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December 18, 2009

#### VIA Electronic Filing

Ms. Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street NE Washington, DC 20426

Initial Study Report Meeting Summary for the Martin Hydroelectric Project (FERC No. 349-150)

RE:

Dear Secretary Bose,

A SOUTHERN COMPANY

Alabama Power Company (Alabama Power) is utilizing the Federal Energy Regulatory Commission's (FERC) Integrated Licensing Process (ILP) to complete the relicensing process for the Martin Dam Hydroelectric Project (FERC No. 349-150). On December 3, 2009, Alabama Power held an Initial Study Plan Meeting pursuant to 18 C.F.R. Section 5.15 (c) of the ILP. Alabama Power presented the study information that has been collected to date on each study, as appropriate, and then summarized the proposed schedule and technical modifications to the existing studies. A list of meeting attendees and a summary of the meeting is presented in Attachment A. Alabama Power has posted the PowerPoint presentations of the December 3, 2009 meeting at http://www.alabamapower.com/hydro/m\_meetingsummary.asp. As discussed in our November 20, 2009 filing of the Initial Study Report, Alabama Power is proposing minor schedule modifications to various studies and one technical modification to Study Plan 12(a).

If you have any questions regarding the Initial Study Report Meeting Summary, please contact Mr. Jim Crew at (205) 257-4265 or jfcrew@southernco.com.

> Very Truly Yours, Zym R. Cllin

Eugene B. Allison Hydro General Manager Alabama Power Company

Attachment A

cc: (w/attachments):

Mark Pawlowski, FERC Lee Emery, FERC

Martin Project Stakeholder Distribution List

# ATTACHMENT A INITIAL STUDY REPORT MEETING SUMMARY

## ALABAMA POWER COMPANY MARTIN RELICENSING INITIAL STUDY REPORT MEETING

## CENTRAL ALABAMA COMMUNITY COLLEGE ALEXANDER CITY, AL DECEMBER 03, 2009

## **ATTENDEES:**

Name	Organization
Charles Borden	Lake Martin Resource Association (LMRA)
Jim Crew	Alabama Power
Henry Mealing	Kleinschmidt Associates
Will Denton	Lake Martin Resource Association (LMRA)
Dave Anderson	Kleinschmidt
Jim Hancock	Balch and Bingham
Katie Cole	Alex City Outlook/LAKE magazine
Judson Edel, Sr.	Homeowner
Mitch Reid	Alabama Rivers Alliance (ARA)
Bill Deutsch	Alabama Water Watch (AWW), Au Fisheries
David Windsor	Lake Martin Homeowners and Boat Owners (HOBO)
Jesse Cunningham	Lake Martin Homeowners and Boat Owners (HOBO)
John Glasier	Lake Watch of Lake Martin
Dick Bronson	Lake Watch of Lake Martin
George Uhrin	Lake Watch of Lake Martin/Lake Martin HOBO
Dick Duncan	Lake Watch of Lake Martin/Lake Martin HOBO
Walter Ramey	Alabama Power
Amanda Fleming	Kleinschmidt
Andy Sheppard	Alabama Power
Ericha Nix	Alabama Department of Conservation and Natural Resources
	(ADCNR)
Jimmy Lanier	Cherokee Ridge Alpine Trail Association (CRATA)
Judy Takats	World Wildlife Fund (WWF)
Bob Morris	Central Elmore Water and Sewer Authority (CEW and SA)
Robert Prince	Central Elmore Water and Sewer Authority (CEW and SA)
J. Carey Mullican	Lake Watch of Lake Martin/Lake Martin HOBO
Dave Heinzen	Lake Watch of Lake Martin/Lake Martin HOBO
Walter Stevenson	Homeowner
Michael Harper	Alabama Department of Economic and Community Affairs-
	Office of Water Resources (ADECA-OWR)
R.B. Walker	Alabama Power
Angie Anderegg	Alabama Power
Thomas Dozier	Farmer, Downstream Property Owner

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Hassey Brook	Alabama Department of Agriculture, Behalf of Commissioner
	Ron Sparks
Steve Krotzer	Alabama Power
Chris Greene	Alabama Department of Conservation and Natural Resources
	(ADCNR)
Nick Nichols	Alabama Department of Conservation and Natural Resources
	(ADCNR)
Ashley McVicar	Alabama Power
Brandon Glover	Alabama Power
Steve Forehand	Lake Martin Resource Association (LMRA)
Mark Tuggle	Alabama Power

#### **MEETING NOTES:**

These notes summarize the major discussion items and are not intended to be a transcript or analysis of the meeting.

Jim Crew (Alabama Power) welcomed the group and explained that this meeting was part of the Integrated Licensing Process (ILP) and the purpose of this meeting was to review Alabama Power's proposed modifications and receive comments on any stakeholder proposed modifications to the 22 Martin Study Plans. Jim reminded the group that most of the Alabama Power proposed modifications were to the schedule of various study plans and there was only one real substantive change to one study plan.

Jim also informed the group of the upcoming process milestones:

- December 18, 2009 Alabama Power files a meeting summary of the December 3<sup>rd</sup> meeting
- January 18, 2010 Stakeholders file with FERC any study disagreement or suggested modifications to the studies
- February 18, 2010 Alabama Power files response to any disputes/study requests
- March 22, 2010 FERC makes determination if disputes exist

Henry Mealing (Kleinschmidt), Dave Anderson (Kleinschmidt), and Jim Crew then reviewed each study and summarized the study goals, the work completed to date, and the proposed modifications to each of the Study Plans.



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The presentations are available at: <a href="http://www.alabamapower.com/hydro/m\_meetingsummary.asp">http://www.alabamapower.com/hydro/m\_meetingsummary.asp</a>.

After each study presentation, stakeholders had a chance to ask questions and/or offer comments.

These questions, responses, and comments are summarized below.

#### Study Plan 1 Migratory Fish- Tallapoosa Literature Review

• Judy Takats (World Wildlife Fund) asked when the Martin Issue Group (MIG) 1 members would receive a copy of the American eel information shared with the resource agencies. Henry explained that Alabama Power is organizing the raw information into a more easily reviewable form and it should be available with the draft report in January. Henry further clarified the due date for all draft and final reports are the last day of the month indicated by the schedule (attached). Henry went on to say if Judy, or anyone else, would like the "raw" information, they could contact Jim for a copy immediately.

# Study Plan 2 Assessment of the Influence of Shoreline Modifications on Aquatic and Seim-Aquatic Species' Use of Various Shoreline Types

- A stakeholder asked if any recommendations on types of shoreline protection would be included in the report. Henry replied there would be and that preliminary results showed rip-rap is probably the best modified shoreline type. Henry further explained that complexity of the shoreline is key to habitat availability. Nick Nichols (ADCNR) also indicated this would be the first research in Alabama they are aware of that would show this.
- Henry noted that portions of this study were complete and that a CD of completed MIG 1 reports will be distributed to MIG 1 members in December 2009.
- John Glasier (Lake Watch) asked about the low chlorophyll *a* results presented at the October 21 meeting. Henry confirmed that these results are being reviewed by Wendy Seesock and Bill Deutsch (Auburn University).

#### Study Plan 3 Evaluation of Minimum Flows Downstream of Martin Dam

- Paddlefish spawning in the Tallapoosa River downstream of Thurlow Dam has been identified as a concern by the agencies. Alabama Power reviewed paddlefish spawning literature and noted that spawning generally takes place during March and April as water temperatures rise and is triggered by flows of 6,000 cfs. Angie Anderegg (Alabama Power) reviewed the Thurlow Dam operation records and reported that flows of 6,000 cfs or more occur regularly at Thurlow Dam (as many as 30 days in a row) except in drought years.
- Mitch Reid (Alabama Rivers) asked how the MIG 3 (Operations) studies would be incorporated with this study. Henry noted that the frequency/duration flood modeling would be incorporated into Study Plan 3 analysis.
- Charles Borden (LMRA) inquired if the high water levels (due to a wet fall season) would affect the study results. Henry said that information from this year would be incorporated



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into the HEC-RAS modeling results and Pam McDaniel (Alabama Power) will revisit erosion sites to see the influence of the high water downstream of Martin Dam.

#### **Study Plan 4 Fish Entrainment and Turbine Mortality**

• Jesse Cunningham (HOBO) asked how fish entrainment and impingement at Martin Dam compares to dams on the Coosa River. Henry explained that only desktop analyses were performed on the Coosa River Projects. Preliminary results on Martin show that field entrainment and mortality rates are lower than desktop analyses. Henry suggested that deep intakes, low fish density in the forebay (compared to the main channel of the lake), and blade spacing in the Martin turbines contribute to the low fish kill levels.

#### Study Plan 5 Rare, Threatened, and Endangered Species

• John Glasier asked where the Sandy Creek site was located. Steve Krotzer (Alabama Power) replied it is around Agricola Road. John indicated this is a good area of Sandy Creek for RTE surveys.

#### **Study Plan 6 Striped Bass Telemetry Study**

• No comments or questions.

#### Study Plan 7 Wildlife Management Program

- Alabama Power has held two meetings with the USFWS and ADCNR to develop the Wildlife Management Program. The focus of the Program is developing longleaf pine habitat.
- No comments or questions.

#### **Study Plan 8 Baseline Water Quality**

- Henry reported that the nutrient study performed in 2009 would be extended with additional sampling at 8 stations for 5 months (November March).
- John Glasier asked if baseline water quality data would be available before the draft report. Henry and Angie said that the baseline water quality information would be available and that the draft report would include the nutrient data as an addendum.
- John also wanted to clarify that the sampling collected during the Rule Curve Variance and reported the Martin Preliminary Application Document includes nutrient data.
- Henry told the group that this study may now include a panel discussion in late summer or early fall to discuss the data collected and how lake level changes, if implemented, may influence water quality.
- John and Bill Deutsch asked about sharing nutrient data within Auburn University. Henry explained that while techniques can be discussed, the data/results belong to Alabama Power



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and can be shared within Auburn but should not be published until the draft report is filed with FERC.

#### **Study Plan 9 Location of NPDES Permits on Lake Martin**

• A stakeholder asked if the information reported would be just for locations inside the project boundary. Angie Anderegg stated that the information on NPDES permits will be for the Tallapoosa Basin from Harris Dam to Martin Dam.

#### **Study Plan 10 Erosion and Sedimentation**

- Henry reported that the Erosion study sites had been selected based on input from Alabama Power contractors and other stakeholders. Sedimentation sites were selected using LIDAR and aerial photography taken at elevation 479 msl.
- Jesse Cunningham will email Pam McDaniel about an additional erosion site.
- Mitch Reid asked about downstream erosion (Study 12 (d)). As part of the Thurlow license, erosion spots were analyzed in 2009 and will be revisited to determine the effects of high water levels. Henry further explained that Alabama Power will look at up to 10 more sites between the Hwy. 229 Bridge and the Montgomery Water Works as part of Study 12 (d).

#### Study Plan 11 Water Quantity, Water Use, and Water Withdrawals

- All information needed for the study has been collected.
- No comments or questions.

#### Study Plan 12 (a) Rule Curve Change Modeling Analysis

- Jim Crew and Ashley McVicar (Alabama Power) led the discussion on this study plan.
- Judson Edel (homeowner) asked if changes in lake level would be implemented in a staged fashion or all at once. Jim Crew responded that if lake level changes are implemented, it would be done at one time.
- Jim Crew explained that the models are essentially complete and Alabama Power is currently writing the draft report and beginning to evaluate impacts.
- The third modeling workshop will be held in late January 2010 to review the modeling results
- Ashley explained the proposed modifications to the study plan. Alabama Power will work
  to quantify impacts of lake level changes to the area downstream of Martin Dam. Alabama
  Power will determine acreage affected, land types, and land use. GIS maps will be provided
  by AMEC. Jim Crew noted that these tasks have been planned as part of the study all along
  and are simply being documented here.
- Jesse Cunningham asked how the monthly flood analysis would be included in the report. Jim Crew said those results would be included in the draft report, likely in an appendix.



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- Ashley explained that Stacey Graham (Alabama Power) conducted HEC-ResSim modeling at the suggestion of the Corps of Engineers (Corps) but those models did not capture flood control capabilities and did not allow for the ability to store water in the Martin Reservoir. The Corps does plan to write these rules into the program but Alabama Power has not yet received these changes. As a result, Alabama Power is using the Alabama Hydro Energy Budget (generally used for economic-energy production analysis) to account for storage when modeling the magnitude and frequency of flooding.
- John Glasier asked if the draft report will have conclusions. Jim Crew said it may have some sort of concluding statements, but the individual resource studies will still have to look at impacts of each modeled one foot increase in lake levels.
- Mitch Reid asked if Alabama Power was modeling low water flows. Ashley said there were no drought contingency cutbacks in HEC-ResSim.

# <u>Study Plan 12 (b) Effects of a Rule Curve Change on Sedimentation Rates and Nuisance Aquatic Vegetation</u>

- Henry stated that analysis for this effort has begun. He also stated that Spiny-leaf Naiad has been detected in the Martin Reservoir.
- John Glasier inquired about the definition of nuisance vegetation. Henry explained that the ADCNR maintains a list of invasive/exotic species they are using.

#### Study Plan 12 (c) Effects of Rule Curve Change on Water Quality

- Bill Deutsch asked if the analysis assumed nutrient loading would remain at a steady state. Henry said "yes". We will assume that the Alabama Department of Environmental Management (ADEM) will be aware that allowing an increase in nutrient loading could change water quality in the lake (and Alabama Power cannot regulate nutrient loading).
- Judy Takats asked if ADEM requested that Alabama Power perform any "what if" scenarios regarding water quality. Henry noted that the 401 certification was the only current request from ADEM.

### Study Plan 12 (d) Effects of a Rule Curve Change on Lake and Downstream Erosion

- This study was discussed earlier in the meeting and reflected in previous notations.
- No additional comments or questions.

# Study Plan 12 (e) Effects of a Rule Curve Change on Federally Threatened and Endangered Species at the Martin Project and the Tallapoosa River Downstream of Thurlow

- Additional sampling will be conducted above Fort Toulouse and between the Montgomery Water Works.
- No comments or questions.



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#### Study Plan 12 (f) Effects of Rule Curve Change on Downstream Recreation

- Dave Anderson led the discussion on the next four study plans.
- John Glasier asked about downstream flow requirements below Thurlow. Ashley explained that the minimum flow (1,200 cfs) was the only requirement and despite the confusion, 2,400 cfs was not required in the license as part of the 4,640 cfs navigation flows from the Coosa and Tallapoosa.

# <u>Study Plan 12(g) Effects of Raising Winter Pool Level and Increasing the Duration of Summer Pool on Lake Martin Recreation Use and 12(h) Effects of Raising Winter Pool Level and Increasing the Duration of Summer Pool on Lake Martin Economic Indicators</u>

- Jesse Cunningham offered the following comments on the property owners questionnaire: MIG members were not consulted before the questionnaire was distributed and when Jesse contacted Rob Southwick to review the study, there was not a question regarding the usability of docks; several homeowners have complained that the survey is complex; the six water level scenarios are presented in msl and the questions have water levels in Martin Datum; the six scenarios divide the shoulder seasons and raising of the winter pool level; and the surveys were not anonymous.
- Jim Crew explained that Southwick Associates is a professional firm specializing in natural resource related surveys, and Alabama Power will rely on their expertise to handle the survey. He noted that sharing the questionnaire would have biased the results. He stated that this is a complex issue and is reflected in the details of the questionnaire.
- Dave explained that most survey research is not completely anonymous; however, respectable survey researchers stake their reputation on never identifying survey participants. Southwick has committed to destroying any personally identifiable information after the project is completed.
- Jim Crew suggested that the HOBO submit their comments to FERC.

#### Study Plan 13 Shoreline Management Program

- The draft SMP will be emailed in December not November 2009.
- The next MIG 4 meeting will be held in January 2010.

#### **Study Plan 14 Recreation Plan**

- The revised recreation plan will be emailed in December not November 2009.
- The next MIG 5 meeting will be held in January 2010 and a spreadsheet of facility inventories will be reviewed.



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# <u>Study Plan 15 Cultural Resources Programmatic Agreement and Historic Properties Management Plan</u>

- Jim Crew led the discussion on this study plan.
- No comments or questions.



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# <u>Martin Study Report Timeline</u> <u>Schedule changes proposed by Alabama Power</u> <u>highlighted in Yellow</u>

<u> </u>	Draft	Final
Study Plan 1: Migratory Fish- Tallapoosa Literature Review	Jan-2010	May-2010
Study Plan 2: Assessment of the Influence of Shoreline Modifications on Aquatic and Semi-Aquatic Species Use of Various Shoreline Types	Nov-2010	Feb-2011
Study Plan 3: Evaluation of Minimum Flows Downstream of Martin Dam	Jul-2010	Nov-2010
Study Plan 4: Fish Entrainment and Turbine Mortality	Apr-2010	Jul-2010
Study Plan 5: Rare, Threatened, and Endangered Species Surveys	Jul-2010	Nov-2010
Study Plan 6: Striped Bass Telemetry Study	Jun-2010	Sep-2010
Study Plan 7: Wildlife Management Program	Apr-2010	Jun-2010
Study Plan 8: Baseline Water Quality	Jun-2010	Nov-2010
Study Plan 9: Location of NPDES Permits on Lake Martin		Jan-2010
Study Plan 10: Erosion and Sedimentation	Jun-2010	Nov-2010
Study Plan 11: Water Quantity, Water Use, and Water Withdrawals	Feb-2010	Dec-2010
Study Plan 12(a): Rule Curve Change Modeling Analysis	Jan-2010	May-2010
Study Plan 12(b): Effects of a Rule Curve Change on Sedimentation Rates and Nuisance Aquatic Vegetation	May-2010	Jul-2010
Study Plan 12(c): Effects of Rule Curve Change on Water Quality	Sep-2010	Dec-2010
Study Plan 12(d): Effects of a Rule Curve Change on Lake and Downstream Erosion	Apr-2010	Dec-2010
Study Plan 12(e): Effects of a Rule Curve Change on Federally Threatened and Endangered Species at the Martin Project and the Tallapoosa River below Thurlow Dam	Jul-2010	Sep-2010
Study Plan 12(f): Effects of a Rule Curve Change on Downstream Recreation	Jul-2010	Sep-2010



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Study Plan 12(g): Effects of Raising Winter Pool Level and		
Increasing the Duration of Summer Pool on Lake Martin	Summer-2010	Fall-2010
Recreation Use		
Study Plan 12(h): Effects of Raising Winter Pool Level and		
Increasing the Duration of Summer Pool on Lake Martin	Summer-2010	Fall-2010
Economic Indicators		
Study Plan 13: Shoreline Management Program	Sep-2010	Jan-2011
Study Plan 14: Recreation Plan	Sep-2010	Dec-2010
Study Plan 15: Cultural Resources Programmatic Agreement (PA) and Historic Proporties Management Plan (HPMP)	Oct-2009	Dec-2010
(PA) and Historic Properties Management Plan (HPMP)		

Martin Relicensing Website: <a href="http://www.alabamapower.com/hydro/martin.asp">http://www.alabamapower.com/hydro/martin.asp</a>

Study Updates from October 21, 2009: <a href="http://www.alabamapower.com/hydro/m\_meetingsummary.asp">http://www.alabamapower.com/hydro/m\_meetingsummary.asp</a>

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