Public Meeting Recap

IER 18 Public Meeting
Monday, December 10, 2007

Location	New Orleans District Assembly Room 7400 Leake Avenue New Orleans, LA 70119
Time	4:00 p.m.
Attendees	Approximately 100 and staff
Format	Presentation then Q & A
Handouts	• Presentation • Borrow dated Nov. 29, 2007
Facilitator	Col. Murray Starkel Welcome by Col A. Lee, District Commander Presentation by Michael Brown, Environmental Manager Presentation by Richard Varusso, Geotech Manager

Introduction
Col. Murray Starkel introduced Col. Alvin Lee

Welcome/Why are we here
Welcome by **Col. A. Lee:**

Good afternoon, thanks for coming to the meeting today. I'd like to introduce who we have here including Col. Jeffrey Bedey and Karen Durham-Aguilera.

The Corps needs borrow to complete the risk reduction system. We need over 100 million cubic yards of borrow, that's enough to fill the Superdome 20 times, to give you a comparison.

NEPA helps us make decisions. We need a better understanding of the impacts to the environment our projects may have and we need to understand all the impacts. We have to take into account all of these impacts and our goal is to make an informed decision [about the hurricane protection system] through public involvement.

We have the IER process that Col. Starkel mentioned. This meeting is about IER 18 and 19 and it is critical that we include public engagement opportunities. We have a public comment period. Comments we received asked for additional public meeting so you could provide additional comments.

Under NEPA we get alternative arrangements so we're implementing these arrangements in coordination with the President's Council on Environmental Quality, which we refer to as CEQ. Public involvement is a critical component. As you can see, there are federal agencies involved in this process including NOAA, USGS, EPA, NHPC and all interactions have occurred at the office headquarters and regional offices.

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Also coordinated with state agencies you see at bottom of slide. We'll review natural resources and work with DEQ. So you get an idea of what we've done under NEPA.

This map shows how we've divided the IERs. They're broken up by sub-basin and IERs 18 and 19, they encompass the entire area. That's what we're looking at during IER 18 and 19.

This slide talks about the alternative arrangements. It shows what segment they consist of and the time needed to complete them. To make a decision about the system these documents will be brought to me for approval. We will have an additional IER for borrow and also for mitigation. These IERs are about borrow, that's why you're here.

As you comment, I'd like you to keep in mind a couple things:
It's important to understand that public safety is our number one concern. New Orleans is critical in building the new system.

We have done an electronic request for sources sought. What that means is we've asked the public and contractors from all over the country to provide sources of borrow. We have three methods for obtaining borrow.

1. Government Furnished
2. Contractor furnished
3. Supply contract

We've gone out to seek additional sources to build the hurricane protection system. We've done a detailed analysis of polders or sub-basins. It showed different areas where we could get the borrow and we have a borrow team who is heading up this effort. They have done a detailed analysis and they're looking for locations where material can come from. In some cases, there is not enough borrow available. We went on Friday to seek additional resources. I wanted to give you that overview today.

Now the team will provide additional information about IER 18 and 19 for you. Public input this evening is critical.

Presentation
Col. Starkel introduced Michael Brown. Brown is the project manger and the functional lead of regularity and environmental on the borrow team

Presentation by: Michael Brown, Environmental Manager:
Thank you for participating in the meeting tonight. I'm here to discuss IERs 18 and 19. They are titled Government Furnished Borrow and Pre-Approved Contractor Borrow. We'll also discuss future IERs that will be covered in IERs 22 and 23.

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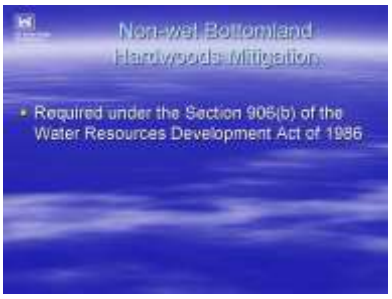
The Corps currently needs over 100 million cubic yards of borrow. **IER 18 is about Government Furnished Borrow**. For this IER we investigated 23 sites. Of those, 11 sites were deemed unsuitable; they were declined because they were too small, had poor geotech or were wetlands. IER 18 includes 26 million cubic yards of borrow, that's also 16 percent of the total needed.

The NEPA process for Government Furnished Borrow required a signed right of entry, then maps to certify the wetlands determination. If we found that a site was a wetland then we'd avoid wetlands by revising the map. We also coordinated efforts with the US Fish and Wildlife Services.

Then we needed a concurrence, and coordinated with the State Natural Resources Department. That was followed by a site visit to clear for geotech concerns or come up with mitigation sites. We're still avoiding wetlands.



Then we do a site assessment. Sometimes we'd collect mitigation data and we're required to mitigate through 906b of the Water Development Act.

These are the sites included in IER 18.

1418, 1420 and 1572 Bayou Road in St. Bernard. This map shows 1572 Bayou Road. It was investigated for 43.3 acres. Only 22 acres are suitable because of wetlands avoidance. 1572 Bayou Road is a 9.5 acre site.

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910 Bayou Road is an 11 acre site.

Florissant is an 11.6 acre site.

Dockville is 144 acres. Currently, 107 acres are proposed for borrow.

Triumph is in Plaquemines Parish. It would be an expansion of an existing pit.

Belle Chase is in Plaquemines Parish. This is on the naval base. They want a pond for recreation so now it's [inaudible].

Maynard is in Orleans parish. The original investigation was of 102 acres but it was reduced to 44 acres because of wetlands.

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Cummings North is also in Orleans Parish. 2,000 acres were investigated but only 182 acres are suitable for borrow because of wetlands and poor geotech.

Churchill Farms Pit A included an original 123 acres, but only 110 acres are suitable.

Bonnet Carre North was investigated for 1115 acres but only 680 acres are acceptable. The surrounding site has topography and wetlands we needed to avoid.

Westbank G site is in Jefferson Parish. We investigated 82 acres, but just recently got geotech's review back. This site will be declined. It won't go further.

IER 19: Contractor Furnished Borrow

The contractor furnished borrow process is a little different. The contractor must provide a completed environmental packet with clearance [papers to the Corps]. We require a signed right of entry and jurisdictional wetland determination letter. The regularity branch of the Corps is not signing [inaudible] now, but for example a sub-division, such as retention pond would provide suitable [borrow]. That would be acceptable [to the Corps] if other sources [agree]. We would still need a coastal zone permit.

We need clearance from the US Fish and Wildlife Service also. The contractor would provide cultural resources and there would be

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coordination with the State Tribes Department. A Phase 1 site assessment is required.

The hurricane protection system currently needs over 100 million cubic yards of borrow. IER 19 could cover 8 million cubic yards, or 6 percent of that total.

Sylvia Guilliot is 10.7 acres.

Gatien has 7.5 suitable acres.

DK aggregates has 58.5 suitable acres.

Kimble has 10.4 suitable acres.

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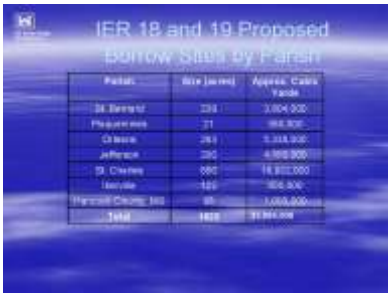
River Birch 1 and 2 regularity was permitted for a landfill. This site has suitable soil and we're using this in the system.

Pearlington Dirt Phase 1 is 98 acres. We'll need to revise it in IER 19 because transportation can occur only by barge or rail.

Eastover is in Orleans Parish. It's a 36.6 acres site.

St. Gabriel redevelopment could be transported by barge.



The borrow site by parish slide gives you an idea of how many acres and cubic yards are taken from each parish.

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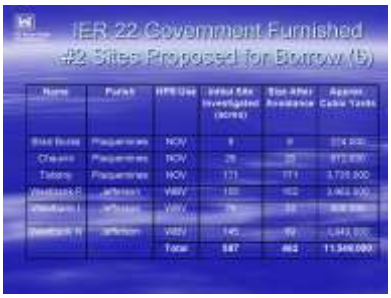
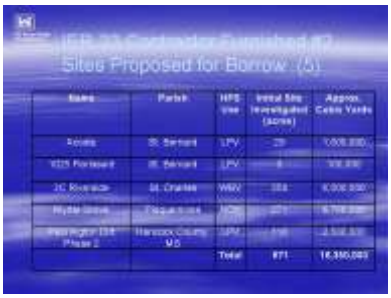


Future borrow sites will be identified in IER 22. There are six sites proposed, three in Plaquemines; Brad Buras, Chauvin and Tabony. The acreages are shown in the table.

There are three sites in Jefferson Parish: Westbank F, I, and N. These sites could provide 11 million cubic yards of borrow.



IER 23 covers the next contractor furnished borrow sites. It will cover 5 sites; two in St. Bernard; Acosta and Florissant. In St. Charles we're calling that site Riverside. Another site in Plaquemines is Myrtle Grove. There is another site in Mississippi called Pearlington 2, we may use barge or rail to get that borrow out.

Thanks for the opportunity to present this information to you and thank you for coming to the meeting. You can view the IERs in full at www.nolaenvironmental.gov.

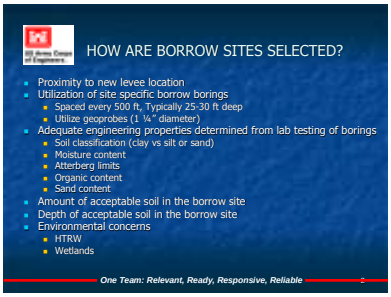
If we received a written comment in the mail from people in the audience, you'll get a written response shortly.

Following presentation by: Richard Varusso, Geotech Manager

We know you may have technical questions about borrow so we will take a few minutes to determine borrow criteria.

Proximity of borrow to levee location is important because the close sites allow us to be more cost effective. Every site is investigated with the same criteria. The technical requirements are reviewed so we use site specific borrow borings.

There's general information when it comes to technical people for approval. We site specific borings. The borings are about 1 ¼ in diameter and go about 20 feet deep. Then we take information from the borings to the lab and a technician tests the sample. The test will give us a classification and tell us the moisture content.



We look at Atterberg limits, which show elasticity. The amount of acceptable borrow is something we look at. Every borrow site is not the same. One may have 20 feet of material, others may have the top 10 feet unsuitable but it could still be used for levee construction. Environmental concerns are involved in approving or disapproving sites.

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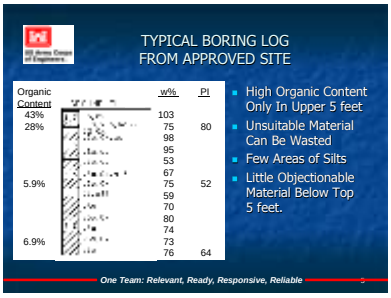
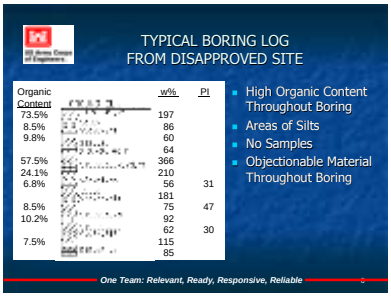
This is a typical layout; you see borings are spaced every 500 feet to get an idea of what's there. You can use different zones. We don't want to approve or disapprove a site just on one boring.

This is geoprobe, it shows that the site instrument we use is non-invasive, it's small and takes a 1 ¼ sample. This is all tested in the lab.



This borrow is from an approved site, it's indicative of sites that are approved or disapproved.



Basically, we look for organic content so in this example this material wouldn't be approved. We could remove the upper part of the pit to get to deeper area where soil is okay. This is typical of red borrow boring. It may be disapproved. The organic content is much higher, and there is too much silt. Some areas of no samples of [inaudible] that have wood if we see this in a large area the site could be disapproved.

Investigating borrow site is the first step. Investigation of soils used continues throughout construction. Just because borrow was approved as mud we still check to see that it meets our strict criteria on either the flood site or protected side of the levee. We still check on the soil once the borrow is placed. We check every 12 inches; we take post construction borings to make sure levee construction is appropriate.

Questions and Answers
Facilitated by Col. Starkel:

As you can see, this is a complicated issue. [inaudible] We still need to locate and acquire [borrow]. As we continue to investigate borrow pits, we're going to continue to come back and get comments on environmental impacts as they relate to borrow.

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Questions

1. **Jerome Klier, 3440 Mayor St. in Walker, La.:** My question is not about what you're doing here, it's about the Comite River diversion project in Baton Rouge. Over 7 million cubic yards of excavation is required. If we flatten slopes, we could acquire additional borrow. Federal dollars are involved in this process, so this is free dirt. The channel has access to the Mississippi River. Riffraff will come from Arkansas to supply dirt because it's bisected by railroad. I recommend the Corps looks at using channel excavated dirt as it is suitable for levees.
   Col. Starkel: We looked at it, but the transportation cost eats your lunch. We're looking at it.
   Jerome: This is good material that may be able to be used. Will numbers be included?
   Starkel: We're looking at numbers.

2. **Villare Cross, Manson Gulf Construction:** When you list property as government furnished borrow is it actually already turned over to the government?
   Col. Starkel: No, not yet.
   Cross: Recently started [inaudible] is Lake Cataouche we have a considerable amount of borrow for levees that we aren't using in phase 1, is there any expectation of using that leftover borrow for other projects?
   Tom Podany: At this point, that material could be used for other projects. We haven't specifically dedicated to the west bank; it's optionally usable in other projects.
   A section of Lake Catouche from Hwy. 90 to our project is currently out for bid
   Cross: Is there an expectation to use that borrow for that project?
   Sohelia Holley: We are not sure if there is enough quantity of the material.
   Tom: We're not locking in borrow to the project. We've identified where it might be used. We have a spreadsheet of data that shows what borrow goes where, but an individual contractor might have a need. For that borrow we haven't entitled a material for that use. That material isn't set aside now.

3. **Barry Kohl, Louisiana Audubon Council:** I hope my comments will be included in the amendment I see that the federal regulation requires. Will written comments go to me?
   Mike Brown: Yes, written comments will be sent back to you.
   Kohl: The basis of my letter was regarding pre and post- Katrina borrow standards. Throughout the borrow procedure I got a memo which outlined pre and post-Katrina soil standards. They've changed significantly, most likely because it [soil] was considered unsuitable. IER 18 and 19 omitted criteria for selection of borrow. We've asked that the criteria be included. Without it, we don't know how selection is being pursued. You said some borrow isn't included because of geotech issues. There should be rational as to why it [the borrow] was rejected along with reference to borrow standards that are post Katrina. Acceptance or rejection of each site is important for the wetlands. Integrity of soil is significant and should have been addressed in detail in the first IERs. It was a great omission. I'm a geologist, I pay attention to details and those should be in those documents. I will make additional comments later.

4. **Richard Robichala**: My family owns property in Jefferson Parish which is being looked at for government furnished borrow. Is there any discussion of fair price rather than commandeering?
   Linda Lebeur: As part of the process, even if land is commandeered, it doesn't negate appraisal for the owner. That will be part of the process.

Robichala: There is a difference between actual dirt and price. The new price could be 10 times greater.
Lebeur: As a real estate action, the department of justice standards require that we take an interest in real property. We start at fair market then work with the owner who may make a counter offer. There's a give and take in these situations, to find out what constitutes just compensation in their minds.
Robichala: So if I show you the price I got the dirt for before I can get that price?
Lebeur: We can talk about that. Anything you want to present to use as a negotiation tool to get amicable settlement we'll look at.
Robichala: If you'd come out and give a price you'd have more [borrow] than you could use.
Col. Starkel: We invite you and others who have sites to bring information to us so we can put it into the market analysis. It may turn out that supply exceeds demand and the Corps would get a lower price.
Robichala: If you gave a fair price, you'd get your borrow.

5. **Unknown speaker: Is the article on borrow I read in the Times Picayune in which Rick Kendrick is quoted accurate?**
Col. Bedey: If you boil down everything, we're still at 41 percent of the total borrow we need [inaudible]. So we're pursuing multiple courses of action. We have to look at government furnished [borrow], then we have to look at contractor furnished. Next, we look at supply contract; this is about fulfilling the obligation of the USACE to provide 100-year protection. I'm restating what Rick Kendrick referred to in the article, which is that we're trying to listen to stakeholders. We're looking at the potential of doing "out of the box" things. Will we be able to do it? That is yet to be seen. We have a solicitation that says in simple terms, "give me a price for dirt that can be delivered that meets specifications." If you win the contract then we'll issue a task order that says "on this date deliver this much dirt to this site." We'll let the market drive cost but we're talking about doing a reverse bid auction. If you have dirt we'll give a pin number and you can bid up. Using that example, we will take input whether from St. Bernard or Mississippi to help us meet this obligation. Our mission is to reduce risk. Rick Kendrick said that we're going in that direction [of using a bid system]. That may not happen, but we'll give it a shot. We'll do that concurrent with what we're doing with the IER meetings. Within the next 60 days we could do an auction.
Unknown speaker: That's the best thing I've heard from the Corps in months.
Col. Bedey: Thanks, that's the team. We know we can't take all the dirt from St. Bernard because of lift requirements. It might be prudent to save the dirt. We may have to get to that dirt at some time. We have to realize that we're in an area where there is subsidence and we'll need future lifts.

6. **Blake Jones, Crescent Area Management**: I like ducks and people but I fear that if you pull dirt closest to the levee, it might be an area people want to go back to. You might be protecting dirt and not people. What I'm looking at is the focus on environment as opposed to looking at the practical side of things. [The Corps should] pay more for dirt from far away so people can build subdivisions and houses. The 'sliver by the river' is there. You're looking for clay but that's the high ground. You don't want to just build levees for ducks on a pond. Will you consider paying more for dirt from far away and not from here where people build houses?
Col. Starkel: We look at more than bugs and bunnies; we look at human impacts too. We'll take this into consideration for all sites.

7. **Pete Babinth:** I'm a limited partner with 3,000 acres better known as Cumming's Tract. Cumming is out of town and he asked us to ask questions. Cumming wrote a letter to Col. Lee explaining the possibility of assembling a considerable amount of clay in hopes that the Corps would look into that to offer an RFP [request for proposal] to someone who had the ability to assemble clay and have it delivered. Am I correct that the Corps is doing this?
Col. Bedey: Yes. The Corps had commandeered acreage of Chef Menteur during an emergency. The way I interpret the map, some land that we have parallel to Chef Menteur is continuous to property that was expropriated. [My understanding is that] maybe that property has been declined.
Babinth: My understanding is that maybe that property has been declined.
Brown: I would have to look at the map to tell you for sure.
Babinth: How could the same piece of property be used then declined?

8. **Matt Rota, Gulf Restoration Network:** I submitted written comments and I also have a few things to say. Number one is that IERs 18 and 19 are testing ground for what's going to be 25 or 30 IERs from now. Right now the public participation aspect is inadequate. Meetings have been a "come and ask questions" format. I work for an environmental organization and I didn't know about nolaenvironmental.gov. That's lacking. Number two, a lot of borrow pits are next to homes. IERs 18 and 19 make it look like no one lives there. I'm talking about St. Bernard because I drove by and took a look. Has someone gone out to the neighborhoods to let people in the neighborhoods know about a 20 ft hole that will be dug in their back yard? That's important to let them know about air quality and erosion. People there need to know about this. Another thing I have concerns about is water quality. I've seen no best management practices except for ditches in the waterway. I submitted pictures with my comments. I don't see how future IERs can be done correctly if we're avoiding wetland impact. I have questions about making sure there are buffer zones and also on secondary impact on wetlands. I want to make sure there are not secondary impacts. What about mitigation with contractor provided borrow? You say that if they have a 404 permit then that can be used for secondary action, has anyone gone out to check on mitigation? They shouldn't be using borrow without certifying mitigation. It feels like the public is being left in the dark. Even though there have been 20 some meetings, and some people have come, it's because you have not communicated properly to public that more don't come. There should be notice more than the Times Picayune and the web site.
Col. Starkel: We'll improve that to make sure the public knows. We try to have IERs with specific meeting topics, but they need to be more specific. At meetings we know borrow is going to be an issue, we'll have people available to answer all questions. In terms of door to door, we'll go through and make sure neighborhoods know about impacts and we will look at buffer zones. We don't have Chris Accaro here, but we'll follow up.
Rota: Are the people giving public comments today, is that going to be recorded? Is there an additional opportunity for people to comment?
Gib Owen: If we get certain comments, we may do an addendum, then decision makers will decide if the addendum will be approved. That would go out for 30 days.
Rota: Will the environmental justice concerns go on the record?
Owen: Yes, but not for this IER.

9. **Jill Nach, Lake Pontchartrain Basin Foundation (LPBF):** I want to reiterate public involvement. I'm familiar with public processes but this information is difficult to find. Having to go to separate Web sites is unnecessary. You'd think you'd go to the Corps Web site and this information should be on that Web site.

Please rectify this. One issue is [inaudible] there is public concern there could be more flooding. There is also reference to vague alternative analyses, such as that borrow could be shipped in by rail. What kind of basis was this decision made on? Where did the criteria come from that we're looking at on maps? Another issue is that supposedly there would be a mitigation IER, when will that be?

Owen: We are moving forward with two IERs on mitigation. The first one should be done in 3 months, sort of like borrow process. We'll keep adding tools.

Nach: There was a lack of follow up with Task Force Guardian mitigation. Who is involved in the follow up? If this impacts habitat, we want to see how. We're farther from the process but it seems that this stuff is coming from different angles.

Col. Starkel: We need to make the nolaenvironmental.gov link bigger and brighter.

We're breaking backs to get the Hurricane Protection System done by 2011. [inaudible]

Nach: This process allows for change. How soon can or will the IERs be approved?

Col. Starkel: That depends on comments we get. It depends on how we turn them around. We have contracts waiting for signing. We want to resolve [issued raised by] comments as quickly as possible.

Nach: When can we expect IERs 22 and 23?

Brown: The IER 22 meeting is in April, so public notice will go out in March, IER 23 should go out for public notice around March too.

10. **Kelly Hager, wetland consultant and lawyer:** There's a bunch of procedural issues if you go to the borrow page [on the Corps website] it talks about contractor furnished borrow but there are two choices. It tells you to apply for a wetland permit but doesn't say anything about categorical denial. Five of my clients have wetland permits but have been told in writing that they can't give mud. If you're going to have that criteria, have a hyperlink to that information. We're not making distinctions between inside and outside levee. We're not talking about permitted levee. Try to figure out how people with land are approved, and others disapproved. You have substance issues. In a news release in Aug 2006, you say you might use wetlands for borrow [inaudible]. You're about 90 million short, there's a procedural issue. We're filing a Freedom of Information Act (FOIA) because of you not retuning phone calls. [inaudible] If you get to the 404 permit process and you haven't tainted it, which would be exhibit 1, at least in 404 you would go to balancing act. You're in a posture now that says 'we're not going to issue a permit.'. Then you're billing *Lucas vs. South Carolina*, you're ready for a takings problem. You're creating some issues. You're trying to economize but takings isn't the way.

11. **Barry Kohl**: To follow-up, the federal register says an IER addendum will be completed. It should be noticed. Can Gib [Owen] comment on a follow-up addendum? This guideline shows there should be an addendum.

Owen: We [inaudible] but there is some discretionary authority [inaudible], otherwise we'd always have to accept comments. If all the comments aren't telling what we'd re-address, we will put together an addendum.

Kohl: Starkel mentioned 26 percent [inaudible] which hasn't been addressed in either IER. Please explain the other 76 percent. How will the public be involved in next steps? This is a moving target.

Col. Starkel: This is an ongoing process and we will continue to hold IER public meetings. We'll have people at those meetings to discuss all issues.

Col Lee: I'll take on the quantity question. The bottom line is there are 60 million cubic yards of placed material, that's what we're working off of. As we go project by project to design

levees and floodwalls, there are also waste factors and those types of things. Until we have design and quantity requirements, we're talking about estimated quantity. Right now it's over 100 million cubic yards, which could go up or down. That'll change. We're doing rough estimates. As we get closer to award contracts, we can tell you how much borrow is actually needed.

12. **Jeanne Lagarde, 1200 Bayou Rd, St. Bernard Parish:** I'm nervous because about 15 years ago they [dug] a borrow pit next to my house and they said there weren't any concerns. But ever since then, we've had safety concerns. I've had kids come in and out of the borrow pits. There [are] alligators since the borrow pit was dug. The pit has eroded. Now you're going to have one on 910 and 1025 Bayou Road? I'm going to be an island! We live in a historic district. We want to protect the levee instead of spending money to bring other dirt. I wish I was told before because there's going to be a big borrow pit around me. [inaudible] I can't tell you how many times kids go swimming and fishing or go into the pit riding 4-wheelers. I know we need higher levees. People aren't coming back; they sell and get out but what about others? I'm concerned. I want safety, but it looks like I'll have borrow pits all around, what about my property value?
Col. Bedey: As Col Lee mentioned, final decisions haven't been made. We have a partnership with the community as it relates to bus tours in St. Bernard. That addressed your concerns, relative to looking for out of the box solutions. We can't commit [to whether or not these sites will be used for borrow] because we don't know yet. We're talking about an unrestricted contract that says 'I don't care where it comes from' and gets delivered; we're looking to do what some are asking us to do. We know we only have 41 percent [of the borrow material needed]. We know we don't need to go to every location. We're going to let free market decide where to go. It matters what it costs, the dirt can come from India as long as it meets specifications and allows us to provide 100-yr protection. We can't decide all of this tonight, but we're heading there. We'll let free market tell us what's feasible.
Legarde: But these addresses don't have contracts already?
Bedey: No, those are just approved sites.

13. **Alberta Lewis**: I'm coming in at the back end of the meeting because I was busy dealing with the casino that may be built near my house. I'm at 721 Bayou Road. We own a plantation and want to know the policy when there's a national registered site. What's the good to build a 100-yr levee when we won't be there? The house we're in has been there since 1830 and there's a drainage issue. We couldn't raise the building to address historic [inaudible]. We were told just before Katrina that we have wetlands on the plantation. As a national registered site we wanted to create a preserve, but we're putting a lot of money into the plantation. We need to know about erosion.
Owen: We have professional archaeologists and if it's a historic site we work with state historic [officials] and tribes. If it's a verified site, we have a no work zone.
Lewis: It's not on the national register but it is part of the original property. We're what's left of the original plantation.
Owen: Our archaeologists are aware, they know about the area.

14. **Catherine Serpas, 2012 Bayou Road, St. Bernard Parish.** It takes courage for people to speak. I tell you in every meeting that you, the Corps of Engineers, will not keep us safe in St. Bernard, the lower ninth ward or New Orleans east unless the Mississippi River Gulf Outlet (MRGO) is closed and filled in. We have a 76-mile borrow pit with MRGO as far as I'm concerned. We're being fooled to think we're being protected with levees. We need another means other than mud. You can come up with better ideas other than clay mud. I feel that St.

Bernard has been damaged enough and we don't need another slap in the face with digging up high ground. What will we protect with levees, borrow pits? People are going to leave. Digging pits in St. Bernard is unacceptable, if it has to be dug, it must be filled. St. Bernard is unique with a rich history that need to preserve. Bayou Road is a scenic highway. What'll happen if they drive it and see a bunch of borrow pits?
I plead with you to have compassion for St. Bernard and lower St. Bernard parish and to consider a lot of other options than just clay mud.
Col. Starkel: Thank you.
Lee: Thank you. I'm aware of the MRGO, were doing a de-authorization study of MRGO and it's out for state review. Our recommend plan is to close MRGO. Those state and agency review comments will be done by Dec 14. Col Bedey talked about alternatives, we appreciate feedback to help us understand your community history and leadership from the parish. We had a levee summit with levee boards and have discussed backfilling requirements. We've heard those requirements and from levee leadership we're expanding this to get borrow material.
Serpas: The rock [dyke] by Bayou Loutre? That won't protect St. Bernard from the storm water. Katrina wasn't the perfect storm. That needs to be considered. When they said to close it [and put the rock dyke in], that's not going to help St. Bernard, lower 9th or New Orleans East.
Col. Bedey: Wetland restoration is a key to 100-year protection. We want to protect wetlands, we're working with the state to divert Mississippi River water and protect wetlands.

15. Mark Davis, Director of the Institute on Water Resources Law and Policy at Tulane University: A lot of this [information] would have been useful to hear earlier in the process. I was involved with getting alternatives for NEPA. This meeting wasn't scheduled. A meeting like this should be the way you open a comment period. It also lets people have 30 days so comments are more thought through and you aren't losing time. It's vital to explain that "borrow" is talking about mining. Generally speaking we're talking about something we won't get back. This is mining and should be understood that way. You're taking someone's land, this is a mining operation. These procedures can instigate legal issues. The best way is to ventilate the system up front. You don't want people coming in at the back end to get to substantive and cultural problems. Use this as test case. Let something constructive come out of it. This effort emigrated through redevelopment under the Road Home Program and the Louisiana Coastal Protection and Restoration Program (LACPR). People are coming back to the community and money is coming back in. That needs to be cross-referenced and those people don't know these maps. It may not make sense to use local sources. Right now cost will be higher than many will wish but we'll live with it. I urge you to go back and take note of what we've learned. Make each program like this at the beginning of the 30-day comment period.
Starkel: You have to consider future lifts too. We're considering balance of long term needs.
Davis: You've got Morganza and Donaldsonville too. You have to think about the future. [inaudible] about whether alternative levee design is being considered.
Col. Starkel: We are looking at alternative levee designs.

16. Paul Lagarde, 1200 Bayou Road, St. Bernard Parish: I make my living off my land and have had a citrus farm for 23 years. [inaudible] I know about the Army. I have an idea, because there is a levee behind my house I have a lot of clay because they dug a big pit next to me. I can tell you that that levee has sunk. They built a high levee from Verret to [inaudible] Except River Levee. You can find [inaudible] without reseeding. We're going to dig inside the system [inaudible]. As little kids we learned about the Dutch levee system. We're taking land and doing [inaudible] With the levee behind my house they dug a canal next to the levee and

needed to drain the water? I went crawfishing last year on the northside and there must have been 7 feet of water. That whole levee has pushed across the canal. It amazed me, it's being pushed away. You can't keep soil from piling up. I was reading on the internet about floodwalls from [inaudible] to Florida, it slipped out if you put mud made of peat in the levees. I want to give you a copy of my plan. My idea is to build an I-wall to the Avenue Bridge, do a sheet piling [using cutter torch] and add a foot of concrete and veneer on it. I asked a guy from the Corps if they're going to burn it. You have a wall 12 ft by 3 ft. I watched them drive a sheet pile. When you put water on the inside of a canal and bump with a boat, you're going to [inaudible] iron can't hold a barge. This will flood again. I've been thinking about this, it is a levee with sheet pilings 32 feet high and that could be changed. You drive sheet pilings down preferably on an angle and get both sides in there then run with strong backs. If you put fill in a levee system it can't go anywhere, you have another 60 feet and you have to get down to clay [inaudible] or the same will happen as did with the Industrial Canal. The levee slipped and pilings went to the bottom of levee, about 12 feet it went down. It went another 4 feet and it stuck out. You can see where the whole levee slipped, this can't slip. I'll give you a copy of this [my plan]. We can solve this problem. Water can be diverted into the ground, it won't be pushed over. It's not going to collapse. It'll put pressure back into the earth. This will stand anything, a barge or anything else. [Lagarde showed big drawing]. There's only one way to keep water out of St. Bernard. This is the area we're trying to protect. We have levee going to Verret. Two to three days before a storm you have wind and it takes hours to get water. [inaudible] Water pushed against the shore lines. The Northern border is a ship channel and it runs along Lake Borgne to Breton Sound [inaudible]. It's about a half mile wide and you have a channel, I have that listed too. If you put two dredge boats in Lake Borgne we don't need to use river mud. Fill the channel and spiral the area with a channel. What is created is half mile of spiral area. You'll make a mile-wide barrier island. If you take it down past Hopedale or Breton Sound then the water will [inaudible] when that water hits and comes down it will pass through the New Orleans [inaudible] barrier and will take it out to Breton Sound. It won't let water from New Orleans get out. We're set up now to flood every time. [inaudible] (clapping)
Col. Starkel: Thank you.

Kohl: One handout shows that on the borrow site in Plaquemines 1, there's a stock pile and it's on a 404 cubic area which is being protected through perpetuity. Why is there borrow stockpile on there?
Owen: That was an error, we'll take it off.

17. **Louis Barrett, 2533 Bayou Road, St. Bernard:** In [other] IERs there are references to backfilling required. That's not mentioned in IER 19. Why would an IER make these references if local government requires backfilling?
Lebuer: The reason is that federal government rights here are supreme to any local organization. As long as we pay just compensation then they've been compensated accordingly. We're looking at backfilling pits.
Barrett: There seems to be a disconnect.
Starkel: If there's an engineering reason to fill a pit then we can.
Barrett: The concern would be to preserve the community, not a project.
Karen Durham Aguilera: We need to look at litigation, this isn't all decided, including how we possibly backfill.

18. **Barbara Makoff (lives in St. Charles Parish but family owns property in Jefferson Parish):** In the 1930's they used borrow to build Hwy 90. My concern is borrowing mud from

Lake Borgne, if they protect us in Lake Borgne it would protect every one. My family has lost a lot, I would hate to see more loss. I'd prefer doing something here and there instead of using money from the100-year plan and protect everyone.

Col. Starkel: We're looking at this stuff. We have to do close end defense first then work out to a further perimeter line of defense but that has to happen in a perimeter path.

Makoff: The rock jetty would allow more water to come in. It'll never be high enough.

Durham Aguilera: Thanks for comments. The rock dyke is just for MRGO. Congress already de-authorized MRGO and it's our job to figure out how. We're recommending a rock dyke. This spring we're doing contracts for surge barriers, it could be 3 or 4 gates but it protects St. Bernard, New Orleans East and Orleans parish. Under LACPR we'll blend the solutions. The question is what is the quickest way to reduce risk? This is all a balancing act. No decisions have been made. We may end up going for sources elsewhere and in the future may use St. Bernard. Looking at historic sites and plantations, this all has to be rolled up in to what to do. [inaudible] We'll take all this into account.

Unknown speaker: I've seen land being cleared on the contractor side but you're telling us decisions aren't being made?

Col.Lee: Karen [Durham-Aguilera] is responding to [gathering] borrow material. This process is in multiple stages. We've been taking borrow for many years. There's a process we go through, it's systematic and takes public comments into account. This meeting has been valuable. We've engaged leadership and levee board officials, state and federal agencies. We have received lots of comments in this meeting tonight and they will generate results. We are considering your views and comments as we go forward. That's why we're here tonight, thanks for spending your time here.

Col. Starkel: We have another meeting tomorrow from 7 to 9 at St. Maria Goretti in New Orleans East. The purpose is environmental justice, but we'll talk about any and all projects. We have a lot of people doing a lot of things but we'll make sure that you get a response. Thank you.

US Army Corps of Engineers
New Orleans District

National Environmental Policy Act (NEPA)

PURPOSE

"……Help public officials make decisions that are based on an understanding of environmental consequences and take actions that protect, restore, and enhance the environment."

GOAL

More informed decision making through public involvement.

National Environmental Policy Act (NEPA)

Alternative Arrangements for Hurricane Protection System (HPS)

- NEPA provides for alternative arrangements for emergencies
- The USACE implemented alternative NEPA arrangements on March 13, 2007
- Arrangements were coordinated with The Presidents Council on Environmental Quality (CEQ), Federal and State Resource Agencies and the public.

•**Federal Agencies Coordinated with**:

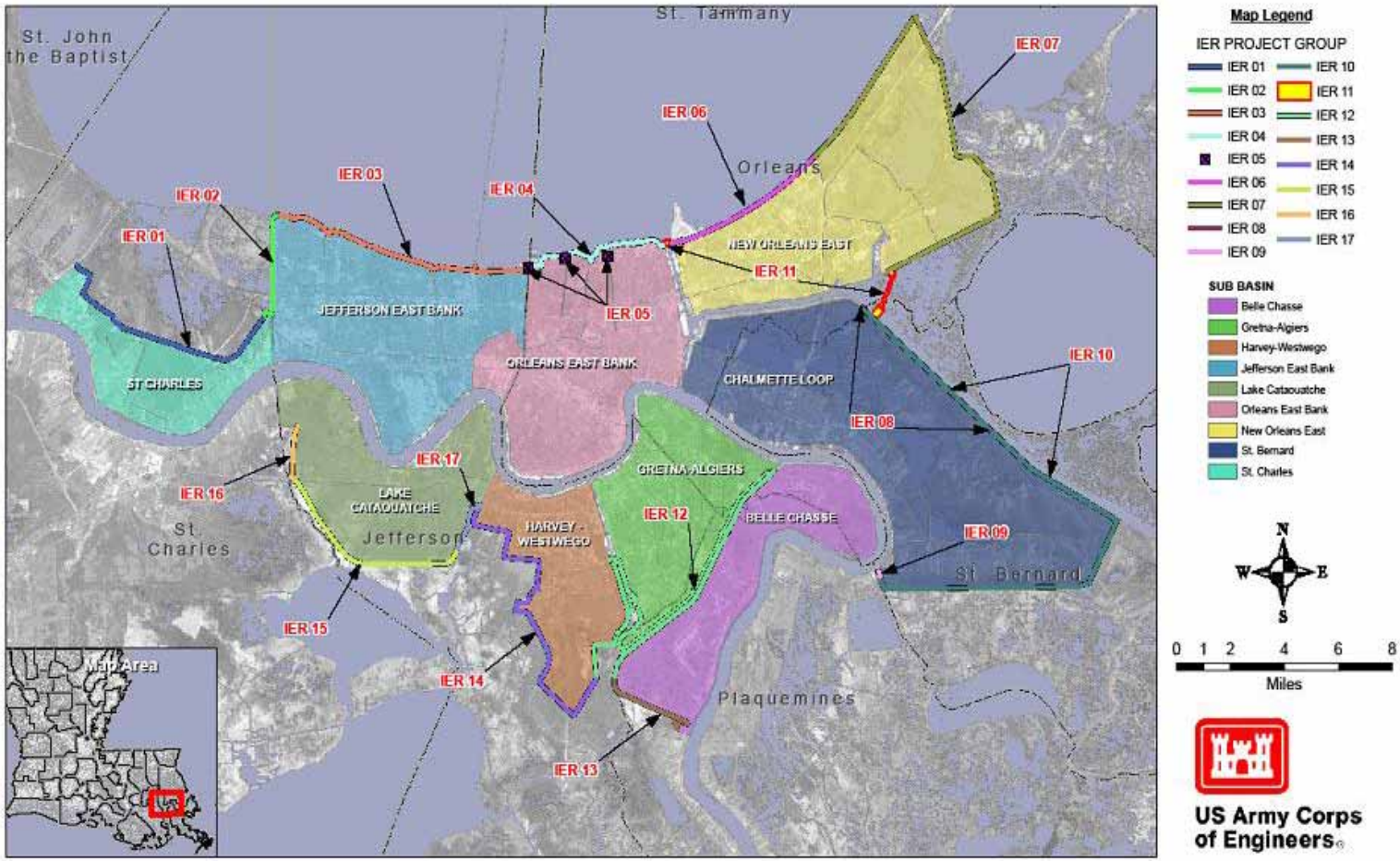
USFWS, NOAA, USGS, EPA, and NHPC occurred at HQ and Regional levels

•**State Agencies Coordinated with**:

LaDNR, LaDEQ, and LaWLF

NEPA Alternative Arrangements

Sub Basins and Representative Project Groups



NEPA Alternative Arrangements

- 17 Individual Environmental Reports (IER's)
  - Cover individual segments of the HPS
  - 3 to 14 months to complete each
  - All decisions records signed by MVN District Commander
  - Construction allowed to proceed when IER complete
- Additional IER's for Borrow and Mitigation
- Comprehensive Environmental Document (CED)
  - Addresses comprehensive impacts & mitigation for system

US Army Corps of Engineers
New Orleans District

Borrow for the Hurricane Protection System

Mike Brown
PM-RP Borrow, Environmental Manager

US Army Corps of Engineers
New Orleans District

Why are we here tonight?

Purpose:

- IER 18: Government Furnished Borrow Material
- IER 19: Pre-Approved Contractor Furnished Borrow Material
- IER 22 and IER 23: Future sites currently investigating

US Army Corps of Engineers
New Orleans District

IER 18: Government Furnished Borrow

Program Borrow Needs
150 Million Cubic Yards

	Number	Estimated Quantity (Cubic yards)
Program Borrow Needs		**Over 100,000,000**
IER 18 GF Sites Investigated	23	
IER 18 GF Sites Proposed for Borrow	12	**26,494,000 (16%)**
IER 18 GF Sites Investigated and Denied	11	

LEGEND

GF: Government Furnished

Denied: Due to site size, wetlands, and soil analysis.

US Army Corps of Engineers
New Orleans District

Environmental Process

- Signed right of entry
- Received wetland determination letter
- Revised borrow maps to avoid wetlands
- Coordinated with U.S. Fish and Wildlife Service

US Army Corps of Engineers
New Orleans District

Environmental Process

- Coordinated with Louisiana Department of Natural Resources
- Participated in a site visit to clear for geotech borings/mitigation data
- Completed Cultural Resources Report for State Historic Preservation Office &Tribes review
- Received Phase 1 Environmental Site Assessment

US Army Corps of Engineers
New Orleans District

Non-wet Bottomland Hardwoods Mitigation

- Required under the Section 906(b) of the Water Resources Development Act of 1986

IER 18 Government Furnished Sites Proposed for Borrow (12)

Name	Parish	HPS Use	Initial Site Investigated (acres)	Size After Avoidance (acres)	Approx. Cubic Yards
1418/1420 Bayou Road	St. Bernard	LPV	43.4	22	439,000
1572 Bayou Road	St. Bernard	LPV	9.5	9.5	164,000
910 Bayou Road	St. Bernard	LPV	11.7	11.7	117,000
4001 Florissant	St. Bernard	LPV	11.6	11.6	214,000
Dockville	St. Bernard	LPV	144	107	1,000,000
Triumph	Plaquemines	NOV	2.6	2.6	50,000
Belle Chasse	Plaquemines	NOV	34	8	190,000
Maynard	Orleans	LPV	102	44	438,000
Cummings North	Orleans	LPV	2,000	182	4,000,000
Churchill Farms Pit A	Jefferson	WBV	123	110	1,150,000
Bonnet Carre North	St. Charles	LPV	1,115	680	16,932,000
West Bank G	Jefferson	WBV	82	82	1,800,000
		Total	**3678.8**	**1270.4**	**26,494,000**

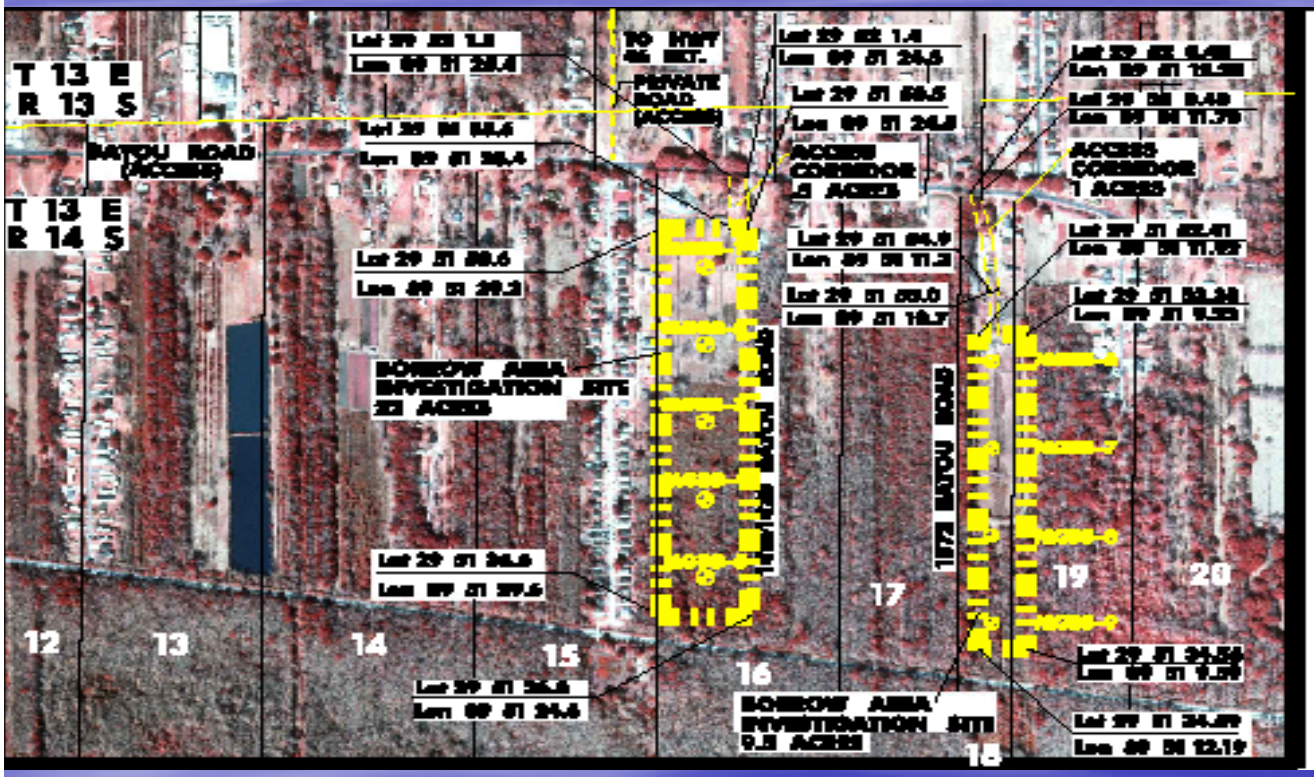
LEGEND

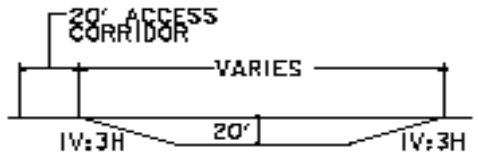
HPS Use

LPV: Lake Pontchartrain, Louisiana and Vicinity Hurricane Protection Project
NOV: New Orleans to Venice Protection Project
WBV: West Bank and Vicinity Hurricane Protection Project

Size After Avoidance: The total area that will be used. This is the area that avoids jurisdictional wetlands, recognized environmental conditions, cultural resources, and threatened and endangered species or their critical habitat.

1418/1420 and 1572 Bayou Road

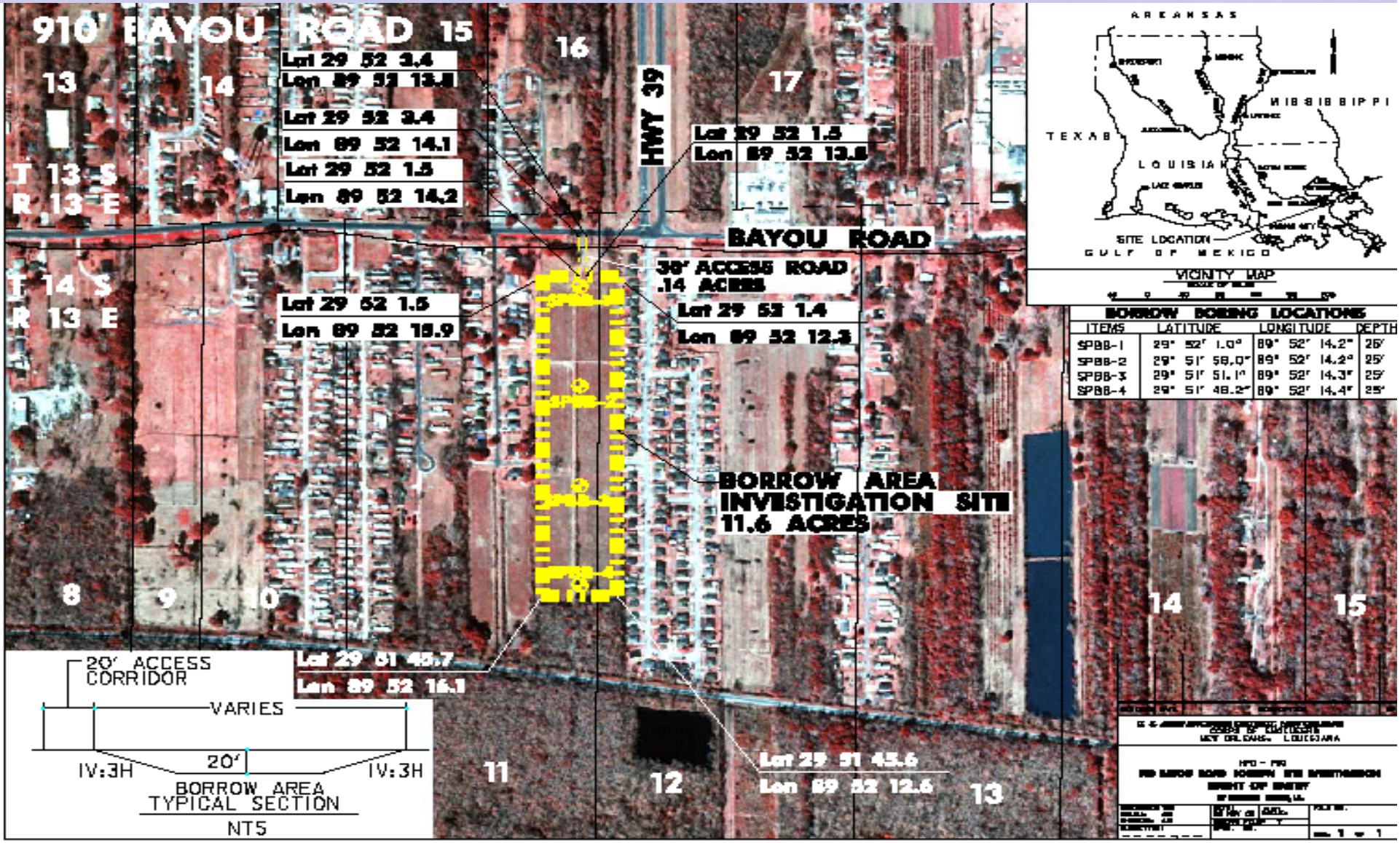




BORROW AREA
TYPICAL SECTION
NTS

BORROW BORING LOCATIONS			
ITEM	LATITUDE	LONGITUDE	DEPTH
[illegible]	[illegible]	[illegible]	[illegible]

910 Bayou Road



4001 Florissant

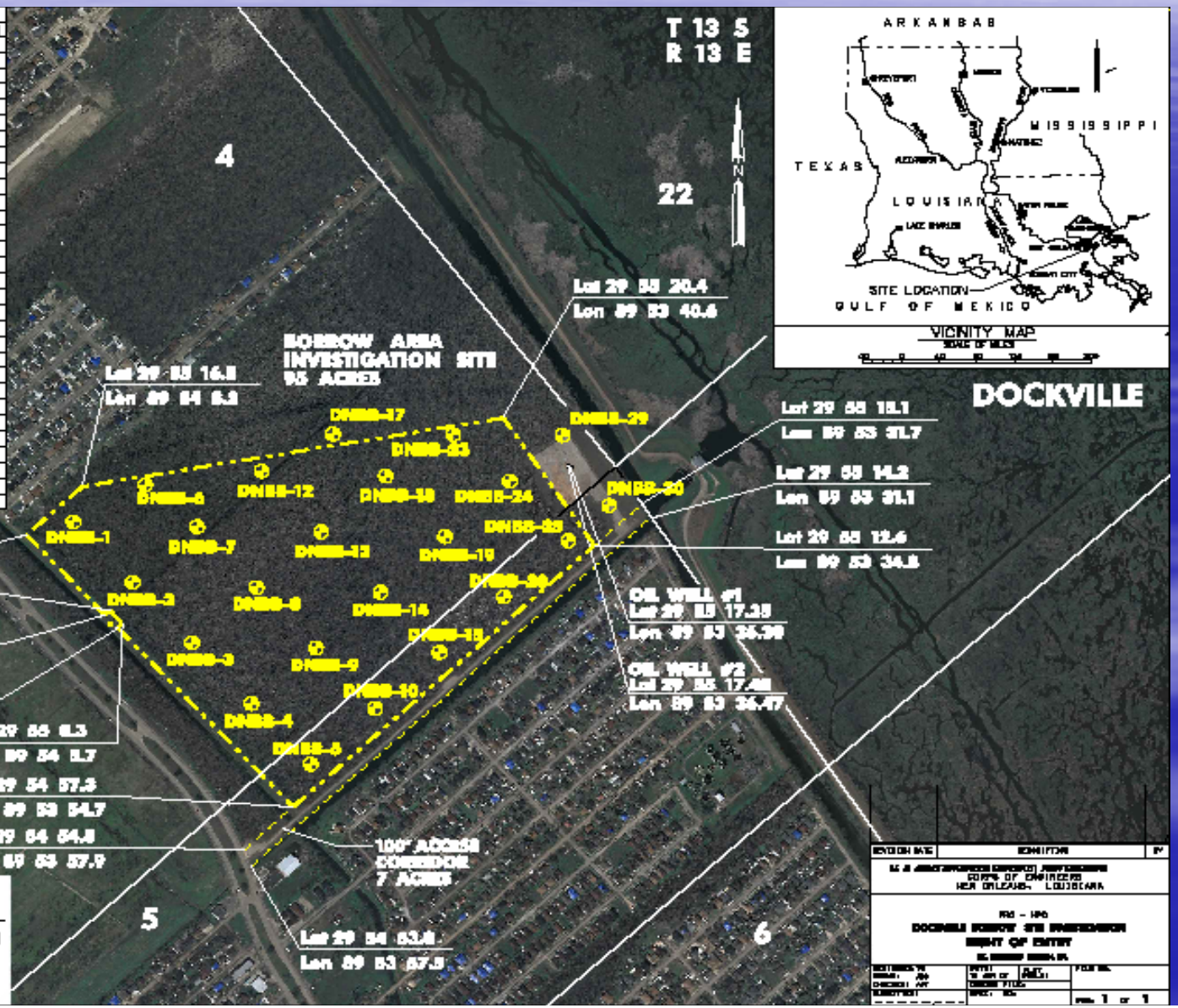
BORROW BORING LOCATIONS

ITEMS	LATITUDE	LONGITUDE	DEPTH
FLBB-1	29° 50′ 25.8″	89° 45′ 9.9″	25′
FLBB-2	29° 50′ 24.4″	89° 45′ 13.0″	25′
FLBB-3	29° 50′ 23.4″	89° 45′ 06.9″	25′
FLBB-4	29° 50′ 22.2″	89° 45′ 10.6″	25′
FLBB-5	29° 50′ 27.2″	89° 45′ 13.9″	25′

US Army Corps of Engineers
New Orleans District

Dockville

BORROW BORING LOCATIONS			
ITEMS	LATITUDE	LONGITUDE	DEPTH
DNBB-1	29°56'14.477"	89°54'8.872"	25'
DNBB-2	29°55'10.820"	89°54'0.041"	25'
DNBB-3	29°56'7.331"	89°54'1.069"	25'
DNBB-4	29°55'3.508"	89°53'07.378"	25'
DNBB-5	29°54'59.687"	89°53'53.752"	25'
DNBB-6	29°55'18.83"	89°54'4.13"	25'
DNBB-7	29°55'14.091"	89°54'0.775"	25'
DNBB-8	29°55'10.434"	89°53'58.943"	25'
DNBB-9	29°55'8.777"	89°53'53.112"	25'
DNBB-10	29°55'3.139"	89°53'49.301"	25'
DNBB-12	29°55'17.382"	89°53'50.509"	25'
DNBB-13	29°55'13.706"	89°53'52.677"	25'
DNBB-14	29°55'10.049"	89°53'48.846"	25'
DNBB-16	29°55'8.254"	89°53'45.247"	25'
DNBB-17	29°55'19.52"	89°53'51.82"	25'
DNBB-18	29°55'18.978"	89°53'48.411"	25'
DNBB-19	29°55'13.487"	89°53'44.380"	25'
DNBB-20	29°55'9.537"	89°53'40.994"	25'
DNBB-23	29°55'19.40"	89°53'43.97"	25'
DNBB-24	29°55'18.591"	89°53'40.314"	25'
DNBB-26	29°55'12.821"	89°53'38.741"	25'
DNBB-29	29°56'19.278"	89°53'38.613"	25'
DNBB-30	29°56'14.897"	89°53'34.039"	25'

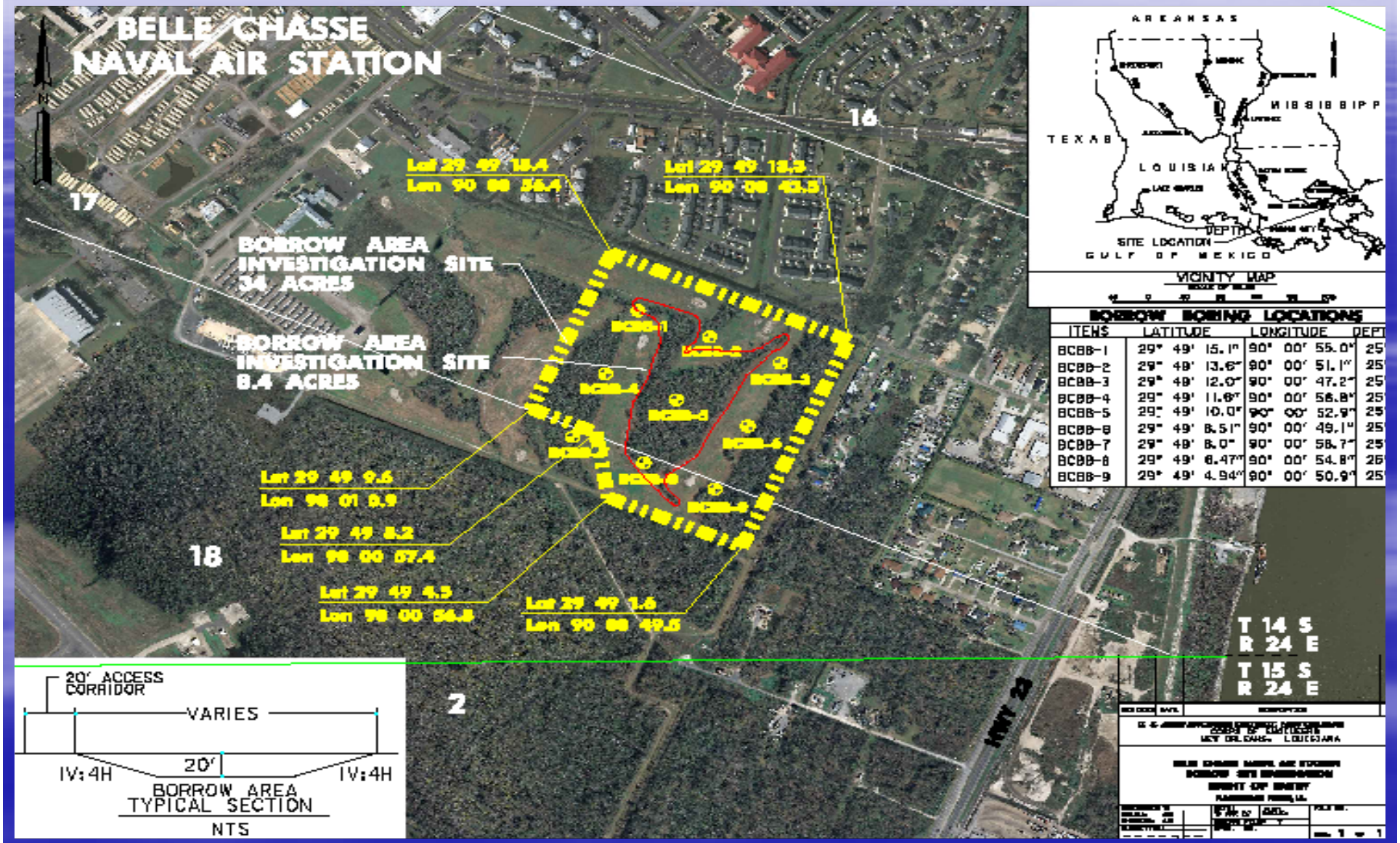


Triumph

N
Buras-Triumph
Plaquemines
Triumph Pit
Boothville-Venice

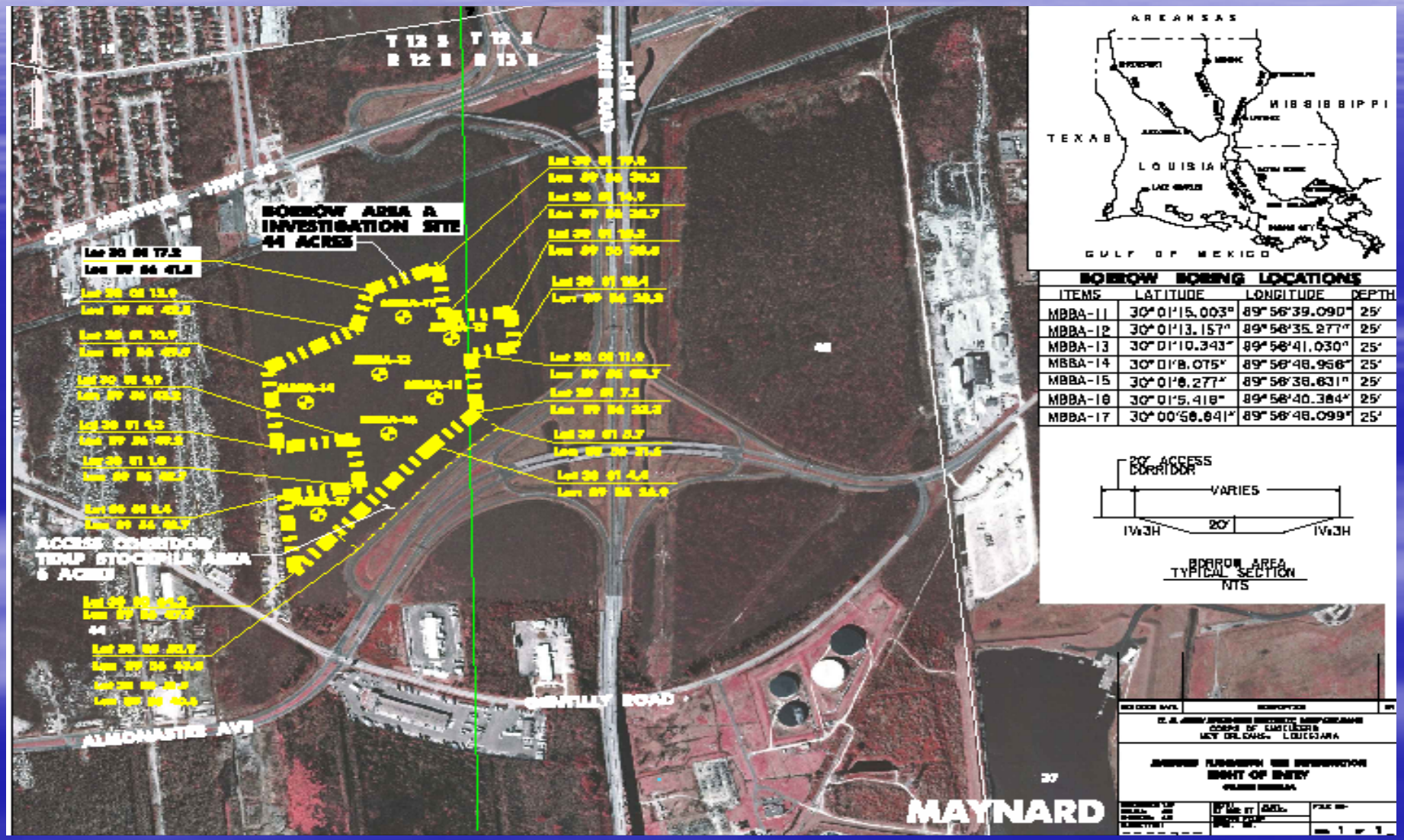
Belle Chasse

US Army Corps of Engineers
New Orleans District

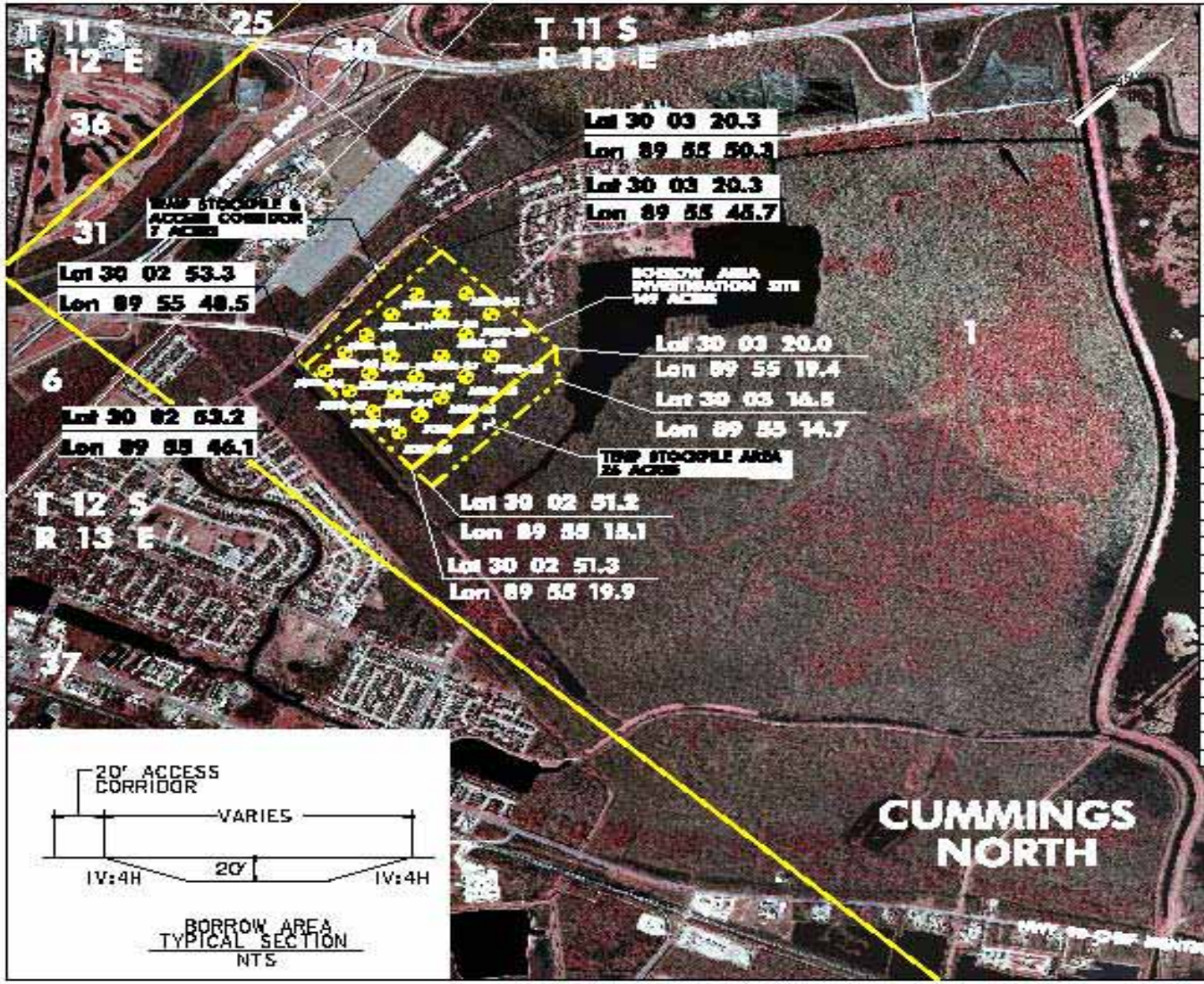


ITEMS	LATITUDE	LONGITUDE	DEPT
BCBB-1	29° 49' 15.1"	90° 00' 55.0"	25'
BCBB-2	29° 49' 13.6"	90° 00' 51.1"	25
BCBB-3	29° 49' 12.0"	90° 00' 47.2"	25
BCBB-4	29° 49' 11.6"	90° 00' 56.8"	25
BCBB-5	29° 49' 10.0"	90° 00' 52.9"	25
BCBB-6	29° 49' 8.51"	90° 00' 49.1"	25
BCBB-7	29° 49' 8.0"	90° 00' 58.7"	25
BCBB-8	29° 49' 6.47"	90° 00' 54.8"	25
BCBB-9	29° 49' 4.94"	90° 00' 50.9"	25

Maynard


BORROW AREA A
INVESTIGATION SITE
44 ACRES
ACCESS CORRIDOR
TEMP STOCKPILE AREA
6 ACRES
ALMONASTER AVE
MAYNARD
ARKANSAS
MISSISSIPPI
TEXAS
LOUISIANA
GULF OF MEXICO
BORROW BORING LOCATIONS
ITEMS | LATITUDE | LONGITUDE | DEPTH
MBBA-11 | 30°01'15.003" | 89°56'39.090" | 25'
MBBA-12 | 30°01'13.157" | 89°56'35.277" | 25'
MBBA-13 | 30°01'10.343" | 89°56'41.030" | 25'
MBBA-14 | 30°01'8.075" | 89°56'48.956" | 25'
MBBA-15 | 30°01'8.277" | 89°56'38.631" | 25'
MBBA-16 | 30°01'5.418" | 89°56'40.384" | 25'
MBBA-17 | 30°00'58.841" | 89°56'48.099" | 25'
20' ACCESS CORRIDOR
VARIES
20'
1V:3H
1V:3H
BORROW AREA
TYPICAL SECTION
NTS

Cummings North

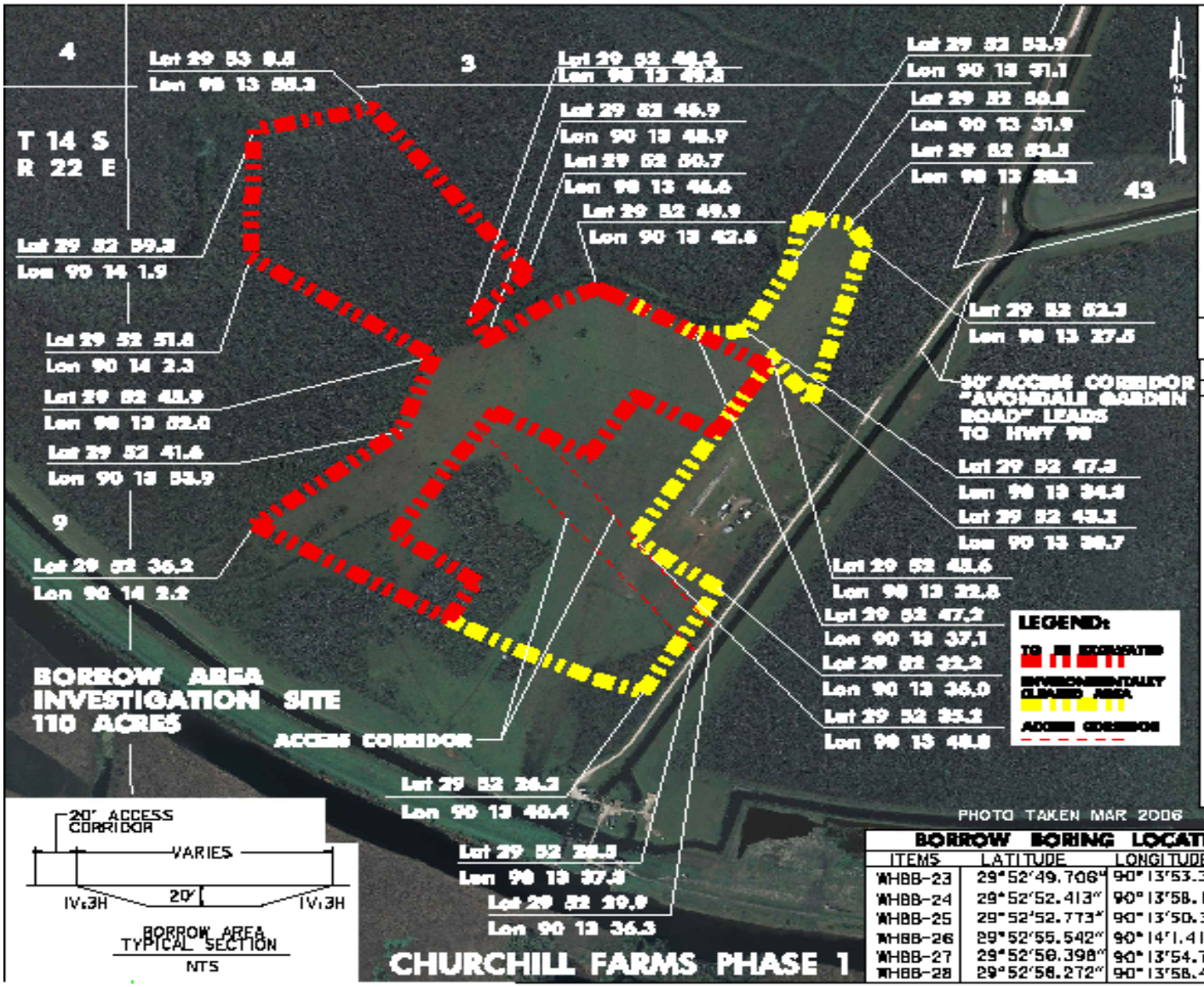


VICINITY MAP

BORROW BORING LOCATIONS

ITEMS	LATITUDE	LONGITUDE	DEPTH
JCBB-21	30°03'7.872"	89°55'43.100"	25'
JCBB-22	30°03'12.815"	89°55'42.995"	25'
JCBB-23	30°03'17.759"	89°55'37.242"	25'
JCBB-24	30°03'12.815"	89°55'37.277"	25'
JCBB-25	30°03'17.698"	89°55'31.525"	25'
JCBB-26	30°03'12.694"	89°55'31.701"	40'
JCBB-27	30°03'7.808"	89°55'31.895"	25'
JCBB-28	30°03'12.663"	89°55'25.877"	25'
JCBB-29	30°03'2.781"	89°55'26.050"	25'
JCBB-58	30°03'2.882"	89°55'43.203"	40'
JCBB-59	30°03'2.831"	89°55'37.531"	25'
JCBB-60	30°03'2.781"	89°55'31.891"	25'
JCBB-61	30°03'2.731"	89°55'26.114"	25'
JCBB-62	30°02'58.648"	89°55'43.292"	25'
JCBB-63	30°02'58.597"	89°55'37.619"	25'
JCBB-64	30°02'58.546"	89°55'31.979"	25'
JCBB-65	30°02'58.497"	89°55'26.205"	25'
JCBB-66	30°02'54.499"	89°55'43.211"	25'
JCBB-67	30°02'54.452"	89°55'37.707"	25'
JCBB-68	30°02'54.402"	89°55'32.067"	25'
JCBB-69	30°02'54.350"	89°55'26.287"	25'

Churchill Farms Pit A



VICINITY MAP

BORROW BORING LOCATIONS			
ITEMS	LATITUDE	LONGITUDE	DEPTH
WHBB-1	29°52'35.888"	90°13'57.816"	25'
WHBB-2	29°52'38.458"	90°13'55.487"	25'
WHBB-3	29°52'42.056"	90°13'52.543"	25'
WHBB-4	29°52'32.443"	90°13'53.431"	25'
WHBB-5	29°52'29.987"	90°13'48.437"	25'
WHBB-6	29°52'27.510"	90°13'43.442"	25'
WHBB-7	29°52'38.015"	90°13'50.543"	25'
WHBB-8	29°52'33.747"	90°13'45.308"	25'
WHBB-9	29°52'31.289"	90°13'40.350"	25'
WHBB-10	29°52'39.808"	90°13'47.609"	25'
WHBB-11	29°52'37.327"	90°13'42.372"	25'
WHBB-12	29°52'34.656"	90°13'37.689"	25'
WHBB-13	29°52'43.358"	90°13'44.435"	25'
WHBB-14	29°52'40.879"	90°13'39.720"	25'
WHBB-15	29°52'38.200"	90°13'34.765"	25'
WHBB-16	29°52'46.613"	90°13'41.841"	25'
WHBB-17	29°52'44.386"	90°13'36.627"	25'
WHBB-18	29°52'41.723"	90°13'31.892"	25'
WHBB-19	29°52'47.419"	90°13'31.797"	25'
WHBB-20	29°52'52.167"	90°13'29.498"	25'
WHBB-21	29°52'45.629"	90°13'49.820"	25'
WHBB-22	29°52'47.225"	90°13'44.935"	25'

BORROW BORING LOCATIONS			
ITEMS	LATITUDE	LONGITUDE	DEPTH
WHBB-23	29°52'49.706"	90°13'53.383"	25'
WHBB-24	29°52'52.413"	90°13'58.118"	25'
WHBB-25	29°52'52.773"	90°13'50.331"	25'
WHBB-26	29°52'55.542"	90°14'1.415"	25'
WHBB-27	29°52'50.398"	90°13'54.706"	25'
WHBB-28	29°52'58.272"	90°13'58.442"	25'

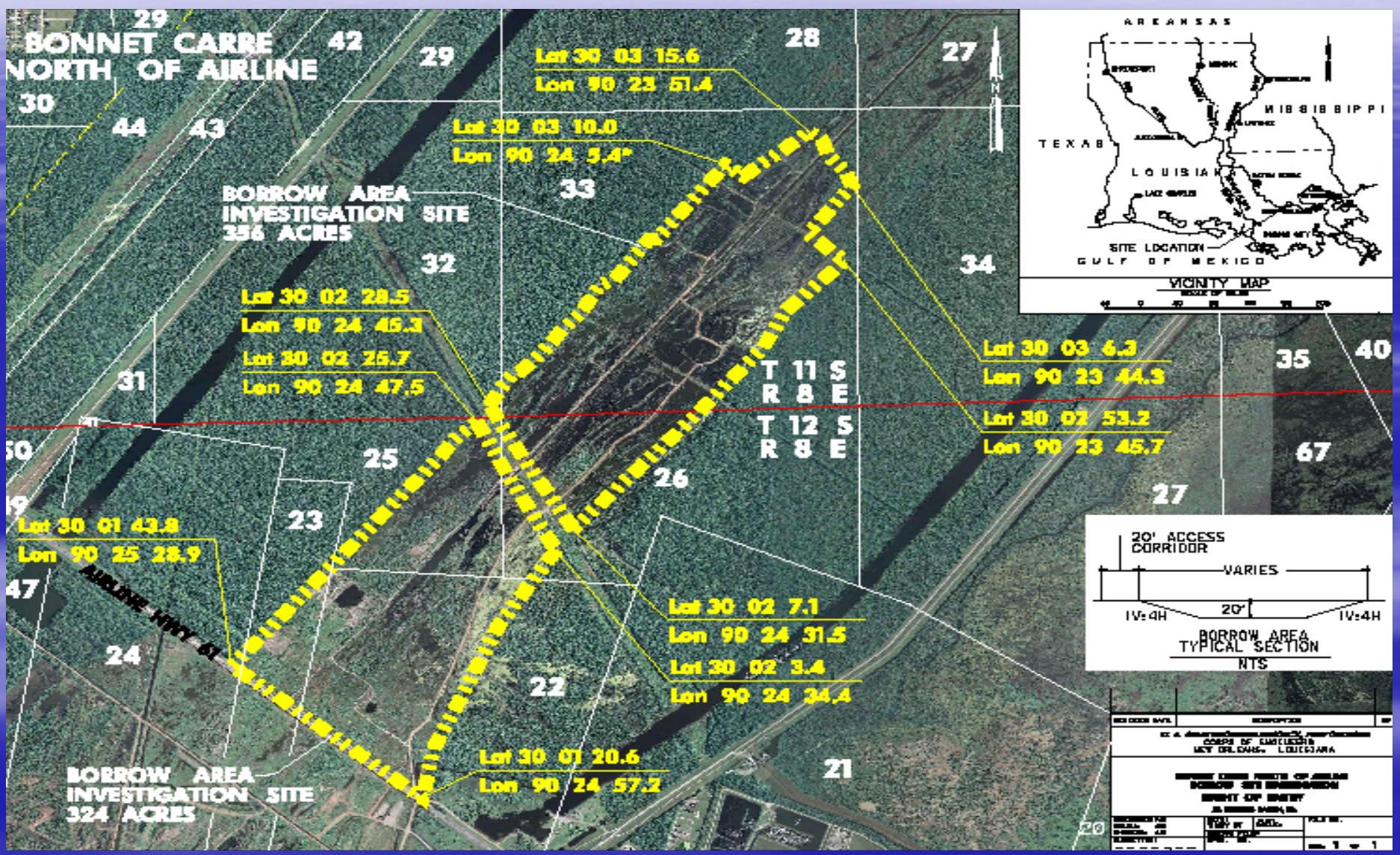
U. S. ARMY ENGINEER DISTRICT, NEW ORLEANS
CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

CHURCHILL FARMS PHASE 1 BORROW AREA INVESTIGATION
RIGHT OF ENTRY

JEFFERSON PARISH, LA

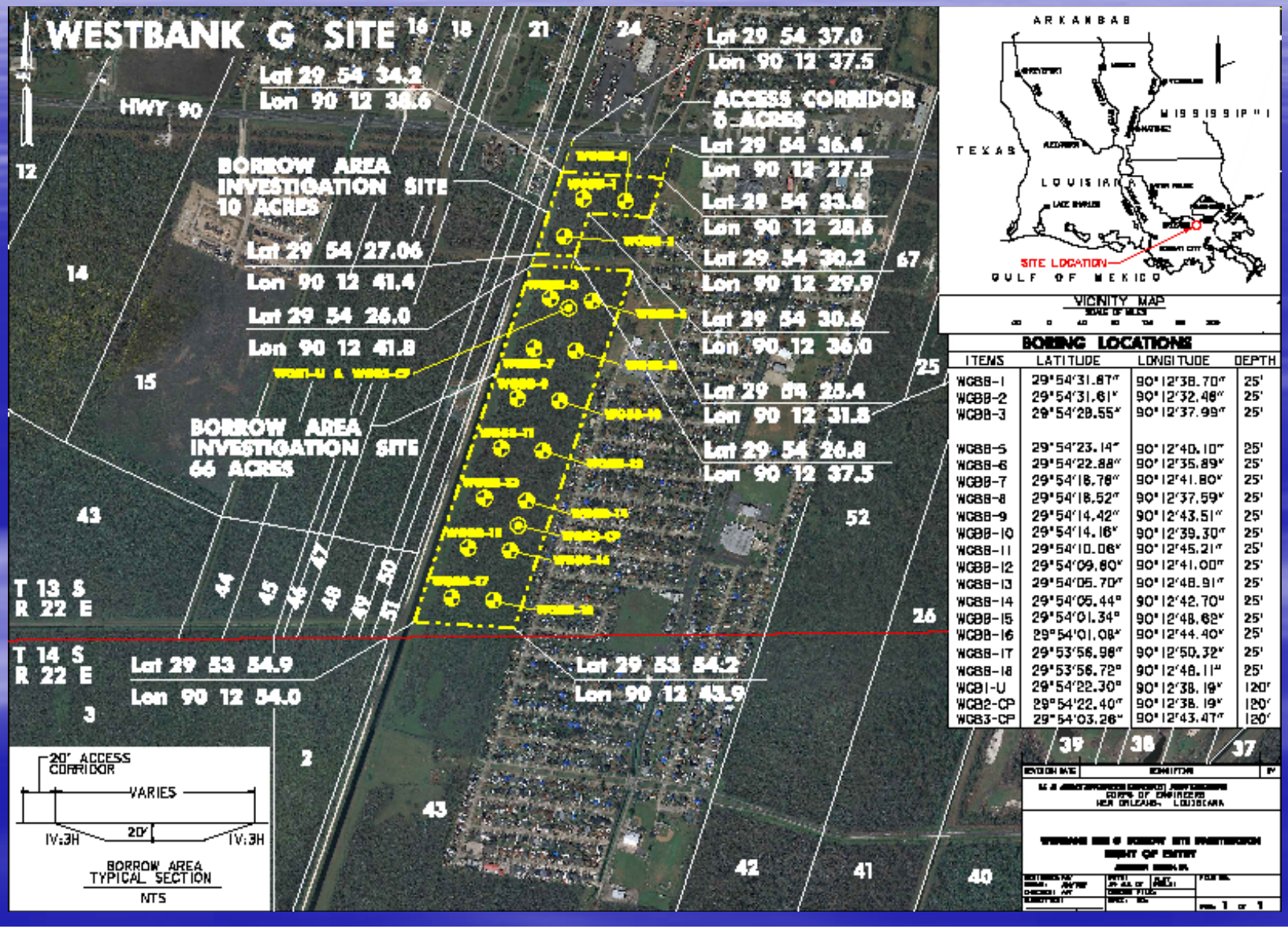
SCALE: AS NOTED
DATE: APR 2006
CHECKED: JPR
SUBMITTED:
FILE NO.
SHEET 1 OF 1

Bonnet Carre North



US Army Corps of Engineers
New Orleans District

Westbank G



US Army Corps of Engineers
New Orleans District

IER 19: Contractor Furnished Borrow

US Army Corps of Engineers
New Orleans District

Contractor Furnished Environmental Process

- Signed right of entry
- Obtained regulatory Wetland Determination
- Obtained Section 10-404 Permit Secondary Use/ Proof of Mitigation
- Secured Coastal Zone Permit/Letter of no objection

US Army Corps of Engineers
New Orleans District

Contractor Furnished Environmental Process

- Received concurrence from U.S. Fish and Wildlife Service
- Coordinated Cultural Resources Report with State Historic Preservation Office & Tribes
- Provided Phase 1 Environmental Site Assessment to ASTM 1527-05

Contractor Furnished Borrow

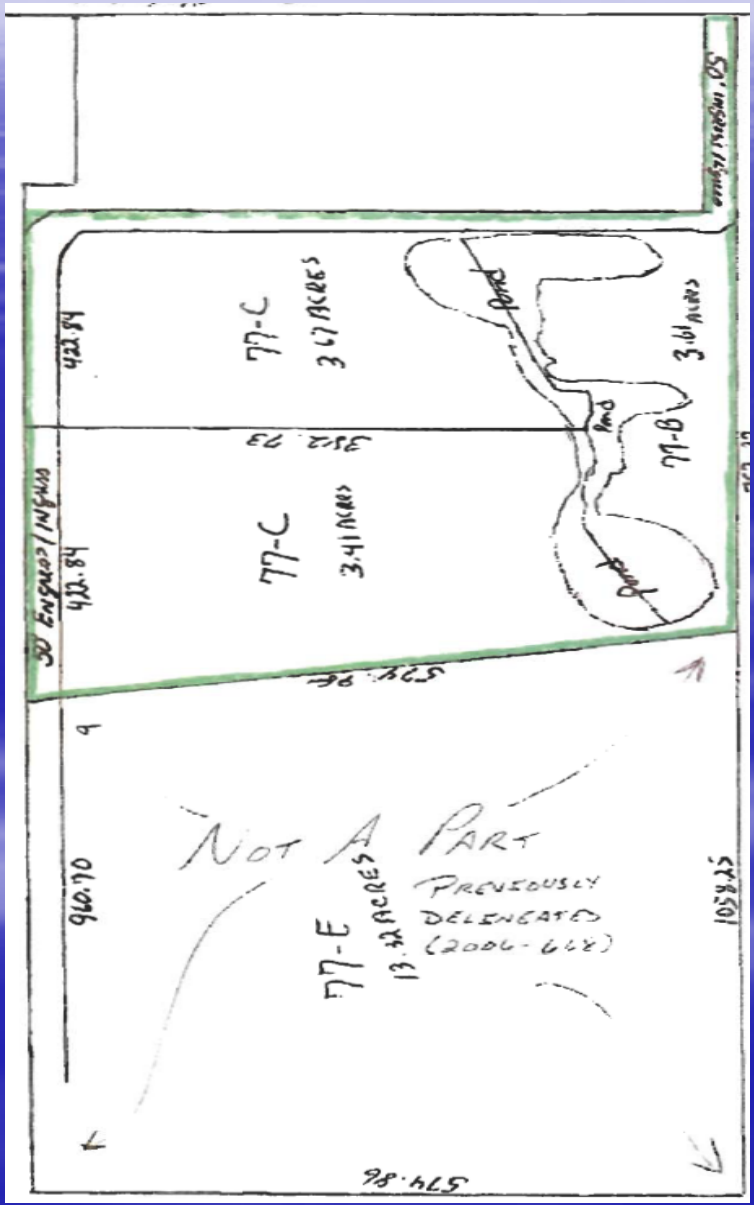
	Sites	Estimated Quantity (Cubic yards)
Program Borrow Needs		over 100,000,000 million yards
IER 19 Contractor Furnished Sites Proposed for Borrow	9	8,390,000 (6%)

IER 19 Contractor Furnished Sites Proposed for Borrow (9)

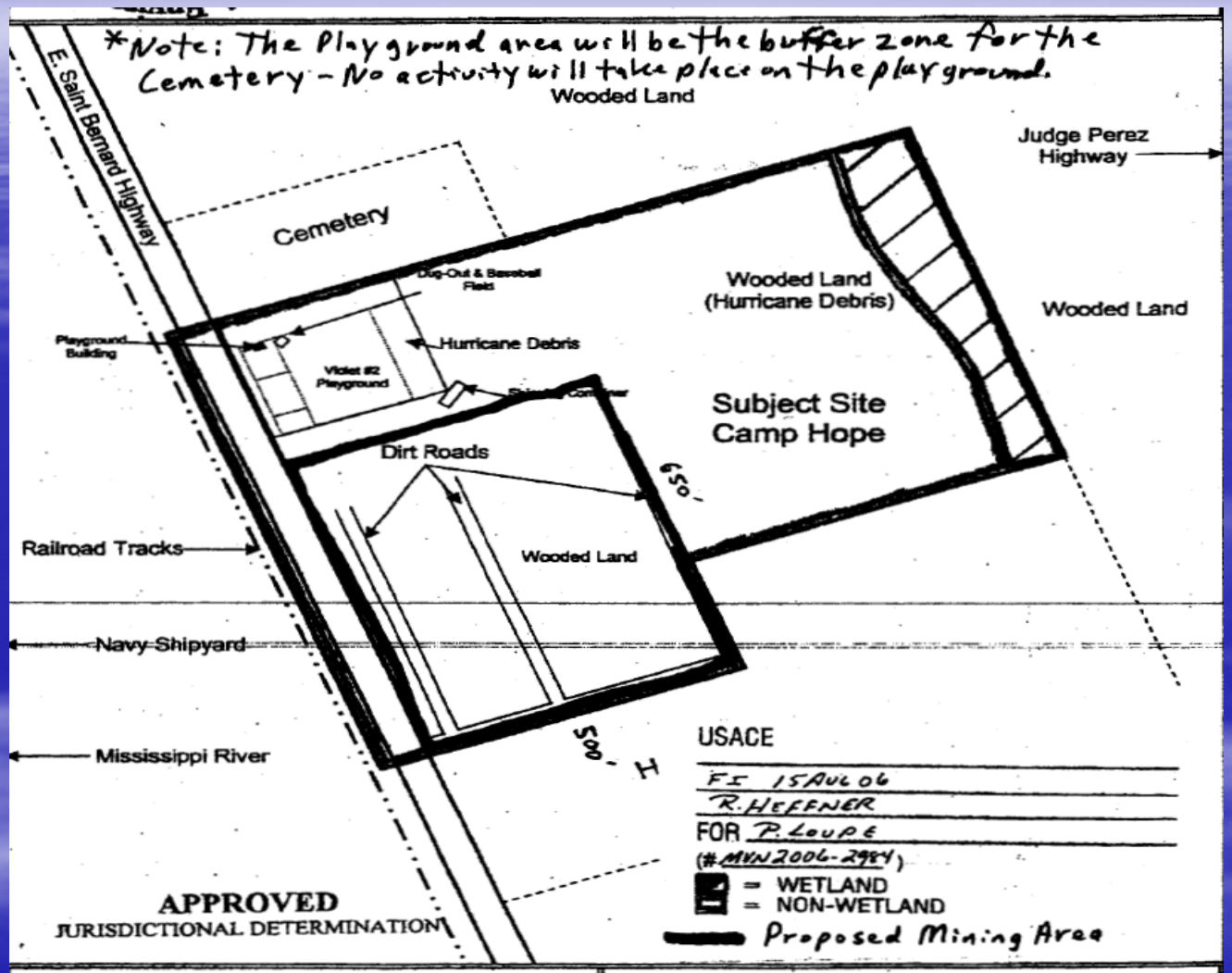
Name	Parish	Initial Site Investigated (acres)	Approx. Cubic Yards
Sylvia Guilliot	St. Bernard	10.7	270,000
Gatien Navy Hope	St. Bernard	7.5	200,000
DK Aggregates	St. Bernard	58.5	1,400,000
Kimble #2	Plaquemines	10.4	120,000
River Birch Phase 1	Jefferson	9.7	200,000
River Birch Phase 2	Jefferson	79.4	3,500,000
Pearlington Dirt Phase 1	Mississippi	98	1,000,000
Eastover	Orleans	36.6	900,000
St. Gabriel Redevelopment	Iberville	122.6	800,000

US Army Corps of Engineers
New Orleans District

Sylvia Guilliot

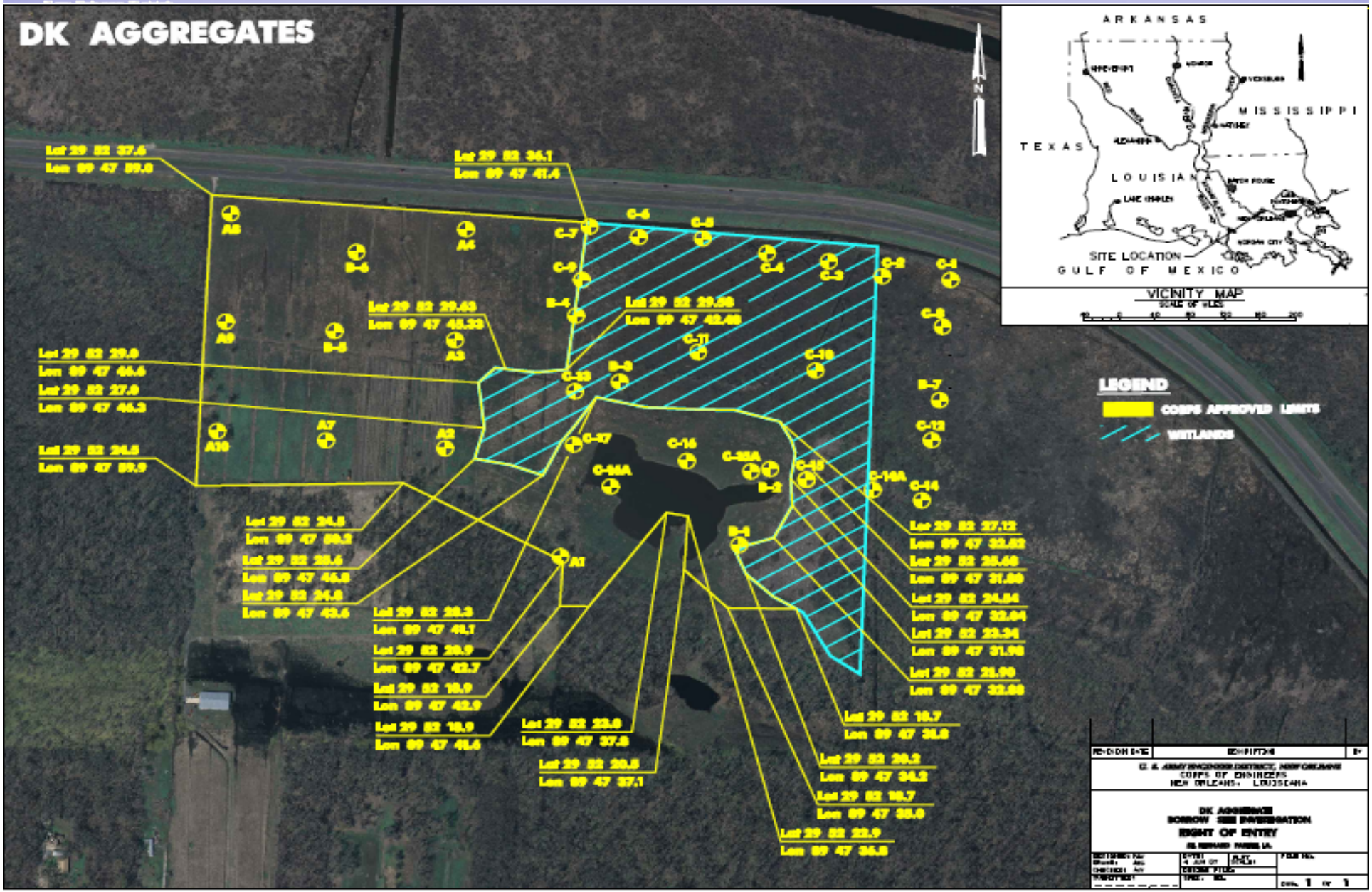


Gatien Navy Camp Hope

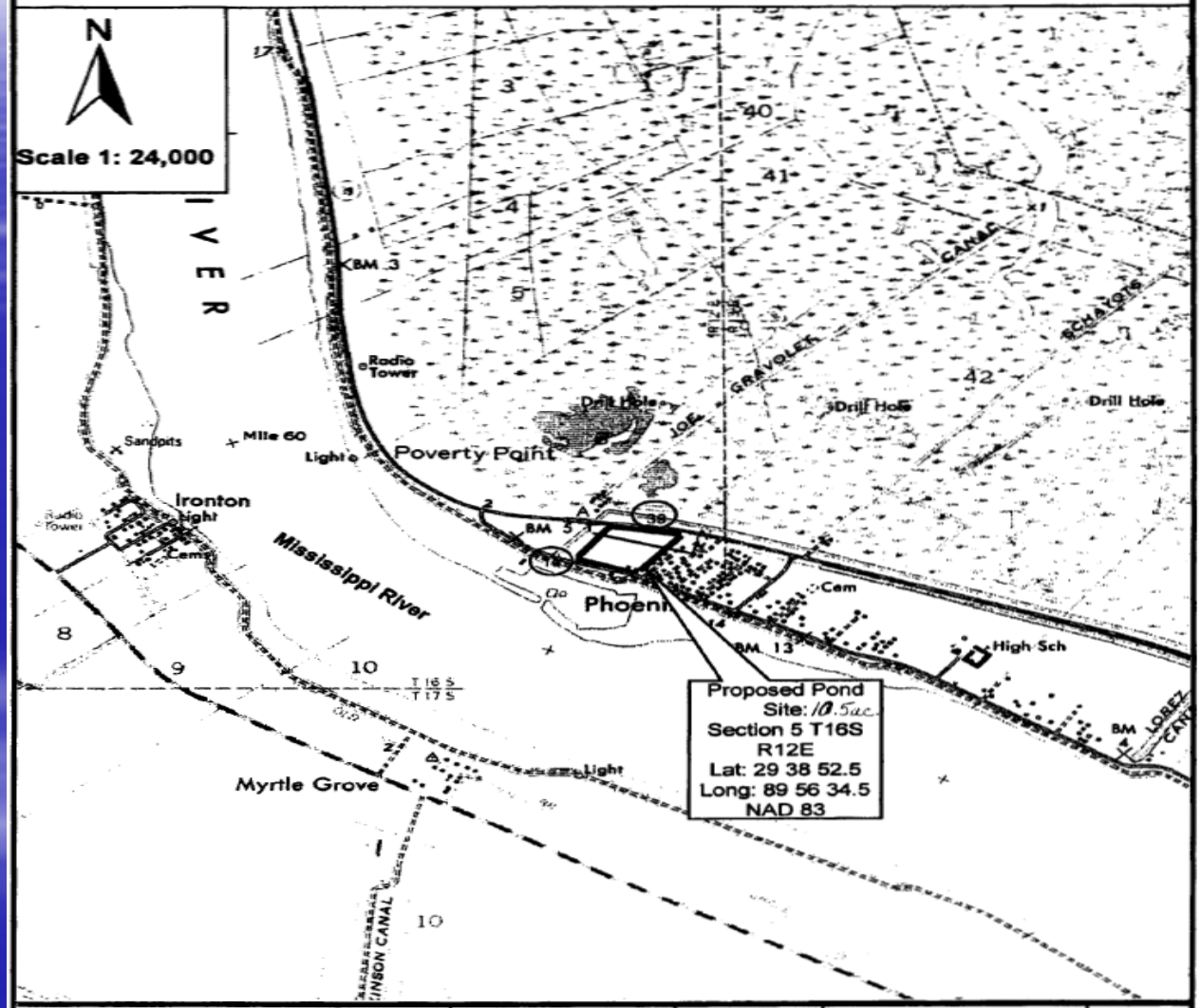


ESI Project No. 2006– 08	Figure 2 — Site Map
Scale: 1 Inch = 300 Feet	Camp Hope Property E. St. Bernard Highway Violet, St. Bernard Parish, LA

DK Aggregates



Kimble #2



aquaterra engineering

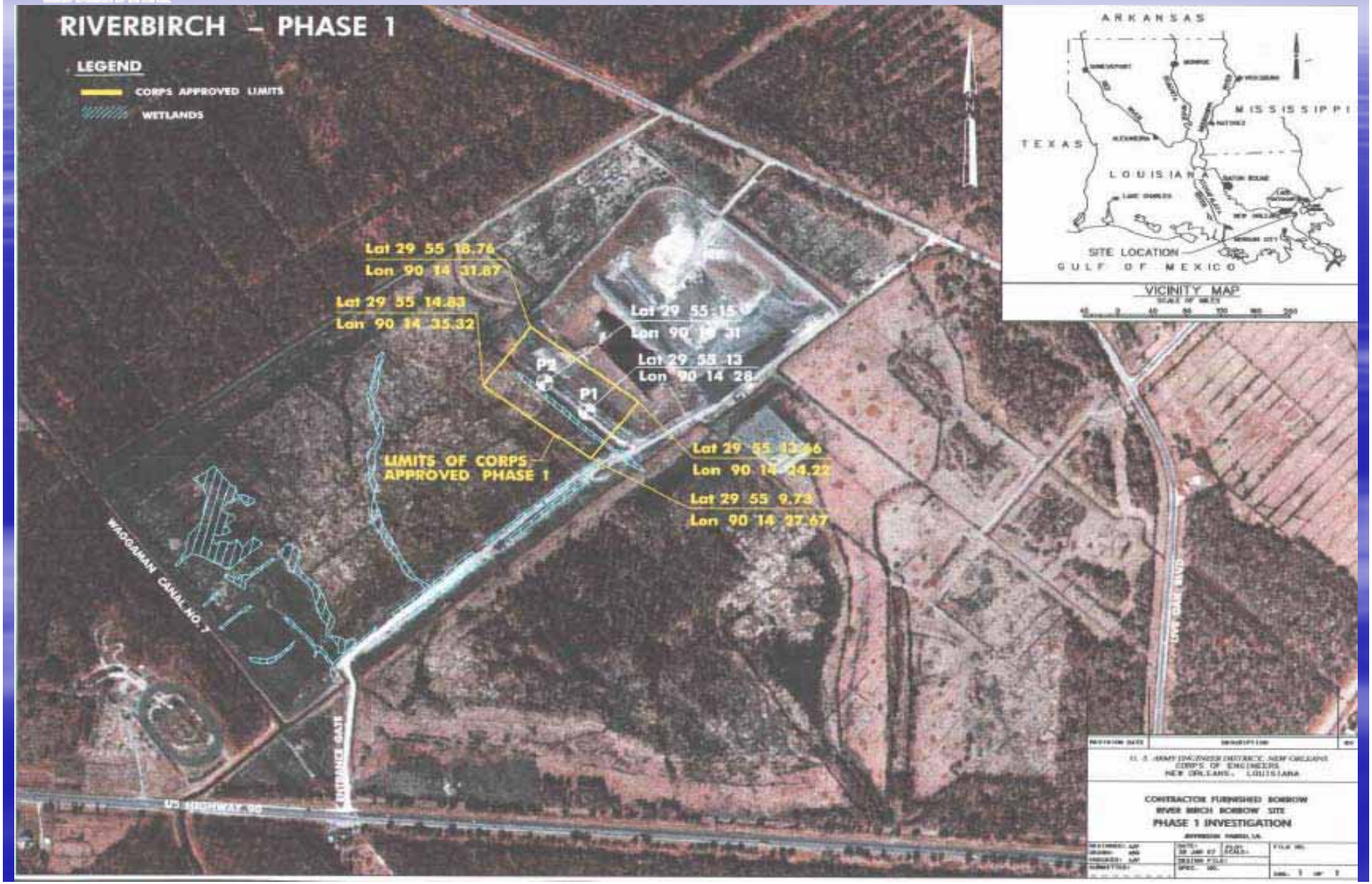
USGS 7.5 Minute Quad
Phoenix, LA
Updated 1994

Engineer:	DJA
Drawn By:	JJR
Checked By:	DJA
Date:	11/5/06
Project:	9106326

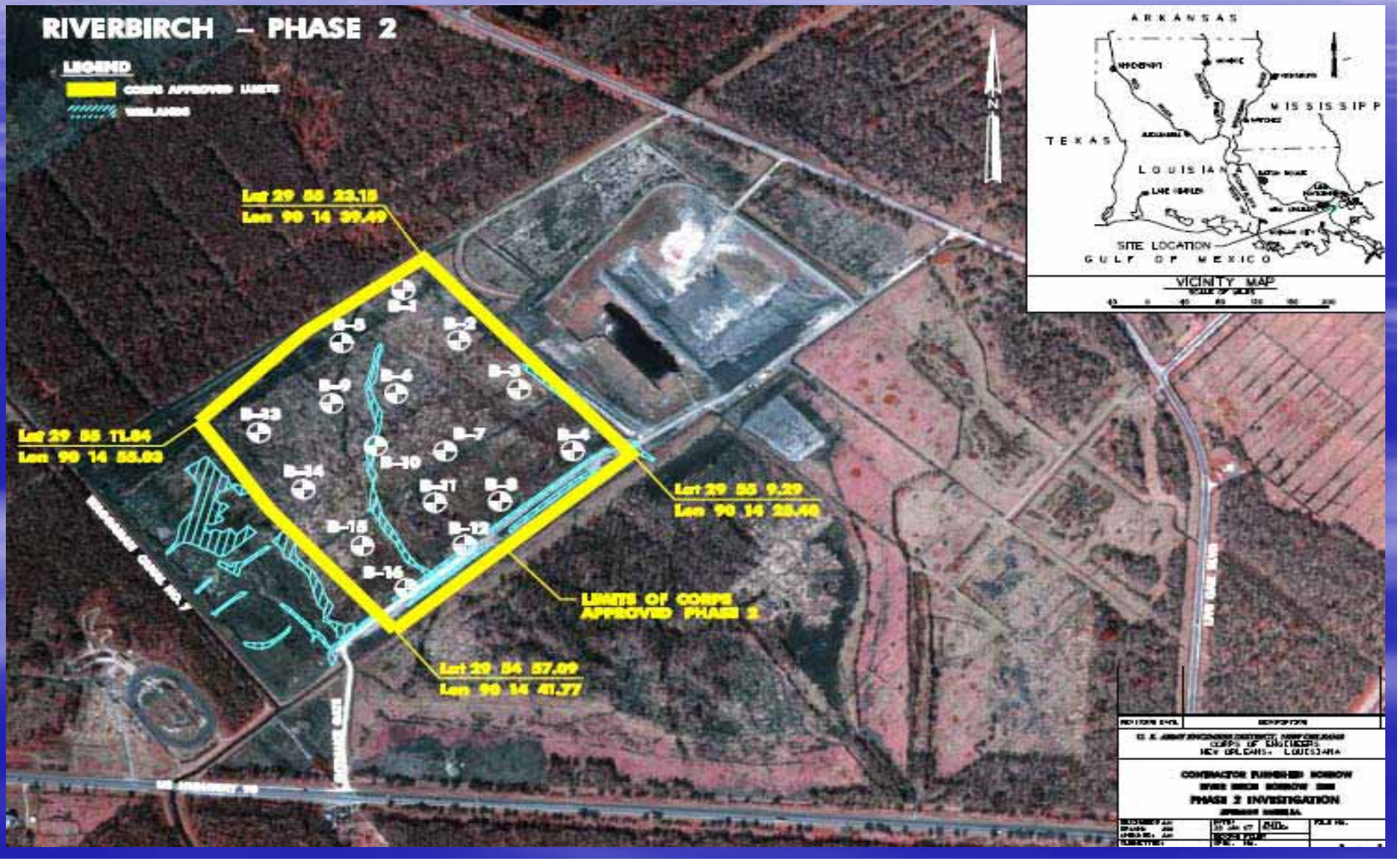
Site Vicinity Map
Proposed Kimble Pond
JA Chorens
Investments
Phoenix, LA

Figure
1

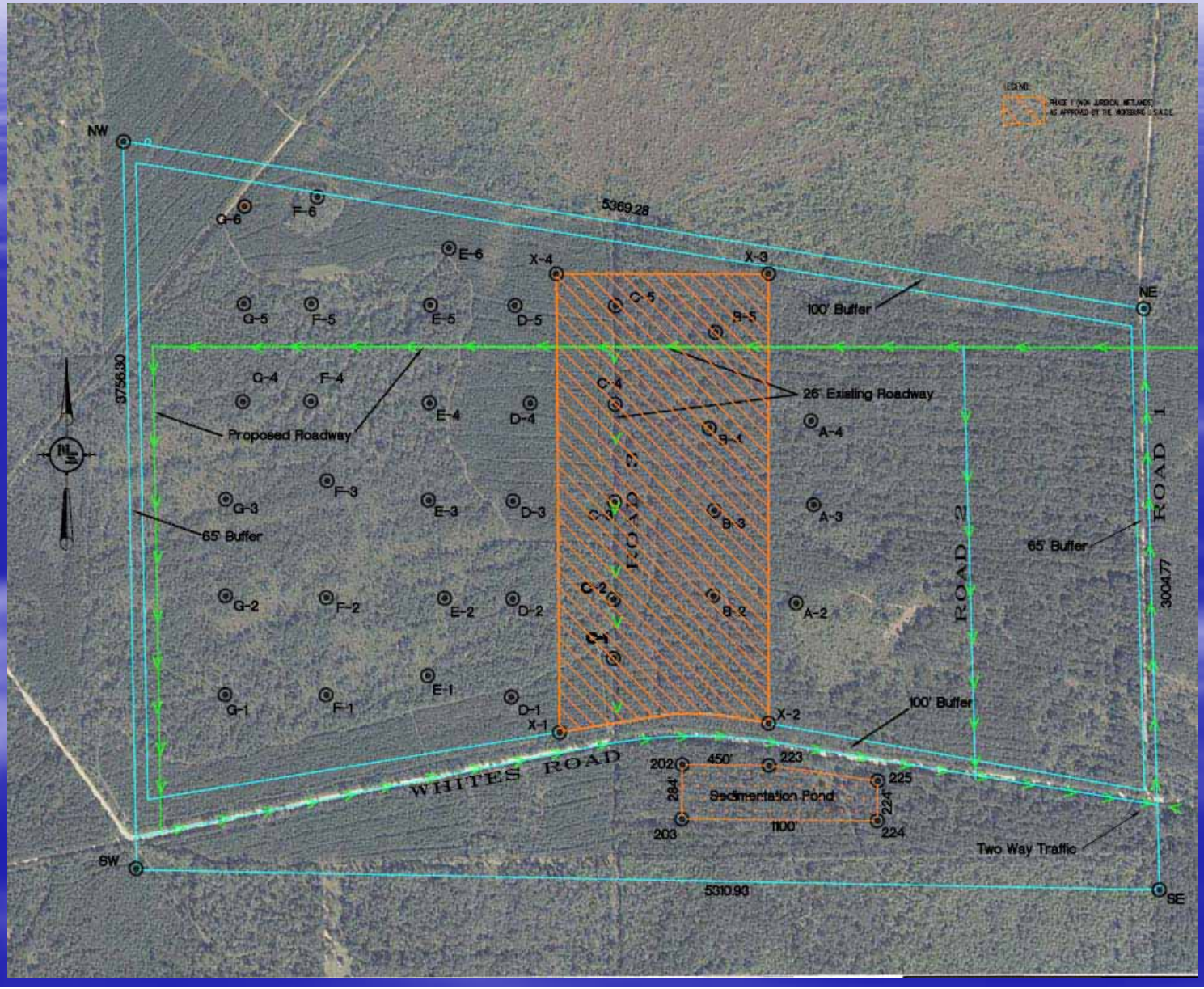
River Birch Phase 1



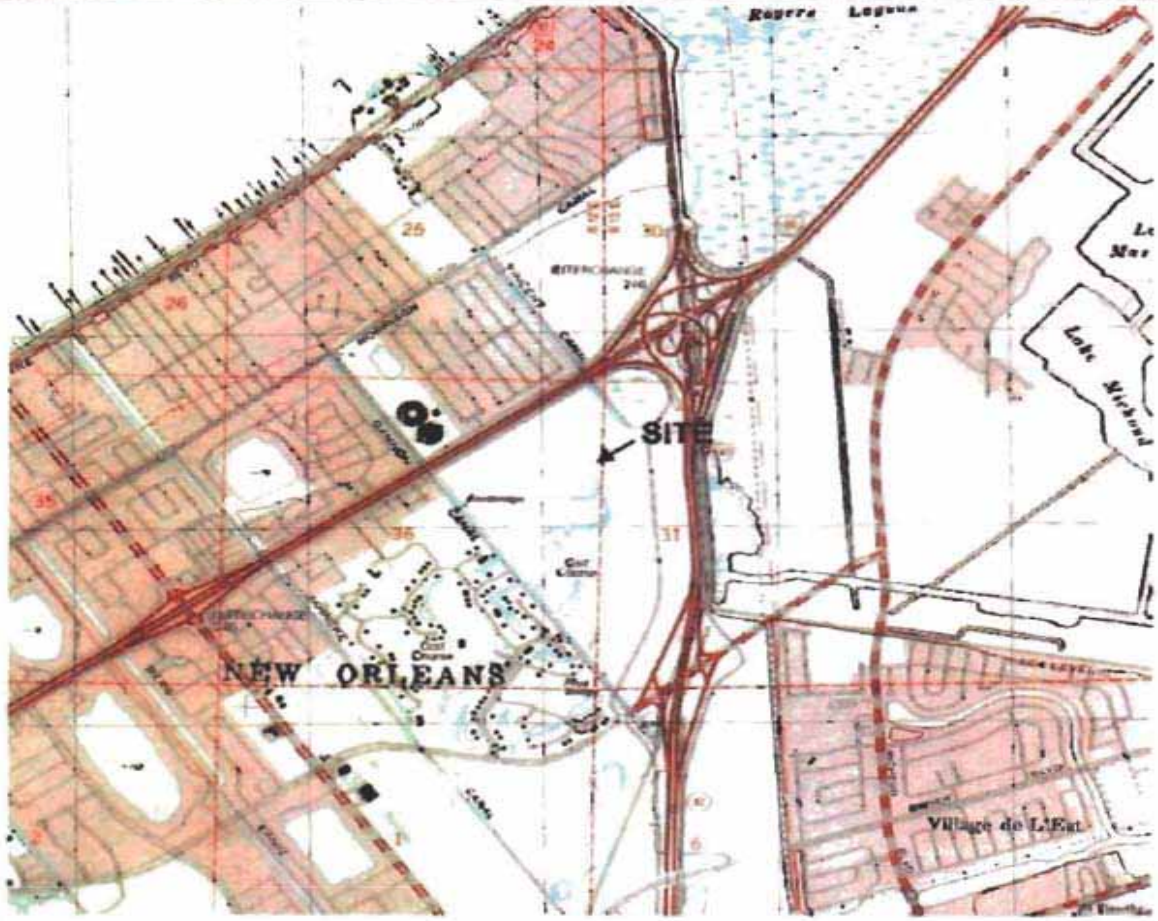
River Birch Phase 2



Pearlington Dirt Phase 1



Eastover



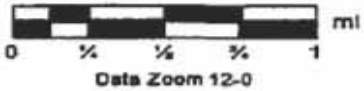
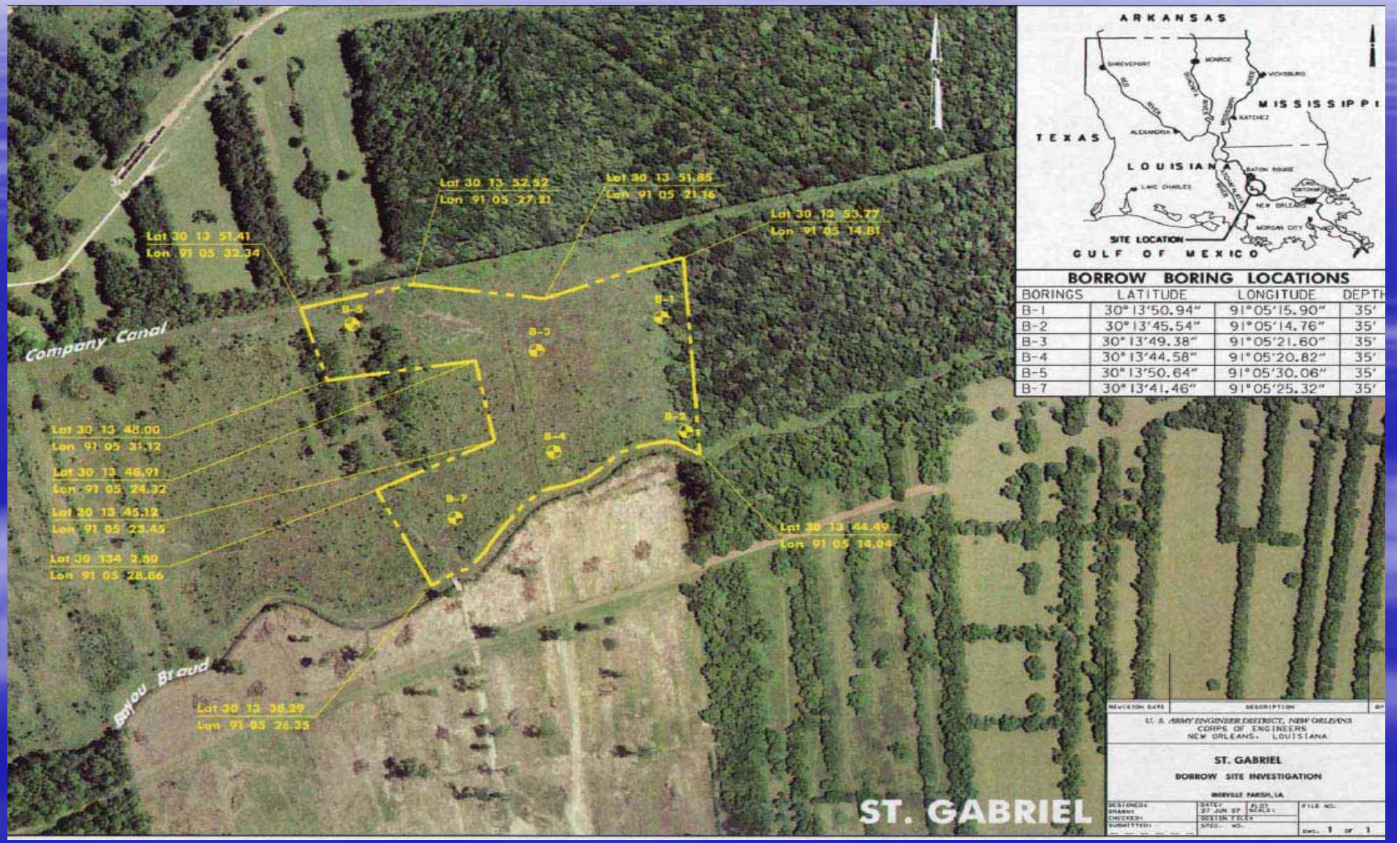


Figure 1
Site Location Map

Eastover Country Club, Phase II
5690 Eastover Drive
New Orleans, Orleans Parish, LA

St. Gabriel Redevelopment



IER 18 and 19 Proposed Borrow Sites by Parish

Parish	Size (acres)	Approx. Cubic Yards
St. Bernard	239	3,804,000
Plaquemines	21	360,000
Orleans	263	5,338,000
Jefferson	200	4,850,000
St. Charles	680	16,932,000
Iberville	122	800,000
Hancock County, MS	98	1,000,000
Total	**1623**	**33,084,000**

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New Orleans District

IER 22: Government Furnished Borrow #2

IER 22 Government Furnished #2 Sites Proposed for Borrow (6)

Name	Parish	HPS Use	Initial Site Investigated (acres)	Size After Avoidance	Approx. Cubic Yards
Brad Buras	Plaquemines	NOV	9	9	224,000
Chauvin	Plaquemines	NOV	28	28	872,000
Tabony	Plaquemines	NOV	171	171	3,735,000
Westbank F	Jefferson	WBV	155	152	3,962,000
Westbank I	Jefferson	WBV	79	33	806,000
Westbank N	Jefferson	WBV	145	69	1,949,000
		Total	**587**	**462**	**11,548,000**

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New Orleans District

IER 23: Contractor Furnished Borrow #2

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IER 23 Contractor Furnished #2 Sites Proposed for Borrow (5)

Name	Parish	HPS Use	Initial Site Investigated (acres)	Approx. Cubic Yards
Acosta	St. Bernard	LPV	29	1,000,000
1025 Florissant	St. Bernard	LPV	3	100,000
3C Riverside	St. Charles	WBV	258	6,000,000
Myrtle Grove	Plaquemines	NOV	271	6,750,000
Pearlington Dirt Phase 2	Hancock County, MS	LPV	110	2,500,000
		Total	**671**	**16,350,000**

Opportunities for Public Input

- Monthly Public Meetings throughout New Orleans Metro 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 Protection Projects

should be addressed to:

Gib Owen
PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267
Phone: 504-862-1337

E-mail: mvnenvironmental@usace.army.mil

US Army Corps of Engineers
New Orleans District

NOLA Environmental

NEW ORLEANS, LOUISIANA

Environmental Compliance Data Bank

www.nolaenvironmental.gov

PROJECTS | MEETINGS | LIBRARY | DATA VIEWER | GET INVOLVED | RELATED LINKS

Environmental Processes and NEPA Compliance

What is NEPA?

FEATURED PROJECT

USACE-MVN Emergency Alternative Arrangements
West Bank & Vicinity & Lake Pontchartrain & Vicinity
Hurricane Protection Projects

USACE NEPA Questions & Answers
USACE Alternative Arrangements NEPA Process
USACE Alternative Arrangements NEPA Process Appendix

Welcome to NOLA Environmental! This site has been set up to share with the public the efforts being made by the U.S. Army Corps of Engineers and other Federal and state agencies in south Louisiana regarding the environmental compliance for proposed Federal and state Hurricane Protection Projects. Additional information pertaining to other Federal and state agencies' hurricane recovery efforts in southeast Louisiana will also be posted on the site as it becomes available.

The U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District implemented Alternative Arrangements on March 13, 2007 under the provisions of the Council on Environmental Quality Regulations for Implementing the National Environmental Policy Act (40 CFR § 1506.11). This process was implemented in order to expeditiously complete environmental analysis for the 100-year level of Hurricane and Storm Damage Reduction effort authorized and funded by the Administration and the Congress. The proposed actions are located in southern Louisiana area and relate to the Federal effort to rebuild the Hurricane and Storm Damage Reduction system in the New Orleans Metropolitan area as a result of Hurricanes Katrina and Rita. (Learn More)

IER 18 Government Furnished Borrow Draft Report Public Comment Period: Oct. 28, 2007 - Dec. 04, 2007

IER 19 Contractor Furnished Borrow Draft Report Public Comment Period: Nov. 2, 2007 - Dec. 6, 2007

UPCOMING EVENTS: Public Meetings

Nov. 29, 2007 7:00 - 9:00 pm (Open House: 6:00 - 7:00 pm), Orleans East Bank (IER 5)
Dec. 06, 2007 7:00 - 9:00 pm (Open House: 6:00 - 7:00 pm), St. Charles (IER 1, 2, 3)
Dec. 11, 2007 7:00 - 9:00 pm (Open House: 6:00 - 7:00 pm), Environmental Justice

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National Environmental Policy Act (NEPA)

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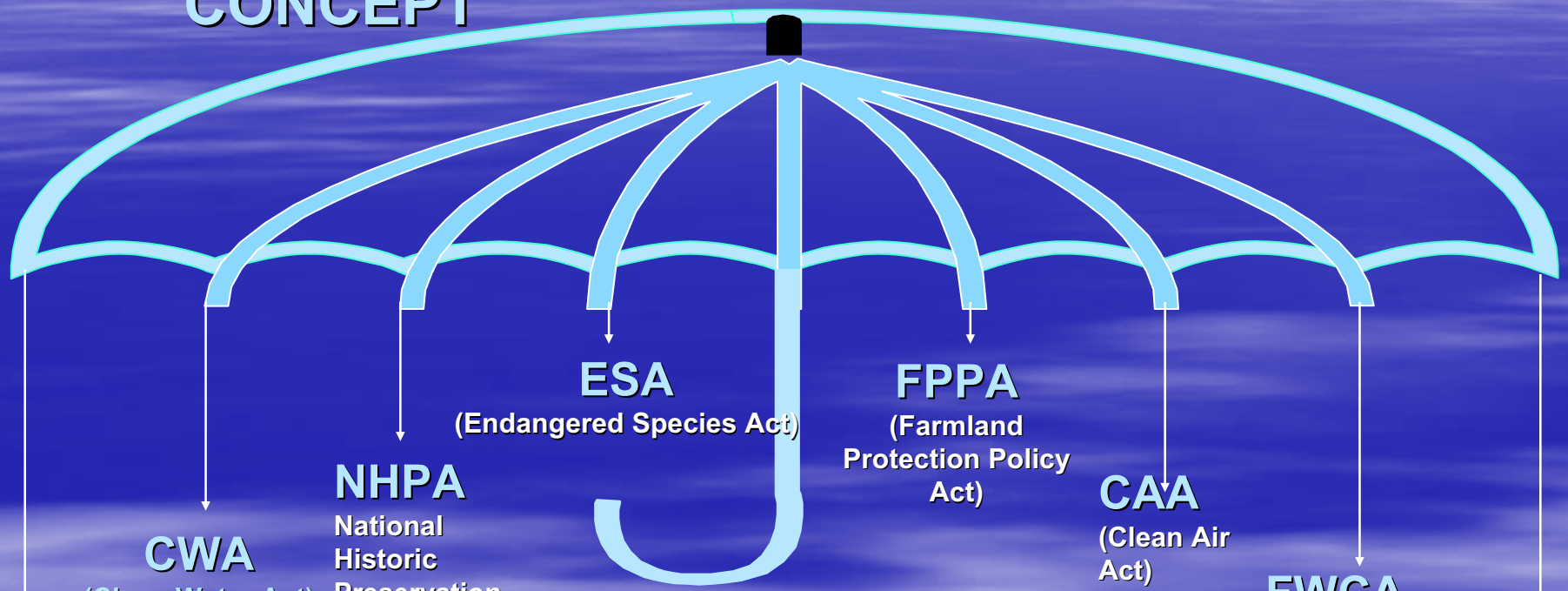
OVERARCHING CONCEPT



EFH
(Essential Fish Habitat)

MSFCMA
(Magnuson-Stevens Fishery Conservation and Management Act

CWA
(Clean Water Act)

NHPA
National Historic Preservation Act

ESA
(Endangered Species Act)

FPPA
(Farmland Protection Policy Act)

CAA
(Clean Air Act)

FWCA
(Fish & Wildlife Conservation Act)

CZMA
(Coastal Zone Management Act)

National Environmental Policy Act (NEPA)

Impact Analysis

- Direct Impacts
- Indirect Impacts
- Cumulative Impacts

US Army Corps of Engineers
New Orleans District

U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS DISTRICT

PUBLIC MEETING
LEVEE BORROW MATERIAL

GEOTECHNICAL DISCUSSION

WHAT IS LEVEE BORROW?

- Levee borrow is any soil taken from one place and used to construct a new earthen levee.
- A borrow pit is the “hole” dug during the process of excavating the borrow soil.
- For New Orleans area levees, this material must be classified as CLAY.

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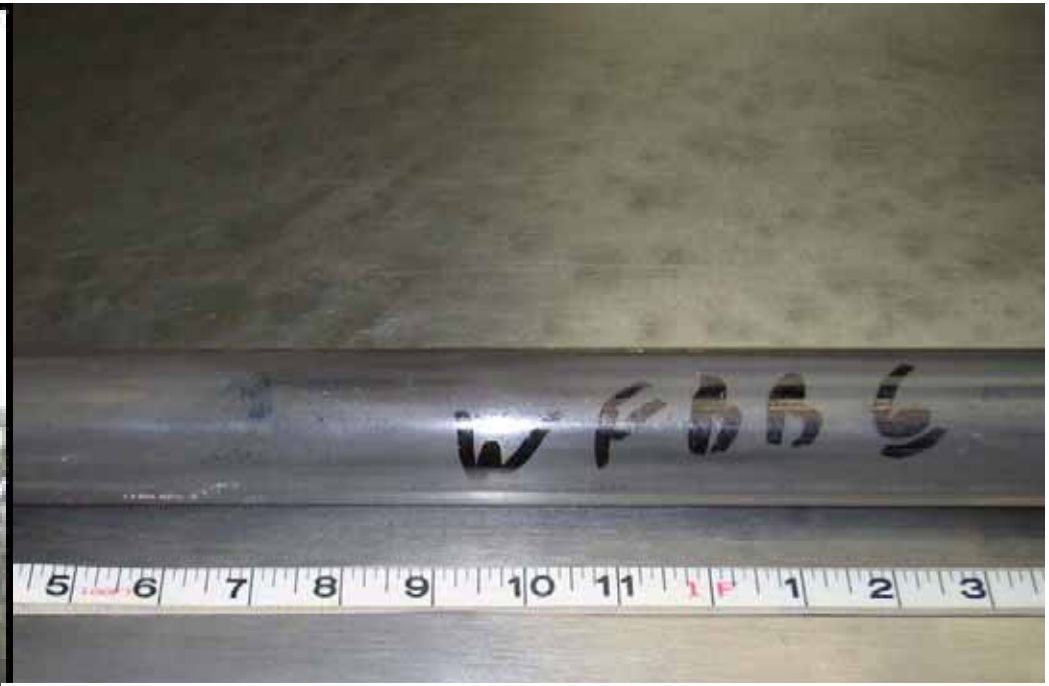
New Orleans District

HOW ARE BORROW SITES SELECTED?

- Proximity to new levee location
- Utilization of site specific borrow borings
  - Spaced every 500 ft, Typically 25-30 ft deep
  - Utilize geoprobes (1 ¼" diameter)
- Adequate engineering properties determined from lab testing of borings
  - Soil classification (clay vs silt or sand)
  - Moisture content
  - Atterberg limits
  - Organic content
  - Sand content
- Amount of acceptable soil in the borrow site
- Depth of acceptable soil in the borrow site
- Environmental concerns
  - HTRW
  - Wetlands

BCB-34
500 ft
BCB-36
BCB-33
500 ft
BCB-38
BCB-35
500 ft
BCB-37


5 6 7 8 9 10 11 1 2 3

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TYPICAL BORROW PIT INVESTIGATION RESULTS

TYPICAL BORING LOG FROM APPROVED SITE

Organic Content		w%	PI
	GROUND EL.		
43%	S|S So, Ox	103	
28%	S|S, vSo, Wd, O	75	80
	CS, Ox		
	vSo, Ox, cc	98	
	S|S		
	vSo, cc	95	
	vSo, cc	53	
	S|S vSo, Ox, slf	67	
5.9%	vSo, Ox	75	52
	CS, slf	59	
	vSo	70	
	vSo, Ox	80	
	S|S vSo	74	
6.9%	vSo, Ox	73	
	vSo	76	64

- High Organic Content Only In Upper 5 feet
- Unsuitable Material Can Be Wasted
- Few Areas of Silts
- Little Objectionable Material Below Top 5 feet.

TYPICAL BORING LOG FROM DISAPPROVED SITE

Organic Content		w%	PI
	GROUND EL.		
73.5%	St,SIS,rt,Wd	197	
8.5%	SIS So,Ox	86	
9.8%	vSo,Ox,rt	60	
	SIS,vSo	64	
	SIS,vSo,Wd,rt	366	
57.5%	SIS,vSo,Ox,Wd,rt	210	
24.1%	SIS vSo,rt,cc	56	31
6.8%	vSo,O	181	
	SIS vSo,cc,slf	75	47
8.5%	SIS,vSo,Wd	92	
10.2%	SIS,vSo,cc	62	30
	O,vSo,SIS	115	
7.5%	SIS,vSo,Wd	85	

- High Organic Content Throughout Boring
- Areas of Silts
- No Samples
- Objectionable Material Throughout Boring

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New Orleans District

ENGINEERING DURING CONSTRUCTION

- Contractor's QC includes In-Place Testing (Conducted every 1,500 cubic yards of placed soil per 12 inch lift)
  - Classification
  - Moisture Content (must be within +5 to -3% of optimum)
  - Organic Content
  - Sand Content
  - Density (requirement – 90% Standard Proctor Density)
- Post-Construction borings will be taken to verify that construction procedures validate design assumptions and meet project specifications
- Under the Government Quality Assurance (QA), the Government performs periodic field and lab tests to document the Contractor QC findings. If any discrepancies are found, corrective action is taken to meet the contact specifications.