

Study Results Meeting - Georgia Power, A Southern Company  
April 1, 2011

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STUDY RESULTS MEETING

GEORGIA POWER  
A SOUTHERN COMPANY

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SALEM, ALABAMA 36874

WEDNESDAY, APRIL 1, 2011  
10:00 A.M.

PRESIDING:

WINNIE SIMPSON

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- 3 Tom Broadwell
- 4 Jim Candler
- 5 Fred Cox
- 6 Joey Charles
- 7 Allan Creamer
- 8 Tony Dodd
- 9 Sarah Florentino
- 10 Wanda Greene
- 11 Keith Hill
- 12 Steve Layman
- 13 Arnold Lindsay
- 14 Kim Lowe
- 15 George Martin
- 16 Roger Martin
- 17 Hallie Meushaw
- 18 Courtenay O'Mara
- 19 Morton Reed
- 20 Winnie Simpson
- 21 Ricky Sterns
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I N D E X

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3 Welcome - Winnie Simpson

4 Safety Briefing - Arnold Lindsay

5 Introduction - George Martin

6 Geology and Soils - Steve Layman

7 Cultural Resources - Joey Charles

8 Closing - George Martin

P R O C E E D I N G S

1  
2 MS. SIMPSON: I'm going to turn it back over to  
3 Arnold Lindsay to start us off with the safety briefing.

4 MR. LINDSAY: For you all who were here yesterday, I  
5 apologize for putting George in a bad position by taking  
6 this paper. Again, I'd like to welcome you all to  
7 Bartletts Ferry Dam. I'm Arnold Lindsay, the Plant  
8 Manager of Chattahoochee Hydro Group. The first thing,  
9 if you have cell phones put them on vibrate, please, if  
10 you don't mind or turn them completely off. If you have  
11 an emergency, the emergency call number is 6026, you can  
12 use that phone back there. Just make sure you let them  
13 know that you're in the clubhouse. The operator will  
14 know which emergency people to call, whether it be  
15 Alabama or Georgia. Anybody here know CPR? I'm sure we  
16 have plenty. We're covered there, good. There's an AED  
17 located up at the shop and there's one in my vehicle. If  
18 we need that we can go get it. The folks up there know  
19 where it's located. The fire extinguisher is right back  
20 there on the wall. If we have bad weather which I think  
21 it's gone for the time being, just follow me up to the  
22 office and we'll go in the office in the hallway, there's  
23 a safe refuge area. If we have a fire we'll exit into  
24 the office parking lot. Just look around and make sure  
25 you kind of get an idea of who is all in here so when we

1 get up there we can make sure that there's nobody left in  
2 the building. Several cords on the floor. Some of them  
3 are up off the floor. So be real careful when you walk  
4 around in here. Of course you know where the bathrooms  
5 are if you've been here before, by now, I'm sure. And  
6 there's snacks available, although they're beginning to  
7 get limited in supply I see. It should be lunch probably  
8 at some time around noon. I'm not real sure exactly  
9 when, but it should be brought in around then. Do you  
10 have any questions for me? Thank you. Winnie, it's all  
11 yours.

12 MS. SIMPSON: Turning over to our Project Manager.

13 MR. MARTIN: Okay. I think we've all been here on  
14 previous days. And I want to remind everybody, watch out  
15 for the chords on around the floor. I'm going to give a  
16 brief introduction of today's meeting. I want to tell us  
17 and remind us where we are in the process of re-  
18 licensing, where we are geographically. And I'll show  
19 you a couple of maps as well as go over today's Agenda.

20 You're probably all pretty familiar with where we  
21 began on Wednesday with these resource areas being  
22 covered, operations throughout management, water  
23 resources, fish and aquatics. Yesterday we did Rare,  
24 Threatened and Endangered Wildlife; Botanical resources;  
25 Wetlands, Riparian, and Littoral Habitat, as well as

1 Recreation and Land Use. And today, our final day, we're  
2 going to go through Geology and Soils and Cultural  
3 Resources.

4 And as we've all agreed since we've covered the RSVP  
5 list and contacted the folks that we thought would be  
6 most interested in these two resource areas whether they  
7 responded or not. And they declined to attend today.  
8 We're going to adjust our schedule accordingly, and we're  
9 going to do our Geology and Soils first. And we'll take  
10 maybe a 5 or 10 minute break in between that. Then we'll  
11 go directly into Cultural Resources, which will cover  
12 archeological resources and disoric hydro. And so  
13 everybody's in agreement to do that; right?

14 Today's study results meetings are as a result of  
15 the FERC study plan determination from March 17th, 2010.  
16 You've all seen this before. And you probably received  
17 this through FERC e-mail as well, the notification of the  
18 study plan and termination. And here again are the study  
19 areas that we're focused on in the field and at the  
20 desktop over 2010, which brings us to today's meeting to  
21 cover those resource areas that I mentioned previously.

22 To look at the integrated licensing process as it  
23 applies to Bartletts Ferry relicensing. Our process  
24 planning schedule is attached to the agenda as we've gone  
25 over before, and the highlighted areas show you what

1 we've completed in that regard. What will come next will  
2 be the filing of a study results meeting summary by  
3 Georgia Power, and then comments are due from our  
4 stakeholders by May 18th. And we will respond to those  
5 by June 17. And FERC will resolve any disagreements and  
6 any modifications will be made to the state plans if  
7 necessary by July 18th. And then we will continue to  
8 consult with our stakeholders as appropriate leading to  
9 the preliminary licensing proposal meetings, which we've  
10 added to the integrated licensing process as an extra  
11 step to preview what we will put in our preliminary  
12 license proposal that is filed with FERC by a due date of  
13 November 21, 2011, this year. So there's going to be a  
14 lot of activity between the close of our study results  
15 meetings and preparing for the preliminary licensing  
16 proposal to further address and refine the issues that  
17 have been identified and what we're going to do with  
18 regard to fully resolving those issues as they remain.

19 Wednesday, again, we covered those items. Thursday,  
20 we covered those items. And today, as I mentioned  
21 earlier, Geology and Soils, and Cultural Resources but  
22 we're going to move that up just a bit. The next three  
23 maps you have seen prior to today's meeting and yesterday  
24 and Wednesday meetings. We are on the state line between  
25 Georgia and Alabama, bounded upstream by Westpoint and

1 downstream by Walter F. George. And Georgia Power's  
2 Chattahoochee Hydro Projects are Langdale, Riverview,  
3 Bartletts Ferry, Goat Rock, Oliver and North Highlands.  
4 There's two private mills, dams and the Columbus-Phenix  
5 City area.

6 And within the Chattahoochee Hydro Group there is  
7 Bartletts Ferry is a stand-alone for its license  
8 upstream, bounded by project boundary with Riverview and  
9 downstream bounded by project boundary with Goat Rock.  
10 Goat Rock, Oliver, and North Highlands make up the Middle  
11 Chattahoochee license. And you will hear Riverview and  
12 Chattahoochee referred to in the reports today as they're  
13 given.

14 You've seen this project vicinity map. The purple  
15 line on this map delineates the project boundary. And  
16 then we have a project vicinity which is approximately  
17 2,000 feet out from the project area, from the project.  
18 And then the counties in Alabama are Lee and Chambers,  
19 and Paris in Georgia. And here's just another map that  
20 delineates the project boundary a little bit better. But  
21 generally speaking, it's the 525 foot contour around Lake  
22 Harding, and it extends farther out at the project works  
23 and at some mitigation lands on the Alabama side and at  
24 Idle Hour Park on the Georgia side.

25 So with that, that's my review. If there's any

1 questions, feel free to ask them, otherwise we'll move  
2 right into our first presentation which is Geology and  
3 Soils and Dr. Steve Layman of CH2M Hill is going to cover  
4 Geology and Soils.

5 MS. SIMPSON: Before we start, I think most  
6 everybody knows each other, with a few exceptions. But  
7 let's go around the room, please, and just introduce  
8 yourself and the organization you're with. And if you  
9 have any particular interest, let us know what that is  
10 and we'll make sure we try to get your questions  
11 answered. I want to start with -- George has already  
12 introduced himself.

13 MR. CHARLES: I'm Joey Charles, with the Georgia  
14 Power Land Department. I'm the cultural resources  
15 specialist and the hydro license coordinator.

16 MR. LINDSAY: Arnold Lindsay, Plant Manager  
17 Chattahoochee Hydro Georgia Power Company.

18 MR. REED: Morton Reed, Columbus waterworks,  
19 environmental.

20 MS. FLORENTINO: Sarah Florentino with the Federal  
21 Energy Regulatory Commission, FERC. And I will be  
22 focusing on the terrestrial resources, and the rare and  
23 threatened and endangered species on the licensing team.

24 MR. CREAMER: My name is Allan Creamer. I'm with  
25 FERC. I am the Project Manager for the relicensing. And

1 I will also be dealing with the aquatics, water quality,  
2 fisheries, and some of the TE species issues.

3 MS. O'MARA: Courtenay O'Mara with Southern Company  
4 Hydro Services. And I work with Fred. We're here to  
5 answer any kind of product operations questions.

6 MR. COX: Fred Cox. I'm with Southern Company  
7 Generation Hydro Services. And for this proceeding, my  
8 area of expertise is with project operations.

9 MR. BROADWELL: Tom Broadwell with Georgia Power  
10 Environmental and Land Use, Georgia Water Quality,  
11 sampling on our reservoirs and manage aquatic plants.

12 MR. CANDLER: Jim Candler, Georgia Power Company  
13 Environmental. Natural resource issues, wildlife, rare  
14 and endangered species.

15 MR. HILL: Keith Hill. I'm the Lake Resources  
16 Manager here at the Georgia Power Bartletts Ferry land  
17 management office.

18 MR. DODD: I'm Tony Dodd, a biologist for the  
19 Georgia Power Company, and I contribute to the water  
20 resources and aquatic resources sections of this re-  
21 licensing.

22 MR. STEARNS: I'm Ricky Stearns in the Georgia Power  
23 Land Department, Land Management Specialist.

24 MS. GREENE: Wanda Greene, Georgia Power Land  
25 Department, Compliance and Forestry Manager.

1 MS. MEUSHAW: Hallie Meushaw. I'm an attorney with  
2 Troutman Sanders. We provide legal services to Georgia  
3 Power and I'm part of the relicensing team.

4 MR. MARTIN: Roger Martin. The Chattahoochee River  
5 Warden.

6 MS. LOWE: I'm Kim Lowe. I'm also with  
7 Chattahoochee River.

8 DR. LAYMAN: I'm Steve Layman. I'm with CH2M Hill.  
9 We've been helping Georgia Power with the environmental  
10 studies. My background is in fish biology,  
11 aquatitology and I'm our project manager through our  
12 work. Today I'm going to provide an overview of the  
13 Geology and Soils report, which was a fully collaborative  
14 effort among the Georgia Power's Land Department,  
15 Enviornmental Affairs, Hydro Services, and it represents  
16 a substantial amount of field work as well.

17 The objective of this report, which is termed  
18 Georgia and Soils, is to characterize the distribution  
19 and sources of erosion and sedimentation within the FERC  
20 project boundary based on a Shoreline Field  
21 Reconnaissance Survey and an analysis of existing  
22 information and aerial photography. So this really  
23 focuses on the shoreline conditions around the project.  
24 There won't be a lot of discussion about the soil types  
25 and that type of thing. That is found in the pre-

1 application document, that level of information.

2 This is the study area, which includes the FERC  
3 project boundary at the 525 foot contour. And as you'll  
4 see I'll start to talk about different areas of the FERC  
5 project boundary as the Upper Mainstem Reservoir, UR.  
6 Start to get used to these abbreviations, it'll help when  
7 we get into the results. The Lower Mainstem Reservoir or  
8 LR. The Halawakee Creek Embayment, HE, and the Tailrace  
9 area, TR. And I'll explain in one of the next slides why  
10 we divided the lake this way.

11 But that was our study area, really the FERC project  
12 boundary. You can also see on this figure the public  
13 recreation access areas, that I think the FERC staff got  
14 to see some -- several of those yesterday. And yesterday  
15 the Recreation Analysis focused heavily on these  
16 different sites. The methods included reviewing existing  
17 information. And part of the information we reviewed  
18 included an Auburn University study that looked at  
19 shoreline development and fish communities, and Alabama  
20 Power's Martin Project. And I highlight that here  
21 because that was something that Alabama Department of  
22 Natural Resources, the Conservation Natural Resources  
23 specifically asked Georgia Power to look at. Plus, we  
24 did a wider literature review of Shoreline Structural  
25 Stabilization Practices and their relationship with fish

1 habitat.

2 We also conducted a Shoreline Reconnaissance Survey  
3 of the Bartletts Ferry Reservoir and Tailrace area within  
4 the project boundary. That was conducted last fall on  
5 September 27th and 28th, 2010. We also performed a  
6 Shoreline Temporal Change Analysis based on aerial  
7 photography dating back to 1988. So really, just looking  
8 how the shoreline conditions have changed through time,  
9 since the East Powerhouse was constructed in the mid-  
10 1980s.

11 The Shoreline Reconnaissance Survey was conducted  
12 according to the following methods: The study area was  
13 partitioned into four sections as I mentioned, the Lower  
14 Mainstem Reservoir, the Halawakee Creek Embayment, Upper  
15 Mainstem Reservoir and the Tailrace area. We randomly  
16 selected 62 total, 500-foot shoreline segments within  
17 these areas. It was a stratified but random sampling, if  
18 you will. Within each of the three areas of the  
19 reservoir, you know, the Lower, the Halawakee, the Upper  
20 we picked 20 sites. First, we made sure that we picked  
21 each of the public recreation areas. We represented all  
22 six of the public access sites. Then we randomly  
23 selected the remaining 20 within each section of the  
24 reservoir. And then, two, we selected the Tailrace area,  
25 one on the Alabama side, one on the Georgia side. We

1 then visually accessed each shoreline site using survey  
2 forms that were provided in the study plan. And this was  
3 done by mostly by a boat survey. We had two teams  
4 working the lake over that two-day period. Each team had  
5 at least three folks. Each team was led by Georgia  
6 Power's Land Department specialist on the lake, Ricky  
7 Stearns who is with us today, who focuses heavily on the  
8 Alabama side. And Bill Glisson who was here the first  
9 day is the Georgia specialist on the lake. And they know  
10 the lake inside and out. We had the GPS coordinates. We  
11 had the detailed maps. And we would go to the site and  
12 take the survey form and then rate the shoreline  
13 condition.

14 This will give you an idea of the kind of  
15 information that we developed before we went out to do  
16 the surveys. The first thing that we did was to prepare  
17 a GIS shape file of the entire shoreline of the lake,  
18 which was then segmented into 500-foot segments. And I  
19 want to say there were close to 2,000 of those. And from  
20 that database we did the random selections of shoreline  
21 sites. We also have compiled the geographic coordinates  
22 or the midpoints of each of the 62 shoreline segments.

23 We had this map blown-up several copies that were  
24 taken into the field. We also had laminated versions,  
25 plenty of map products to take out to locate each site in

1 the field. Our teams would arrive at a site, look at the  
2 segment, go through the form, and rate as a group and  
3 discuss the condition of the site and fill out the form.

4 This is just to show you the Lower Reservoir a  
5 little better, the shape. Here's the dam. And as you  
6 recall, we've got three regions of the reservoir. This  
7 is the Lower Reservoir. It did include also the Osanippa  
8 Creek Embayment, which goes up this direction; and the  
9 Mountain Oak Creek Embayment. You can see various sites  
10 that were selected. And they're distributed widely  
11 throughout the lower portion of the lake, a few in  
12 Mountain Oak Creek, as well as in Osanippa Creek.

13 This is the Halawakee Embayment. These would be  
14 stations, the second group of 20 stations, 21-40. And  
15 you can see their distribution roughly throughout the  
16 Halawakee Embayment. This is the Upper Reservoir,  
17 stations 41-60 were located in this more narrow reach, a  
18 less developed reach of the reservoir. And again, you  
19 can see the distribution of sites somewhere included in  
20 the wildlife management area as you go on up the river to  
21 Riverview up here at the top end. And then in the  
22 Tailrace area, we had one on each side of the Tailrace  
23 area.

24 This is the survey form that we used. And it  
25 provides a lot of information about a given site. It

1 starts by providing site information; which county it was  
2 located in; if we knew what the adjacent landownership  
3 was, we provided that; described the weather, reservoir  
4 levels. We described the overall shoreline buffer zone  
5 condition. And we rated the shoreline when we first  
6 arrived there as overall condition is either natural,  
7 which was heavily vegetated. Or it might be landscaped  
8 with a home site, or it might be a mixture of landscape  
9 and natural conditions. So that was kind of the overall  
10 characterization. We then identified adjacent land uses  
11 to that site.

12 And then we got into a little more detail. We  
13 examined the bank condition and rated the stability of  
14 the bank as either stable, moderately stable, moderately  
15 unstable or unstable. And there are definitions here  
16 which I'm not going to go into but which you can  
17 certainly see in the report. And all of the forms that  
18 we completed were provided in the appendix of the report.  
19 We then looked at the bank vegetative protection and  
20 rated the -- the how much coverage there was of native  
21 vegetation on the bank. And then we looked at the  
22 shoreline structural stabilization practices that might  
23 be present. And in some areas of the lake there are  
24 bulkheads or seawalls that are used to stabilize the  
25 shoreline. Riprap, which is, you know, large rocks that

1 help stabilize the shoreline or a combinations of a  
2 seawall with riprap in front at the bottom. And so we  
3 would identify whether they were present or not, and then  
4 estimate the length of the site that contained that  
5 structural stabilization practice.

6 We also inventoried by a checklist of potential  
7 sources of erosion at each site. And also characterized  
8 the available fish habitat in terms of the cover that was  
9 available for fish to hide under or within. And that  
10 included docks, piers, boathouses, large woody debris,  
11 bedrock, boulders, emerging vegetation, overhanging  
12 vegetation, that type of thing.

13 For the aerial photography comparison, we looked at  
14 the historical imagery dating back to 1988, and we found  
15 many sets of aerial photography and they varied widely in  
16 terms of their coverage and quality and scale and so  
17 forth. And we decided to use these various years.  
18 Really, the earliest year that we could get since  
19 construction of the new powerhouse that was good quality  
20 was 1988, and that was false-color infrared photography.  
21 That covered large areas of the lower area of the  
22 project. It did not include everything in the upper end.  
23 The most recent photography we used was collected in  
24 2010, and that was flown for Georgia Power on a very  
25 high-resolution coverage to I think one foot horizontal

1 accuracy. So true color, a very highly resolved and it  
2 included the entire study area.

3 For the intervening years we picked 1993, which was  
4 the earliest that we could get for some portions of the  
5 upper ends of the reservoir, and that's black and white  
6 photography. And then also we looked at some 1999  
7 photography for a couple of the sites where there were  
8 commercial pine stands outside the project boundary that  
9 were of interest. So these three years, the early years,  
10 we obtained that photography as hard copies. And that  
11 had to be scanned into PDF images, so its resolution  
12 wasn't quite as good as we might had.

13 The study results, I'll talk first, briefly, about  
14 project operations relevant to shoreline erosion. That  
15 is certainly of interest in terms of how the reservoir  
16 operates and so forth, for the reservoir fluctuation.  
17 And then I'll provide an overview of the Shoreline  
18 Reconnaissance Survey findings, as well as the temporal  
19 comparison shoreline conditions. And then a summary of  
20 our literature review, the relationship between shoreline  
21 structural stabilization practices and literal zone fish  
22 habitat.

23 Starting with project operations, this is a summary  
24 really of what Fred Cox described on the first day of our  
25 meeting. The project operates in modified run-of-river

1 mode. Peaking begins at Bartletts Ferry at about the  
2 same time it does at West Point, because they're both  
3 tracking the peak demand curve, usually in the afternoon.  
4 So that means the peaking starts to lower the reservoir  
5 at Bartletts Ferry until the West Point releases begin to  
6 reach the project about 4 to 6 hours later, and at that  
7 time Bartletts Ferry Reservoir begins to fill back-up.  
8 So Bartletts Ferry Reservoir is normally operated between  
9 elevations 519 and 521 feet, with normal average daily  
10 fluctuations of about .75 feet. So that's review.

11 And this is a -- the daily fluctuation plot for  
12 Bartletts Ferry Reservoir. Along the bottom is the  
13 percent of time that the daily fluctuation was lower than  
14 the value provided. And this is daily fluctuation on the  
15 side. So you can see that over -- well over 75 percent  
16 of the time the daily fluctuation is less than one foot.  
17 These three different lines are for an average year in  
18 purple. A wet year in black. A dry year in yellow. And  
19 there's not a lot of difference between those three types  
20 of years. In every type of year, the daily fluctuations  
21 are typically much less than one foot. So that's the  
22 characteristic of project operation that could influence  
23 shoreline conditions. It's not a high level of  
24 fluctuation. And it's a factor that was included in our  
25 shoreline survey form for the field teams to rate as its

1 potential to affect erosion to the project.

2 In terms of the project releases, Bartletts Ferry  
3 discharges directly into Goat Rock Reservoir. So with  
4 that does is it prevents the tail water area from de-  
5 watered. So there's not a lot of erosion that's  
6 associated with changing water levels in the Tailrace.  
7 In addition, there's a lot of bedrock down here on the  
8 shorelines, especially on the east Tailrace side from the  
9 excavation of that channel during construction. So the  
10 shorelines are very stable overall in the Tailrace area  
11 because of the bedrock. In addition, you can see the  
12 riparian vegetation is very dense here. It's dense forth  
13 on both sides. And as you'll see in the aerial photos  
14 I'll show you later, that conviction has been maintained  
15 since the 1980s and way before then. It's a very stable  
16 riparian vegetation.

17 Shoreline Reconnaissance Survey Findings are  
18 summarized here for some of the key parameters we looked  
19 at. If you'll recall, there was a metrics for shoreline  
20 vegetative buffer zone condition. And the three  
21 categories were natural, landscape natural or landscaped.  
22 And across the columns at the top, you see the  
23 abbreviations for the Lower Reservoir, the Halawakee  
24 Embayment, the Upper Reservoir and the Tailrace. And one  
25 of the things that you see is that the natural shoreline

1 conditions were most prevalent in the Upper Reservoir.  
2 And that's kind of been a recurring theme the last couple  
3 of days as a less developed condition of the Upper  
4 Reservoir. And then you'll also see that the landscaped  
5 and the landscaped natural conditions were more prevalent  
6 in the Lower Reservoir and the Halawakee Embayment where  
7 there are more residential properties along the  
8 shoreline.

9 In terms of banks' stability, all of the sites  
10 throughout the reservoir are very stable or moderately  
11 stable overall. There were only two sites that rated as  
12 having moderately unstable banks. And we didn't rate --  
13 find any sites that had unstable banks according to the  
14 definitions on the form. One of the reasons why the  
15 banks' stability is in good condition even when there's  
16 not a lot of natural vegetation is due to the use of  
17 Shoreline Structural Stabilization. And you can see that  
18 in the Lower Reservoir and the Halawakee Embayment, a  
19 high proportion of the sites utilize either seawalls,  
20 riprap or a combination of seawalls and riprap.

21 The majority of the sites that exhibited low  
22 potential for future erosion problems. This plot plots  
23 two of our metrics on bank conditions. On along the  
24 bottom is banks stability with unstable on the left, to  
25 stable on the right. The left or the Y-axis plots the

1 vegetative protective condition from poorly vegetative in  
2 the bottom to well vegetative in the top. So a stable  
3 well-vegetative bank is going to be here at the top  
4 right. And a stable bank that's -- doesn't have --  
5 that's poorly or just moderately vegetative would be in  
6 the bottom right. The mass majority of the sites, all  
7 but two are over on the stable side of the plot. And one  
8 other thing I'll point out is that those sites that have  
9 a hard square around them have Shoreline Structural  
10 Stabilization Practices present. So the colors are also  
11 key to the different areas of the lake. So let's look at  
12 the top-right quadrant, the green sites are the Upper  
13 Mainstem Reservoir. So most of them are well-vegetated  
14 and stable. And most of them do not have Shoreline  
15 Structural stabilization Practices.

16 Now, let's look at the yellow sites which are the  
17 Lower Mainstem Reservoir. Most of them also are stable,  
18 but they are down here in this zone. They don't have as  
19 much natural vegetation but they have Shoreline  
20 Structural Stabilization present which helps maintain the  
21 integrity of the bank. These two sites, 15 and 6, were  
22 the only two that we identified with unstable bank  
23 conditions, and I'll show you pictures of those in a  
24 moment. One of them, No. 6, is the Chattahoochee Valley  
25 Park, the access point on the Alabama side. And the

1 other is a forested island down in the lower portion of  
2 the lake.

3 The potential sources of erosion, of shoreline  
4 erosion, that were identified included the following  
5 potential sources: The top four or five are residential  
6 landscape, storm-water runoff, wave action from  
7 watercraft, lack of natural vegetation, land disturbing  
8 activity and so on from the most frequently observed to  
9 the least frequently observed. And you'll note here that  
10 most of these sources were identified in the Lower  
11 Reservoir and the Halawakee Embayment. And this of  
12 course is the portion of the lake again that has the most  
13 residential development, it's the largest part of the  
14 lake, the widest. There's the most boating activity the  
15 most wave action, the most potential for prevailing winds  
16 to have influences on the shoreline. And so it seems to  
17 follow that you would have these sources more prevalent  
18 in these areas.

19 As you can see in the Upper Reservoir, which is much  
20 narrower, fewer homes, more naturally vegetative  
21 shoreline. A very infrequent occurrence of these various  
22 sources of potential sources of erosion.

23 Let's now look at the Shoreline Structural  
24 Stabilization Practices that were identified. These are  
25 the proportionate shoreline with structural

1 stabilization. So if it had structural stabilization,  
2 wood practice was in place. That's what this shows. So  
3 those that had structural stabilization, 39 percent had  
4 seawalls only, 38 had riprap only, and 21 percent had  
5 seawall and riprap combined. So in a way if you look at  
6 these two together about 60 percent of the stabilization  
7 practices use the riprap, either on its own or at the  
8 base of the seawall.

9 We go through a few representative photographs from  
10 each area of the reservoir pointing out some of the  
11 conditions we've mentioned. This is the Lower Reservoir.  
12 And this is just a typical landscape site with a  
13 residential property and a dock. This one would be a  
14 landscape natural site. There's a home back here, but  
15 there's still a lot of natural vegetation and some  
16 emerging vegetation that provides nice fish habitat.  
17 This one in the bottom left is a naturally vegetative  
18 site, and it's an island. This is one of the ones that  
19 we identified with moderately unstable banks. You can  
20 see here the steep red eroded condition. And in part,  
21 it's just due to the steepness of island itself. It's  
22 highly vegetative, and it's probably a fairly stable  
23 condition overall in terms of its change. But it is an  
24 eroding bank, and we rated it as moderately unstable.  
25 This is another landscape site.

1                   This is a few representative sites in the Halawakee  
2                   Embayment. This would be a landscaped site, landscaped  
3                   natural, still a lot of tree cover and native vegetation  
4                   around it. This is a natural site, undeveloped. And  
5                   that would be a landscape site. This is the Upper  
6                   Reservoir. This includes two that are landscaped  
7                   natural. There's a home site back here, so that's  
8                   landscape natural, this one is landscape with a lot of  
9                   natural retained conditions. And then these other two  
10                  are natural. The majority of the sites in the Upper were  
11                  natural.

12                  This left-hand column shows the Tailrace area, which  
13                  we looked at from the dam. This would be the east side  
14                  of the Tailrace, the Georgia side. And you can't see  
15                  this lighting very well, but this is a really steep rock  
16                  face right here that was excavated during construction of  
17                  the Tailrace. Very stable overall, there's vegetation on  
18                  top. And this would be the east -- the west side on the  
19                  Alabama side looking downstream from the dam, off to the  
20                  right. You can see the densely vegetative nature of the  
21                  riparian zone, and its high level of stability there.

22                  The next slide is over here in the right column show  
23                  you a shot of each of the public access sites. This is  
24                  Blanton Creek Park. And you're really looking into a  
25                  cove in Blanton Creek. The park is over here. You can't

1 see that much of it from this view. But overall the cove  
2 is in a highly stable natural condition. And Mitch  
3 Oliver who was here yesterday, the game warden, mentioned  
4 that duck hunting occurs up in this area quite  
5 frequently.

6 Down in the bottom right is Idle Hour Park and this  
7 is a boat ramp. You can see a boat on the right side,  
8 and the highly vegetative condition over to the left and  
9 the dock in the front. These are the public recreation  
10 access sites in Alabama. This is Po Boy Landing. This  
11 is Chattahoochee Valley Park. This is the other site we  
12 rated as having moderately unstable conditions associated  
13 with this eroding bank here. And at the prevailing  
14 condition contributing to that is there's a lot of human  
15 traffic in that area for recreation access and the lack  
16 of natural vegetation at that point on the shoreline.

17 This is the Halawakee boat access in Alabama. This  
18 is when they were paving the boat ramp or restoring the  
19 boat ramp, that's now been completed. And the bottom  
20 right is Riverview Park, which is hard to see in this  
21 photo, but it's up here in the floodplain above the  
22 shoreline.

23 Okay. Now, let's look at the temporal comparison of  
24 shoreline areas. This is sort of the change since 1988.  
25 And what we did is we picked out several representative

1 areas of the project represented by these rectangles.  
2 And compared aerial photography for each of these areas.  
3 And we picked these areas because they rep -- they  
4 included undeveloped areas in the Upper end, more  
5 developed areas in the Lower end. It included Mainstem  
6 Reservoir, and Upper and the Lower. As well as tributary  
7 embayments, as well as areas in Georgia and Alabama. So  
8 we tried to get good coverage, representative coverage of  
9 the different areas of the lake.

10 So first, I'm going to talk about the Upper  
11 Reservoir. And I think we think we looked at Osanippa  
12 Creek Embayment to get an idea of where we're going to be  
13 looking at from here. And then we looked at Mountain Oak  
14 Creek over here. Upper Halawakee, Lower Halawakee. We  
15 call this the Lower Mainstem, and then Bartletts Ferry  
16 Dam. And so what you'll find in the report are these  
17 comparative images of each of these areas from typically  
18 1998 or 1993 to 2010. We did not have '88 photography  
19 for the Upper Reservoir, so we had to use the black and  
20 white imagery from 1993.

21 But overall, what you can see is the -- the lack of  
22 change in the riparian condition or surrounding  
23 vegetative cover from 1993 to 2010 in the Upper part of  
24 the lake. This is Johns Island out here in the middle.  
25 It's changed very little with respect to its vegetative

1 cover. The same up here. This is Riverview Shoals in  
2 the upper end where you heard about the shoal baths.  
3 This is the City of Valley over in upper west side.  
4 There has been some additional residential development in  
5 this area of Valley, but it's been away from the  
6 shoreline for the most part. And today's condition of  
7 the shoreline remains relatively unchanged compared to  
8 the early 90s. This would be the wildlife management  
9 area over here, Blanton Creek Wildlife Management area,  
10 which includes these islands. And you can see the  
11 Georgia DNR's management of that has helped maintain the  
12 integrity of the shorelines throughout this area.

13 This is the Osanippa Creek Embayment. And this  
14 would be the main channel of the reservoir flowing down  
15 south. And this is Osanippa Creek coming in. And the  
16 kinds of comparisons we made are qualitative overall. It  
17 can be difficult with the lower resolution of the aerial  
18 photography to pick out or be very quantitative about the  
19 differences. But what we did see is that first of all,  
20 there's not a lot of change in the land use around this  
21 site, around this area of the project. This is still  
22 well forested in the general vicinity.

23 When you look in more closely at the shoreline, you  
24 see that additional development of residential properties  
25 or improvements that have occurred. There were a lot of

1 residential areas already in place with docks and  
2 boathouses in 1998. It's easier to pick them out of the  
3 recent imagery because of its high resolution. But if  
4 you look at this closely, you'll see there are a few new  
5 homes, a few more docks here and there. In general, a  
6 little more residential development that's occurred over  
7 time.

8 There's still a fair amount of undeveloped  
9 shorelines on the westside of this image around these  
10 islands. And there really hasn't been any major changes  
11 in the overall configuration of the shorelines that you  
12 can see that might have resulted from erosion. And in  
13 part that would be due to the structural stabilization  
14 practices that are used at the residential properties.  
15 We did -- I think we had a couple of survey sites in this  
16 area. And the report tells you what their ratings were.  
17 I think these would have been landscaped or landscaped  
18 natural sites that we found here.

19 This is the Mountain Oak Creek Embayment, and we  
20 included three images for it from 1988, 1999 and 2010.  
21 And we -- what we found interesting was this commercial  
22 pine stand which is not Georgia Power property. It's  
23 owned by some other entity, and it is outside of the  
24 project boundary which is the yellow line here. And you  
25 can see that it had been recently clear-cut in 1988. It

1 was at some pre-harvest stage in 1999. And then in 2010,  
2 it was probably in some regenerative stage, so it's sort  
3 of a cycling of that commercial pine stand is evident.

4 Overall, you don't see a lot of change in the  
5 surrounding land use north or south. But where you see  
6 the most change would be associated with the road  
7 crossing up here, and the homes in this area. There's  
8 been more in-fill of residences, and today you'll see  
9 more boathouses and docks and so forth right in this  
10 zone. Another thing that we noticed more qualitatively  
11 from being in the field and little bit off of this photo  
12 was an increase in the sediment deposition up in this  
13 embayment, in Mountain Oak Creek. And that would be due  
14 to watershed development that's occurring upstream in the  
15 project and increased rates of sediment transport into  
16 these tributary embayments. And Mountain Oak Creek in  
17 particular appears to show some evidence of that.

18 This is the Upper Halawakee Creek Embayment. We  
19 shifted back to the Alabama side. And earlier we had  
20 identified the Opelika, the City of Opelika water intake  
21 over on this side. This is the water treatment plan they  
22 have here near the intake, which is somewhere in this  
23 zone. And you can see from 1993 to 2010, that plan has  
24 increased in size and we know they increased their  
25 authorized withdrawal to 42 MGD, the permanent

1 withdrawal. And then if you look at the surrounding  
2 area, again, you can see some areas that have been  
3 cleared. This one looks like it was cleared for a  
4 hayfield or something. But there were a large number of  
5 residences in this area, and if you look carefully some  
6 of those have probably filled in additional residences or  
7 improvements and some additional boathouses and that type  
8 of thing. But overall, again, we don't see like dramatic  
9 changes in the surrounding vegetative cover as you get  
10 beyond the Project boundary.

11 This is further down in that same embayment, the  
12 Lower Halawakee Creek Embayment from 1993 to 2010.  
13 Again, we're suffering a little bit here from the image  
14 quality on '93. There are definitely are boathouses and  
15 docks and such here when you look carefully under good  
16 lighting conditions. But you'll find more of them for  
17 sure in 2010 in greater development on some of these  
18 peninsulas of homes and such. You have to keep in mind  
19 too the differing times of year. All the older  
20 photography was in the winter, which is nice because the  
21 trees are -- the leaves are off the trees. The 2010  
22 photography was taken in July, but it's higher resolution  
23 so you can still see more I think on it.

24 This is the Lower Mainstem Reservoir on the Georgia  
25 side. I believe this is the Boat Club Road coming down

1 this peninsula for those of you who know this area. And  
2 again, similar trends. You'll find areas that have in-  
3 filled with residential development or a few additional  
4 improved -- additional or improved docks or boathouses.  
5 But the land use hasn't really changed. It's still  
6 residential. And the surrounding areas is still pretty  
7 heavily forested, it makes a pine, hardwood forest.

8 And then finally, this is Bartletts Ferry Dam from  
9 1988 to 2010. We also looked at 1999. It's interesting  
10 in 1988 this would have been just a couple of years after  
11 the east powerhouse was constructed. So you can see the  
12 clearing and so forth that would have been associated  
13 with that construction over here, because this was a  
14 whole entirely newly excavated area. Also the flood  
15 spillway I suppose was constructed around that same time.  
16 You can see it over here. By the time you get to 1999,  
17 you can see it's become well vegetated in the area  
18 surrounding the spillway. And it's now much -- it's  
19 stable in 2010. You see the cleared area for the  
20 spillway itself, but it's filled in with forested growth.

21 This area is another commercial pine stand. It's  
22 outside of the project boundary. It is not owned by  
23 Georgia Power. And again, it shows a similar --

24 Yes, George.

25 MR. MARTIN: I have a question. This is George

1 Martin, Georgia Power. FERC asked me if the labyrinth  
2 weir was built in that 1988 time frame; is that correct?

3 MR. LINDSAY: In the mid-80s, I think. Probably  
4 right before that.

5 MR. MARTIN: Mid 80s?

6 DR. LAYTON: Mid 80s.

7 MR. LINDSAY: I don't know the exact date.

8 MR. COX: Now, I -- something on there, Steve. The  
9 labyrinth weir actually completed quite a bit earlier  
10 than the east powerhouse.

11 DR. LAYTON: Okay.

12 MR. COX: And I'm thinking it was pretty well done  
13 -- I know it would've been done before '88. I'm thinking  
14 it was late 70s to very early 80s. We've got the dates  
15 on that.

16 DR. LAYTON: So this area was cleared for maybe some  
17 other purpose. I don't know. Maybe it was borrowed  
18 material or something. I don't know. I guess I assumed  
19 that it might have been associated with that. So it was  
20 some time earlier than the construction of the east  
21 powerhouse. Okay.

22 This is the commercial pine stand I was referring  
23 to. And the other one point I wanted to make was the  
24 continuing stability and development of the riparian zone  
25 on both sides of the river downstream. It's been

1 forested since 1988. And it's retained that character to  
2 today.

3 So the Shoreline Reconnaissance Survey documented  
4 the use of Structural Stabilization Practices and their  
5 importance really for maintaining the condition of the  
6 shoreline, for minimizing erosion, sedimentation and  
7 protecting against property loss. So we wanted to look  
8 more carefully through the literature review at those  
9 stabilization practices and the relationship to shoreline  
10 fish habitat. And so in the report there's a several-  
11 page literature review provided of the relationship  
12 between these practices and fish habitat. Several of the  
13 studies were done in Wisconsin on Wisconsin lakes back in  
14 the 1990s. One of the studies was done on Texas lakes;  
15 one was done on North Carolina lakes. And then more  
16 recently one of the studies was performed on Martin Lake,  
17 in Alabama on the Tallapisa River.

18 And overall, what these studies found were that the  
19 greater habitat complexity of riprap provides for higher  
20 fish species richness, that's more species; higher  
21 diversity and abundance of fish as compared to seawalls  
22 alone. So when erosion control is necessary, the use of  
23 riprap either alone or in front of seawalls generally  
24 provides better habitat than seawalls alone. And that's  
25 because of the spaces in the rocks that provide cover for

1 small fishes, provides habitat for food sources in  
2 vertebrates and other small fishes. And in general,  
3 that's a better habitat condition that's more physically  
4 complex and variable.

5 Seawalls tend to be a more homogeneous sort of  
6 habitat, and more open and exposed, less areas for fish  
7 to find cover in. But when seawalls are used alone  
8 without riprap, there are other factors that can improve  
9 their habitat complexity, like the use of -- well, if  
10 docks are present or boathouses, those provide cover for  
11 fish. Or if there's emergent vegetation nearby, or other  
12 structural elements that are present that provide habitat  
13 for fish.

14 As far as Bartletts Ferry Shoreline Structural  
15 Stabilization Practices go, Georgia Power Shoreline  
16 Management Guidelines require the placement of riprap  
17 along the base of all new seawalls. So that's consistent  
18 with the finding of those studies, on the importance of  
19 seawalls. And the purpose here is to help stabilize the  
20 seawall but also provides for fish habitat. The  
21 majority, about 60 percent, of the Structural Practices  
22 and Use on Bartletts Ferry incorporate the use of riprap  
23 already. And of the other 20 sites that we surveyed that  
24 used seawalls without riprap, those sites had either  
25 docks or piers or boathouses as other potential sources

1 of fish cover.

2 So Georgia Power Shoreline Management Guidelines  
3 provide for the protection and maintenance of shoreline  
4 stability by requiring a number of elements that are  
5 important to fish habitat. The 25-foot vegetative buffer  
6 zone around the shoreline. And that's required in  
7 Georgia. It's not required by Alabama state law, but  
8 Georgia Power requires it on Bartletts Ferry. The use of  
9 Best Management Practices during any construction  
10 activities as prescribed by the Soil and Conservation  
11 Committees in each Alabama and Georgia. And also the  
12 guidelines require the placement of riprap at the base of  
13 any new seawalls.

14 In addition, shoreline construction, repairs and any  
15 tree removal must be permitted by Georgia Power and  
16 comply with all applicable federal, state, local laws and  
17 regulations.

18 So an overall summary of the Geology and Soils  
19 Report would be the project operations have overall minor  
20 affects on shoreline erosion due to water level  
21 fluctuations or discharge of the tailrace. The majority  
22 of shorelines are stable or moderately stable. Few  
23 shorelines exhibited active erosion problem. Changes in  
24 shoreline conditions and surrounding land uses since 1988  
25 have been relatively minor. Riprap provides better fish

1 habitat than seawalls alone. And about 60 percent of the  
2 current structural practices and use of Bartletts Ferry  
3 use riprap. And then finally, Georgia Power Shoreline  
4 Management Guidelines provide for continued shoreline  
5 protection and maintenance of the project. And that's  
6 the end of that overview.

7 (Whereupon, there was a short  
8 break.)

9 MS. SIMPSON: All right. Joey Charles is going to  
10 proceed on the Cultural Resources Study Report.

11 MR. CHARLES: I'm Joe Charles, Georgia Power. I  
12 work in the Land Management Group, and I'm, among other  
13 things, the cultural resource specialist and I generally  
14 deal with our archaeological and historic resources. Of  
15 course, people may or may not know, that there's a  
16 National Historic Preservation Act, and Section 106 of  
17 that Act charges that federal agencies take into account  
18 the effects on historic properties for various  
19 undertakings like relicensing. So to assist the  
20 commission in that, we conducted a Cultural Resources  
21 Study for the relicensing. And that consisted of an  
22 archaeological field study; a historic -- or a  
23 documentation of the historic hydro resources, which  
24 you've all seen around here on the grounds; as well as  
25 some attempt to consult with federally recognized Indian

1 tribes that have historical or cultural ties to the area.

2 Our resource objectives were to identify and  
3 delineate the area of potential effect, or APE -- you'll  
4 hear me refer to that throughout the rest of the  
5 presentation for the most part -- to identify what's  
6 known historic resources there might be in the area  
7 through a review of the existing literature and data. To  
8 find out what we didn't maybe know was already out there  
9 through field studies. And to make some recommendations  
10 for the resources that we identified, with respect to  
11 eligibility for the National Register of Historic Places.

12 And that's sort of really the key in the cultural  
13 resources studies in the 106 process. We evaluate  
14 whether a site is significant and worthy of protection  
15 and preservation or not by whether or not it meets  
16 certain criteria to make it eligible or for the --  
17 considered for listing on the National Register of  
18 Historic Places.

19 And again, as I mentioned, we're also making  
20 attempts to consult federally recognized Indian tribes  
21 throughout the relicensing process and I'll touch more on  
22 that towards the end of the presentation.

23 The study area, you've seen this figure probably  
24 throughout the different resource presentations. The  
25 study area for the relicensing project coincides very

1           closely with the area of potential effect that we  
2           identified for our cultural resources studies. You may  
3           see, I have sort of broken down into two different areas  
4           of potential effect with yellow highlighting the area of  
5           potential effect for archaeological resources, and the  
6           sort of blueish-green area identifying the area of  
7           potential area of effect for historic hydro resources.  
8           And I'll talk more about historic hydro in a little bit,  
9           but first I'll get to the archaeological part of our  
10          study.

11                 For this, and most of our projects, we hired a  
12          professional cultural resources consultant. It was firm  
13          that we had actually used in the past on other  
14          relicensing projects such as Middle Chattahoochee,  
15          Downstream, Morgan Falls, Upstream. And we chose them  
16          primarily because they are familiar with our types of  
17          resources and with the relicensing process, and we  
18          thought it would be a good fit.

19                 We began the study with the review of available  
20          literature and data. We found there had been a few  
21          studies done in the vicinity, most of them having to do  
22          with the hydro project. A few south of the projects that  
23          were done really in coincidence with the construction of  
24          the new power house on the east side as well as with the  
25          Labyrinth weir back in the early '80s. Two resources

1           that I'll talk more about and that were really more  
2           important in formulating our survey strategy for the  
3           project were done in 1983 and '84, also in coincidence  
4           with the building of the new powerhouse.

5                     In both of these studies were actually confined to  
6           the Lake Harding basin, if you will, and they were  
7           conducted both during a drawdown, a massive drawdown,  
8           when they actually were doing the construction of the new  
9           power house and units. And that drawdown, was I think  
10          for all practical purposes, down to the original river  
11          channels. So they were actually able to do the  
12          pedestrian coverage at a good bit of the reservoir.

13                    In our field survey consisted of a combination of  
14          pedestrian coverage at the exposed shoreline and of  
15          shovel testing. Based on those two previous things I was  
16          talking about, one being conducted by a student out of --  
17          at a Columbus College now, Columbus State University.  
18          Another, conducted by a professor out of Alabama. Both  
19          of those focused more on the lower portion, what Steve  
20          might have called the lower portion of the reservoir in  
21          the Halawakee Embayment. And for that reason, we made a  
22          priority of our study to sort of upper-third or so of the  
23          reservoir.

24                    This really shows the areas that we covered. We  
25          were actually able to conduct a portion of our survey

1 during a drawdown that occurred in October or November of  
2 2009, drawn-down about 5 to 6 feet. And that was about  
3 44 miles or so of shoreline that we were able to inspect,  
4 at least portions of. And while we were there we also  
5 inspected not only the shoreline of most of the islands,  
6 like Johnson Island, but also did excavation in the  
7 upland areas, if you will, of those islands.

8 And I'll also say that during the drawdown, in  
9 addition to conducting pedestrian coverage of the upper  
10 third or so of the reservoir, we made an attempt to  
11 visit the lower parts of the reservoir and tried to  
12 revisit or relocate some of the sites that were  
13 identified back in the 1984 surveys. There was a total  
14 of I think 148 sites that were identified both through  
15 the Columbus State survey and the Alabama survey.

16 We made an attempt to try to revisit and relocate  
17 and assess some of those sites, because for whatever  
18 purpose neither of those studies really made an attempt  
19 to evaluate the resources and talk about how significant  
20 they were, and so we were trying to do that as well. We  
21 didn't have a lot of luck identifying any of those  
22 previously recorded sites and I think the reason being  
23 primarily, because as I said, there was a major drawdown  
24 in 1984, and I think a lot of those sites that they  
25 identified back then were still submerged even during our

1                   October 2009 drawdown.

2                   We also didn't find a lot in the upper reaches of  
3                   the reservoir as far as exposed shoreline sites. And I  
4                   think the primary reason for that is in that upper  
5                   reaches of the reservoir is definitely a more riverine  
6                   environment, meaning that I think, for the most part,  
7                   river banks that you see at full pool are pretty much the  
8                   same as the banks you see at lower evaluations. There's  
9                   not a lot of potential for hidden land forms that were  
10                  submerged that you might find during a drawdown and find  
11                  sites on.

12                  Just some more shots of the upper reaches of the  
13                  stream during the drawdown. Again, illustrating the fact  
14                  that there's not a lot of potential for land forms that  
15                  were submerged that you might expect to find  
16                  archaeological sites on. As you start to move down in  
17                  the lower part of that upper reach you do get broader  
18                  expanses of shoreline exposure. As you start to see  
19                  tributaries coming in like Osanippa Creek and Blanton  
20                  Creek and the other tributaries. And consequently this  
21                  is where we would find more of our resources during this  
22                  part of the survey.

23                  In addition to survey expose shoreline and the  
24                  drawdown, we also conducted phase one and did some survey  
25                  of certain areas that I call upland tracks. Areas of

1 project lands that exist above the 525 contour. In these  
2 areas we did pretty much stand archaeological survey, 30  
3 meter interval shovel testing of all the areas of the 10  
4 percent slope or less. And then more discretionary  
5 shovel testing coverage of areas of steeper slope, et  
6 cetera.

7 All in all, we found 14 new archaeological sites  
8 that hadn't been recorded before. We found eight  
9 isolated finds of cultural material. An isolated find,  
10 in case you're not familiar with archaeology terminology,  
11 is usually just a single artifacture, maybe a couple  
12 artifacts, that were obviously not found in any intact  
13 setting. They may have been found on the surface of a  
14 dirt road or something like that. So we usually identify  
15 them separately from archaeological sites in recognition  
16 of the fact that they don't have the same potential to  
17 answer research questions that a more intact  
18 archaeological site would have.

19 A couple of the sites that we did find we are  
20 recommending eligible for the National Register and  
21 they'll be dealt with subsequently in our Historic  
22 Properties Management Plan.

23 The second main component of our Cultural Resources  
24 Study was the Historic Hydro-Engineering Survey and of  
25 course that dealt with most of the resources, the actual

1 buildings and the engineering works that you see around  
2 the hydro facility itself. Again, we had the same  
3 professional cultural resources consultant conduct this  
4 survey, and an evaluation began with a review, again, of  
5 available literature and data. And I will say a special  
6 thanks to our head of Corporate Archivist at Georgia  
7 Power, Margaret Calhoun. She has an amazing stash of  
8 photographs and documents from the early history of  
9 pretty much all of our facilities, and we drew heavily  
10 upon her for this portion of the study.

11 In addition to the literature and available data, we  
12 worked in an inventory of photo documentation and  
13 evaluation of all the resources that are out here. This  
14 is a little dark and I apologize for that. But if you  
15 remember earlier I showed you down in the southern part  
16 of the reservoir was our APE for historic hydro  
17 resources, and this is more of a detailed depiction of  
18 that. In addition to the main part of the APE which  
19 includes the area where we are right now, and it's  
20 highlighted in red here.

21 We also tried to do a visual APE, and we did that  
22 using a fuschia model in ARC GIS, during digital  
23 elevation model, and tried to model the areas that you  
24 could see, sort of line of sight from - for the sake of  
25 constructing the model I just picked a central point on

1 the dam. The idea behind this was to - so that we'd be  
2 able to take into consideration any effects that work  
3 that was done on the dam might have on the character and  
4 setting of any historic resources within view of the dam.  
5 It turns out we didn't identify any historic buildings in  
6 any of these U-shaped areas so it won't really play a  
7 role any further in our management going forward.

8 We did find a number of resources in the other part  
9 of the APE, however. All of, as you might guess,  
10 centered around the dam and powerhouse and the support  
11 structures that are all around us here. First and  
12 foremost of course, are the dam and the powerhouse  
13 themselves completed in 1926. And in addition to those  
14 structures there are about six other support buildings  
15 that were constructed around that same time in 1924-25,  
16 and were actually used in the construction of the dam and  
17 powerhouse. So they were of course surveyed and included  
18 in our resource study. This is a carpentry shop that was  
19 used during the construction of the dam and powerhouse.  
20 A storage and maintenance building, also circa 1925. And  
21 several garages, which you may have seen on your trip  
22 into the clubhouse today.

23 In addition to those resources, we have a number of  
24 resources that were identified in the second phase of  
25 construction here at the facility. Later, but still

1 historic, and by historic, for those of you who may not  
2 be familiar, Section 106 and evaluating sites for the  
3 National Register dictate that anything over 50 years of  
4 age can be considered as a historic resource if it meets  
5 other criteria. In fact, certain things that are younger  
6 than 50 years of age could also be considered under  
7 special circumstances, but I won't go into that for now.

8 A couple of examples in this later phase of  
9 construction here at the facility were some employee  
10 housing. This is a circa 1951 bungalow, which you may  
11 have seen on your way in. And even this, this is another  
12 employee housing. It was actually originally constructed  
13 as the plant manager's house, a circa 1961 ranch house.  
14 And I know that some people find it odd, but we are in  
15 fact getting into that era now where the actual original  
16 1950's and early '60s ranch houses are considered  
17 historic, because they're 50 years old or older and they  
18 represent a distinctive style of architecture during that  
19 time. So this is also considered in our resource study.  
20 And even the clubhouse we're in right now, built in  
21 circa, again, circa 1951.

22 And I want to just point out again, I know sometimes  
23 it's a little hard for people to understand how that can  
24 be considered historic. And I say that history is  
25 relative, you know. We're not saying that it's important

1 to the civil war history of Georgia, or to the founding  
2 of the United States. We're saying that it's relevant to  
3 the history a) of engineering which it is certainly, and  
4 that it's relevant to the history of early 20th century  
5 Georgia and the changes in development that  
6 electrification brought to the area. So evaluated in  
7 those terms and in that, at the local level or the  
8 regional level, of course we recommend this facility and  
9 the supporting structures that I've brought to your  
10 attention as eligible for the National Register of  
11 Historic Places. And it will probably end up - when you  
12 have a collection of buildings like that that are all  
13 associated with each other and all historic, they will  
14 likely end up including them in a National Register of  
15 Historic District.

16 And just a final component of our study that I'll  
17 touch on is Tribal Consultation. In addition to the  
18 National Historic Preservation Acts and other government  
19 policies and orders including the Commission Zone Policy,  
20 we have to make an attempt to take into account any  
21 comments or concerns that federally recognize tribes  
22 might have, tribes that have ties to the area. And this  
23 consultation is considered government-to-government. In  
24 other words, it's between the Commission and the various  
25 tribal governments that might want to consult. But

1 Georgia Power does have a role in this as the  
2 Commission's non-federal designee. We help with  
3 coordinating the information and would help with any  
4 consultation that might happen in the time going forward.

5 We began this process by helping the Commission put  
6 together a letter that was sent to out to 15 different  
7 tribes that were identified that have historic or  
8 cultural ties to the area. And to date we've heard back  
9 from two of the tribes that basically to say that they  
10 did not wish to consult at this time. But this process  
11 is really pretty open-ended. There's no real time limit  
12 for tribes to consult during the relicensing process. So  
13 we stand ready to receive any comments from tribes and  
14 would aid the Commission in consulting with them if they  
15 wish to do so going forward.

16 We would take whatever input and comments that they  
17 might have with regard to sacred sites, or even  
18 archaeological resources that they might have a historic  
19 or ancestral tie to, and we would incorporate that into  
20 our management plan as appropriate.

21 And that's sort of the final thing I'll mention.  
22 The results of our archaeological survey or historic  
23 hydro survey and any comments that we may receive from  
24 tribes going forward will help us to formulate our  
25 Historic Properties Management Plan which will spell out

1           what resources are out here, how we plan to treat them,  
2           how we plan to treat any new discoveries of resources  
3           during the time of the license, et cetera.

4                       We will have - not only will any tribes that wish  
5           to consult or have a role in that, but the Georgia  
6           Historic Preservation Division and the Alabama Historical  
7           Commission, which are both entities which serve as those  
8           state's SHPO, or State Historic Preservation Office, but  
9           also have a role in consulting with us and coming up with  
10          guidelines to be set for managing our historic  
11          properties.

12                      And so just a quick summary. Of course we  
13          inventoried and evaluated archaeological sites of the  
14          project. We found 14 sites, two of which we have written  
15          as eligible for the National Register, the inventory to  
16          evaluate if the historic hydro-engineering resources.  
17          The total number escapes me off the top of my head, but  
18          we are planning on leaving the buildings that I've  
19          mentioned to you in a historic district. And we'll just  
20          continue, like I said, to await responses from tribes on  
21          an ongoing basis.

22                      MS. SIMPSON: Any question for Joey Charles on the  
23          Cultural Resources Study?

24                      MS. FLORENTINO: Sarah Florentino with FERC. I'm  
25          sorry, Martin. I just wanted to double check, for the

1 APE area of potential effects, did you get concurrence  
2 from the Alabama and the Georgia SHPOs on the those  
3 verbally?

4 MR. CHARLES: We did, and I know there -- we had a  
5 little bit -- and I had gotten some verbal confirmations  
6 originally, and then asked for written confirmations. It  
7 took a while to wrangle those out, but I did eventually  
8 get written concurrence from both agencies.

9 MS. SIMPSON: Morton.

10 MR. REED: Morton Reed. Are these sites are within  
11 the project boundary?

12 MR. CHARLES: Yes, sir. Yeah, and it is kind of  
13 interesting because for, you know, of course a lot of the  
14 project, the 525 is the project boundary, but there are,  
15 those certain tracks that I can refer to as upland  
16 tracks. I think is close to 800 acres is all totaled of  
17 various tracks.

18 MR. REED: They are above the dam?

19 MR. CHARLES: Yes.

20 MS. SIMPSON: Any other questions? Allan. No.  
21 Going once, going twice. I think that concludes. Thank  
22 you very much, Joey. George, do you want to say a words  
23 about how we're going to proceed from this point?

24 MR. MARTIN: Sure. I guess first of all, are there  
25 any questions about any of the non-resource areas that

1 we've gone over the past three days? We can take them up  
2 now if there are. And if not, you all remember the slide  
3 that I shared with you in the beginning which talked  
4 about the process planning schedule that's been written  
5 concurrent with the integrated licensing process. And  
6 that process planning schedule is attached to your  
7 Agenda.

8 And you'll see that the next step is Georgia Power's  
9 responsibility to file a meeting summary from these three  
10 days of study results meetings. And we will do that by  
11 April the 18th of this month. And then the stakeholders  
12 have 30 more days to file any comments on the summary  
13 itself. And then we move on into responding to those  
14 comments as appropriate. And then the Commission will  
15 review those steps and those conversations that have  
16 taken place since this meeting and if there's --.

17 MS. SIMPSON: George, let me just - I think you  
18 stepped over some of it. The stakeholders have until May  
19 the 18th, not only to comment on the meeting summary, but  
20 also on the study. Isn't that --?

21 MR. MARTIN: Well, the way the regulation is written  
22 is that they'd have - it's written that they have - we  
23 file the study results, and then they have the  
24 opportunity to file disagreements on the summary. But  
25 that does not prevent them from commenting on the reports

1                   themselves --

2                   MS. SIMPSON: I'm sorry.

3                   MR. MARTIN: -- is commonly is done. And then as I  
4                   said, the Commission will take a look at that  
5                   conversation that has continued after these tests results  
6                   meetings between Georgia Power and the stakeholders, and  
7                   that if there are any disagreements that remain that we  
8                   were not able to address on our own, then they will step  
9                   in and help us to resolve those disagreements. And if  
10                  there are modifications warranted to the studies that we  
11                  have completed then those modifications will be further  
12                  considered and negotiated and we'll have an outcome to  
13                  that.

14                  And then, as I said earlier, we will move into  
15                  preliminary licensing proposal meetings which are to  
16                  would take place in September. Those are not required by  
17                  the regulations. And after that, we will file the  
18                  preliminary licensing proposal itself in the November  
19                  time-frame.

20                  MS. SIMPSON: Probably the Wednesday before  
21                  Thanksgiving.

22                  MR. MARTIN: Yeah. So is there anything else from  
23                  anybody? If not, we do appreciate, again, your expertise  
24                  and your time in coming to these meetings and that's  
25                  going to conclude our meeting unless anybody has anything

1 else to say.

2 MS. SIMPSON: I think not. I believe lunch is  
3 arriving, so everybody, please join us for lunch.

4 MR. MARTIN: Stick around for lunch or at least grab  
5 a box --

6 MS. SIMPSON: Before you hit the road.

7 MR. MARTIN: If you want to take one with you. But  
8 thanks again to everybody.

9 (Whereupon the meeting concluded at 11:57 a.m.)

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C E R T I F I C A T E

STATE OF GEORGIA  
COUNTY OF GWINNETT

I, Janine Hohm, hereby certify that the foregoing proceedings were taken down, as stated in the caption, and were reduced to typewriting by me; that the foregoing transcript is true, correct, and complete of the said proceedings;

I further certify that I am not a relative, employee, attorney, or counsel of any of the parties in the action.

This, the 5th day of April 2011.

\_\_\_\_\_  
Janine Hohm  
Certified Court Reporter  
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