

Introduction

Based on discussions between APC, ADCNR, and USFWS at the May 11, 2005 meeting, there was agreement to develop an evaluation process to assess the downstream areas below the Lay and Mitchell Projects with respect to minimum flow discussions. The Lay and Mitchell tailrace areas were identified as "secondary priority" projects that would involve collection of limited amounts of data for the evaluation process. Based upon subsequent Technical Team discussions, it was deemed appropriate to focus our efforts on the collection of aquatic rare and imperiled mollusks (which include those species listed under the ESA as well as priority species listed in **Alabama Wildlife** (Mirarchi 2004)) in the two tailrace areas for this evaluation. The results of these evaluations will ultimately be incorporated into the APC Enhancement Proposal previously filed with FERC, and possibly, in the Section 7 consultation if T&E species are located.

Schedule for Evaluation Process

- Oct. 2005: Collect data in the tailrace of each project. Oct. 15&16 and Oct. 22&23.
- Feb. 2006: Provide report of data collected to Agencies for review.
- Mar. 2006: Convene meeting of the Technical Team to review data and discuss recommendation.
- July 2006: File recommendation/decision with the FERC.

Data Collection for Evaluation Process

Mussel and snail occurrence and distribution will be collected during the fall of 2005 due to lower flows typically experienced during this time of the year. Two days of field sampling (with one diver on each day) will be expended in each project tailrace. The surveys will be conducted by qualified contractors. The water depths in the Lay and Mitchell tailwater areas will require that either SCUBA and or HOOKA equipment be used to adequately sample most areas. Qualitative sampling within the tailrace area from the dam and extending a specified distance downstream will be performed. The exact downstream sampling distance will be influenced by data collected during May 2000, Technical Team recommendations, and the amount of area that can be covered in two days of sampling. During the collection period, areas of high probability for snail and mussel detection will be determined and sampled. APC has provided the attached maps (Figures [1](#) and [2](#)) for the Lay and Mitchell tailwater areas which depict the locations sampled during APC's initial mollusk tailwater surveys in 1999-2000. A list of species collected during those collections is also attached to this plan (Tables [1](#) and [2](#)). Suggested areas of focus for the 2005 collections are also indicated on each figure. Representative species will be collected from multiple areas within the tailrace. All searches (i.e., each dive) will be timed and recorded on field sheets. All snails (except for *Tulotoma*, or other species listed as T&E) will be preserved in 95% ethanol and identified at a later date. Mussels will be identified and counted in the field before being released. GPS coordinates will be collected along with each sample.

Data Analysis and Assessment Criteria

The collected data will be assimilated into a report depicting species occurrence and distribution within each tailrace area and shared with the agencies by mid- February 2006. Completion of the report is dependent on completion of snail identification. This report will be used for discussions (scheduled for March 2006) of the need for any minimum flows and which will then be incorporated into the APC Enhancement Proposal on file with FERC.

Table 1. Freshwater Mussel Species Collected May 2000 in the Lay Dam Tailrace*

Amblema plicata, 1
Lampsilis teres, 4
Obliquaria reflexa, 55
Quadrula apiculata, 97
Plectomerus dombeyanus, 2

* snails were collected, also, but were not identified

Table 2. Freshwater Mussel Species Collected May 2000 in the Mitchell Dam Tailrace*

Amblema plicata, 14
Lampsilis teres, 5
Leptodea fragilis, 4
Megalonaias nervosa, 6
Obliquaria reflexa, 53
Quadrula apiculata, 373
Quadrula asperata, 3
Truncilla donaciformis, 2

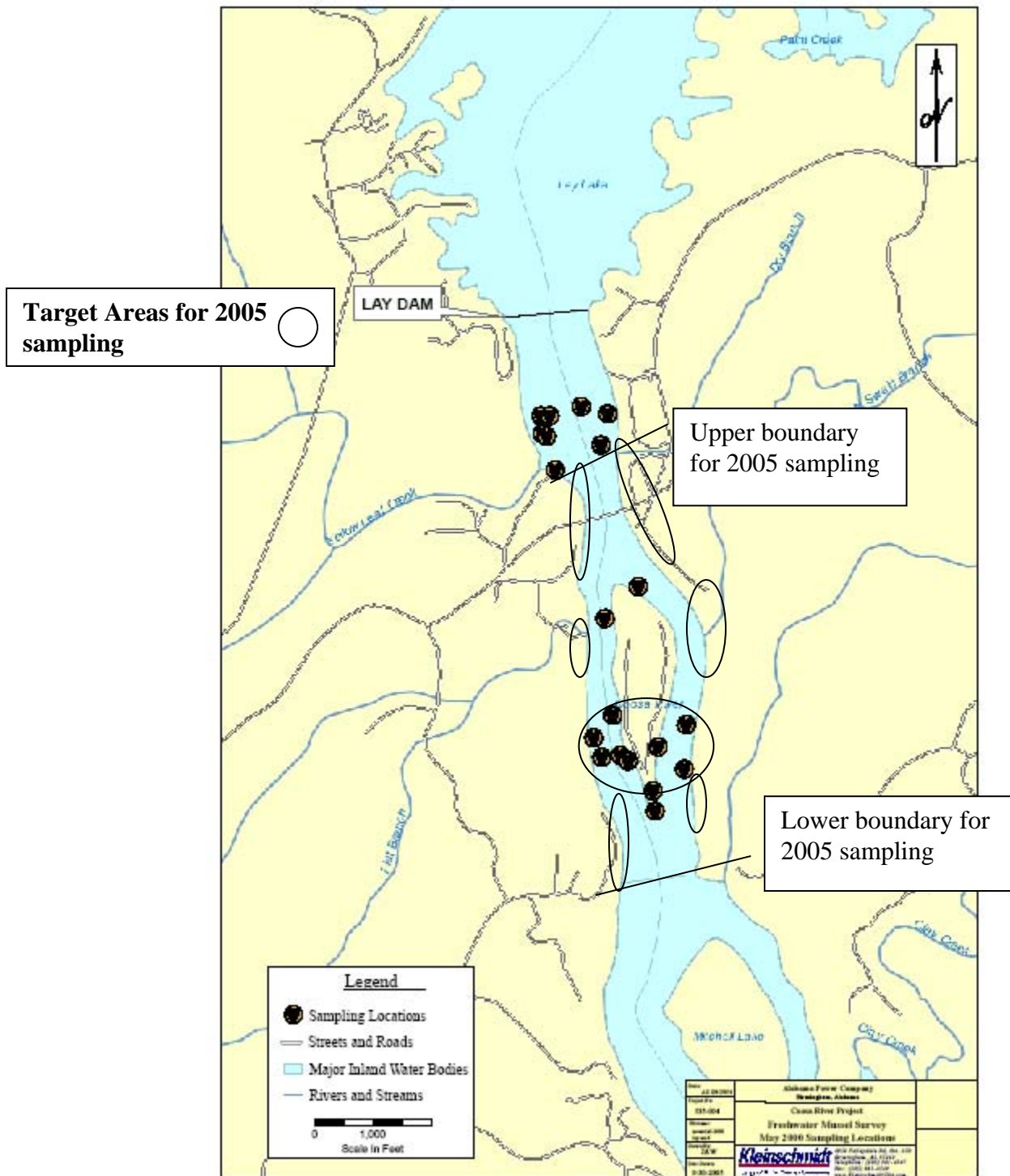
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Evaluation of the Lay and Mitchell Tailrace Areas

November 22, 2005

Final Revision

Figure 1. Sampling sites in the Lay Dam Tailrace Area



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Figure 2. Sampling sites in the Mitchell Dam Tailrace Area

