

Study Plan 5 - Rare, Threatened, and Endangered Species Surveys

1.0 GOALS AND OBJECTIVES OF STUDY

The U.S. Fish and Wildlife Service (USFWS) and the Alabama Department of Conservation and Natural Resources (ADCNR) (agencies) are concerned about the presence of any Federal and/or State Rare, Threatened, and Endangered (RTE) species that currently reside within the Martin project boundary.

The goal of this study is to identify the location and abundance of any RTE species within the project boundary and determine if project operation potentially impacts any species present. If there are project related impacts, the agencies would like to determine ways to limit those impacts. The agencies would also like to determine if there are opportunities to enhance or reintroduce species to specific areas within or near the project.

2.0 RELEVANT RESOURCE MANAGEMENT GOALS

The USFWS has mandatory federal authority under Section 7 of the Federal Power Act to identify and limit the impacts of hydropower projects on any Federally protected Threatened or Endangered species within the project boundary. [A potential impact is fragmentation of species populations by the project and reduction of connectivity of populations.](#) The ADCNR has developed a policy to enhance RTE species through protection of habitat, supplemental stocking, and/or reintroduction of species to historic habitats. Protection and or enhancement of any populations of RTE species within the project boundary would be a positive action for sustaining any RTE species identified.

3.0 BACKGROUND AND EXISTING INFORMATION

Several preliminary surveys have been performed for RTE species within the project boundary and include:

- unionid survey in various main channel and tributary areas of the project,
- red cockaded woodpecker surveys on project properties, and
- annual bald eagle surveys on the lake.

4.0 PROJECT NEXUS

The study would determine if there are existing populations of RTE species within the project boundary and if project operation impacts those populations. [Fragmentation of the populations by the project is one area of impact to consider.](#)

5.0 STUDY AREA AND STUDY SITES

The study area for this issue would include all of the lands and waters located within the project boundary of the Lake Martin project. Additional tributary sites adjacent to the project may also be included if they are significantly influenced by project operations.

6.0 PROPOSED METHODOLOGY

The overall purpose of this study would be to gather additional data for determination of the presence and location of RTE species within the project boundary, to determine if project operations affect these populations, and to identify potential aquatic restoration areas adjacent to the project. To accomplish this, the study will involve three components:

- 1) A literature search of the USFWS, Natural Heritage Trust, and Alabama Lands Division RTE species databases will be performed to see if any documented populations of RTE species occur within or adjacent to the project boundary.
- 2) Field surveys will be performed by qualified investigators in specific areas of the project identified by these databases or by ADCNR or USFWS personnel. These surveys will determine the presence or absence of RTE species within the project boundary. Initial conversations with the USFWS and ADCNR has led to RTE surveys in Manoy Creek, Blue Creek, Sandy Creek, the Tallapoosa River at Irwin Shoals, and the Tallapoosa River in the Martin Tailrace. These conversations have also revealed that an unidentified species of mussel has been observed in Martin Lake near Chimney Rock and there is possibly a non-native species of mussel near Wind Creek State Park (collected by Jeff Garner).
- 3) A review of low head dams located on tributaries to Lake Martin will be performed through review of existing studies (Gangloff). This will provide the agencies with potential restoration areas adjacent to the project boundary.

6.1 Data Collection Techniques

To be developed in cooperation with USFWS based on RTE species distributions data.

6.2 Data Analysis

To be developed in cooperation with USFWS with development of a Biological Assessment as the ultimate goal.

7.0 CONSISTENCY WITH GENERALLY ACCEPTED SCIENTIFIC PRACTICE

This study employs generally accepted practices for evaluating RTE distributions at hydroelectric projects. The study methodology is consistent with generally accepted sampling principles and practices.

8.0 PRODUCTS

This study will have three products:

- an RTE database for the Lake Martin area;
- a report of RTE locations within and/or adjacent to the Lake Martin Project; and
- a report that identifies potential restoration areas within or adjacent to the project boundary of the Lake Martin Project.

Data and analyses from this study will be included in periodic reports to ADCNR, USFWS, and the MIG 1. Draft reports will be distributed to the MIG 1 for review and comment

upon completion of the product. Final reports will be provided for each product as part of the draft license application and will contain all necessary data in tabular and graphic form to depict RTE abundance and/or distribution within the Lake Martin Project.

9.0 SCHEDULE

APC files Final Study Plan	November 2008
Anticipated FERC Approval	April 2009
Conduct Field Surveys	April – June 2009
Develop Database	May 2009
Finalize Database	August 2009
Finalize Report of Surveys	November 2009
Review Restoration Areas	January – April 2010
Draft Report	June 2010
Final Report	September 2010

10.0 LEVEL OF EFFORT AND COST

APC estimates the cost of consulting on the study plan, developing the RTE database, performing field surveys, reviewing and identifying restoration areas, and preparing a report is approximately \$100,000.

11.0 REFERENCES

Alabama Power Company. 2008. Preliminary Application Document for the Martin Hydroelectric Project (FERC No. 349). Alabama Power Company, Birmingham, AL.