

ACT and ACF Cultural Resources

Alabama, Florida, Georgia



Above left: An archaeologist hunts for a possible Historic Native American village site high above the Chattahoochee River. **Above right:** The wreck of the Barbara Hunt, an early twentieth-century paddle wheel tugboat, is exposed within a fishing area below Lake Seminole.

CLIENT

US Army Corps of Engineers, Mobile District

ELEMENTS

Predictive modeling

Archaeological site assessment

MODELING ENVIRONMENTAL IMPACTS

Working for the US Army Corps of Engineers' Mobile District and in concert with a large NEPA team of Federal and State agencies and environmental consultants, Brockington performed archaeological predictive modeling and selective field studies for the Alabama-Coosa-Tallapoosa (ACT) and the Apalachicola-Chattahoochee-Flint (ACF) river basins in Alabama, Florida, and Georgia. We designed studies to meet the requirements of NEPA and Section 106 and to assist the Corps in developing two major Environmental Impact Statements for the proposed changes to water management operations in each basin.

Our first task was developing an archaeological predictive model within each basin. Probable site locations were defined to evaluate potential impacts by likely high, moderate, or low flow formulas water management schemes within each reach. The potential impacts to all cultural resources (including archaeological sites, as well as historic structures and landscapes) were considered along with other environmental and biological concerns in the EISs.

Brockington assessed possible impacts to cultural resources including the erosion of artifacts, deposition of sediment atop known sites, and increased access to known sites by the public.

ASSESSING EFFECTS

Further study to evaluate the ongoing effects at known archaeological sites, a second phase of investigation included sample inventories and assessments of locations along the waterways, along with reviews of regional histories, archaeological surveys, and historic properties management plans. All told, 30 archaeological sites were selected for their proximity to active hydrological areas (drawdown zones, shoreline erosion areas, riverbank migration zones, areas immediately below hydroelectric facilities, and the upper and lower portions of active reservoirs). Each site was relocated using Global Positioning Systems, and assessed for effects related to water level management within basin. Use of Geographic Information Systems technology enabled us to record historic shorelines through past and current aerial photography. In this way, we were able to model the effects of historic erosion or deposition at each archaeological site, allowing us to estimate effects of various alternative water management programs for the final Environmental Impact Statements.