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The mission of the Wildlife and Freshwater Fisheries Division is to manage, protect, conserve, and enhance the wildlife and aquatic resources of Alabama for the sustainable benefit of the people of Alabama.

October 10, 2008

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Pre-Application Document; Scoping; Soliciting Comments on the PAD and SD; Study Plans; **Martin Dam Hydroelectric Project; FERC No. 349-150**

Dear Ms. Bose,

The Alabama Department of Conservation and Natural Resources Fisheries Section (ADCNR-FS) has been involved in ongoing consultation with Alabama Power Company (APC) with regard to the relicensing of the Martin project since 2006. As the State agency responsible for the conservation and management of Alabama's freshwater fisheries and aquatic wildlife resources, we have participated in the development of the Pre-Application Document, Scoping Document and the associated study plans. Although ADCNR-FS is in general agreement with most of the proposed study plans as they have been developed by the Martin Issue Groups (MIGs), there are a few points that we wish to emphasize through this comment opportunity to the Federal Energy Regulatory Commission (FERC).

General Comment with Regard to the Management of Water Resources:

The storage capacity of Lake Martin represents approximately half of the total combined storage of all of the projects in the Alabama-Coosa-Tallapoosa (ACT) Basin; and as a result, the operation of Martin Dam is critical to the management of downstream flows in the Tallapoosa and Alabama Rivers for the purposes of navigation, water supply, ecological needs and waste discharge assimilation. The operation of Martin Dam is a key component in the management of the riverine resources of the entire ACT basin, and the impacts of its operation extend far beyond its project boundaries. ADCNR-FS encourages both APC and the FERC to maintain consideration of this important aspect of the project as the relicensing process continues. ADCNR-FS also recommends that the relevant components of an adaptive basin-wide drought contingency plan that recognizes the various resource needs of the basin be incorporated into the license.

Comments on Proposed Study Plans:

MIG 1, Fish and Wildlife – Study Plan 1, Migratory Fish – Tallapoosa Basin Literature Review

ADCNR-FS agrees in general with the objectives and goals as described in this study plan as drafted March 27, 2008; however, ADCNR-FS encourages APC and FERC to consider how operations at Martin Dam, in essence, directly influence fish migration and movement patterns in the Tallapoosa River below the APC projects further downstream. These impacts to fish passage and migration should be considered in the relicensing process for Martin Dam. ADCNR-FS also recognizes the value of developing of a fish passage concept document as was provided for in the Coosa Projects relicensing process; but due to the uncertainties that exist at this time for future opportunities to implement a concept such as this, ADCNR-FS does not recommend that this concept be incorporated into the Martin license as a substitute for actions more directly associated with fish passage and migration directly influenced by the Martin Project.

MIG 1, Fish and Wildlife – Study Plan 2, Assessment of Fish Density and Species Composition Associated with Various Shoreline Types

ADCNR-FS has been fully involved by APC with the drafting of this study plan. The rapid rate of lakeside property development on Lake Martin, as on many other lakes, has increased concerns that the installation of shoreline "improvements" such as seawalls and bulkheads by lakeside property owners has led to a decline in the quality and quantity of valuable near-shore/shoreline habitats available for fish and other aquatic wildlife species. Presently, APC, with the concurrence of ADCNR-FS, encourages the use of "rip-rap" armoring alone, or emplaced along the lakeside toe of bulkheads and seawalls, in order to provide a more "fish-friendly" alternative to simple vertical shoreline treatments. There is little data available however, to support the biological benefit of these recommendations; and there also appears to be inconsistencies in how these existing recommendations are implemented by lakeside property owners. In order to better understand the relationships between various types of shoreline improvements and their potential impact to shoreline and near-shore aquatic habitats, this study has been pursued. ADCNR-FS expects that the results of this study will provide valuable guidance for the establishment of new best management practices (BMPs) regarding shoreline manipulation on Lake Martin, as well as other lakes and reservoirs of Alabama. If so, ADCNR-FS strongly recommends that these resulting BMPs be formally incorporated into the APC shoreline permitting process for all appropriate future shoreline permits.

MIG 1, Fish and Wildlife - Study Plan 3, Evaluation of Minimum Flows Downstream of Martin Dam

As described in the study plan, ADCNR-FS wishes to determine if there exists any potential, through modification to the present water release regime from Martin Dam, for enhancing the habitats for fish and aquatic invertebrate populations in the tailrace area immediately below Martin Dam, as well as further downstream in the Tallapoosa River below Thurlow Dam. Although Yates Lake, at full pool elevation, extends to the base of Martin Dam, there exists a short reach of the tailrace area that mimics riverine flows whenever there are water releases from Martin Dam. ADCNR-FS is particularly interested in determining if there is the prospect for enhancing this habitat to benefit riverine aquatic invertebrate

populations through maintaining flows that are more consistent in duration. ADCNR-FS also suggests that potential minimum flows from Martin should closely mimic minimum flows from Thurlow Dam in order to create continuity in the system, which would more closely resemble natural river conditions for the system in this reach of the Tallapoosa River.

MIG 1, Fish and Wildlife – Study Plan 4, Fish Entrainment and Turbine Mortality

ADCNR-FS strongly encourages FERC that APC follow through with the field verification portion of this study plan, as was described in the March 27, 2008 draft that describes the use of hydro-acoustic methods (either split beam or DIDSON) to verify and/or calibrate the results that are derived from the desktop study used to develop the primary estimate of fish entrainment and turbine mortality rates for this project. ADCNR-FS will also continue to consider cooperation with APC to include an additional assessment of the passage rates of oxytetracycline marked and stocked striped bass fingerlings through the dam if so desired by APC.

MIG 1, Fish and Wildlife – Study Plan 5, Rare, Threatened and Endangered (RTE) Species Surveys

ADCNR-FS fully supports surveys to determine the presence of RTE species within the Martin Project boundaries; however, our primary concern with respect to aquatic RTE species lies with the high probability that the Martin Project has long fragmented remaining habitats and populations of aquatic species within the tributary streams that flow directly into Lake Martin. ADCNR-FS recommends that comprehensive and thorough surveys of tributary streams, including those reaches outside of the Martin Project boundaries, be conducted so that any remaining populations of aquatic RTE species within this system can be identified. The emphasis of these surveys should be to locate and identify populations of mussels, aquatic snails, crayfish and fishes of conservation concern. The identification of fragmented populations of RTE species and their habitats will provide critical information for developing future management and conservation plans for these species. ADCNR-FS must also stress that all of the field investigators that undertake any RTE surveys associated with the Martin Project relicensing effort must be fully qualified and have the knowledge and skills necessary to accurately taxonomically identify these animals in the field.

MIG 1, Fish and Wildlife – Study Plan 6, Striped Bass Tagging – Hydroacoustic Collections (Telemetry)

ADCNR-FS has been fully involved by APC with the drafting of this study plan and has also had the opportunity to review and provide comments on the proposal that has been submitted to APC by its contracted outside investigator (Dr. Steven Sammons, Auburn University). ADCNR-FS is in full concurrence with the design and methods set forth in this proposal. However, due to the constraint being placed on this study by the FERC Integrated Licensing Process that limits this study to just one year in duration, ADCNR-FS takes this opportunity to strongly emphasize that studies of this nature are best served and more likely to provide meaningful data if they are multi-year in design. The objective of this study is to evaluate the behavior of adult striped bass as they respond to various limitations placed on their available habitat by both seasonal and project operational influences. Limiting this study to just one year in duration minimizes the probability that the conditions that may fully demonstrate the habitat limitations being placed on this fish population will be observed.

MIG 2, Water Quality and Quantity – Study 3, Erosion and Sedimentation

ADCNR-FS suggests that in addition to erosion "hotspot" sites on Lake Martin and in the Martin Dam tailrace, erosion "hotspot" areas below Thurlow Dam on the lower Tallapoosa River should be identified as well. The lower Tallapoosa River below Thurlow Dam is greatly affected by the hydro-power and flood control operations of Martin Dam. The coastal plain soil types found there are much more prone to erosion than sites above the fall line (north of Tallassee). These ADCNR-FS comments are also applicable to MIG 3, Project Operations – Study 12(d) draft date September 29, 2008. ADCNR-FS also has additional comments to submit with regard to sedimentation issues; but these will be addressed with regard to discussions of MIG 3, Study Plan 12(b), draft date September 29, 2008.

MIG 3, Project Operations – Study 12(b), Effects of a Rule Curve Change on Sedimentation Rates and Nuisance Aquatic Vegetation

ADCNR-FS recognizes that many of the stakeholders that are involved in the relicensing process for the Martin Project hold as their primary interest the modification of the existing rule curve to allow for both higher winter pool lake elevations and an extended period each year for the lake to be held at or near summer pool. ADCNR-FS also recognizes the potential benefits that these stakeholders perceive such as improved/prolonged access to the lake for boating and for lakeshore property owners, an increase in the conservation of water supplies during periods of drought, and an increase in the economic contributions for the Lake Martin area that would result from longer recreational use of the lake each year. ADCNR-FS fully supports the study plans that address this issue (MIG 3; Studies 12a – 12e). However, with respect to this study, ADCNR-FS does hold special concerns that it be both thorough and comprehensive in scope.

Through good fortune, existing lake morphology/fertility, historic project operations, or a combination of all of these factors, Lake Martin and its stakeholders have yet to have experienced the serious adverse impacts to this resource that could result from infestations of nuisance aquatic plants. Many other lake and reservoir stakeholders throughout the Southeast have not been so fortunate, and the adverse impacts that nuisance aquatic plants have had in these other systems have been well documented. In particular, the potential threat that is represented by non-native invasive aquatic plant species to the value of Lake Martin as a resource is one that concerns ADCNR-FS apart from any proposals to modify the operations of this project.

For decades the operations of Martin Dam have provided for a ten-foot or greater drawdown of lake surface elevations during the winter months. This draw down dewatered the shallowest areas of the lake bottom, and exposed these areas to desiccation and freezing temperatures which are factors that are known to be beneficial for controlling many submerged aquatic plant species. In addition, this dewatering process allowed for the transport of accumulated sediments in these shallow areas into deeper portions of the lake, which in turn minimized the potential for the establishment of stands of submerged or emergent nuisance aquatic vegetation. ADCNR-FS is concerned that increases in sedimentation rates in critical areas of Lake Martin may occur if a rule curve change is implemented that results in significantly higher winter pool levels and/or shorter draw-down periods. ADCNR-FS also believes that although there are local sedimentation issues in many areas of the lake's perimeter, the areas that are most likely to be

impacted in this way will be in the upper reaches of the lake's tributary arms. These are the locations where sediments originating from erosion sites potentially miles outside of the project boundaries, may be transported into the lake and deposited in deltas near the mouths of the tributary streams. ADCNR-FS is concerned that if sedimentation and/or aquatic plant issues do develop that are associated with a modification of the Martin Project rule curve, they may occur years after the change in the operations of the dam is implemented. In a "worse case" scenario, a change in operations that increases the risks of sedimentation and nuisance aquatic plants could lead to the establishment of an infestation of one or more of the more aggressive invasive aquatic plant species which would more than offset the immediate benefits derived from the change in the rule curve. Once established in Lake Martin, an invasive aquatic plant such as *Hydrilla spp.* or *Myriophyllum spicatum* would be extremely difficult and expensive to control, and likely impossible to eradicate. ADCNR-FS encourages both APC and FERC to fully evaluate any potential risks that may be determined from this study that would indicate a likelihood of increasing aquatic vegetation problems in Lake Martin, and take steps to ensure that all stakeholders involved with the re-licensing process are well informed on these risks.

Thank you for providing ADCNR-FS the opportunity to comment on the Lake Martin Pre-Application Document and Scoping Document. ADCNR-FS looks forward to the continuing cooperation with FERC, APC and other stakeholders in the Lake Martin relicensing process. If you have any questions regarding these comments, please feel free to contact Nick Nichols, Assistant Chief of Fisheries at (334) 242-3883 or nick.nichols@dcnr.alabama.gov.

Sincerely,

Stanley F. Cook

Stanley F. Cook
Chief of Fisheries