

**Meeting Summary - Agency/APC Meeting
Martin Relicensing
June 12, 2007**

INTRODUCTIONS

Jim Crew opened the meeting and reiterated that the purpose of today's meeting is to review the MIG sheets and begin discussions about data needs and study requests/plans. Jim noted that there are six MIGs; however, the cultural resources MIG sheet is being developed and is not included in the discussions today. APC will be working directly with the Alabama Historical Commission to develop any study plans for cultural resources.

Jim also noted that with the Integrated Licensing Process (ILP), it is important that we take advantage of this time prior to the issuance of the Pre-Application Document (PAD) and Notice of Intent (NOI) because filing the PAD and NOI initiate the FERC process and the rigorous timelines associated with study plan development and approval.

Jim discussed the process of working with the agencies now through the end of the summer to develop "straw man" study plans and then distribute those plans to the public and meet in the smaller MIGs to discuss and work toward consensus study plans to file with the PAD next year. Jim also noted that we need to follow FERC's study plan criteria when developing our study plans for Martin. The timeline for filing the study plans for FERC approval is 45 days after the deadline for filing comments on the PAD, (roughly fall 2008). Only agencies and tribes with mandatory conditioning authority can appeal FERC's decision on the study plan. Once the study plan is approved by FERC, APC will implement those approved studies. It was emphasized that the purpose of the approved study plan is to get FERC the information it needs to make a licensing decision.

Prior to getting into the details of the MIGs, John Grogan provided an update on the drought conditions and APC's request to the USACE to reduce navigation flows in the Alabama River and to increase releases from the upstream Carters and Altoona reservoirs. The comment period on the USACE's notice ends at midnight on June 12. APC is hoping that the USACE makes a decision by week's end.

MIG3 – Project Operations

We began discussions with Project operations since many of the anticipated studies and project changes are associated with requests to evaluate changes in the winter rule curve. The primary purpose for the higher winter pool is to increase recreational opportunities year round. There is both a timing issue (later drawdown date and earlier fill date should increase available recreation days) as well as an elevation issue.

Ashley McVicar discussed the analysis to date and noted that the HEC-RAS is complete as are the cross sections. She is continuing to run Tallapoosa flood frequency analyses through the model to develop better calibration.

- In the list of the operation issues – agencies recommended that “Yates and Thurlow” be added to the bullet that says “Both Harris and Martin need to be evaluated together....”

We discussed that the developers generally don’t like the increased winter pool because they use the 10ft annual drawdown to perform maintenance and construct piers, sea walls, etc. ADCNR was clear that they aren’t advocating a change in the winter rule curve. We discussed that this issue, more than any other, is a prime candidate for adaptive management, because we really won’t be able to develop a precise predictive model that would provide the type of information on effects that we might be looking for. We also discussed the potential value of having a 10 ft drawdown (*i.e.*, back to historic rule curve) periodically to address some agency concerns about siltation, vegetation, etc.

Overall, the agencies believe that they need to see specific information from APC on the drawdown level that might be proposed (*e.g.*, a 4 ft winter drawdown, 6 ft, and 8 ft). The agencies asked if this analysis would tie into a water balance model for the Tallapoosa basin.

We discussed the need for good baseline data for use in developing an adaptive management process/program for the Martin winter rule curve change. The following types of baseline information were discussed.

- Need existing sediment levels and aquatic plant info
 - Can the existing APC models look at sedimentation in tributaries? Deposition and removal, specifically.
 - Agencies are concerned that raising the winter pool could result in accumulation of sediments and subsequent aquatic vegetation
 - Would sediment cores during these historic low lake levels provide useful information?
 - Look especially at Blue Creek, Sandy creek, Irwin Shoals, Lower Hillabee Creek
- What will the change in the winter rule curve do to Lake Martin’s trophic status and what about eutrophication?
 - Is there information from other lakes in the SE that could be used to help predict this?
- Water quality measurements
 - ADEM is interested in current and long-term reservoir and downstream water quality data including chlorophyll *a* and nutrient levels
 - ADEM would like to review the available tailrace data – APC has this data and will forward to ADEM.

MIG1 – Fish and Wildlife

APC and the agencies discussed seven primary concerns that may need additional information/study: 1) striped bass impacts; 2) habitat fragmentation; 3) migratory fish; 4) entrainment/mortality; 5) wildlife; 6) “fish friendly” shoreline stabilization structures; and 7) continuous minimum flows below Martin.

Striped Bass

The agencies are concerned that there is limited thermal refuge for striped bass. They would like to see if there is a relationship between generation and striped bass die off during the late summer and early fall. Specifically, they believe the turbine withdrawal affects thermal refuge by depleting cool water/high DO areas. This is especially problematic for large fish. ADCNR cited a report by Miranda that larger striped bass have a tendency to sink to the bottom upon death (not float), which potentially distorts the reported number of fish killed.

ADCNR suggested a striped bass tracking study of the larger fish similar to the study performed on Smith Lake. This study would consist of using sonic tags and hydroacoustics to track striped bass movements during the June – September time frame. APC suggested inclusion of a guide questionnaire to gather information from professional guides on the lake. The overall purpose of this study would be to gather additional data for better understanding the operations/hydrology that trigger the summer die off event and to gather additional data on the size structure of the existing striped bass population. ADCNR also noted that Martin is a refuge for the gulf stripers.

- Interaction of largemouth, stripers, and spotted bass – new study on Smith that is available for review.

Study Plan: Striped Bass Tagging/Hydroacoustic study on Lake Martin.

Habitat fragmentation

USFWS and ADCNR would like to have better baseline data on T&E and rare species in the lake and tributaries. The agencies recognize that discussing possible protection, mitigation, and enhancement (PM&E) measures will likely be advantageous in addressing this issue.

- Previous and on-going snail/mussel surveys are addressing this to some degree
- More of a RTE issue?
 - Reintroduction and enhancement of some species will be a goal
- Large mussels have been found around Chimney Rock – not sure what species
- Possible non-native mussel in Martin – Jeff Garner found an undetermined species at Wind Creek State Park
- Agencies would like APC to identify the low head dams in the basin (tributaries on Martin). They recommended we look at Mike Gangloff study that maps all the low head dams.

Study Plan: RTE surveys of Lake Martin and tributaries – Research of historic species distributions – possible identification of dam removal projects.

Migratory Fish

USFWS is interested in a white paper analysis (literature review) of the historic species that utilized the Tallapoosa River. American eel is the main concern as it has been found in the downstream Yates and Thurlow Project. USFWS asked APC to include in their analysis what other SE projects are doing with regard to managing American eel. Jeff Powell (USFWS) agreed to help develop the outline of the analysis needed.

Study Plan: “White Paper” of diadromous species distributions – emphasis on American eel and recovery plans.

Fish Entrainment/Mortality

ADCNR requested that APC collect empirical field data for an entrainment/mortality study. APC questioned why field data is needed as it is very expensive to collect and desk top studies have been shown to be representative of entrainment/mortality rates. ADCNR wants empirical data for Striped bass and largemouth bass (age 0 and larger fish) to determine impacts of project operation.

- ADCNR would also like to understand if they need to adjust their stocking rates for stripers and possibly stock Florida largemouth – seasonality and numbers lost from lake.
- Ultimately, ADCNR would like to know how to prevent losses from lake populations

Study Plan: Desktop fish entrainment and mortality study with emphasis on striped bass and largemouth bass – possible inclusion of empirical data.

Wildlife

ADCNR (Rick Claybrook) would like APC to provide the GIS layer for the timber stand types on APC lands in the project and adjacent to the project. For example, ADCNR is interested in what type and the quantity of APC lands to include for managing RCWs. ADCNR would also like to know how lands are managed from R.L. Harris to Irwin Shoals. Ultimately, the group discussed development of a Wildlife Management Plan for APC project lands with the possible inclusion (ADCNR efforts) of Russell lands for effective management.

Study Plan: Develop a Wildlife Management Plan for the Martin Project – inclusion of RCWs.

Fish Structures

ADCNR is interested in finding out what shoreline stabilization materials and methods are the most “fish friendly” for use around the lake (sea walls, rip rap, *etc.*). APC and ADCNR discussed collecting fisheries information adjacent to a variety of structures and natural habitats in Lake Martin.

Study Plan: Develop a study plan to determine species type and abundance of fish adjacent to a variety of shoreline stabilization types – including natural habitat.

Minimum Flows below Martin

ADCNR requested that APC collect information regarding a continuous minimum flow downstream of Martin Dam. They are looking for a flow that would be tied to the Thurlow release. The ADCNR is concerned about fish and unionid populations/habitat in the tailrace. They want to look at the influence of fluctuations on the Yates impoundment as well as the cool water releases made from Martin into the tailrace.

Study Plan: Develop a survey of the existing aquatic resources of the Martin tailrace (fish & unionids)– document water level changes that occur on Yates as a result of Martin releases and the Thurlow minimum flow – document mechanical/operational limitations at the Martin Dam.

MIG2 – Water Quality

Water Quality Model

The group discussed the need for a Water Quality model to predict changes in the lake associated with the Rule Curve change. It was the consensus of that group that actual field data (baseline plus monitoring data) was preferred to a predictive model. ADEM seemed comfortable with the idea of making a change in the winter rule curve and monitoring water quality parameters to determine any effects.

- ADEM noted that they have water quality data in embayments on 5 year cycle
 - This info is available on ADEM’s website except 2005 data – 2005 data should be available in early 2008
- Information collected should be useful for the 303(d) list
- ADEM will provide methodology for setting up our water quality monitoring studies

Study Plan: Develop a Water Quality Adaptive Management Sampling Plan for gathering baseline and monitoring data for comparison of changes in the Lake Martin water quality with a change in rule curve.

Erosion

APC proposes to do an erosion hot spot study similar to the ones on the Coosa and Warrior Rivers. Agencies noted problems in Blue Creek.

Another facet of this study would be to gather baseline distribution data on the current presence of aquatic vegetation. This information will be used to identify problem areas and as baseline for any Adaptive Management Studies.

Study Plan: Develop Erosion Hot Spot Study – Develop Aquatic Vegetation Distribution Study.

Permitted and Illegal Effluent Sources

Pres Alinder (Alabama Department of Health) noted that APC’s surveillance team and corporate real estate staff could be a tremendous help in identifying sewage/septic tank problems. He offered to conduct a training class for APC on what to look for. He noted that most new permits on Martin are “advanced” systems but there may still be some “straight pipes” out there. He asked that if APC spotted any problems with septic systems to contact the local Department of Health officer.

Study Plan: Develop list and GIS overlay of NPDES discharges to Lake Martin - Add a section to the Shoreline Management Plan to include this training for APC Surveillance staff on Lake Martin.

Water Withdrawals

APC proposes to develop a “White Paper” that explains APC’s process for permitting water withdrawals and lists all of the current withdrawals on Lake Martin. This paper will be similar to the ones prepared for the Coosa and Warrior Projects.

Study Plan: Develop Water Withdrawal Study Report for Lake Martin.

MIG4 – Shoreline Management

- Preparing an SMP will be the study
 - Land use and permitting and identifying land classifications will be the tasks involved in preparing the shoreline management plan.
 - This will be an issue that will involve many stakeholders

Study Plan: Develop a Shoreline Management Plan for Lake Martin

MIG5 – Recreation

APC is collecting additional LIDAR data on the reservoir since the lake levels will likely be at levels never before experienced due to the extreme drought. ADCNR is most interested in three potential bank fishing areas: Pace Point/Pace's Trail, South end of Hwy 63 bridge, East side of the dam above Hwy 280. Preparing a recreation plan will be the study to address this issue. APC is also looking into updating the socioeconomic study conducted by Auburn in 2001.

- Kleinschmidt will look into whether Maxwell Gunter Air Force Base Recreation Areas collect use data and would share it; could use as another data point, along with DARE and Wind Creek to adjust use numbers for summer 2007

Study Plan: Develop a Recreation Plan for Lake Martin.

Next Steps in the Relicensing Process

APC will make minor revisions to the MIG sheets and distribute them to the public stakeholders by end of June 2007. APC will draft study plans for the agencies' review and comment. APC proposes to meet with the agencies in August 2007 and then host a public meeting with all stakeholders in September/October 2007.