



Alabama Rivers Alliance
Water Is Life

January 11, 2008

Mr. Jim Crew
Project Manager, Martin Relicensing
Alabama Power
600 North 18th Street
Birmingham, Alabama 35291

**RE: Martin Issue Group Study Plans November 2007
FERC Project No P-349**

Dear Jim:

On behalf of the Alabama Rivers Alliance (Alliance) please accept the following comments regarding the draft study plans distributed by Alabama Power Company in November 2007 for the Martin Issue Groups (MIGs).

We appreciate the additional time APC has allowed for submittal of these comments and hope you find our suggestions useful.

The Alliance understands that the proposed study plans for MIGs 1 through 5 were developed from stakeholder input on project issues to identify the information that will be needed for the preparation of APC's preliminary application document (PAD). To date, APC has prepared a preliminary information document (PID) which contains some existing information about the project, completed an issue identification meeting, informational meeting, and MIG meeting. The PAD must include information about the existing environment and the impacts the project will have on certain resource areas such as water resources and aquatic species (18CFR5.6(d)) and include the studies needed to gather the needed data.

The purpose of the study plans is to determine methods for collecting baseline data and determining project impacts on resources in the project area. The end result should be ample information to assist FERC, agencies, and other stakeholders in the development and analysis of project alternatives that will enhance resources.

The Alliance has noticed that several of the issues identified in the issue sheets from July 2007 have not been incorporated into the study plan. We request that APC document the decision process used to eliminate initial issues from further study. We have been unable to locate meeting notes that indicate how the study plans were selected. We encourage APC to review the initial issues raised in 2007 to ensure that they aren't ignored for further study without documentation of stakeholder consensus to do so.

General Comments

Many of the field studies proposed in the study plans include only one season or one year of sampling. Without additional data to supplement the field studies, one year of data cannot be sufficient to determine existing conditions and the impacts the project has or will have on the environment. Seasonal and life-cycle sampling are crucial for aquatic resource studies. Water quality sampling must also encompass seasonal and yearly variability in precipitation and runoff.

APC has provided much of the relicensing information on a website. The Alliance requests that electronic copies of the documents and studies referenced in the study plans be placed on the relicensing website. We often find it difficult to locate scientific studies or older documents without financial burden. As many of the stakeholders in the Martin relicensing project are non-profit organizations or citizens, the availability of these documents would greatly enhance our participation in the relicensing process. We request that references possessed by APC in hard copy be scanned and placed on the relicensing website in PDF or other acceptable format. If the listed references are available on-line, a link to the documents would also be helpful.

To further enhance the relicensing process and the ability of stakeholders to fully participate, we request that APC post copies of comments filed by stakeholders on the relicensing website. This will enable all stakeholders to more fully understand the various positions and issues of the numerous relicensing participants. Full copies of the stakeholder comments on the website could supplement any summary documents APC prepares.

Each study plan includes an estimate of cost. However, it is unclear what is included in these costs. Please revise the study plans to include a more detailed explanation of the cost estimate with subcategories such as subcontractor personnel, APC personnel, equipment costs/rental, supplies, and lab analysis. The use of one lump sum amount is not meaningful without additional explanation or breakdown.

MIG 1 – Fish and Wildlife

The Alliance has raised the concern about tributary habitat connectivity in the Martin project as well as the Coosa relicensing project (P-2146). However, there are no study plans to assess the effect of the project on migration and genetic variability of tributary species. Fish and mussel species in streams tributary to the Tallapoosa River/Martin reservoir were able to migrate between the tributaries prior to the construction of the reservoir. This allowed for multiple food sources and a variety of gene pools, as well as a method to escape temporary catastrophic events (such as pollution, drought, or food shortages). Mussels are particularly vulnerable to catastrophic events as they cannot easily relocate. Mussels are also dependent upon host fish to carry their young to other locations and supplement the existing colony. The Alliance requests that APC identify species in the tributaries of Martin reservoir and assess the impacts that project operations may have on their inter-tributary movement and population health. Isolated populations should be identified so stakeholders can determine if project operations can be modified to improve conditions or if mitigation measures may be appropriate.

Study Plan 3 – Minimum Flows

While the minimum flow study plan is presented in the context of Fish and Wildlife, the impacts of flows from the dam on water quality (particularly dissolved oxygen and temperature) should also be considered. The effects of the current flow regime should be assessed during both generation and non-generation periods, as there could be a significant difference in both aquatic resources and water quality during these times. Based on the river stage fluctuations beyond the downstream run-of-river dams (Yates and Thurlow) due to peaking generation at Martin dam, APC should expand the study area to include the confluence of the Tallapoosa River with the Coosa River.

The methods used to assess the samples should be stated in the study plan. Models that will be used to analyze the raw collection data should be identified in the study plan as well. Section 6 states that the data will be assimilated into a report and Section 8 mentions that analysis will also be included in the study. Therefore, it is important to disclose which analytical processes, if any, will be used to interpret the raw data.

The relationship between water quality and project operations and those effects on freshwater species should be explored in this study. Flows from the dam can have a great impact on water quality in the tailrace and downstream reaches, which would then in turn impact the aquatic species.

The proposed report will contain only the data collected during the study period. However, it is unclear how raw data will assist the stakeholders in determining the level of minimum flow needed at the dam to improve the resource. Habitat preference information, including depth and velocity, should be presented for each species. Reference data for species abundance and distribution in similar riverine habitat would also be useful to compare the project conditions with unregulated systems.

Section 6 of the draft study plan indicates that a report will be provided to “the agencies” for review. We request that APC revise this section to include the MIG 1 members in the review of the report. Section 8 does indicate that MIG 1 will be involved in the review of the draft report.

Study Plan 4 – Fish Entrainment and Mortality

APC does not explain what method would be used to analyze the database of information from other entrainment and mortality studies. The “most similar projects” and “suitable studies” will be selected for the determination of entrainment and mortality rates, however it is unclear what the benchmarks are for “similar” or “suitable” projects. We request that APC document their decision process in the selection of similar projects and their use of the database. Ideally, MIG 1 members would also be involved in the selection of “similar projects” to ensure consensus before the analysis begins.

While a field study would be the best way to collect site-specific information regarding the types and sizes of fish becoming entrained, APC does not explain why a field study is not feasible or desirable. If there has been discussion about the preference of literature studies in lieu of field studies, please include this rationale in the study plan.

Study Plan 5 – Rare, Threatened, and Endangered Species

Although APC consulted with DCNR and FWS, it is not clear why APC has not chosen additional tributaries to survey. There are several additional major tributaries to the reservoir which could be considered. The connectivity study mentioned above would also be applicable to this study.

It is not clear how a report on the locations of RTE species will assist the stakeholders in the determination of project impacts and the identification of project alternatives. APC must provide information on how the project impacts the RTE species.

MIG 2 – Water Quality and Quantity

The Alliance would like to take this opportunity to mention that several stakeholders have expressed interest in the development of a basin-wide model for water movement and impacts for the Alabama Power projects on the Tallapoosa River, which include Harris, Martin, Yates, and Thurlow dams. We understand that the three other dams are not being relicensed at this time, yet many stakeholders have expressed interest in learning how these projects and APC's operations interrelate. We understand that APC undertook this sort of modeling during the relicensing of the seven Coosa River projects (P-2146) and know that APC possesses the data and programs needed to perform such an analysis. In APC's own presentation in May 2007 they stated "the operations of each dam have an impact on both upstream and downstream reservoirs."

Study Plan 1 – Adaptive Management Water Quality

Although we are aware that a temporary rule curve variance was permitted by FERC during the drought in 2007, we are unaware of any official proposal to permanently alter the rule curve at the Martin reservoir. The study plan indicates that a rule curve change is an assured alternative.

The application of adaptive management at this point in the process is inappropriate. Adaptive management is more applicable to testing or monitoring the effectiveness of a plan to improve a resource, once a problem has been identified and a potential solution proposed. APC is proposing to use adaptive management without first identify the impact the project has on water quality and without a plan to reduce any negative impacts.

APC mentions the rule curve as an operational nexus. The use of a minimum flow release is also an operational nexus that should be studied. Even though operational changes have not been proposed at this point, APC should consider how a minimum flow would improve water quality in the reservoir and downstream of the dam.

Study Plan 2 – NPDES Permits

The contribution of point and non-point source pollution to the Martin project occurs well outside the project boundaries. Discharges upstream of the project and in project tributaries affect the water quality in the basin. The operation of Martin dam in turn affects water quality in the reservoir and in downstream reaches. The Alliance requests that APC provide a list of permitted discharges within the Tallapoosa River basin upstream of Martin dam and extending to

Harris dam. It is important to understand how water quality in the project is affected by both incoming water quality and project operations.

To understand the contributions of permitted discharge facilities and land uses on water quality, APC needs to prepare more than just a list of permitted facilities. Stakeholders need to understand how the discharges affect the water quality in the reservoir and how project operations may increase or decrease the effects.

While sources of pollution have an impact on water quality, the operation of the project itself may impact how well these pollution sources dilute, mix with background conditions, or contribute to water quality problems. The Martin project itself and its operations are a nexus for pollution issues.

APC states that they will be working with several entities to determine sources of non-point source pollution on the lake, but there is no information on how this will be performed. Section 8 indicates that non-point source pollution will not even be studied until analysis of point source data is complete and warrants the study of non-point source pollution. It is not clear how APC will be able to link any water quality impairments to specific categories of pollution and determine whether a study of non-point source pollution is warranted.

Study Plan 3 – Erosion and Sedimentation

As the title of the study plan implies, stakeholders have expressed an interest in studying erosion AND sedimentation associated with project operations. While the study plan outlines proposed methods for assessing erosion, the issue of sedimentation has not been included in the plan.

The Alliance raised this issue with APC during the Coosa relicensing (P-2146) although little attention was ever given to this issue. The construction of the dam has reduced the ability of tributaries to flush sediment downstream. As a result, the mouths of tributaries near impoundments often “fill up” with sediment that cannot be flushed out due to lack of flushing flows in the slow-moving impoundment. As sediment accumulates in the mouths of the tributaries, the function of the entire stream can be compromised. Stream volume is reduced as a result of sediment fill and waters in the stream rise, causing bank and streambed erosion as the stream seeks to reestablish its volume capacity. As the stream downcuts or widens, the process sometimes moves upstream as the stream attempts to find equilibrium. Thus, after a period of time, the stream may end up deeper and wider, with even more sediment accumulating in the mouth as a result of these geomorphologic processes.

The Alliance requests that APC perform a survey of the tributaries to the reservoir and determine if head cutting is occurring upstream of the impounded area and assess the level of sedimentation currently present in the mouths of the tributaries.

Regarding the study schedule and sampling locations, the Alliance recommends that a survey for erosion hot-spots be performed in both high and low reservoir level conditions. Performing the survey in both conditions would offer a comparison of erosion conditions and may also help further identify the source of the erosion.

We recommend that item number 2 on the erosion worksheet be moved to the end. Asking the observer to identify the potential cause of erosion without first fully considering all the conditions of the site is premature. By moving item 2 to the end of the list, the field personnel would go through the other required observations before making a more informed decision about the cause of the erosion. We also request that blank lines be placed under the potential cause field to allow the field personnel to fully explain the rationale behind their decision.

Study Plan 4 – Water Quantity, Water Use, and Water Withdrawals

The project nexus needs to include areas beyond the project boundaries. Upstream water usage greatly affects the water availability in the Martin project. The potential for new reservoirs in Georgia, water use trends related to population growth, and any other potential future use of water must be documented and considered in this relicensing process. We request that APC work with local municipalities to utilize existing census data and water usage information and estimate potential domestic water demand in the area for the next 30-50 years. The proximity of the Tallapoosa River headwaters to Atlanta makes the possibility of a new water storage reservoir or major water withdrawal a real threat to water supply in the Tallapoosa basin. APC must consider the potential future plans of upstream entities for use of the water (18CFR5.6(d)(3)). Other existing water users within the basin upstream of the dam should be included in the white paper. APC should also document how operations of the Martin project may affect water availability and increase evaporation.

MIG 3 – Project Operations

Study Plan – Rule Curve Change

This study plan includes the analysis of a proposed operational change, which has yet to be discussed in the relicensing process. Without an understanding of baseline impacts, APC should not yet be asking stakeholders to present operational alternatives. Instead, APC should continue to document and explain how current operations impact the environment and other resources.

Many of the currently requested studies focus on existing conditions and how the project impacts the resources. Once the stakeholders have had a chance to review the results of these studies, then we may be able to make informed suggestions about the types of operations that can be analyzed for their own impact to the resources. A proposed change to the rule curve will have to be analyzed for its impacts to the environment and then compared to the current project operations to determine if there is any benefit from the proposal. Without the completion of the current studies, it is premature to study the impacts of the proposed rule curve change to only one portion of resource impacts (flooding).

MIG 4 – Shoreline Management

Study Plan – Shoreline Management

The Alliance is concerned that APC plans only to analyze APC-owned lands in the Shoreline Management Plan. While we understand the APC has no control over the development of lands not under its ownership, knowledge of the current land uses, growth trends, and non-point source pollution impacts would be a great help to resource agencies, land owners, and other stakeholders. The Alliance requests that APC include a process to develop a landowner, land

developer, and realtor education program that focuses on sustainable development and proper best management practices in an effort to protect the resources in the vicinity of the project. We also request that APC work with stakeholders to determine if land needs to be added to the project boundary that would result in the improvement of water quality or fish and wildlife habitat. In addition, we suggest that APC work with local residents, developers, and municipal leaders to plan a workshop to discuss community planning and development ordinances in the area of the reservoir.

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Thank you in advance for your consideration of these comments. We hope our suggestions are useful in advancing the purpose of the relicensing process. Please feel free to contact us if you have any questions regarding this submittal.

Sincerely,

A handwritten signature in black ink that reads "April Hall". The signature is written in a cursive, flowing style.

April Hall, P.E.
Watershed Protection Specialist

cc: Stan Cook, Alabama DCNR
Jeff Powell, U.S. FWS