



# R. L. Harris Hydroelectric Project

## FERC No. 2628

**Meeting Summary**  
**R.L. Harris Project Study Plan Meeting**  
**December 13, 2018**  
**9:00 AM to 1:30 PM**  
**Oxford Civic Center, Oxford, AL**

**Participants:** See Attachment A

**Action Items:**

- General
  - Alabama Power will define what will be included in the Initial and Final Study Reports.
  - Alabama Power will file HAT meeting notes/summaries with the revised Study Plans.
- Erosion and Sedimentation:
  - Alabama Power will request stakeholder input on erosion and sedimentation sites.
  - Alabama Power will distribute a list and map of the sites identified to date to the Harris Action Team (HAT) 2.
  - Alabama Power will describe the criterion used to distinguish between Project and non-Project related erosion/sedimentation and explain the assumptions for evaluating identified sites.
  - Alabama Power will expand the evaluation sheet to include more specific information, such as: water level, soil types, soil depth, and add a note to Item 9 on the evaluation sheet instructing the evaluator to circle all the potential erosion causes that may apply.
  - Alabama Power will include GIS data with the Draft and Final Study Reports.
- Water Quality:
  - Alabama Power will discuss the location and logging intervals of the Alabama Department of Environmental Management's (ADEM) monitor at Malone and will describe how it may be used in the Study Plan, if appropriate.
  - Alabama Power will include location information for the non-generation monitor, once it is determined.
- Threatened and Endangered Species
  - Alabama Power will ensure analyses consider the effects of all aspects of Project operation (recreation sites, shoreline management, etc.).
- Aquatic Resources
  - Alabama Power will provide additional detail on the study components, as needed, and describe the output for the bioenergetics model.
- Downstream Aquatic Habitat
  - Alabama Power will include a map depicting a general location of the twenty sites where the level loggers were deployed into the revised Study Plan and explain the rationale for site selection.

- Project Lands Evaluation
  - Alabama Power will revise Phase 2 under Shoreline Management Program (SMP) item 4 to include provisions for any sensitive species buffer zones (e.g., northern long-eared bat) near the Project Boundary.
  - Alabama Power will change item 1 of both Phases 2A and 2B to specify that a working group or “sub-HAT” will be formed for persons interested in working on the SMP and Wildlife Management Plan (WMP), replacing the text “Form a HAT 4.”
  - Alabama Power will clarify the timing of incorporating results from other studies into this Study Plan.
  - Alabama Power will revise the last sentence in Section 1.2 to add “from a change in reservoir levels.”
  - Alabama Power will include specific methods for the Botanical Inventory and clarify that it is an inventory and not a survey.
- Recreation Evaluation
  - Alabama Power will add a map of the study sites and determine if a reservoir survey component will be added.
  - Alabama Power will confirm details on the downstream recreation survey in the Study Plan.
  - Alabama Power will ensure clarity when referring to Project sites and non-Project sites.
  - Alabama Power will consider including survey questions regarding suggestions of additional access ramps downstream.
- Operating Curve Change Feasibility Analysis
  - Alabama Power will clarify “zone of operational influence” in Table 3-1 with a clearer description.
  - Alabama Power will replace “qualitatively evaluate” in Table 4-1.
  - Alabama Power will determine whether a CE-QUAL-W2 model or an Environmental Fluid Dynamics Code (EFDC) model will be used in the revised Study Plan.
  - Alabama Power will incorporate provisions to analyze the frequency and duration of inundation Wetlands in Section 4.1.6 (Terrestrial Wetlands).
  - Alabama Power will define item number 4: “unsteady state” in Appendix A: Models and Datasets.
- Downstream Release Alternatives
  - Alabama Power will explain what the Phase 2 output will be comprised of once it is determined.
  - Alabama Power will define “advection-dispersion module” in Section 4.2.4.
  - Alabama Power will provide a rationale for not analyzing a run-of-reservoir scenario and more information on flood control and navigation in the Alabama River.
  - Alabama Power will discuss rationale of why an alternative continuous minimum flow, if requested by a stakeholder, was not part of the Study Plan; Alabama Power will include this discussion in the cover letter transmitting the revised Study Plans.
  - Alabama Power will consider adding a schematic or diagram of how alternative flows will be evaluated with results from other relicensing studies.

- Alabama Power will add information discussing uncertainty of models.
- Alabama Power will make the hydrologic models available to the public and provide a summary of outputs of the Hydro Budget model.
- Alabama Power will clarify the meaning of “modified Green Plan operations.”
- Cultural Resources
  - Alabama Power will revise the schedule to show that the Draft Programmatic Agreement (PA) will be issued with FERC’s Draft National Environmental Policy Act (NEPA) document and the Final PA with FERC’s Final NEPA document.
  - Alabama Power will explain the methodology of surveys that will be conducted.
  - Alabama Power will ensure the Study Plan does not pre-determine a PA.
  - Alabama Power will revise the geographic scope to read “the APE, as defined by HAT 6.”
  - Alabama Power will revise the Study Plan to note that a Final Historic Properties Management Plan (HPMP) will be filed with the Final License Application.

**Notes:**

**Introduction – Angie Anderegg (Alabama Power)**

Angie gave an introduction and discussed safety and the meeting objectives. Sarah Salazar (Federal Energy Regulatory Commission (FERC)) thanked everyone, encouraged participation in the meeting and reminded the group of the comments in Scoping Document 2.

**Erosion and Sedimentation – Henry Mealing (Kleinschmidt)**

Henry noted there were not many updates since the September 20, 2018 HAT meeting. Primary updates included the addition of details on the geographic scope at Skyline, the types of soil/erosion professionals that would be performing soil surveys, and a bank erosion susceptibility analysis. Henry noted that a complete survey will take place from Harris Dam through Horseshoe Bend. The focus of this study is to identify a baseline of erosion and sedimentation areas in the reservoir and downstream and to determine the causes. Angie noted that Alabama Power will ask for stakeholder input on erosion and sedimentation sites. Henry explained that the homeowners know where the erosion and sedimentation sites are located. He noted the importance of providing as precise a location as possible, as well as photographs. Barry Morris (Lake Wedowee Property Owners Association (LWPOA)) asked if there was already a list of sedimentation sites around the reservoir. Angie noted that stakeholders marked erosion and sedimentation areas on maps during the Issue Identification Workshop in October 2017. FERC staff requested that Alabama Power describe the criteria used to distinguish between Project and non-Project related issues and explain the assumptions for evaluating erosion and sedimentation sites. Henry noted that Alabama Power will go to each site and examine the slope, soil types, wind fetch, etc. Alabama Power will use this baseline information for evaluating potential changes associated with a change to the Harris Project Operating Curve. Sheila Smith (Alabama Power) explained that to date, Alabama Power has not conducted any shoreline stabilization at the Harris Project. FERC staff requested that Alabama Power provide narrative descriptions of the erosion and sedimentation site evaluation criteria provided in the data sheet. Brad Mitchell (LWPOA) asked what makes a site “problematic”, and Henry explained that stakeholders should provide information on any sites that may need to be evaluated, and Alabama Power will note these sites for evaluation during the relicensing study. Sarah noted that the FERC license will last 40 to 50 years, and, as such, FERC is identifying issues (including sites that may develop) that could occur through the entire license term. Henry explained that in

addition to stakeholder input, Alabama Power surveillance contractors will also identify sites on the reservoir, and Trutta (downstream contractor) will evaluate the area downstream of Harris Dam through Horseshoe Bend. Rachel McNamara (FERC) explained that FERC can only protect, enhance, or mitigate those resources that are affected by Project operations. Taconya Goar (Alabama Department of Conservation and Natural Resources (ADCNR)) inquired whether there have been previous erosion studies to date downstream of Harris Dam. Angie Anderegg stated that, to the best of Alabama Power's knowledge, none have been conducted, so the information collected will be baseline information. Henry noted that Alabama Power could provide any GIS data collected and would provide water level on the site evaluation form. In addition, Henry explained that for the downstream evaluation, oral histories and photographs may also be of value, but Alabama Power will work with a contractor who will float the area to evaluate active and potential erosion sites and provide a GIS overlay for the baseline condition.

#### **Water Quality – Jason Moak (Kleinschmidt)**

Jason M. noted that Alabama Power revised the geographic scope to include tributaries to Harris Reservoir, Little Coon Creek, and Crow Creek. In addition, Alabama Power added non-generation monitoring. Jason also noted that a different water quality model may be used than originally noted in the November 2018 Study Plans. Allan Creamer (FERC) asked about sampling intervals for the water quality monitors downstream of Harris Dam. Jason Carlee (Alabama Power) noted that the downstream location was remote, and, due to battery life and quality control, it would be difficult for Alabama Power to collect data at intervals of less than one hour. Jason M. described an additional dissolved oxygen (DO) monitor that Alabama Department of Environmental Management (ADEM) placed at Malone during 2018. ADEM staff noted that data at the Malone monitor is likely recording measurements at 15-30 minute intervals. Keith Chandler (Alabama Power) explained that ADEM requires Alabama Power to monitor at one-hour intervals for compliance purposes. There was discussion on defining generation versus non-generation data and the location of the tailrace monitor(s). Jason Carlee noted that Alabama Power would provide a continuous data set from the non-generation monitor and attempt to distinguish between generation and non-generation data recorded by that monitor. FERC staff requested Alabama Power provide the location of the monitor in the Study Plan, once it is determined. In addition, Rachel noted that if Alabama Power is using data from the ADEM monitor at Malone, Alabama Power will need to include those details in the Study Plan.

#### **Threatened and Endangered Species – Henry Mealing**

Henry described the edits to the Study Plan, which included revisions to the geographic scope to include the Tallapoosa River from Harris Dam downstream through Horseshoe Bend, the inclusion of species that were historically present in the Project area but are now gone, and the addition of new species provided by FERC in the Scoping Document. Ken Wills (Alabama Glade Conservation Coalition) asked about reintroduction of the pool sprite, and Henry noted that reintroduction may be possible as a Protection, Mitigation, and Enhancement (PM&E) measure. FERC staff requested that Alabama Power include criteria for field sampling in the Study Plan and noted that FERC looks at comprehensive Project uses including vegetation management, maintenance, and recreation facilities, not just Project operations. Henry noted that the primary criteria for field sampling will be based on requests from U.S. Fish and Wildlife Service.

### **Aquatic Resources – Jason Moak**

Jason described the edits to this Study Plan, which included expanding the study to include a comprehensive characterization of aquatic resources within the Project Area (the reservoir and downstream of Harris Dam through Horseshoe Bend), a desktop assessment of aquatic resources and a field survey portion (conducted primarily by Auburn University), an updated schedule to conform to FERC-approved Integrated Licensing Process (ILP) schedule, and added study cost information. In addition, the study will include both game and non-game species. The group discussed the use of Alabama Water Watch data from citizen monitors. Barry commented that all the information for the last 15 years is available on the Alabama Water Watch site with Auburn University. Alabama Power noted they would use the data, if applicable, and Henry noted that this study will mostly focus on fish growth and fish temperature requirements. Allan requested that Alabama Power provide more details on the study components in the Study Plan and describe the output for the bioenergetics model. Jason and Henry again explained that the study will primarily look at fish growth. The group discussed target fish species and the use of macroinvertebrates in the study. Jason noted that channel catfish are used as a representative species for the catfish family and that the previous macroinvertebrate work in the Harris Project was summarized in the Harris Pre-Application Document (PAD).

### **Downstream Aquatic Habitat – Henry Mealing**

Henry explained that since the last meeting, Alabama Power increased the number of level loggers and will incorporate existing HEC-RAS transect data into the study. The group discussed the revised geographic scope, noting that this study will build a HEC-RAS model and gather baseline information that will be used for effects analyses in other studies. Although only three level loggers are deployed to date, Alabama Power determined a tentative location for twenty level loggers and will include a map with general level logger locations in the Study Plan. One of the twenty level loggers may be substituted with an already existing USGS gage at Horseshoe Bend.

### **Project Lands – Dave Anderson (Alabama Power)**

Dave explained a few major changes, which included expanding the methods (i.e., detailed description of vegetation management (existing tree removal, etc.)), an added section on habitat suitability for bobwhite quail, an updated schedule, and the addition of study cost information. Dave stated that Alabama Power will present the initial Project Lands proposal (potential land use category changes) in Q2 2019. The group discussed the Sensitive Resources classification and the lands that are part of the proposed botanical survey. Dave explained that the Sensitive Resources overlay is usually used for the shoreline, and Alabama Power may need a unique Project Lands classification for the “glades” area. Taconya asked if Alabama Power has a target percentage for each classification. Tina Mills (Alabama Power) noted that Alabama Power reviews Project lands parcel by parcel and that the goal is to classify the land correctly, rather than meet a specific percentage. Next, the group discussed quail habitat, and Ken Wills indicated that the Grass Land Initiative would be interested in working on any quail habitat surveys. Jason Carlee explained that The Nature Conservancy determined that there was not much quail habitat available in the Project Area. ADCNR staff stated that declines in quail population are too complicated to be explained by declines in habitat alone and that studies have shown a lack in predator control has contributed to reductions in quail populations. FERC staff stated that they need a record of all the stakeholders interested in quail habitat. In addition, Alabama Power will

look for any buffer zone overlap for sensitive species (e.g., northern long-eared bat - 150 feet for a roost and a quarter mile for hibernaculum) within the Project Boundary. FERC staff noted that Alabama Power needs to clarify the schedule in the Study Plan to detail what methods FERC is approving and what Alabama Power will file as part of the Initial and Updated Study Report, including what will be filed with the Shoreline Management Program (SMP) and Wildlife Management Plan (WMP). In addition, FERC staff clarified the use of “Form HAT 4” in the schedule, which should read “Form sub-HAT.” Finally, FERC requested some clarification on how Alabama Power classifies lands, the study schedules, and language used in the Study Plan. Dave explained that there are existing classifications at Harris, and Alabama Power will align the land classifications for Harris with those of other Alabama Power hydroelectric projects. In addition, Dave noted that Alabama Power would try to provide a more precise schedule and clarify how all the studies will coordinate and interact. Dave also confirmed that Alabama Power would revise Section 1.2 of the study to include “from a change in reservoir levels,” and Alabama Power will distinguish between “inventory” and “survey” with regards to the methods for the Botanical Inventory.

### **Recreation – Dave Anderson**

Dave explained the primary updates of the Study Plan, which include a description of the tools that will be used to evaluate reservoir elevations at which boat launches become inoperable, modifications to the section describing creel surveys to include a study of downstream use and boatability as well as creel estimates, elimination of references to Form 80, an updated schedule that conforms to the FERC-approved ILP schedule, and added study cost information. Dave also explained that for the reservoir portion of the study, the counts will be conducted as summarized in Appendix B. For each month, sites on the reservoir (including the tailrace fishing platform) will be counted a minimum of six weekdays (from 8 am to 5 pm) and three weeknights (after 5 pm) at varying times of day and days of the week. Two weekend days and one weekend night will be observed each month, and one count will be conducted during each holiday weekend (Memorial Day, Fourth of July, and Labor Day). For the downstream portion of the study, Alabama Power proposes to conduct counts and user surveys for 36 days between May and October of 2019. Alabama Power will retain the creel portion as part of the survey and work with Mississippi State University on developing additional details regarding the survey. FERC staff requested a copy of the brochure displaying canoe trail maps. Next, the group discussed conducting surveys in the reservoir. Rachel commented that recreation user surveys are typically included in these types of studies during relicensing. Dave stated that Alabama Power will be looking at public ramps and private docks to determine the percentage of usable ramps and docks at each proposed water level. Rachel commented that data about Project sites versus non-Project sites need to be clarified. Barry Morris asked how Alabama Power will account for people that would like to go to the lake for recreation if there was better access. Dave replied that Alabama Power uses existing information to estimate demand and incorporates information from the Statewide Comprehensive Outdoor Recreation Plan (SCORP). Additionally, Alabama Power relies on input from state agencies, such as the Alabama Department of Conservation and Natural Resources (ADCNR) and the Alabama Department of Economic and Community Affairs (ADECA), Dave also mentioned the Issue Identification Workshop in which stakeholders identified where they would like more parks and that this would be considered. Fred Couch asked if part of the study would show where proposed access ramps in the river downstream of Harris Dam are being suggested, and Dave answered that questions regarding access ramps can be included on the survey.

### **Operating Curve Change Feasibility Analysis – Henry Mealing**

Henry noted that the only Study Plan edit was to revise the geographic scope to read “through Horseshoe Bend.” FERC staff asked for clarification on a few of the Study Plan components. Alabama Power explained that the “zone of operational influence” refers to how far downstream flows attenuate, the water quality qualitative assessment in Table 4-1 refers to the CE-QUAL-W2 model, and the Environmental Fluid Dynamics Code (EFDC) may possibly replace the CE-QUAL-W2 model. Next, the group discussed the resources that Alabama Power will review as part of the study. FERC staff requested that the analysis of effects on wetlands include an assessment of the frequency and duration of inundation. Henry noted that these are not listed in any particular order, and Alabama Power staff noted that each resource will be given equal consideration but not necessarily equal weight when making a determination. Parameters such as flood control are considered more critical than some of the other resources. In addition, Alabama Power noted that any changes to the operating curve would have to be approved by the United States Army Corps of Engineers (USACE) and FERC.

### **Downstream Release Alternatives – Henry Mealing and Jason Moak**

Jason explained that the purpose of this study is to develop simulation models for analyzing proposed alternatives to the existing downstream pulsing releases (i.e., the Green Plan) and noted that the geographic scope of this Study Plan is Harris Reservoir and the Tallapoosa River downstream of Harris Dam through Horseshoe Bend. Jason explained that the methods to this study consisted of two phases. In Phase 1, modeling simulations would be performed using the USACE HEC-RAS and HEC-Statistical Software Package (HEC-SSP), HEC-Reservoir Simulation Model (HEC-ResSim), the Alabama-Coosa-Tallapoosa (ACT) unimpaired flow data set developed by the USACE and other stakeholders, and Alabama Power’s Hydro Budget model. Phase 2 would use the results of Phase 1 and other FERC-approved Harris relicensing studies to conduct qualitative and quantitative evaluations of the effect(s) of different downstream release alternatives. Jason explained that pre-Green Plan, Green Plan, a continuous minimum flow (150 cfs), and a “modified” Green Plan (possibly changing the timing of the existing volume of the Green Plan pulses) would be examined using the models. Jason described the methods used to determine the potential effects of these alternatives on water quality, water use, erosion, aquatic resources, wildlife, threatened and endangered species, recreation resources, and cultural resources. Jason and Henry explained that the output of Phase 2 will depend on both quantitative and qualitative data and that the goal is to have Phase 2 results ready before the Final License Application. Though not specifically related to the Study Plan, Sarah asked if Alabama Power is considering changing the position of the penstock skimmer weir. Angie replied that results from the study will be used to respond to FERC’s question. FERC staff asked that Alabama Power clarify a few of the terms used in the Study Plan, provide additional information in some sections, and justify its reasons for not including run-of-reservoir as an alternative and to quantify the amount of effort that would be needed to analyze run-of-reservoir. Though not related to the current Study Plan, Ken Wills noted he could provide information for inclusion of the shoal lily in the Tallapoosa River downstream of Harris Dam into the modeling. Allan asked if alternatives to the proposed 150 cfs would be included in models. Angie responded that no alternatives have been recommended by stakeholders. Curt Chaffin (Alabama Rivers Alliance) commented that no alternative minimum flows have been suggested, because stakeholders were waiting to see the results of other Project relicensing studies before formulating any suggestions. Alabama Power staff stated that they would need to receive any

suggestions on downstream flows as soon as possible. Jason stated that suggestions do not have to be a specific flow number, but could be a specific goal, such as a target wetted habitat percentage. The group discussed the feasibility of a minimum flow of 150 cfs, namely in scenarios where reservoir inflow is low.

**General Comment for all Study Plans with Modeling:**

FERC staff asked about the difficulty in running a “new” alternative through the model once it is developed and about how each of the models relate to one another, namely when the output of one model becomes the input of another model. The group also discussed possible uncertainties associated with each model. Alabama Power commented that uncertainties would be identified in each of the study reports. The group discussed accessibility of the models by the public. Ashley McVicar (Alabama Power) stated that summaries of outputs from the Hydro Energy model are not proprietary, have been shared for previous projects, and can be shared for Harris. Rachel recommended that any off-record discussions or negotiations with HATs needed to be disclosed to FERC and filed with the revised Study Plans.

**Cultural Resources – Amanda Fleming (Kleinschmidt)**

Amanda explained the purpose of the study is to define the area of potential effects (APE), work with FERC to develop the programmatic agreement (PA), and with stakeholders to develop a Historic Properties Management Plan (HPMP). The edits to the Study Plan included a list of Native American tribes that have been consulted, an updated schedule to comply with the FERC-approved ILP, and the addition of cost information. Rachel noted that the revised FERC policy includes issuing the Draft PA with the Draft National Environmental Policy Act (NEPA) document and the Final PA with the Final NEPA document. In addition, Rachel explained that Alabama Power should note that surveys will abide by state standards and explain that the APE will be defined in HAT 6. Amanda noted that Alabama Power would revise the Study Plan to include the suggested edits. Amanda announced that the first HAT 6 meeting is January 25th. This meeting will include a tour of the Harris reservoir (by boat) during the winter operating curve; it will not include Skyline or downstream properties.

The meeting adjourned at 1:30 p.m.



**ATTACHMENT A – MEETING PARTICIPANTS**



# R. L. Harris Hydroelectric Project

## FERC No. 2628

**Harris Study Plan Meeting Participants**  
**December 13, 2018**  
**9:00 AM to 1:30 PM**  
**Oxford Civic Center, Oxford, AL**

Name	Organization
Damon Lee Abernethy	Alabama Department of Conservation and Natural Resources
Steve Bryant	Alabama Department of Conservation and Natural Resources
Taconya Goar	Alabama Department of Conservation and Natural Resources
Chris Greene	Alabama Department of Conservation and Natural Resources
Keith Henderson	Alabama Department of Conservation and Natural Resources
Mike Holley	Alabama Department of Conservation and Natural Resources
Nick Nichols	Alabama Department of Conservation and Natural Resources
Jennifer Haslbauer	Alabama Department of Environmental Management
Michael Len	Alabama Department of Environmental Management
David Moore	Alabama Department of Environmental Management
Angela Anderegg	Alabama Power
Dave Anderson	Alabama Power
Jeff Baker	Alabama Power
Jason Carlee	Alabama Power
Keith Chandler	Alabama Power
Bill Gardner	Alabama Power
Steve Krotzer	Alabama Power
Ashley McVicar	Alabama Power
Tina Mills	Alabama Power
Alan Peeples	Alabama Power
Shelia Smith	Alabama Power
Thomas St. John	Alabama Power
Ken Wills	Alabama Glade Conservation Coalition
Curt Chaffin	Alabama Rivers Alliance
Martha Hunter	Alabama Rivers Alliance
Fred Couch	Alabama Scenic River Trail
Kristie Coffman	Auburn University
Elise Irwin	Auburn University

<b>Name</b>	<b>Organization</b>
Allan Creamer	Federal Energy Regulatory Commission
Rachel McNamara	Federal Energy Regulatory Commission
Sarah L. Salazar	Federal Energy Regulatory Commission
Monte Terhaar (phone)	Federal Energy Regulatory Commission
Kyrstin Wallach (phone)	Federal Energy Regulatory Commission
Butch Jackson	Keller Williams Realty
Nancy Burnes	Lake Wedowee Property Owners Association
Gene Crouch	Lake Wedowee Property Owners Association
Sylvia French	Lake Wedowee Property Owners Association
Tom Garland	Lake Wedowee Property Owners Association
Brad Mitchell	Lake Wedowee Property Owners Association
Barry Morris	Lake Wedowee Property Owners Association
Roger McNeil	National Weather Service
Richard Burnes	Stakeholder
Donna Matthews	Stakeholder
Jerry and Mary Lee Poss	Stakeholder
Kate Cosnahan	Kleinschmidt Associates
Colin Dinken	Kleinschmidt Associates
Amanda Fleming	Kleinschmidt Associates
Henry Mealing	Kleinschmidt Associates
Jason Moak	Kleinschmidt Associates