

FEDERAL ENERGY REGULATORY COMMISSION

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March 22, 2010

OFFICE OF ENERGY PROJECTS

Project No. 349-150-Alabama
 Martin Dam Hydroelectric Project
 Alabama Power Company

Mr. Eugene B. Allison, Hydro General Manager
 Alabama Power Company
 600 North 18th Street
 P.O. Box 2641
 Birmingham, AL 35291

Reference: Determination on Requests for Modifications to Existing Studies for the Martin Dam Project

Dear Mr. Allison:

Pursuant to 18 CFR § 5.15(d), this letter contains my determination on requests for modifications to existing studies for the Martin Dam Project No. 349-150, filed in response to the Initial Study Report issued by Alabama Power Company (Alabama Power) on November 20, 2009.

Background

Alabama Power filed their Initial Study Report on November 20, 2009, and held a meeting on December 3, 2009, to discuss the 2009 study results and proposed modifications to the study plan for implementation in 2010. Alabama Power filed a meeting summary on December 18, 2009.¹ Alabama Power's proposed modifications, which are based on either delays in the sampling schedule or in the preparation of the draft reports, are detailed in the Initial Study Report and summarized in the December 3, 2009, meeting summary. On February 18, 2010, Alabama Power filed its response to comments that were filed on the Initial Study Report.

Written comments on the Initial Study Report were filed by the following entities:

Commenter's	Date(s) Filed with the Commission
American Rivers	December 1, 2009 January 19, 2010
Lake Martin Home Owners & Boat Owners Association (Boat Association)	December 10, 2009 January 19, 2010
Alabama Department of	January 13, 2010

¹ 18 CFR § 5.15(c)(1)-(3)

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Conservation and Natural Resources (Alabama DCNR)	January 15, 2010
Lake Martin Resource Association (Martin Association)	January 19, 2010
Central Elmore Water & Sewer Authority (Elmore Water)	January 19, 2010
World Wildlife Fund (Wildlife Fund)	January 19, 2010
Euel A. Screws, Jr. and W. T. Dozier, III representing individuals, partnerships, farming companies, landowners, and other entities (Farmers and Landowners)	January 19, 2010

No entity requested Alabama Power conduct a new study for the project. In general, most of the comments made by the above entities are not recommendations for specific modifications to the Initial Study Plan. Rather, they reflect suggestions that would (a) improve the clarity and specificity of study details and results presented in the Initial Study Report, (b) increase the amount of information provided to stakeholders and involvement in the licensing process, and (c) improve the analyses used in existing studies.

Study Plan Determination

Commission staff (staff) reviewed Alabama Power's proposed modifications to the Initial Study Report, their response to comments made on the Initial Study Report, and other elements of the record. Based on staff's review of the record and the anomalous flow conditions that occurred in 2009², I am modifying the study plan requested by Alabama Power by requiring that Alabama Power conduct a second year of studies for the following six studies: Study Plan 3-Evaluation of Minimum Flows Downstream of Martin Dam (Minimum Flow Study); Study Plan 5-Rare, Threatened, and Endangered (RTE) Species Surveys (RTE Surveys); Study Plan 8- Baseline Water Quality (Water Quality Study); Study Plan 10- Erosion and Sedimentation; Study Plan 12(C)-Effects of Rule Curve Change on Water Quality (WQ Rule Curve Study); and Study Plan 12(E)-Effects of a Rule Curve Change on Federally Threatened and Endangered Species at the Martin Dam Project and in the Tallapoosa River Below Thurlow Dam (RTE Rule Curve Study). In addition, I also approve Alabama Power's proposed modifications to the schedules for distributing draft and final reports for these six studies and for Study Plan 12(A)-Rule Curve Change Modeling Analysis (Rule Curve Model) and 12(F)-Effects of Rule Curve Change on Downstream Recreation (Recreation Rule Curve).

² Staff comments on the Initial Study Report and Meeting Summary filed on January 15, 2020.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

There is no need for a second year of study for Study Plan 2-Assessment of the Influence of Shoreline Modifications on Aquatic and Semiaquatic Species' Use of Various Shoreline Types (Shoreline Study), as requested by American Rivers and Wildlife Fund, because the time extension was previously approved in my study plan determination letter issued on April 17, 2009

I also approve Alabama Power's proposal to modify Study Plan 12(A) to add language to that study plan that incorporates the use of downstream analyses in the study and also the use of Alabama Power's Hydro Energy Budget.

Staff has reviewed all comments made on the existing studies and determined that some of the requests for study modifications do not need to be made because: (1) the modification requested would not inform the development of license requirements for the project; (2) the requests pertain to implementing protection, mitigation, and enhancement measures, as opposed to conducting studies; (3) the requests relate to analysis that would be part of the environmental review process; or (4) the requested changes are for information that is already part of the existing study plan.

Staff has requested minor modifications to three studies: Study Plans 3, 12(E) and 12(D). I accept staff's findings. The rationale for these modifications is presented in Appendix A and the three study plans should be modified accordingly.

If you have any questions, please contact Lee Emery at (202) 502-8379 or lee.emery@ferc.gov.

Sincerely,

Jeff C. Wright
Director
Office of Energy Projects

cc: Mailing List
Public File

APPENDIX A

Staff's Recommendations and Findings on Requests to Modify Existing Studies

Staff has reviewed the following requests to modify the existing studies for the Martin Dam Project according to the criteria for modification of an approved study under the regulations at 18 CFR § 5.15. There were two requested modifications that were made frequently by the commenting entities: (1) to extend the geographic range of the study reach downstream from the Martin Dam Project to the mouth of the Tallapoosa River, and (2) to extend the study period for another year for several studies because of anomalous flow conditions that occurred in study year 2009. These requests are not repeated below because they were resolved by the Director in the cover letter and in his April 17, 2009 letter where he approved the extension of the study areas downstream in the Tallapoosa River to river mile 12.9 for each study.

Study Plan 1-Migratory Fish Tallapoosa Basin Literature Review (Migratory Fish Review)

Requested Modification

Wildlife Fund requests Study Plan 1 be modified to evaluate: (1) how the Martin Dam Project flow fluctuations and related water quality impacts affect fish migrations between the mouth of the Tallapoosa River and Thurlow dam;³ (2) the effects of the presence and operation of the Martin Dam Project on movements of fish in the reservoir and in the portion of the Tallapoosa River between Hillabee Creek and the Irwin Shoals area; (3) the effects of the Martin Dam Project on mussel distribution, location of individual mussels, and movements of host fish to support mussels during their glochidial stage; and (4) to seek professional opinions from experts at agencies, universities, the private sector, and the Southeastern Fishes Council in addition to the proposed literature review for the study plan. American Rivers requests for modification of Study Plan 1 were the same as items (1), (3) and (4) of Wildlife Fund.

Alabama Power states that Study Plan 1 was not designed to assess project effects on fish and aquatic resources and that those concerns are addressed in other Study Plans (e.g., Study Plan 3). Alabama Power reiterates that Study Plan 1 was designed as a literature review to identify migratory fish that currently or historically used the Tallapoosa River in the project area.

³ Wildlife Fund recognizes that the Yates and Thurlow Project (with its run of river mode of operation) are between the Martin Dam Project and the mouth of the Tallapoosa River. However, Wildlife Fund states that the operation of the Martin Dam Project, and its effects on river flows, could affect the movements of fish populations in the Tallapoosa River because of its operational flow releases.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Discussion and Conclusions

Study Plan 1 is designed to identify and collect information about which migratory fish species have or are using the Tallapoosa River now or have had access to the Martin Dam Project. Staff is aware that the Yates and Thurlow Project block migratory fish from reaching the Martin Dam Project. The entities concerns identified above concerning the projects' effects on the movements of host fish for mussels, and on water quality to the mouth of the Tallapoosa River are addressed in other studies (e.g., Study Plans 3, 5, 12(C), 12(E), etc.). Also, as noted above, the study range for all studies extends to river mile 12.9 of the Tallapoosa River. Therefore, Study Plan 1 does not need to be modified.

Study Plan 2-Assessment of the Influence of Shoreline Modifications on Aquatic and Semi-Aquatic Species' use of Various Shoreline Types (Shoreline Structures Study)

Requested Modification

Wildlife Fund requests the study be expanded to: (1) include more diverse fish sampling methods to increase the potential for capturing a larger variety of fish species; (2) collect benthic invertebrates from sites that are exposed during the winter months to be able to compare the results with those organisms collected from sampling sites that are not exposed during the winter months; and (3) collect another year of data because of the high water levels occurring in sample year 2009.

Alabama Power's response states that Study Plan 2 was approved by the Commission and included site and sampling methodology selection developed by Alabama Power in consultation with technical experts.

Discussion and Conclusions

Study Plan 2 is adequate. Staff is aware of the limitations of electrofishing as a sampling methodology for this study, but this technique is consistent with the generally accepted practice in the scientific community and should provide sufficient information to determine fish use for the shoreline study. The primary target of study for this Study Plan is fish. Furthermore, the collection of benthic organisms, which are part of the Study Plan, is part of a collection of food resources for fish populations at the site and would provide information to help understand the site as a whole. Staff concludes there is no need to collect benthic organisms from other sites beyond what is identified in the Study Plan. Therefore, the Study Plan would not be modified to collect benthic organisms from sites that are exposed during the winter months.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Study Plan 3-Evaluation of Minimum Flows Downstream of Martin Dam (Minimum Flow Study)

Requested Modification

Wildlife Fund requests that Study Plan 3 include an investigation of whether project flow fluctuations (ramping rate) might impair water quality, aquatic animal habitats, or aquatic animals directly by stranding for the Martin Project tailwater and in the Tallapoosa River downstream from the Thurlow dam to the Montgomery Water Works US Geological Survey gaging station. American Rivers has similar requests for modifying Study Plan 3 and request that the study include a more robust instream study of flows and their effects on water quality, bank stability, habitat availability, and habitat quality. American Rivers also request that Study Plan 3 expand its geographic scope to the confluence of the Tallapoosa and Coosa Rivers.

Alabama Power states that this study plan has been extended to river mile 12.9. Alabama Power states that evaluation of ramping was not approved in the study plan for this study and ramping is not used or proposed for the project. Alabama Power also does not see a need to conduct an instream flow study for the project, as that technique was not approved in the study plan; therefore, the current study would address the project effects of fluctuating water levels on fish and aquatic resources.

Discussion and Conclusions

Study Plan 3 is adequate, but staff requires a minor adjustment to the study. Concerning the stranding issue in the Martin Dam Project tailrace, staff notes that the Martin Dam tailrace is always wet from the reservoir backup from the Yates development and therefore, stranding of organisms is unlikely. In addition, the operation of the Yates and Thurlow Project in a run-of-river mode, with a minimum flow required at the Thurlow development, also keeps the Thurlow development tailwater wet at all times. Study Plan 3 is designed to analyze the project effects of minimum flows on fish and various aquatic resources to river mile 12.9.

However, Study Plan 3 also provides for such field sampling measures as: (a) conducting habitat surveys for macroinvertebrates and fish; (b) collecting distribution data for mussels, snails, and crayfish; and (c) collecting water quality data, etc. (various field sampling measures are represented by 6 bulleted items shown on page 2 of Study Plan 3). Alabama Power should modify Study Plan 3 by changing the wording from “may” to “would” for the six bulleted items for the section of the Study Plan entitled *Field Sampling, Data Analysis and Reporting*. In addition, staff notes that other studies would address other areas of concern raised by the commenting entities. For example, Study Plan 12(D) would address the effects of project operation on downstream erosion

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

sites and Study Plan 12(C) would address the effects of the proposed rule curve on water quality.

Study Plan 5-Rare, Threatened, and Endangered Species Surveys (RTE Surveys)

Requested Modifications

Wildlife Fund requests Study Plan 5 be modified to: (1) increase the time and effort spent searching for aquatic RTE species using professionals that are able to identify RTE species and their habitats; (2) expand the RTE surveys evaluated in 2010 to include several sites in each tributary (including sites in the tributaries that are close to the reservoir and other sites that are located more than a mile upstream from the reservoir) and more sites in the Tallapoosa River downstream of the Thurlow development to river mile 12.9; (3) conduct sampling for at least two seasons (summer and fall) to incorporate an entire life cycle of species and to lessen the chances of any influence caused by poor visibility and/or animal behavior (e.g., high water events could affect the presence of certain aquatic species); (4) incorporate surveys for host fish in areas where mussels are found; (5) investigate the potential for the existence of the Martin Dam Project and project operations to affect fish species that are important to the life cycle of target mussel species; and (6) expand the current single transect that was used to identify the potential habitat for the Georgia Rockcress to conduct other transects throughout the potential habitat for Georgia Rockcress. America Rivers also requests modifications to Study Plan 5 that are the same as Wildlife Fund's items (1), (3), and (4).

Alabama Power's response to items (1) through (6) above are as follows:

Item (1). The US Fish and Wildlife Service (FWS) provided input on the development of the methodology used in Study Plan 5 and also participated with Alabama Power in conducting several of the RTE collections. Alabama Power states that it would continue to follow the methodology approved for Study Plan 5.

Item (2). The FWS provided input for the development of the methodology used for Study Plan 5 and Alabama Power would continue to follow this approved methodology.

Item (3). The approved Study Plan 5 specifies that the presence of RTE species or "high quality" habitat for RTE species is detected during the qualitative surveys, a follow-up survey in 2010 may be recommended by the FWS.

Item (4). As approved in Study Plan 5, each site would be surveyed for fish, mussels, and snails and that fish species would be considered when Alabama Power analyzes the surveys.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Item (5). Alabama Power states it would consider fish species when analyzing any results.

Item (6). Alabama Power is currently working with the consulting botanist to ensure adequate surveys are conducted for the species listed in the approved Study Plan 5. Alabama Power states that it would distribute an additional report to stakeholders when the RTE surveys are completed.

Discussion and Conclusions

Study Plan 5 is adequate. The staff discussion below responds to request items (1) through (6) made by Wildlife Fund and American Rivers.

Item (1). Staff concurs with the use of qualified investigators and the use of methodology in Study Plan 5 that is consistent with the generally accepted practice in the scientific community for conducting RTE surveys for aquatic species (see Table 2 in Study Plan 5).

Item (2). Staff concludes that the current RTE sampling sites selected were consistent with the generally accepted practice in the scientific community, and therefore, are adequate for the proposed study. Staff notes that the Revised Study Plan includes an option for either the FWS or Alabama DCNR to recommend further studies after reviewing the initial survey results. Therefore, staff is not modifying Study Plan 5 to require a change in the sampling scheme, unless the study results suggest such a change is needed. Staff also notes that the geographic study area for Study Plan 12(E) was expanded downstream to river mile 12.9, and thus Alabama Power would also have to analyze the effects of the rule curve change on RTE species in the downstream river reach.

Item (3). Staff notes that in the approved Revised Study Plan, the methodology for Study Plan 5 includes site selection by both the FWS and the Alabama DCNR. In addition, Table 2-2 of the RTE Report, states that the FWS would select the sampling sites. Study Plan 5 contains approved methods that allow the FWS to recommend subsequent surveys if the presence of aquatic RTE species or high quality habitats are observed during the qualitative surveys. Therefore, staff is not modifying Study Plan 5 to require sampling for aquatic RTE species be conducted during additional seasons.

Item (4). Staff concludes that fish data collected during Study Plan 5, or in other studies where fish data is collected (e.g., Study Plan 3, etc.), would help identify the presence of various fish species that may play an important role in completing the life cycle of mussels. Therefore, no modification of the study is necessary.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Item (5). See response to Item (4). Staff concludes that no modification of Study Plan 5 is needed to require a specific survey for host fish of mussels or to require a specific analysis of project effects on host fish. Alabama Power's analysis of project effects of fish, as required in several studies (e.g., Study Plans 3, 4, 12(C), etc.) would provide information to assess project effects on fish that may also be a host fish for mussels.

Item (6). Staff finds the information presented in the Vegetation Report to be conflicting, and the information in the RTE Progress Report to be non-conclusive. Further, few or no details regarding areas of suitable habitat, surveyed transects, maps depicting locations of habitats and transects, or other pertinent information is included in the Vegetation Report. Staff concludes that Alabama Power needs to review the methodology and deliverable products for the portion of the RTE study addressing Georgia Rockcress and Little Amphianthus, to ensure that the information necessary to assess potential project-related impacts to these two RTE plant species is available in subsequent reports for stakeholder review.

Study Plan 6-Striped Bass Telemetry Study (Striped Bass Study)

Requested Modification

The Alabama DCNR requests that Alabama Power include in Study Plan 6, any additional striped bass data that Alabama DCNR collects from a proposed continuation of the telemetry study in 2010

Alabama Power agrees to support Alabama DCNR's additional striped bass data collection in 2010 by providing equipment for the study. Furthermore, Alabama Power agrees to incorporate any data collected by the resource agency into the final report for this Study Plan 6 by September 2010.

Discussion and Conclusions

Alabama Power agrees to incorporate into Study Plan 6, any data collected by the Alabama DCNR on striped bass from any sampling conducted in 2010. Therefore, there is no need to modifying Study Plan 6.

Study Plan 7-Wildlife Management Program (Wildlife Study)

Requested Modifications

Wildlife Fund requests modification of Study Plan 7 to: (1) include wildlife and vegetation inventories in the methodology, because the inventories are integral

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

components of the development of a wildlife management plan and are missing from the methodology; (2) incorporate current information on vegetation and wildlife use, by season and conduct surveys during several different seasons to eliminate sampling bias; (3) collect another year of data for Study Plan 7 because of the unusual weather conditions that occurred in 2009; and (4) survey 3 to 5 sites within each vegetation type, rather than just one as was represented in the study report.

Alabama Power responds to the requests made by Wildlife Fund as follows:

Items (1) and (2). Alabama Power states that the goal of the Wildlife Study is to manage and enhance existing habitat, in cooperation with, and based on, consultation with the Alabama DCNR. Alabama Power is focusing on shifting the current management of existing habitat to managing longleaf pine stands. Alabama DCNR states that it is requesting longleaf pine ecosystem restoration on project lands and that it is working with Alabama Power and the FWS to develop the details of the Wildlife Management Plan for the project. Alabama Power states that its recent vegetation surveys were conducted in 2009 to document the understory and groundcover for various forest types.

Item (3). Alabama Power states that it would not collect another year of data because the hydrologic conditions of 2009 did not affect the collection of forest data.

Item (4). Alabama Power states that FERC approved the study methods for Study Plan 7, which included the collection techniques selected by the consulting biologist. Alabama Power added that the Alabama DCNR provided some guidance for the data collection.

Discussion and Conclusions

Study Plan 7 is adequate and no modifications are necessary. The staff discussion below responds to request items (1) through (4) made by Wildlife Fund.

Items (1) and (2) Alabama DCNR, in its filing on January 13, 2009, lists the special status terrestrial wildlife species that it is concerned about and specifically recommends longleaf pine ecosystem restoration on project lands. Alabama Power has and would continue to consult with the Alabama DCNR and the FWS, as required in the approved Revised Study Plan, to fully develop the Wildlife Study. The understory and groundcover vegetation has been surveyed and the results and methodology have been adequately described in the Lake Martin Vegetation Report (Vegetation Report). Staff has not identified a project nexus for all wildlife species, including those without special status, nor has staff identified a nexus between current information on seasonal habitat use by wildlife and the project. Therefore, staff is not modifying Study Plan 7 to include wildlife and vegetation inventories, the collection of current and seasonal information on

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

wildlife habitat use, or requiring Alabama Power to conduct surveys during different seasons.

Item (3). Staff concludes that the anomalous weather conditions that occurred during sampling year 2009, would not adversely affect the collection of forest data. Therefore, staff is not modifying Study Plan 7 to require an additional year of data collection of forest data.

Item (4). Staff notes that in Section 6.0, *Proposed Methodology*, of the approved Revised Study Plan for Study Plan 7, Alabama Power states that specific techniques would be selected by the consulting botanist. In the Vegetation Report, the methodology selected by the consulting botanist is adequately described, and the report clearly shows that one transect was placed in each community type and ten subplots were methodically established and sampled along each transect. Staff finds the methodology for Study Plan 7, including the number of subplots sampled, to be consistent with generally accepted practice in the scientific community and applicable to the purpose of the Wildlife Study. Therefore, staff is not modifying the Wildlife Study to require additional sampling within each vegetation type.

Study Plan 8-Baseline Water Quality (Water Quality Study)

Requested Modification

Wildlife Fund requests a number of parameters be sampled as part of the water quality data collection and that the downstream boundary should extend to at least to the Montgomery Water Works Station. Wildlife Fund also requests that water quality data be collected during generation and non-generation periods of project operation in the Tallapoosa River downstream of the Thurlow development to river mile 12.9.

Alabama Power states they would collect water quality samples for the project as approved by the Study Plan and in concert with the requirements of the current 401 Water Quality Certification for the Martin Dam Project and as part of the license for the Yates and Thurlow Project. Alabama Power states that water quality data collected downstream of the Thurlow development, would only be collected during project generating periods. Alabama Power has agreed under the approved Revised Study Plan to extend the study range for this Study Plan 8 downstream to river mile 12.9. Alabama Power also states that they would analyze water quality information that is currently available for Lake Martin and in the project tailwater and would determine if other sources of water quality data might be useful in describing downstream water quality. Alabama Power notes that it would also be providing water quality information for the river reach downstream of the Thurlow development as part of Study Plan 12(C).

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Discussion and Conclusions

Staff is not convinced there is a need to modify Study Plan 8. The Study Plan does not need to be modified to include non-project generating periods or to include all the additional data parameters suggested by Wildlife Fund because the approved Study Plan 8 would provide the information that is needed to adequately address project effects on water quality. However, staff reminds Alabama Power that if it has to collect water quality data in the lower portions of the Tallapoosa River to river mile 12.9, Alabama Power would need to provide staff with the techniques to be employed, sites to be sampled, and a collection and reporting schedule that would remain within the approved schedule for Study Plan 8 and file the final report by the due date of November 2010.

Study Plan 10-Erosion and Sedimentation (Erosion Study)

Requested Modification

American Rivers and Wildlife Fund request Alabama Power describe: (a) the search for erosion hot spots on the Tallapoosa River downstream of the Thurlow development, and (b) how Alabama Power would assess the primary causes of these downstream erosion sites.

Alabama Power pointed out that Study Plan 10 was designed primarily to address project-caused shoreline erosion and sedimentation in Lake Martin and in the immediate tailrace area downstream from the Martin Dam Project dam. Alabama Power stated it would address up to ten additional erosion sites downstream from the Highway 29 Bridge as part of Study Plan 12(D) (Rule Curve Erosion Study) which also includes several erosion sites associated with the Thurlow development. Furthermore, Alabama Power stated they would rely on their experience and knowledge in identifying and determining erosion sites, as well as use qualified personnel, and engage landowners, stakeholders, and contractors familiar with the lake and the Tallapoosa River, in identifying erosion and sedimentation sites. Alabama Power states they would follow the approved Study Plan and methodologies for Study Plan 10.

Discussion and Conclusions

Staff is not requiring a modification of Study Plan 10. The Director's letter of April 17, 2009, approved the extension of the study area for Study Plan 10 downstream to river mile 12.9. Staff concludes that the proposed methodologies and site selection for erosion and sedimentation sites are adequate as approved for Study Plan 10.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Study Plan 12(A)-Rule Curve Change Modeling Analysis (Rule Curve Model)

Requested Modification

The Farmers and Landowners state objections to Study Plans 12(A) through 12(H) because the proposed modifications approved for these plans do not take into consideration, obligations by Alabama Power to control floods. Farmers and Landowners state that the proposed operation of the Martin Dam Project under Study Plans 12(A) through 12(H) would increase downstream flooding potential in the spring, summer, fall, and winter months, causing damage and destruction to their crops. Specifically, Farmers and Landowners reject the proposed study plan modifications that would: (1) increase the winter pool level by 5 feet; (2) maintain the summer pool for a longer period of time; and (3) begin refilling Lake Martin earlier in the winter.

Alabama Power states they are proceeding with the studies for Study Plans 12(A), (G), and (H) which staff has approved and would study the potential of rule curve changes on downstream flooding, economic affects around Lake Martin, and effects on lake-related businesses, respectively.

Boat Association is concerned that the model used in Study Plan 12(A) does not adequately account for seasonal fluctuations in rainfall and thus would not give an accurate prediction of flood potential. Boat Association also state that the process of reviewing the model used for modeling the effects of the rule curve changes should involve a more open process for stakeholders. American Rivers requests that Alabama Power provide a copy of the model used for Study Plan 12(A) to American Rivers and also suggest that Alabama Power could put the model online or in a CD to allow easy access to all interested stakeholders.

Alabama Power responds to the Boat Association and American Rivers comments by stating that Alabama Power has held several meetings for the stakeholders to better understand the model being used in Study Plan 12(A), and are scheduling a third meeting on the topic in the spring of 2010. Alabama Power is also proposing to make available the Project Routing Model and the HEC-RAS models after distribution of the draft Study Plan 12(D) report. Furthermore, Alabama Power would follow the methodology approved for Study Plan 12(A) and thus would provide adequate information to assess potential flooding under the proposed rule curve.

Discussion and Conclusions

No modification of Study Plan 12(A) is needed. Alabama Power is following the methodologies approved for Study Plan 12(A). Alabama Power has made several attempts to keep stakeholders informed and involved in the development of study results

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

for Study Plan 12(A). Alabama Power will also be hosting a third modeling workshop in the spring of 2010 to help stakeholders better understand the mode being used for Study Plan 12(A).

Study Plan 12(C)-Effects of a Rule Curve Change on Water Quality

Requested Modification

Wildlife Fund requests that Study Plan 12(C) be modified to include: (a) expansion of the geographic scope of the study downstream of the Thurlow dam, and (b) identify professionals that would determine how water quality changes under alternative operations are decided and provide in the study results, information to capture the reasoning behind the professionals decision-making.

Alabama Power states it is following the methodology approved for Study Plan 12(C). Alabama Power also states that the approved methodology for Study Plan 12(C) includes the use of a panel of internal and external experts to discuss the potential impacts of water quality as a result of rule curve changes. Alabama Power also states that an Expert Panel Discussion would occur in the late summer or early fall of 2010 to discuss the results of the effects of the proposed rule curve on water quality. Stakeholders who are members of the study group for this study plan would be notified of the Expert Panel Discussion prior to the meeting.

Discussion and Conclusions

Staff concludes that Study Plan 12(C) is adequate in its methodology to assess the potential effects of the proposed rule curve on water quality in the reservoir. However, Study Plan 12(C) needs to be updated and revised to reflect the extension of the study area downstream from Thurlow dam to river mile 12.9 of the Tallapoosa River, as approved by the Director's letter of April 17, 2009. Alabama Power states in its filing of November 20, 2009 that the baseline water quality data collected in Study Plan 8 would be used for conducting the analysis for determining the effects the proposed rule curve change would have on water quality in Study Plan 12(C). However, Alabama Power's Study Goals and Descriptions for Study Plan 12(C) filed on November 20, 2009, should be modified to include language to indicate that data would be collected to determine the effects of a rule curve change on water quality in the downstream Tallapoosa River to river mile 12.9. Alabama Power should also modify Study Plan 12(C), *Section 8.0, Products*, to incorporate the use of the Expert Panel Discussion mentioned above and provide any additional details about the composition, function, and stakeholder participation in that group.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

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

Requested Modification

Wildlife Fund request Study Plan 12(D) be modified to include: (a) evaluating the Tallapoosa River erosion hot spots located downstream of Thurlow dam for exposure to potentially earlier and later extreme peaking events in addition to the potential for more frequent flooding, and (b) a requirement that Alabama Power reports should clearly explain how Alabama Power made determinations about the effects of higher lake levels and project operational changes on lake and river erosion hot spots. Alabama DCNR requests that Study Plan 12(D) be modified to include additional sampling beyond 2010 if sampling year 2010 has unfavorable weather conditions.

Alabama Power states it would follow the study methodologies approved for Study Plan 12(D) and would meet the deadlines for filing all study reports for Study Plan 12(D).

Discussion and Conclusions

Staff is requiring a minor change to Study Plan 12(D). The methodologies approved for Study Plan 12(D) are acceptable and are consistent with the generally accepted practice in the scientific community and need not be modified. Under Study Plan 12(D), Alabama Power would verify the effects of rule curve changes on erosion sites in Lake Martin and in the downstream portion of the Tallapoosa River to river mile 12.9 by overlaying LIDAR data on these sites where survey data exists. However, to ensure accuracy of this methodology, staff requires Alabama Power to revise Study Plan 12(D) to include verification of Alabama Power's proposed LIDAR-use methodology by ground truthing a subset of the total number of erosion sites examined in the lake and in the downstream reach of the Tallapoosa River below Thurlow dam.

Study Plan 12 (G)-Effects of Raising the Winter Pool Level and Increasing the Duration of Summer Pool on Lake Martin Recreation Use and Economic Indicators

Requested Modification

The Boat Association filed a letter with the Commission on December 10, 2009 expressing concerns over stakeholder involvement regarding the development of study plans 12(G) and 12(H); concerns that were reiterated in its comments on the Initial Study Report, filed on January 19, 2010. The Boat Association contends that it was not given the opportunity to provide valuable information that would have made the economic impact survey more applicable to conditions around the lake. A second concern of the

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Boat Association was that the survey was too cumbersome, complex, and time consuming.

Alabama Power filed responses to the Boat Association's letters on December 21, 2009, and February 18, 2010. Alabama Power states that all stakeholders, including the Boat Association, were given at least three occasions prior to the Study Plan Determination to comment on the study plans. The February 18, 2010, letter included a schedule of stakeholder meetings held since January 2007 that shows there were multiple Boat Association meetings as well as stakeholder meetings. The December 21, 2009 letter states that Alabama Power never intended the draft economic impact survey for stakeholder review and comment; rather it planned to make the survey available when the draft study report was issued.

The Martin Association filed comments on January 19, 2010, regarding Study Plans 12(G) and 12(H). The Martin Association stated its concerns with the methodology Alabama Power has proposed for completing these two studies. The Martin Association recognizes that Alabama Power has been focusing on outdoor/lake/fishing/sporting types of businesses in their analyses of Study Plans 12(G) and 12(H). However, the Martin Association states that the scope of study for both study plans is limited in its purview and states that other businesses - including movie theaters, grocery stores, restaurants, and convenience stores - that may benefit from the spending of visitors to the lake and area residents, are being ignored by Alabama Power in the study plans. The Martin Association states that other off-water recreational activities, not just on-water activities or businesses located on the shore of Lake Martin, are relevant to this determination and should be included in Study Plans 12(G) and 12(H). The Martin Association requests that Alabama Power expand the focus of the current studies to provide a more accurate economical impact assessment of all recreational activities in the Lake Martin area.

Alabama Power provided a detailed response the Martin Association comments on February 18, 2010. Alabama Power states that the Martin Association did participate in the stakeholder meetings and generally agreed with the stated objectives of the studies designed for Study Plans 12(G) and 12(H). Furthermore, Alabama Power indicated that Study Plans 12(G) and 12(H) are designed to focus on water-based activities so the results can be used to estimate recreation and economic impacts associated with potential modification of the rule curve. Alabama Power states that recreational activities that are not water-dependent, would not be affected by modifying water levels and therefore should not be addressed in the studies. Alabama Power points out that its proposed studies focus on recreation and economics that can be tied to the project caused operational effects to Lake Martin. Alabama Power says they are willing to take a closer look at the independent, broader economic study conducted by Martin Association and their coalition participants for the project area.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Discussion and Conclusions

Boat Association

As noted above, Alabama Power indicates that the economic impact survey would be made available when the draft study report is issued. Staff concludes that including the questionnaire with the draft study report is appropriate. Once the study report has been filed with the Commission, the Boat Association and other stakeholders would have an opportunity to comment on the contents of the report and the questionnaire. Staff also concludes that expanding the economic impact study is not warranted because the impacts associated with the rule curve changes on movie theaters, grocery stores, restaurants, and convenience stores are too remote and do not have a direct nexus to changes made in the rule curve.

Martin Association

The Commission's regulations at §5.18(b)(5)(ii)(E) state, in part, that for an existing license, the applicant's economic analysis must estimate the value of developmental resources associated with the project under the current license and the applicant's proposal. The current focus of Study Plans 12(G) and 12(H) includes resources associated with the project. If Lake Martin was not there, the businesses that are being included in the studies would likely not have a reason to be open for business because these businesses are lake-related ventures. The businesses are open because there is a recreational opportunity afforded by Lake Martin. On the other hand, convenience stores, theaters, restaurants, and grocery stores are not open for business simply because Lake Martin is nearby. These types of businesses can be found in most towns and cities where a lake does not exist. There is a different correlation between the two types of local businesses the Martin Association would like incorporated into study plans 12(G) and 12(H). The Commission can only require that project-related resources be included in Study Plans 12(G) and 12(H). Thus, the scope of these two studies, as approved in the Director's Study Plan Determination letter of April 17, 2009, is appropriate and need not be further modified.

Staff notes that Alabama Power is free to use the information gathered in the independent economic study conducted by the Martin Association coalition involved in the relicensing process for the Martin Dam Project. The information gathered by the Martin Association may prove to be valuable to Alabama Power; however, the Martin Association has not shown a direct nexus between off-water recreation and project operation. Therefore, staff is not requiring Alabama Power to increase their scope of focus for Study Plans 12(G) and 12(H) as requested by Martin Association.

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

Study Plan 13-Shoreline Management Program (Shoreline Plan)

Requested Modification

No entity recommended modifying Study Plan 13. Several parties suggested improvements to the development of the Shoreline Plan. For example, the Alabama DCNR wants the Shoreline Plan to provide sound management practices to protect buffer zone areas. The Boat Association expressed concerns about the omission of the relationship between bridges inside and outside of the project boundaries. The Boat Association was also concerned about the development of a program by Alabama Power to inform visitors about keeping the lake and recreational sites and camping sites clean.

Alabama Power states that it is aware of the concerns raised by Boat Association and the Alabama DCNR and would address these concerns in their on-going development of the Shoreline Plan.

Discussion and Conclusions

No modification of Study Plan 13 is required. The comments made by Boat Association and the Alabama DCNR are suggestions that would be considered by Alabama Power in the development and refinement of the Shoreline Plan.

Study Plan 14-Recreation Plan

Requested Modification

Several entities provided suggestions to the Recreation Plan, but there were no recommendations for modifying Study Plan 14. Comments made by Boat Association were similar to the suggestions they made for Study Plan 13.

Alabama Power responded to the comments by stating that it is currently analyzing comments made by stakeholders on the Working Documents for the study plan and the comment submitted here, on Study Plan 14, would be considered as part of Alabama Power's review of other stakeholder comments.,

Alabama DCNR requests that public hunting opportunities be offered as another recreational opportunity in the Recreation Plan. Alabama DCNR also points out in their comments that the current license for the Martin Dam Project does not have provisions for public hunting.

Alabama Power's response to Alabama DCNR's comments states that it would continue to work with stakeholders in developing the Recreation Plan and is planning to

Martin Dam Hydroelectric Project
Project No. 349-150-Alabama

meet with stakeholders during the spring of 2010, after distributing the next iteration of the stakeholder working documents.

Discussion and Conclusions

Boat Association and Martin Association

The comments made by Boat Association and the Martin Association are suggested amenities to be considered as part of the development of a Recreation Plan that Alabama Power should consider. Therefore, no modification of Study Plan 14 is needed based on comments made by these two parties.

Hunting

Alabama DCNR requests that public hunting opportunities be offered as another recreational opportunity in the Recreation Plan. Alabama DCNR did not discuss whether there was a need for public hunting on project lands or provide any information to support the request. However, considering public hunting as part of the review and development of a Recreation Plan for the project is reasonable. Therefore, staff concludes that Alabama Power should consider public hunting as one of several potential recreational amenities in the development of the Recreation Plan for the project.

Document Content(s)

P-349-150Letter.DOC.....1-19