Dupre floodgate. IER 9 LPV 149 is the Caernarvon floodwall. IER 10 LPV 145-148 begins at Bayou Bienvenue and ends at Caernarvon.

IER 8, LPV 144.02, is the Bayou Dupre floodgate. Currently this project is in the design phase to replace the structure. We were looking at modifying the current structure but because the IHNC Tier 2 Borgne project that will reduce risk to Bayou Bienvenue there is no action required. The existing elevation is 15.4 feet and it is projected to be at 31.5 feet when the project is complete.



This is a picture of the new structure. Here [pointing] is the existing structure. The new structure will be set 130 feet on the flood side toward the Mississippi River Gulf Outlet of the existing structure. [Inaudible] It is the proposed action for IER 8.

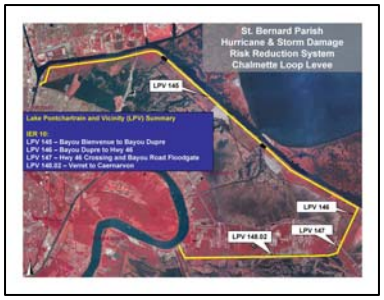
IER 9, LPV 149, the red line [pointing] is the existing floodwall. [Inaudible].



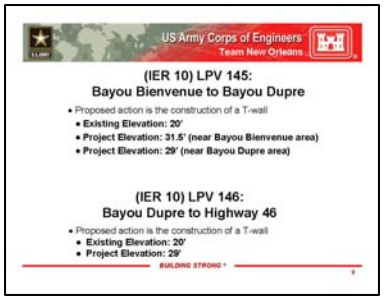
This is the proposed action for IER 9. The purple line [pointing] is LPV 148 [inaudible]. LPV 149 is the yellow line [pointing]. We will come across with a floodwall. Then we'll construct a new sector gate in the canal, cross highway 39 and the railroad to tie into the Mississippi River levees. This is the proposed action. When it comes to public input, this is where we listened to the people on Deogracias Lane and [inaudible]. If we stayed on the

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.

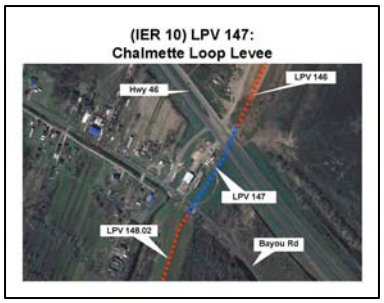
alignment we'd cause potentially significant impacts. Through analysis we determined jumping across the canal was more costly [inaudible].

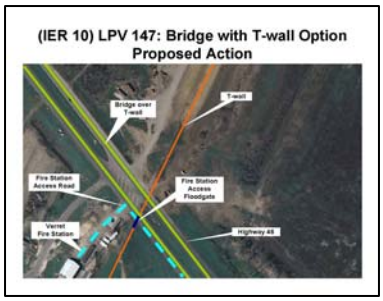


IER 10 is comprised of LPV 145 Bayou Bienvenue to Bayou Dupre, LPV 126 Bayou Dupre to Highway 46, LPV 147 the Highway 46 crossing and the Bayou Road floodgate, and LPV 148.02 Verret to Caernarvon.

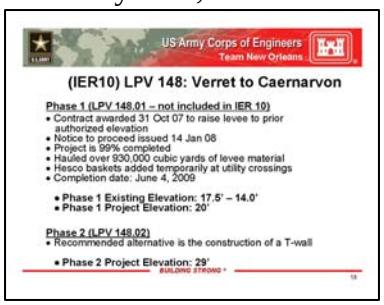


The proposed action for IER 10 LPV 145 is to construct a T-wall on top of the levee. The current elevation is 19; the project elevation is 31.5 near Bayou Bienvenue and transitions to elevation 29 near Bayou Dupre. The proposed action for LPV 146 is to construct a T-wall on top of a levee. The existing elevation is 20 feet, but it will be raised to 29 feet.





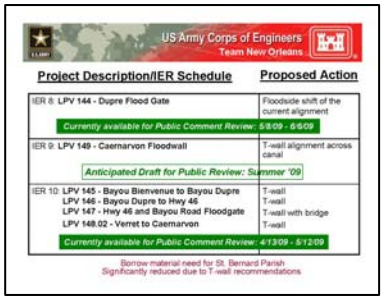
IER 10 LPV 147 is complicated because of Highway 46 and Bayou Road. The existing alignment is the red line [pointing] and the fire station is located here [pointing]. Currently the proposed action is a T-wall with a bridge over it and to replace the Bayou Dupre floodgate. Because we're crossing Highway 46 and Bayou Road we have to coordination with the Louisiana Department of Transportation and Development, Southeast Louisiana Flood Protection Authority-East, and Office of Coastal Protection and Restoration Authority. [Inaudible]



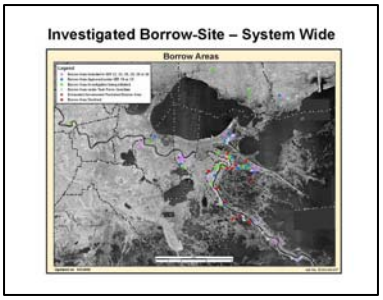
LPV 148 was divided into two phases. Phase 1 LPV 138.01 is ongoing and 99 percent compete. We stopped hauling dirt because we received all the material we needed. [Inaudible] Although completion is scheduled for June, we have the final inspection next week. Once the final inspection is completed it will be turned over to the levee district. Every levee is St. Bernard

Parish will be 19 or 20 feet. [Inaudible] The current floodwall is still over elevation 14 but the levees are roughly elevation 20, that's the highest they've ever been. The next phase is LPV 148.02 which is a T-wall on top of the levee bringing it to elevation 29.

These are the pictures of the ongoing construction from July 2008 on the left and Oct. 2008 on the right. [Inaudible]



IER 8 and 10 are currently available for the 30-day public review. IER 8 the Dupre floodgate closes on June 6. IER 9 the Caernarvon floodwall, we anticipate having a draft available this summer. IER 10 the T-wall from Bayou Bienvenue to Caernarvon 30-day review closes tomorrow. If you would like to comment on them you can get those to us.



This is a map of the investigated borrow sites. We are looking all over southeast Louisiana to find the material needed to complete the system.

These are the sites in St Bernard being investigated or have been approved. The sites range from government furnished to contract furnished.

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.

Public input is important to the process. There are many opportunities to make comments on the different IERs. Comments can be made during public meetings, on www.nolaenvironmental.gov or by contacting Gib Owen the environmental manager.

Other resources to find information on the projects in the area include www.nolaenvironmental.gov and the Corps Web site www.mvn.usace.army.mil.

Jim Taylor, public affairs

Before we begin the discussion section, I ask everyone to please keep your questions and comments between 3 to 5 minutes. Once everyone has had a chance to comment you can ask more questions. Also, I ask that you state your name so we can record it with your comments.

Question 2. John Gallo, Bayou Road: The new levee behind this area is it complete?

Response 2. Chris Gilmore: Yes, LPV 148.01 is complete.

Question 3. John Gallo: Have you been back there recently?

Response 3. Chris Gilmore: Yes, I have.

Question 4. John Gallo: Did they move the pipelines?

Response 4. Chris Gilmore: The pipelines have not been moved.

Question 5. John Gallo: Then the project is not complete. There is a 75 foot gap in the levee with two pipelines on top of the old levee. I understand the pipelines will not be moved for a couple of months when the T-walls are placed. It will be Aug. or Sept. before the T-wall work begins which leaves a gap in the levee. When the water comes through there, you're going to lose 500 feet of the new levee. That's a problem. The pipelines should have been moved when the project was getting started. If there is a hurricane in Aug. or Sept. those people are in trouble. It's not complete.

Response 5. Chris Gilmore: There are HESCO baskets being placed to close the gaps. It is a temporary fix until the next phase begins.

Question 6. John Gallo: Those baskets will not hold the pressure from the water.

Response 6. Chris Gilmore: They have been proven effective.

Question 7. John Gallo: Those pipes should be moved. Don't tell me this levee is complete because it's not complete until the pipes have been removed.

Response 7. Chris Gilmore: That levee is better now, than it has ever been.

Question 8. John Gallo: The water didn't top the levee, but if you get a big enough storm, it will top it. Once this opening is gone you are going to not have a 75 foot gap but a 500 foot gap.

Response 8. Chris Gilmore: There are four spots temporarily closed with HESCO baskets.

Question 9. John Gallo: Until something is put in that levee gap and the pipes are removed, then the water will go between the baskets and the pipes.

Response 9. Chris Gilmore: The baskets were effective during Gustav on the IHNC. In the next phase those pipelines will be addressed. We thought about moving them, but there is a short timeline. The levee there is stronger than it's ever been.

Question 10. Jim Hasik: The elevation by the bridge is 31 feet and when it gets to us its 29 feet. Historically a surge would be higher at 29 foot. [Inaudible]. All your brochures say it will be competed by 2011, is that still the goal?

Response 10. Chris Gilmore: We're pushing to make the 2011 deadline.

Question 11. Jim Hasik: Is that the T-walls and everything?

Response 11. Col. McCormick: There will be gates that may have stop logs, but the object is to have it completed by 2011.

Question 12. Jim Hasik: We had 18 feet for Katrina and it was 15 feet at the bridge.

Response 12a. Chris Gilmore: The reason it is 31.5 here [pointing] is because when we constructed the IHNC surge barrier that brought in additional water. If the IHNC surge barrier was not there then it would be 29 feet all around.

Response 12b. Col. McCormick: The surge barrier is at a lower elevation than the wall. It's designed and modeled to overtop the surge barrier before the wall.

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.

Question 13. Jim Hasik: It appears you would have two or three additional feet where it is more vulnerable. In reality, you're reducing it before it gets to New Orleans.

Response 13. Chris Gilmore: I understand, but based on hydraulics this is what's required.

Question 14. Sam Scallion: I'm an engineer with an office in Chalmette. I realize the T-wall is stronger in a fixed position but when put on the top of an earthen levee, if there is a problem or breach with the T-wall on top, how do you plug it up? How long is the T-wall levee?

Response 14. Chris Gilmore: We looked at that issue in our design. The base varies by reach sometimes 15 feet in range.

Question 15. Sam Scallion: There are two different types of structures a T-wall and an earthen levee below it. If you get a storm or surge and it blows out the bottom of the levee there is no way to fix it. The lake will come pouring in.

Response 15. Chris Gilmore: We're aware of that and we're looking at it in the design to make sure that doesn't happen.

Question 16. Barbara Robin: I would like to thank the Corps for putting in the floodgate because you saved our homes and heritage. We have a low spot where the new levee ends and the T-wall starts, are you doing something about that? That is a bad area. It almost went over for Gustav.

Response 16. Chris Gilmore: [Inaudible] it may be an emergency flood-fight. [Inaudible].

Comment 17. Barbara Robin: Please take care of the water under the railroad because I'm too old to prepare sand bags.

Question 18. Unidentified man: Do you know where all the pump stations are located on the backside of the canal? They pump in the inside the floodwall and they pump into the channel. How will you get rid of the water? You're putting it back into where you're taking it from.

Response 18. Chris Gilmore: The pump stations are here [pointing]. This is the back levee and you have pump stations along there. The one in yellow is what is at the channel now at elevation 20.

Question 19. Unidentified man: How do you expect the water to get out?

Response 19. Chris Gilmore: It drains naturally through Bayou Dupre.

Question 20. Unidentified man: What about when you close the gates?

Response 20. Col. McCormick: When a hurricane approached the gates will close and then they open after the storm.

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.

Question 21. Unidentified man: How are you going to get the water out when the gates are closed?

Response 21. Chris Gilmore: The gates are going to function like they do now.

Question 22. Unidentified man: During Katrina that's where we got the first water. The water went over the canal.

Response 22. Chris Gilmore: Yes, the water came in from Lake Borgne on the MRGO side.

Question 23. Unidentified man: That's after the locks broke. When it comes out of this section, it was pumped where it couldn't get out.

Response 23. Chris Gilmore: These levees failed when there was storm surge from Lake Borgne. The levees overtopped, failed and flooded this way.

Question 24. Unidentified man: How does the water get out with all the rain?

Response 24. Chris Gilmore: They will pump into the wetlands. It will take a lot of water to fill the wetlands. The water is going to stay out and be stopped right here [pointing].

Question 25. Unidentified man: How do I get my money for the HESCO baskets being placed on my property? The money was promised since Gustav and I have not got the money yet.

Response 25. Chris Gilmore: I have to get more information about that, because I do not know anything about it. We will look into it for you.

Question 26. Mike Ginart, Councilman District D: Once the water starts to stack up on the control structure, have you run models on what happens with the storm surge from different directions at certain heights?

Response 26. Chris Gilmore: We've done extensive models.

Question 27. Mike Ginart: Where can we find that information?

Response 27. Chris Gilmore: I do not know, but I can find that out for you.

Question 28. Mike Ginart: Once the water does stack up where is it going to go? Are the levees high enough? If not, where is the water going to come from?

Response 28a. Chris Gilmore: The IHNC surge barrier will come to here [pointing] about half a mile south of Bayou Bienvenue. The surge barrier will be designed to elevation 26. The T-wall will be 31.5 feet where we tie into the other section and it will transition to 29 feet. The surge barrier is designed to overtop before the T-walls.

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.

Response 28b. Col. McCormick: The IHNC is a storage area with 12 foot walls. We're designing it to take the over top.

Question 29. Mike Ginart: Where is the storage?

Response 29. Chris Gilmore: In the canal, from the Mississippi River lock to Seabrook. The IHNC Surge Barrier is sufficient to contain the overtopping.

Question 30. Mike Ginart: The water that stacks up, where does it come over?

Response 30a. Chris Gilmore: It won't come over.

Response 30b. Col. McCormick: This is a 100-year storm system. If you have a 500-year storm you will be overtopped

Question 31. Mike Ginart: I want to know where it says that water is going to come in here.

Response 31. Chris Gilmore: This levee is at elevation15. The surge barrier [inaudible].

Question 32. Mike Ginart: I'm asking what the model shows.

Response 32. Chris Gilmore: I do not know what the model shows but this levee is at elevation 15. There are a few low spots near Southern Scrap, on the north side of the IHNC floodwall.

Question 33. Mike Ginart: I want to know where? Who do I have to ask?

Response 33. Chris Gilmore: I don't know if those models have been run for more than a 100-year storm.

Question 34. Mike Ginart: [Inaudible]

Response 34a. Chris Gilmore: I don't know if we have run a 500-year storm but we can look into it and see what has been run.

Response 34b. Col. McCormick: We'll check with the hydraulic department and see what they have done.

Question 35. Mike Ginart: The borrow pits currently operated, do they have the capacity to provide all the borrow you need?

Response 35a. Chris Gilmore: We've hauled over 100 million cubic yards. We're done hauling [inaudible]. I can't answer how much I need if I need any at this point.

Response 35b. Reuben Mabry: We do have a model for a 500-year storm and it shows where water would go. It is on our Web site. We design the system for the 100-year currents but there

are runs for a 500-year storm. With the 100-year system in place the models show measureable improvement.

Question 36. Mike Ginart: Has there been a model for a specific height or a different model? Where does it come from?

Response 36. Reuben Mabry: We have a 1 percent design height for the system and it varies in different places. When the surge is applied against the system it comes over in certain places. The model knows where the overtopping will occur. We have it on our Web site. A paper was published by Dr Link made with the maps on a slide.

Question 37. Fred Everhardt, Councilman E: The area Mr. Gallo was talking about at Caernarvon where the baskets are located; we need protection there because this is a high risk area for a potential breech. [Inaudible].

Response 37. Chris Gilmore: Noted

Question 38. Fred Everhardt: [Inaudible]. What people don't understand is the levee system won't protect you. [Inaudible] Land is the key. The $700 million will protect the New Orleans people. Plaquemines and St. Bernard is the barrier for city of New Orleans. If you don't start a project for the barrier islands you will have 7 feet of water in the city of New Orleans. Louisiana's number one engine is the tourism in New Orleans; if you protect us you protect the citrus. I appreciate the work but we need land now.

Response 38. Col. McCormick: This authorized and appropriated system is directed by Congress. There is an ongoing Louisiana Coastal Protection and Restoration project. We need to make sure we restore and preserve the longevity of the ecosystem to add protection. When we talk about still-water that's the height of the surge, the still water is 25 to 26 feet in height for a 500-year event. The water level is still short of the top for the 1 percent. Also in the system we have armoring, so if we do get overtopping waves we don't lose levees because of the scour on the backside. [Inaudible]

Question 39. Fred Everhardt: [Inaudible] anything closer we can kiss this parish goodbye. In order for parish to survive we need land to ensure businesses won't get flooded and insurance rates will be lower. Without land we can't guarantee anything. We're waiting for the next season. The people in this parish moved back to a high risk area and are hoping you will provide protection. [Inaudible].

Response 39. Col. McCormick: That's the MRGO. The GIWW is still authorized. The MRGO is cut down at Bayou LaLoutre but has a surge barrier going through there at 26 feet. There is no gate on the MRGO. On the GIWW there are two 150 foot gates.

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.

Question 40. Carrie Beth Lasley: The low spots mentioned, can you show where they are, the height differences, and the sudden dip? What protection will be in that area?

Response 40. Chris Gilmore: There are 12 pipelines and 4 spots. The adjacent levees are at elevation 20 and the HESCO baskets are at elevation 8. The low spots are at Bayou Dupre sector gate at elevation 15.4, LPV 147 Highway 46 is at elevation 15 or 16, LPV 149 Caernarvon existing floodwall is at elevation 14.

Question 41. Cathy Beth Lasley: What types of armoring are in those areas?

Response 41. Chris Gilmore: After Katrina at LPV 149 Caernarvon floodwall we placed a concrete scour pad behind the flood line which is a form of risk reduction. At Highway 46 we couldn't do anything because it is a major highway and it would be a flood fight area. Bayou Dupre is at elevation 15.5, because of the structure there's no way to flood fight. If the storm surge got that high it would overtop that structure. The adjacent levees are at elevation 20. The central wetlands are large enough to take a substantial amount of water.

Question 42. Carrie Beth Lasley: The jump is it sudden or gradual?

Response 42. Chris Gilmore: At Bayou Dupre it is somewhat gradual. The concrete structure of the gate has a sudden drop. However, we do transition down gradually with rip rap and armoring from the concrete structure to the earthen levee.

Question 43. Dan Arcenaux: Can you explain this chart to me?

Response 43. Chris Gilmore: I can't because I don't know what it is.

Question 44. Dan Arcenaux: The current LACPR chart says the diversion is going to be a canal into the MRGO that opens up next to our levees.

Response 44. Chris Gilmore: Mr. Arcenuax has a plan from the LACPR project picturing potential diversions. There is a potential study looking at diverting fresh water from the Mississippi River through the central wetlands to this area. [Inaudible].

Question 45. Dan Arcenaux: This will cause water to come up before the storm even gets here.

Response 45. Chris Gilmore: There would have to be a structure in the system that allows water to get out.

Question 46. Dan Arcenaux: When you close it here, the water will come over the banks at the lake. I have four books that say a navigable waterway [inaudible] all the way south using the MRGO.

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.

Response 46. Chris Gilmore: The MRGO is de-authorized and it is not a navigable waterway or channel.

Question 47. Dan Arcenaux: What does this say?

Response 47. Chris Gilmore: [Inaudible]. This would have to be revised because the MRGO is closed.

Question 48. Dan Arcenuax: In the 1973 Corps plan it looked at closing the Rigolets and with nothing at the MRGO. [Inaudible].

Response 48a. Chris Gilmore: The MRGO is a de-authorized channel. This could have been done before it was de-authorized.

Response 48b. Col. McCormick: It's a plan it has with many alternatives which are being addressed. There has not been a decision on anything. They are still studying it. We'll take your concerns back to the LACPR team to make sure they understand your concerns.

Question 49. Jim Difatta: The councilman was talking about the surge barrier being $700 million. I thought it was $1.2 billion?

Response 49. Col. McCormick: It depends on how you look at it.

Question 50. Jim Difatta: There was nobody's business [inaudible].

Response 50. Col. McCormick: The Shaw Group is a Louisiana based firm. When we originally bid that project in 2008, there were a lot of local companies. I understand some of the companies pulled out due to the indemnification and elected not to bid.

Question 51. Jim Difatta: This is the program for 2011 but what is the program for 2009? [Inaudible]. What is the level of protection presently? [Inaudible].

Response 51. Col. McCormick: I would not like to use the phrase dumping mud because we're compacting clay and soil. [Inaudible].

Question 52. Jim Difatta: The material being used for the levees now has been tested. What is our level of protection?

Response 52. Chris Gilmore: Right now the MRGO levees are [inaudible]. This stretch is 19.5 [inaudible].

Question 53. Jim Difatta: [Inaudible] I'm worried about the low spot. [Inaudible] surge barrier until 2011.

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.

Response 53a. Chris Gilmore: That's at 15 feet and has been since the last hurricane season.

Response 53b. Col. McCormick: We're expecting to have 14 feet of pile at the surge barrier by Oct. We're now figuring out our pile driving production rate. We have two shifts per day, six days a week and we're anticipating in Oct. or Nov. we'll have a better level of risk reduction in that area. People say Gustav wasn't a big storm, but it was a healthy storm. There was approximately 11 feet of surge at the IHNC and the system performed well. Everyone notes how great the Netherlands are but there 10,000-year event has an 11 foot surge. In the Greater New Orleans area that's not even a 100-year storm surge. [Inaudible].

Question 54. Jim Difatta: [Inaudible]. What could we stand a category 2 or a surge of 15 feet? If we get a category 3, what should we anticipate with the level of risk reduction we have?

Response 54. Col. McCormick: Don't focus on the category of storm because it's only categorizing wind. It doesn't address the issue of surge. [Inaudible]. Ike was bigger than Katrina and we didn't get the surge but the diameter matters.

Question 55. Jim Difatta: Is it accurate to say that the system we have now would be able to withstand a 15 foot surge? [Inaudible].

Response 55. Col. McCormick: There are so many variables in tracking the storms. We didn't have Verret to Caernarvon done last year when Gustav and Ike hit yet it held pretty well. [Inaudible].

Question 56. Jim Difatta: If the forecasters say St. Bernard we'll experience a storm surge of 15 feet [inaudible].

Response 56. Col. McCormick: We're proposing to put a 12 foot T-wall on the levees in St. Bernard for the 100 year system. A 100-year level of surge is 18.5 ft for a 100-year event. If you get the surge on a westerly track, like Katrina, then you've better prepared than if it came up this way. [Inaudible]. We are less than 100-year and we have two more years of work.

Question 57. Jim Difatta: What is the most vulnerable track in St. Bernard Parish?

Response 57a. Chris Gilmore: We can tell you the elevation but keep in mind there will always be a residual risk. There will always be risk. You need to listen to your parish if they order an evacuation. We're going to provide risk reduction.

Response 57b. Col. McCormick: We'll provide risk reduction but there will always be a residual risk. The only thing not replaceable is people. When the government tells you to evacuate then it is important that you do. [Inaudible].

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.

Question 58. Fred Everhardt: We know when we have to get out. He's asking can the levees right now stand a 15 foot surge.

Response 58. Chris Gilmore: The elevations of the levees vary and there are a few low spots. They are better now than they were during Katrina.

Question 59. Fred Everhardt: Can you tell me if we have a 10 foot surge if the levees are going to protect us?

Response 59. Col. McCormick: The area we have the gate is at elevation 15.5, it's hard to say because [inaudible] there is surge or wave run up.

Question 60. Fred Everhardt: Can we take a 15 foot surge or not?

Response 60. Col. McCormick: I would recommend you evacuate.

Question 61. Fred Everhardt: We know we're going to evacuate but you're not answering the question. [Inaudible].

Response 61a. Col. McCormick: It depends on the track. If we had a 5 foot surge we would take that. I believe we can do that. A 15 foot surge is a healthy surge and that's more than Gustav. We performed well in Gustav but we have a lot of work to do.

Response 61b. Chris Gilmore: For Gustav we had debris half way up or a little higher.

Question 62. Fred Everhardt: What I saw on TV was if it were lower the water would have gone over. So, can we take a 12 foot surge?

Response 62. Col. McCormick: It depends on where you're talking about. You have a 15 foot levee on the [inaudible].

Question 63. Fred Everhardt: So, that's no?

Response 63. Col. McCormick: There are no guarantees.

Question 64. Unidentified woman: In the past the Corps talked about a hurricane protection system. I've noticed that the terminology has changed and now everything is a risk reduction. Did that changed recently and your now telling the people in St. Bernard Parish they do not need to be protected anymore.

Response 64. Col. McCormick: Before we had hurricane protection in our lexicon there was flood protection or flood control. As engineers we can't control Mother Nature or flooding. So, we started calling it protection. With the results of Katrina we took a hard look at the terminology. Even when we're done with this system which we model 63,000 storm tracks, 152

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.

storms multiple tracks there are still variables factored in. This is why we shifted to risk reduction or flood risk management because we don't have all the answers. We have a good system but there is still residual risk. It's important to evacuate when your government tells you to.

Question 65. Unidentified woman: By calling it risk reduction it increased our insurance policy. I was paying $1,800 and now I pay $6,000. It is a big risk for me to be putting this money out and not have protection.

Response 65. Mike Honnicutt, FEMA: The flood insurance will be reduced and it will go back to pre-Katrina rates. The flood insurance hasn't increased but homeowners insurance is increasing because of wind damage and other issues. We need to address homeowners insurance with Congress and the state of Louisiana. Currently the parish has frozen our elevations until the 100-year risk reduction is achieved. When that takes place you'll see elevations in St. Bernard Parish drop. Some properties in an A flood zone will be placed in an excellent zone.

Question 66. Unidentified woman: When we retire, we won't be able to afford insurance.

Response 66. Mike Honnicutt: We've provided some maps to the parish government that shows what some elevations and improvements will be in the future. [Inaudible]. What you can do is visit the FEMA Web site at www.lamapproject.com. On the Web site there are maps with the future improvements and elevations. There is also a 1-800 number if you have any questions about the future issues.

Question 67. Unidentified woman: Do I have to press a number to get to right person?

Response 67. Mike Honnicutt: No, there is a real person two doors down from me who answers the phone. If they don't help you, tell them you want to talk to Mike Honnicutt.

Question 68. Unidentified man: They say the weakest part of the chain is the weakest link. Do we have anything closing the Seabrook Bridge? How long until something is in place?

Response 68. Col. McCormick: We'll put a gate there. It will be completed June 2011.

Question 69. Unidentified man: This area at the IHNC from Claiborne to Southern Scrap there is a T-wall, how deep do those piles go?

Response 69a. Chris Gilmore: I'd have to go look.

Response 69b. Col. McCormick: [Inaudible]. The pilings are very robust.

Question 70. Unidentified man: What you're looking at is sheet pile with concrete on both sides.

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.

Response 70a. Chris Gilmore: Its sheet pile, with an H-pile and concrete.

Response 70b. Col. McCormick: There are sheet piles coming out of the ground on top of H-piles, its like legs of a chair. The H-piles are going under the ground but the 12 feet is sheet piles are sticking up.

Question 71. Unidentified man: Geraldo was running on there and the water was going over the top. There was 12 feet of water on the 100 foot wide bayou with all the pressure on the wall. I've asked why not berm it on both sides because if a boat hit the levee it would soften the lick. In Betsy we had a barge in the 9th ward. I can't understand how the Port of New Orleans would allow a barge in the channel.

Response 71. Col. McCormick: The Coast Guard is closing the channel and it won't be a safe harbor for vessels anymore. We're working with the U.S. Coast Guard to make it a requirement that the IHNC is not supposed to be used for safe harbor.

Question 72. Unidentified man: What would it take to berm this? From the Claiborne Bridge to the new wall that needs to have a berm.

Response 72a. Col. McCormick: The T-wall is safer than the I-wall with the concrete behind it as armoring.

Response 72b. Chris Gilmore: When we designed the T-walls, we designed for barge impacts. They are design to take a hit.

Question 73. Unidentified man: I don't believe it will take a lick from a barge.

Response 73. Col. McCormick: It's designed for an empty barge.

Question 74. Unidentified man: I do not think it would be able to take a lick. I think that area flooded St. Bernard twice. [Inaudible]. It would not take anything to berm that.

Response 74. Col. McCormick: When the 26 foot surge barrier is complete, this area will be secondary protection. If you do get an impact you don't have the entire Gulf coming in. [Inaudible].

Question 75. Unidentified man: Every time there is water in St. Bernard it came from the north. [Inaudible].

Response 75. Col. McCormick: Yes that's what happened in Gustav too.

Comment 76. Unidentified man: The water did not come into St. Bernard until 10:13 at Verret. All that water was banked. When you dug the channel there is a spiral area half a mile wide plus

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.

the channel. If you take the bottom of Lake Borgne and fill from here to here that would stop the water from coming in and it would save everything. [Inaudible].

Question 77. Philip Livaudais, Meraux: Who designed the T-wall?

Response 77a. Col. McCormick: We haven't designed them yet? They are being designed by a firm.

Response 77b. Chris Gilmore: We have designs ongoing and we hope to have them done in the summer. There is a solicitation on the street for early contractor involvement. We're looking at a way to bring in the construction contractor early in the design process.

Question 78. Philip Livaudais: [Inaudible].

Response 78. Col. McCormick: It's a serviced contract with the Architecture Engineering Firm. They bring a builder in to advise them and help decide what to build there. When we get to 65 percent in the design, the builder has the option to say I can build it for this price. They eliminate the risk. If they don't exercise that right then we get the good designs out of it and bid it out.

Question 79. Philip Livaudais: Did you solicit a bid for clay in Sept. to build clay levees?

Response 79. Chris Gilmore: It was a supply contract.

Question 80. Philip Livaudais: Did you proceed with the contract?

Response 80. Col. McCormick: We're hoping to award it this summer.

Question 81. Philip Livaudais: I noticed you declined some areas and approved others. How can you approve or decline if they have not been through a permit process?

Response 81a. Chris Gilmore: Some sites have been looked at but they could have been eliminated because of environment or wetland impacts.

Response 81b. Col. McCormick: It is our policy, that we do not impact wetlands in our search for borrow materials.

Question 82. Philip Livaudais: I want to know about the declined and approved sites. Some of the areas I don't recognize. Have you talked to the land owner?

Response 82a. Col. McCormick: If it is contractor furnished, it is not our job to talk to the land owner. If it is government furnished then we have acquired the property.

Response 82b. Chris Gilmore: Some sites have been approved from Task Force Guardian.

Question 83. Philip Livaudais: You haven't acquired this from the landowner.

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.

Response 83. Col. McCormick: If you have specific sites, please let us know and we will have someone in the borrow team contact you.

Question 84. Philip Livaudais: You haven't done what you're supposed to do.

Response 84. Col. McCormick: If the sites were approved, then there was a series of environmental documentations completed to make sure we are not impacting wetlands, cultural artifacts, or graveyards. There are ongoing investigations. Once the environmental section is clear, then we have to obtain real estate before we can go in there. We are prohibited from taking material from the site until three things are done: there has to be a design, environmental clearance and real estate. Before we take material we have to do go through a process.

Question 85. Philip Livaudais: Do you take the property and material in an emergency?

Response 85 Chris Gilmore: Yes. After Katrina we had an emergency and Task Force Guardian did acquire some borrow sites.

Comment 86. Troy Dean: I would like to thank Chris, Col. McCormick and the other Corps members for there time and effort in the projects that benefit St. Bernard Parish.

Question 87. Lawrence Pourcian: I too would like to thank the Corps for the work they are doing in St. Bernard Parish. [Inaudible]. Earlier you mentioned the T-wall would be able to take the impact from an empty barge and in my experience an unloaded barge weighs nothing compared to a loaded one. An empty barge could be moved with my feet or be pushed by hydraulic wind anywhere. When loaded the barges are very heavy and if one broke loose it will drive a 50 foot hole into the wall.

Response 87. Col. McCormick: Task Force Hope is looking globally at the issue of impacts by barges. They are going to conduct a study to answer that question. Another thing I would like to point out is we are designing a 100-year storm system that has a water elevation of 18 feet. The loaded barge would hit the levee first. Now if we had a 500-year or 1,000-year storm the loaded barge could clip the wall.

Question 88. Lawrence Pourcian: So, the 100-year level protection is what this wall provides and the 100-year surge or static water height is?

Response 88. Col. McCormick: It is 18.5 feet.

Question 89. Lawrence Pourcian: That is the surge barrier?

Response 89. Col. McCormick: That's with the waves.

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.

Question 90. Lawrence Pourcian: If you're at 18.5 feet at the 100-year storm level that doesn't mean it would take 100-years for a storm to come because it could come every three years?

Response 90. Col. McCormick: It could come any year.

Question 91. Lawrence Pourcian: If we get a 15 or 18 foot surge with a 20 foot levee and a loaded barge is floating…

Response 91. Col. McCormick: A loaded barge would be lower down in the water. We are looking globally at the issue of barge impacts on the system. We are looking at it but for a 100-year event it would hit the base of the levee before the T-wall.

Question 92. Lawrence Pourcian: There is not a levee there.

Response 92. Col. McCormick: The T-wall is sitting on top of the 20 foot levee.

Question 93. Lawrence Pourcian: I have been listening to you say all night that if you get a 100-year storm you may overtop the T-wall.

Response 93. Col. McCormick: That's a 1 percent with overtopping. It's not sheet flow, but the wave action that could overtop the levee in any given year.

Question 94. Lawrence Pourcian: The T-wall on the Industrial Canal does not have a levee. My problem is the U.S. Coast Guard, now, has orders to sink barges or ships there before a storm event. I heard that what used to be Southern Scrap that they have the boats pulling up to land which is not going to work because the land is only a few feet above the water. They need to be sunk because it was close enough to knock the walls. The T-walls are fine. It there is no traffic in there then the T-walls will hold.

Response 94. Col. McCormick: They did during Gustav.

Question 95. Katherine Serpas, Bayou Road: First, what do you think is better than a T-wall?

Response 95a. Lawrence Pourcian: First, this guy is an engineer and 3 years ago he brought a solution to the Corps. He gave a presentation on his design to the Corps of Engineers and they said it would not work. He spent his own money having it tested in a hydraulics lab at Texas AM and they said it does work. It is called a double wall impact levee. He had it tested at 24 feet, but it could be built taller. It is sheet pile on the front and the back, with concrete cast built in the sand. If a 15 foot metal structure with sand on the inside is hit by a barge, the metal would bend but the sand would act like a punching bag. Although, a barge or vessel that collides with a two foot concrete wall would break the wall. I've seen the wall break in the past. [Inaudible].

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.

Response 95b. Chris Gilmore: During Katrina at Bayou Bienvenue we had a loaded barge hit the T-wall and cracked the top it but it didn't fail.

Response 95c. Col. McCormick: I received the submission and had the engineering department examine it. I believe there were cost and maintenance issues. Water being on the metal was an issue and it did not have the lifespan that concrete does.

Question 96. Lawrence Pourcian: I guess we did not know about the discount because the Corps said it was viable, and then they stopped returning our calls.

Response 96. Jim Taylor: I will take care of that.

Question 97. Katherine Serpas: This statement is on behalf of my family. Until the MRGO is filled in you will never protect New Orleans East, the 9th Ward or St. Bernard. It has to go. Maybe it will not happen in my lifetime but I hope in 50 to 100 years, someone will look at the record and say it has to be filled in. I don't like talking about 100-year because we should be beyond that. The 100-year scares me because we already had it. [Inaudible].

Response 97. Mike Honnicutt: Actually, that's why they call it one percent now.

Question 98. St. Bernard Voice reporter: People were discussing before the meeting the surge barrier being built before the LPV 145 area.

Response 98. Col. McCormick: We're not going to have the 26 foot surge barrier completed before we get the T-wall on LPV 145. Right now we have 20 feet of levee at LPV 145. We have our first 14 foot pile in place. We'll put a cap on it and bring it up to 18 feet. Then there will be a T-wall putting us at 26 feet. The risk reduction in St. Bernard will be higher than the surge barrier.

Question 99. Unidentified man: After Katrina we were ordered to remove our pipes from the levee at the Michoud slip and the pumping station. They didn't give us 16 months to do it. They only gave us 3 months. Why isn't the pipeline removed?

Response 99. Chris Gilmore: After Katrina, the rules were different. We had an emergency. We have to contact the utility workers and work with them on relocating the pipelines.

Question 100. Unidentified man: Do they know they're endangered us? Do they know they can be sued? They are endangering St. Bernard Parish. [Inaudible].

Response 100. Chris Gilmore: We're up against a 2011 deadline. We can't allow then to delay our construction. [Inaudible].

Question 101. Unidentified man: I guess you don't have the authority now?

Response 101. Col. McCormick: We don't own the land. It's more of a local responsibility. We have to go through the process to get an approved planned.

Question 102. Unidentified man: So, we can't beat up on you because you don't have the authority. We didn't have a permit. Who in the parish has the right to move it?

Response 102. Chris Gilmore: It would be the parish working with the levee district.

Question 103. Dan Arcenaux: Before Katrina came, they decided to put the wall at 8 feet. When Rita came it flooded again. Who was in charge of putting the levee back at 8 feet?

Response 103. Col. McCormick: The difference between the timeframe of Katrina and Rita was 3 weeks.

Comment 104. Dan Arcenaux: I was at a Corps meeting in 2008 and I asked them to move this barrier to Bayou LaLoutre. They told me it couldn't be done for 40 different reasons. The last person I talked to said that's in the 500-year plan. I brought this chart with a plan to save them 450-years of study and $2 billion. It would protect the Pontchartrain Basin if built. [Inaudible].

Question 105. Unidentified man: The floodgates being proposed at the Rigolets, is that still in study?

Response 105. Col. McCormick: Some of those plans may be discussed in the LACPR project but there is not an active chief report or study right now.

Question 106. Unidentified man: The levees on the Mississippi River, who manages those levees?

Response 106. Col. McCormick: The New Orleans District manages part of it and the Mississippi River Valley District does the rest.

Question 107. Unidentified man: Who originally built those levees?

Response 107. Chris Gilmore: They were originally constructed by the plantation owners.

Question 108. Unidentified man: Those levees have been hit by barges, ships and more for 100 years. [Inaudible]. Now, you're trying to tell us that you'll protect us with a T-wall. [Inaudible].

Response 108a. Chris Gilmore: We had 155 barges in the parish at Bayou Bienvenue. One cracked the top of the wall but it didn't fail.

Response 108b. Col. McCormick: I understand your concern. The Mississippi River levee program started after the 1927 flood. It was a huge national investment. There have been appropriations every year since. It's a massive amount of money. [Inaudible].

Question 109. Unidentified man: How much does it cost to design it?

Response 109. Col. McCormick: The costs are being worked out, but the plan to have it completed in June 2011.

Jim Taylor, public affairs

The project managers will be around to answer any additional questions you may have. Thank you for coming and have a good night.

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.

Individual Environmental Reports (IERs) 8, 9, & 10

Hurricane Storm Damage Risk Reduction System

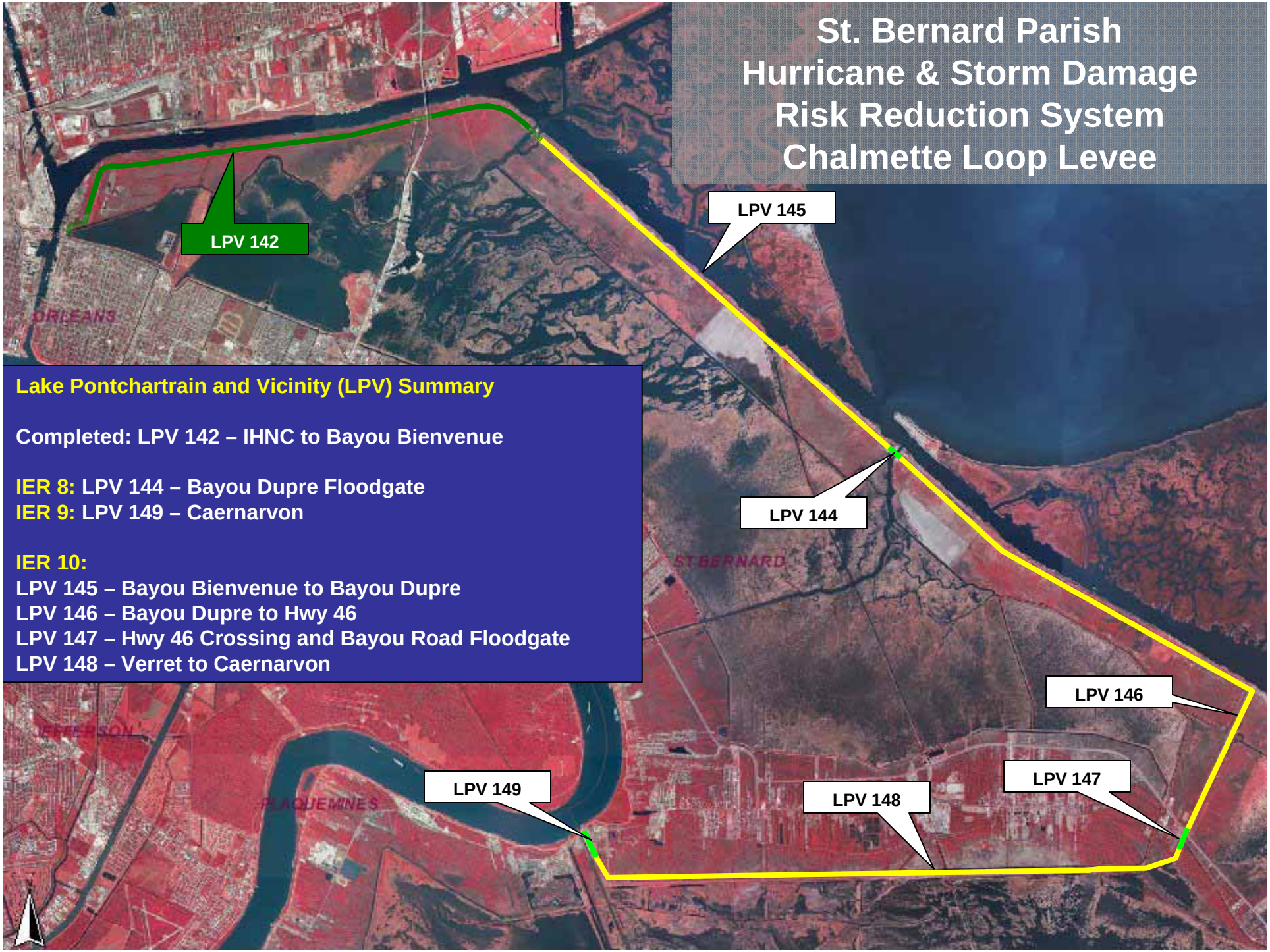
St. Bernard Parish

May 11, 2009

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 Individual Environmental Reports (IER)
- Public Involvement is KEY! We want to hear from you!
- Goal: more informed decision making through public involvement

St. Bernard Parish Hurricane & Storm Damage Risk Reduction System Chalmette Loop Levee



Lake Pontchartrain and Vicinity (LPV) Summary

Completed: LPV 142 – IHNC to Bayou Bienvenue

IER 8: LPV 144 – Bayou Dupre Floodgate
IER 9: LPV 149 – Caernarvon

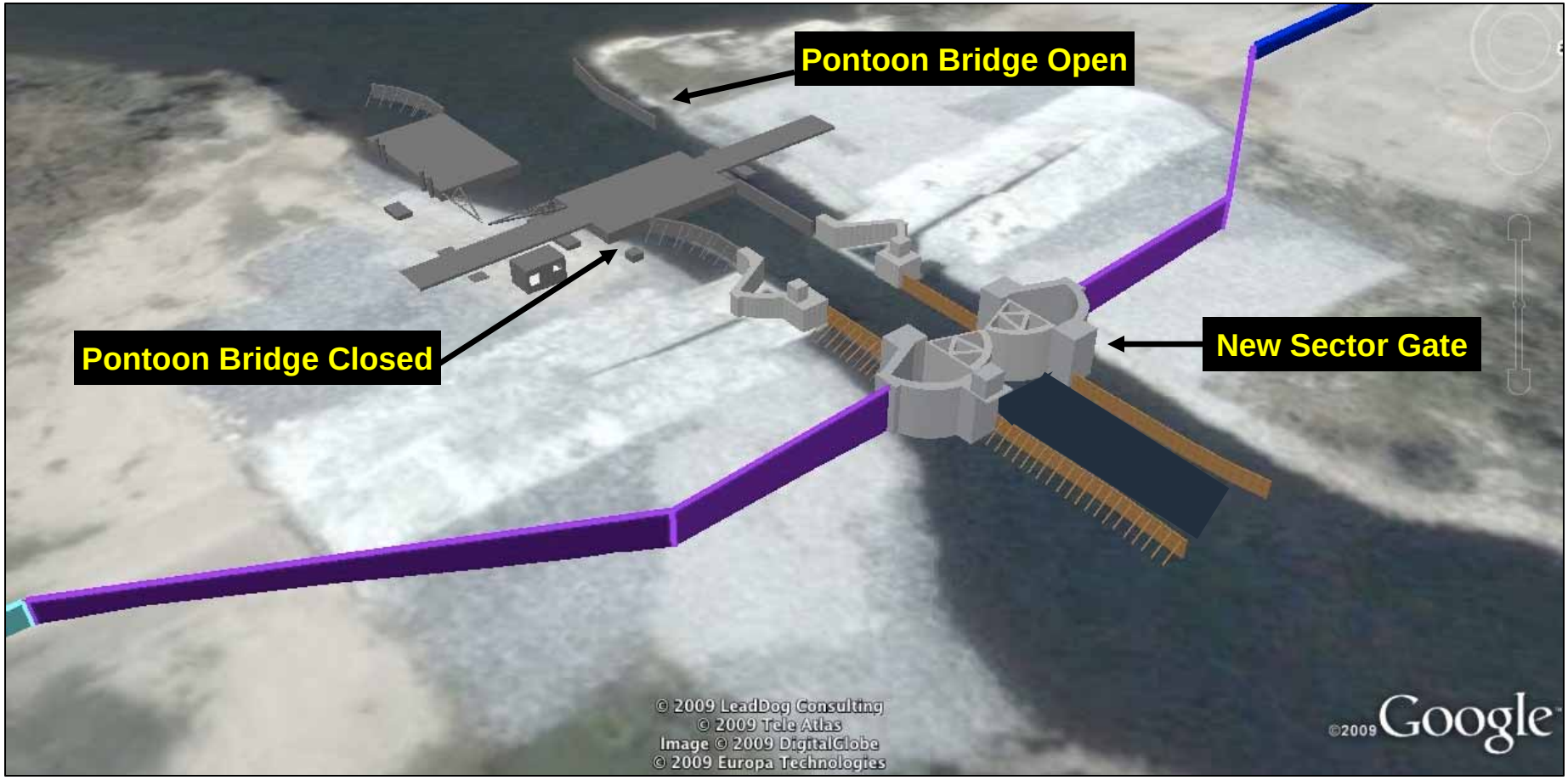
IER 10:
LPV 145 – Bayou Bienvenue to Bayou Dupre
LPV 146 – Bayou Dupre to Hwy 46
LPV 147 – Hwy 46 Crossing and Bayou Road Floodgate
LPV 148 – Verret to Caernarvon

(IER 8) LPV 144: Bayou Dupre Floodgate

Bayou Dupre (LPV 144.02) in St. Bernard Parish, Louisiana

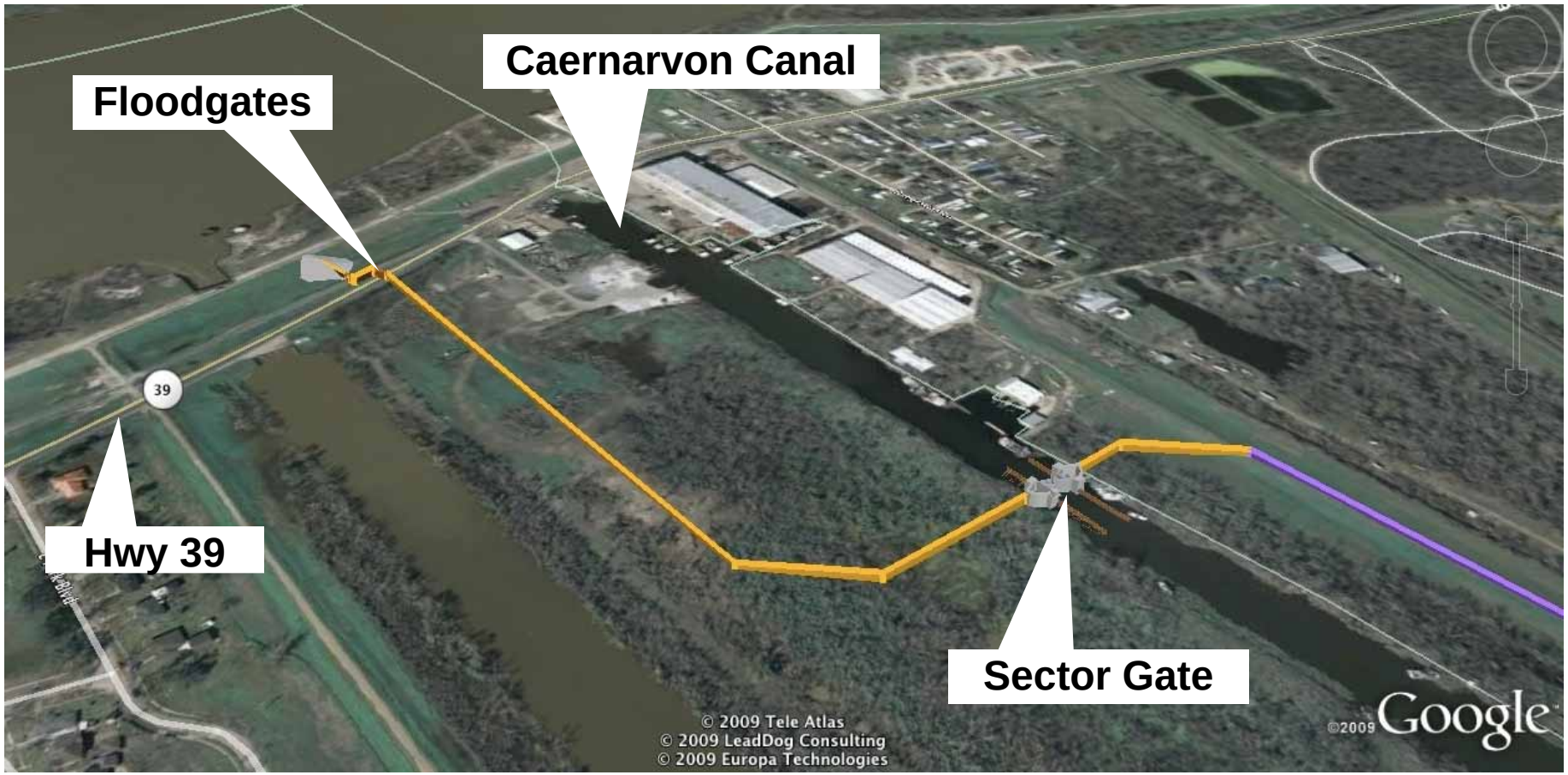
- Currently in design phase for replacement of Dupre structure
- IHNC-Tier 2 Borgne (IER 11) will reduce the risk to the Bayou Bienvenue area, so no action will be required for that structure
- **Existing Elevation: 15.4'**
- **Project Elevation: 31.5'**

(IER 8) LPV 144: Bayou Dupre Floodgate Proposed Action

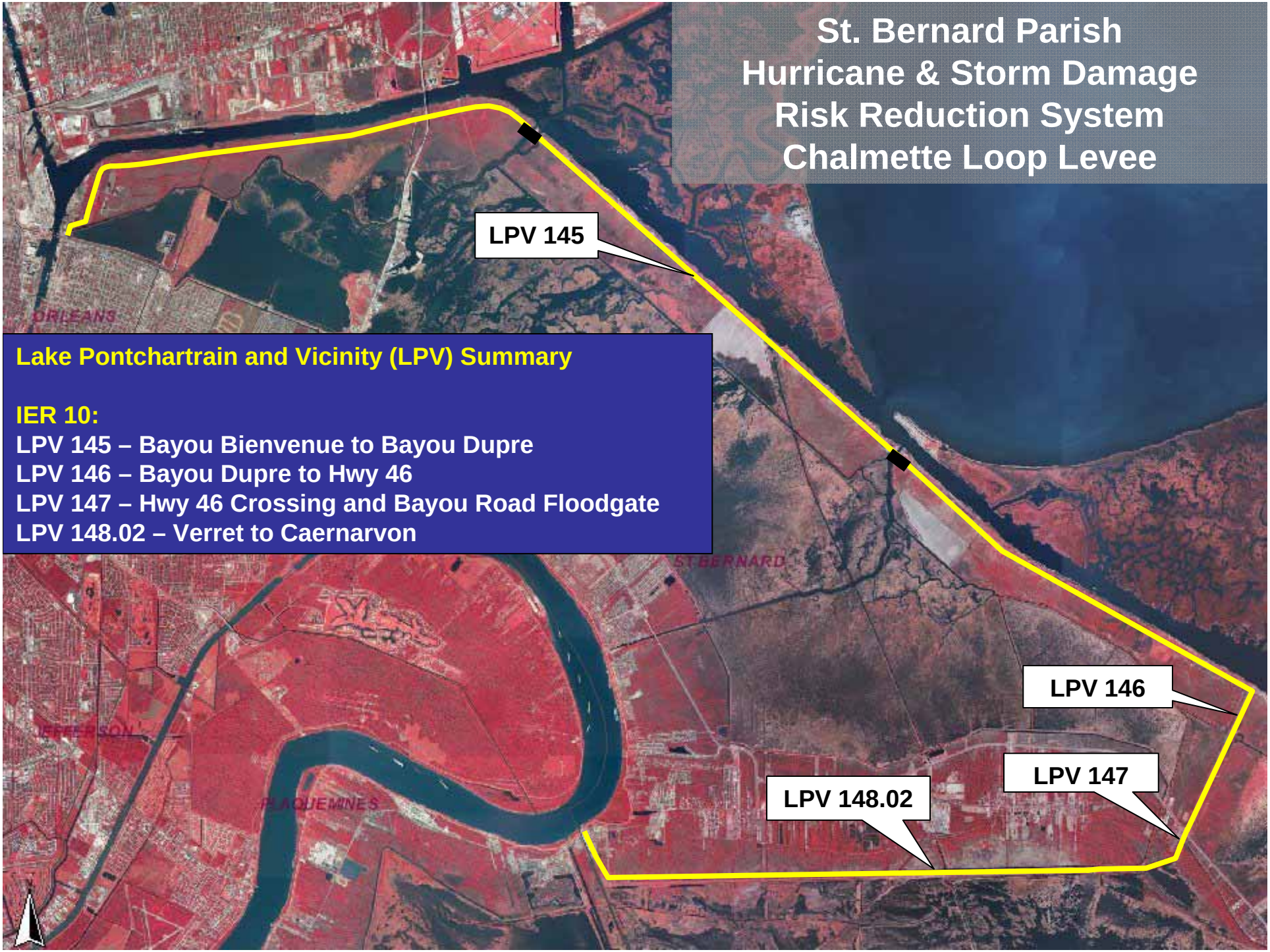


(IER 9) LPV 149: Caernarvon Floodwall

(IER 9) LPV 149: Caernarvon Floodwall Proposed Alignment



St. Bernard Parish Hurricane & Storm Damage Risk Reduction System Chalmette Loop Levee



Lake Pontchartrain and Vicinity (LPV) Summary

IER 10:
LPV 145 – Bayou Bienvenue to Bayou Dupre
LPV 146 – Bayou Dupre to Hwy 46
LPV 147 – Hwy 46 Crossing and Bayou Road Floodgate
LPV 148.02 – Verret to Caernarvon

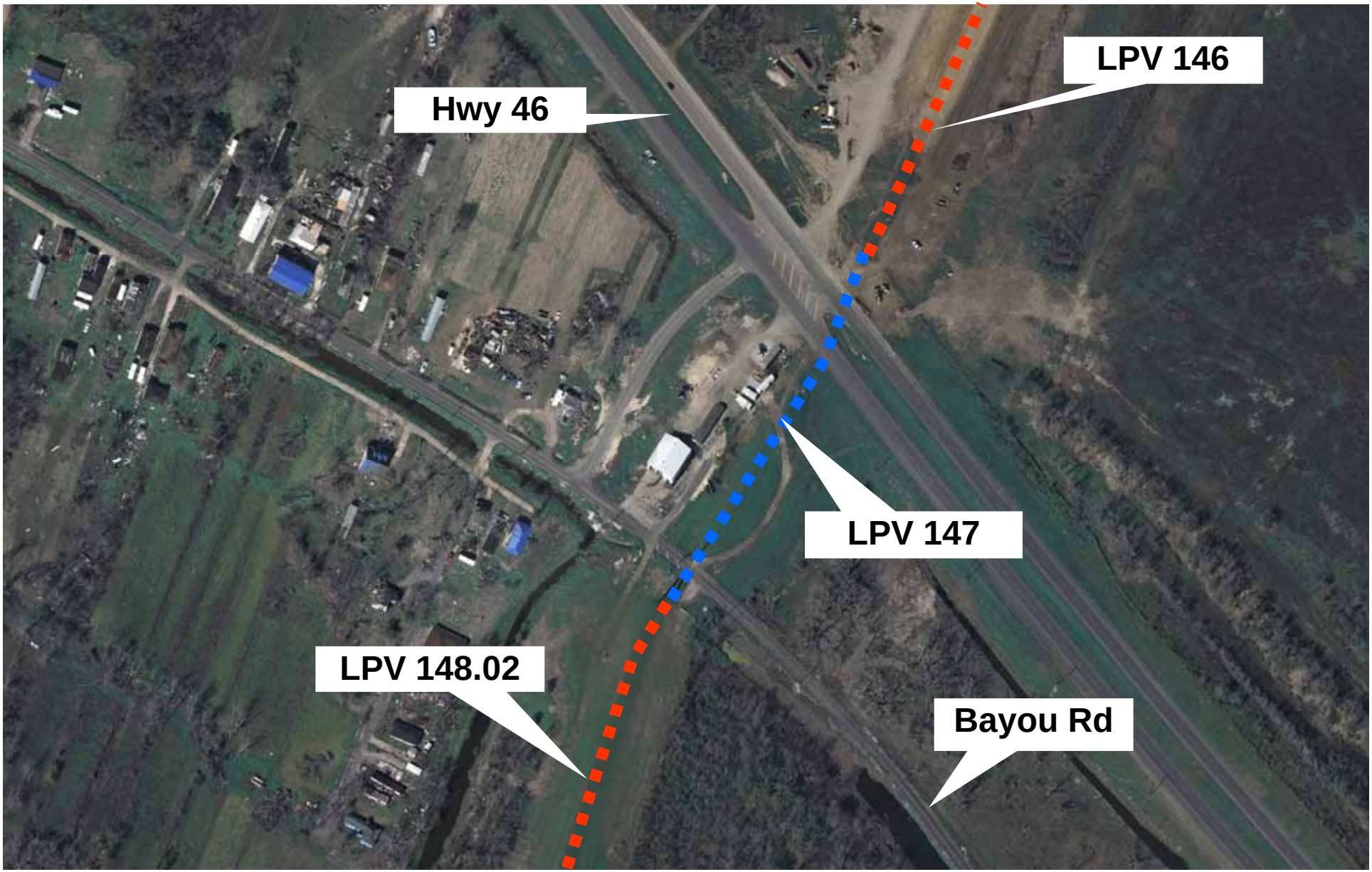
(IER 10) LPV 145: Bayou Bienvenue to Bayou Dupre

- Proposed action is the construction of a T-wall
  - **Existing Elevation: 20'**
  - **Project Elevation: 31.5' (near Bayou Bienvenue area)**
  - **Project Elevation: 29' (near Bayou Dupre area)**

(IER 10) LPV 146: Bayou Dupre to Highway 46

- Proposed action is the construction of a T-wall
  - **Existing Elevation: 20'**
  - **Project Elevation: 29'**

(IER 10) LPV 147: Chalmette Loop Levee



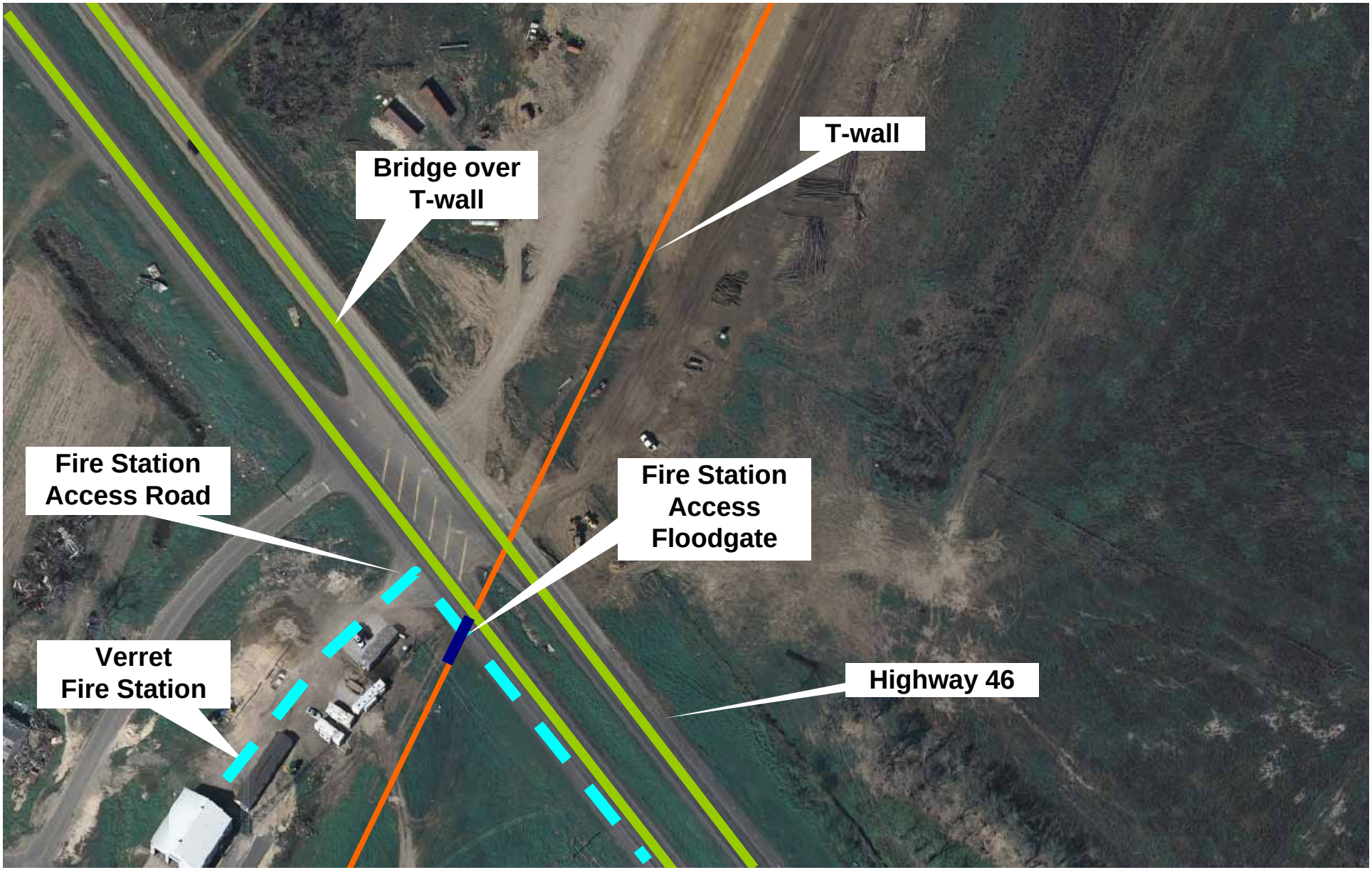
(IER 10) LPV 147: Hwy 46 Crossing and Bayou Road Floodgate

- Proposed action is the construction of a T-wall with a bridge over Hwy 46 and a new floodgate at Bayou Rd

- Continued coordination with:
  - Louisiana Department of Transportation and Development,
  - St. Bernard Parish
  - Lake Borgne Basin Levee District
  - Southeast Louisiana Flood Protection Authority – East,
  - Office of Coastal Protection and Restoration Authority

- **Existing Elevation: 15'**
- **Project Elevation: 29'**

(IER 10) LPV 147: Bridge with T-wall Option Proposed Action



(IER10) LPV 148: Verret to Caernarvon

Phase 1 (LPV 148.01 – not included in IER 10)

- Contract awarded 31 Oct 07 to raise levee to prior authorized elevation
- Notice to proceed issued 14 Jan 08
- Project is 99% completed
- Hauled over 930,000 cubic yards of levee material
- Hesco baskets added temporarily at utility crossings
- Completion date: June 4, 2009

  - **Phase 1 Existing Elevation: 17.5’ – 14.0’**
  - **Phase 1 Project Elevation: 20’**

Phase 2 (LPV 148.02)

- Recommended alternative is the construction of a T-wall

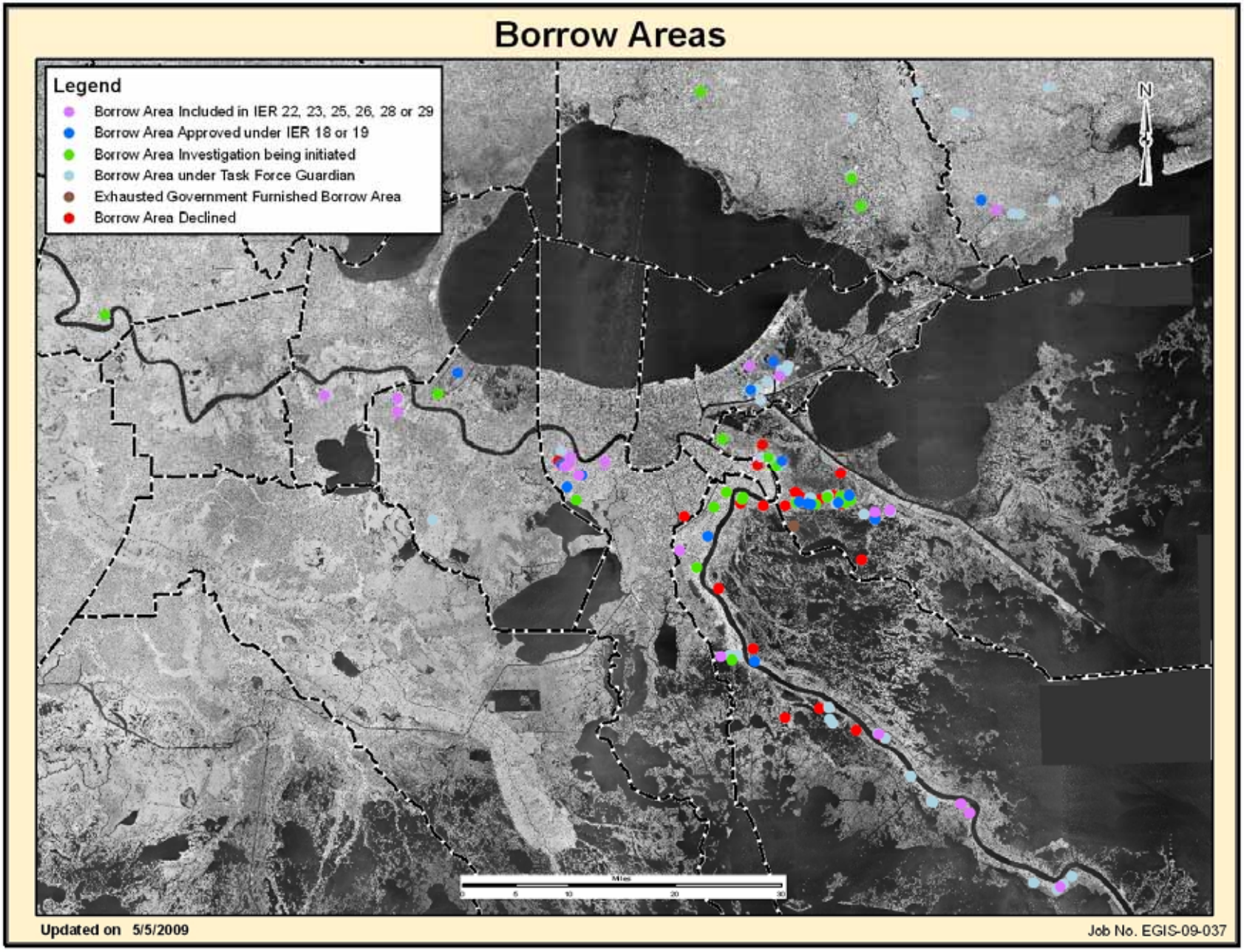
  - **Phase 2 Project Elevation: 29’**

LPV 148.01: Verret to Caernarvon Project Photos

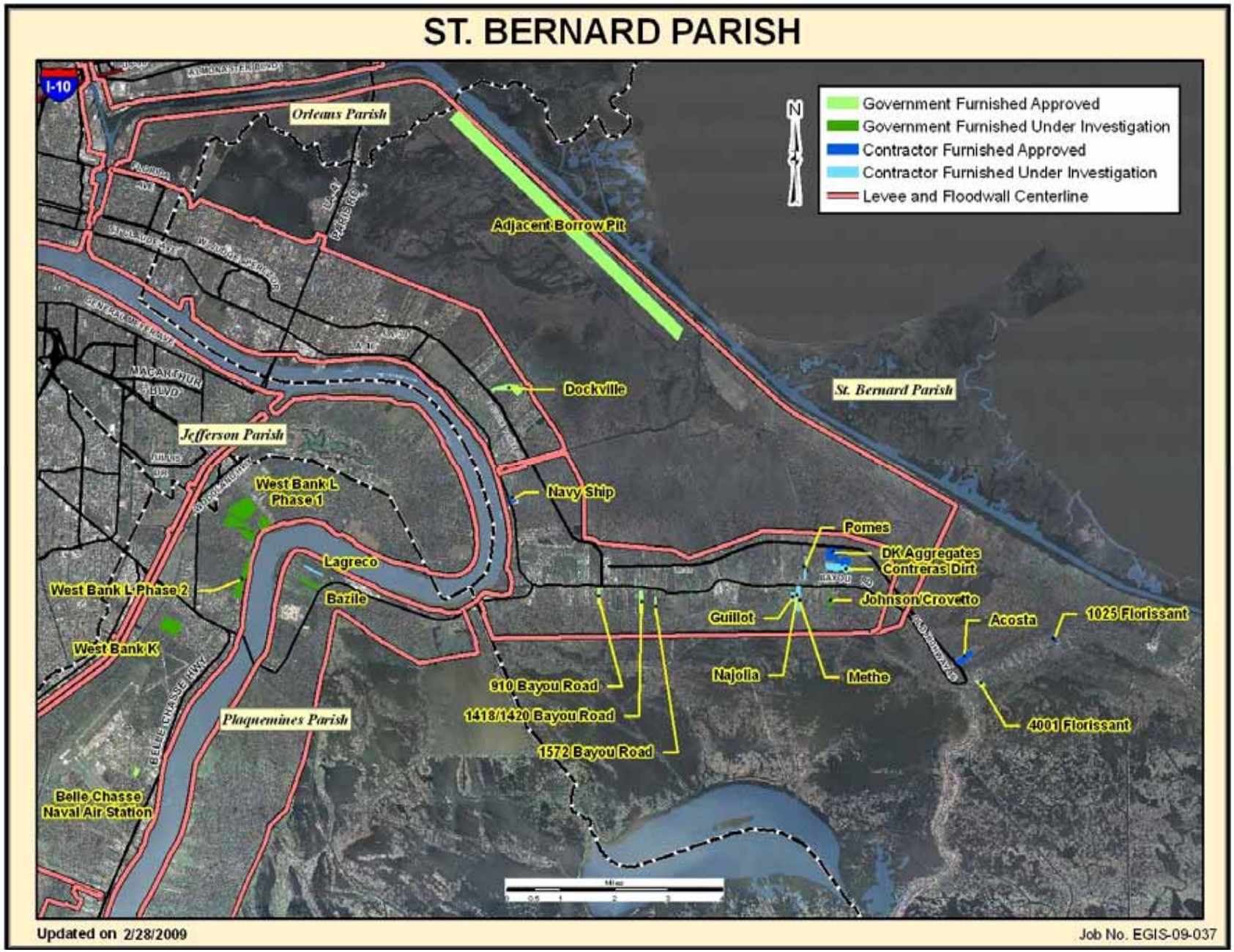
Project Description/IER Schedule	Proposed Action
IER 8: **LPV 144 - Dupre Flood Gate**	Floodside shift of the current alignment
Currently available for Public Comment Review: 5/8/09 - 6/6/09	
IER 9: **LPV 149 - Caernarvon Floodwall**	T-wall alignment across canal
Anticipated Draft for Public Review: Summer '09	
IER 10: **LPV 145 - Bayou Bienvenue to Bayou Dupre**	T-wall
LPV 146 - Bayou Dupre to Hwy 46	T-wall
LPV 147 - Hwy 46 and Bayou Road Floodgate	T-wall with bridge
LPV 148.02 - Verret to Caernarvon	T-wall
Currently available for Public Comment Review: 4/13/09 - 5/12/09	

Borrow material need for St. Bernard Parish
Significantly reduced due to T-wall recommendations

Investigated Borrow-Site – System Wide



St. Bernard Borrow Map



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**
- **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:

Gib Owen
PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267
Telephone: 504-862-1337
E-mail: mvnenvironmental@usace.army.mil

Resources

www.nolaenvironmental.gov

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