

**Action:** Phase I Archaeological Survey – East Fork **Prerequisite Actions:** none

**Action Description:**

Conduct a Phase I archaeological survey of the lake's shoreline, including assessing impacts of shoreline erosion and assessing potential for sites in flood pool and plans for future surveys during drawdowns.

**Applicable Hydro Projects/Developments:**

East Fork / Bear Creek, Wolf Creek

### **I. Objective**

Identify archaeological and historic sites located within the project's area of potential effect (APE). Identify impacts to these sites resulting from erosion. Develop recommendations for additional studies.

### **II. Basis**

FERC requires applicants to address historic properties in Exhibit E of the license application (18CFR4.51.f.4). Requirements for consideration of cultural resources are further spelled out in the implementing regulations of Section 106 of the National Historic Preservation Act (36 CFR Part 800).

In response to the Initial Stage Consultation Package for the East Fork project, the North Carolina State Historic Preservation Office (NCSHPO) recommended that NP&L survey the shoreline of the Bear Creek and Wolf Creek projects to identify any archaeological or historic sites. Further, the NCSHPO recommended that NP&L assess the affects of erosion on archaeological or historic sites, assess the probability for additional sites located in the floodpool of the project and, based upon these results, recommend additional studies.

### **III. Geographic and Temporal Scope**

As requested by the NCSHPO, surveys will be conducted in the APE for the Bear Creek and Wolf Creek developments. The APE for each development is defined as the geographic area that is affected by the project and its operations. The APE includes lands permanently inundated by the project, areas subject to erosion due to reservoir drawdowns, lands containing recreational areas required by the project license and lands within the project boundary. Generally speaking, Duke Power owns a 10-foot swath of land above the full pond elevation of each reservoir.

The Cedar Cliff development is included in the East Fork project; however, the NCSHPO did not recommend an archaeological survey of the shoreline.

### **IV. Approach and Analysis**

Legacy Research Associates, Inc. developed the survey methodology detailed below.

The field investigations and technical reports for the East Fork project will meet the qualifications specified in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (Federal Register 48). All cultural materials collected and curated, along with all records of this project, shall be cared for in accordance with the requirements

set forth in 36 CFR Part 79. The Project Manager/Project Director performing the cultural resource investigations will meet or exceed the qualifications described in the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-9).

### **Goals**

The primary goal of the archaeological survey will be to discover, inventory, and evaluate the significance of archaeological sites located along the shoreline of Bear Creek Reservoir and Wolf Creek Reservoir.

The inventory of archaeological sites will be structured to provide an assessment of current site conditions, a determination of ongoing factors affecting site condition, and an evaluation of the preservation potential of particular sites.

Specific goals of the project that have been stipulated in the scope of work include the following:

- (1) Assess the effects of erosion resulting from wave action and annual drawdowns on any sites identified during the survey.
- (2) Provide a preliminary assessment for the potential of sites located within the floodpool and recommendations for surveys in the floodpools during planned drawdowns.

The archaeological surveys of Bear Creek Reservoir and Wolf Creek Reservoir present an opportunity to find information that may be able to address research questions that have regional and local importance, such as cultural/historical sequences and models of site location, site selection, and settlement pattern in southwestern North Carolina.

### **Methods**

The goals of the Phase 1 archaeological survey will be addressed through archival research, archaeological fieldwork, and laboratory analysis. All work will be conducted in a manner that meets the standards specified by the North Carolina Department of Cultural Resources. The methodologies employed in different stages of this research are detailed below.

#### **(1)BACKGROUND RESEARCH**

The background research for the archaeological survey will be initiated by conducting a thorough review of state and local survey data. These include the site inventory and National Register files at the North Carolina Office of State Archaeology in Asheville and Raleigh, and, if relevant, records at the North Carolina State Library and local county records. Research will also be conducted at federal, local and county agencies. The purpose of the background research is twofold: the first is to compile sufficient and appropriate information to understand the historic context of any properties identified during the survey, and the second is to compile and assess existing cultural resource data pertinent to the survey area.

Other sources of information that will provide valuable assistance while attempting to discover historic period archaeological resources include the following.

- unpublished survey notebooks, maps, and property valuations generated by the 1830's Cherokee removal
- early to middle 20<sup>th</sup> century topographic and property maps

Archival materials that relate to Anglo-American occupations in the study area are prodigious and a complete review of these materials will not be attempted. Similarly, no attempt will be made to secure oral histories or interviews of local individuals who are knowledgeable about the history of

the project area prior to reservoir impoundment. Such research would certainly yield vast amounts of information concerning pre-reservoir communities and households, but would require an effort beyond the scope of the current project.

## **(2) ARCHAEOLOGICAL SURVEY METHODS**

Both reservoirs have an annual drawdown which will expose the below pool surface area.

They are both located in steeply sloped areas that are considered to have a low probability for archaeological sites. In fact, no previously recorded archaeological sites are located at these reservoirs.

The archaeological survey methodology is outlined below. The purpose of the survey methodology will be to determine the presence or absence of prehistoric and historic archaeological resources within the archaeological survey area. The surveys are intended to provide an inventory of all archaeological resources within the selected survey areas and an evaluation of those sites that do not contain intact deposits. If sites that appear to contain potentially significant information are located, a more intensive testing program will be recommended to determine eligibility for the National Register of Historic Places.

The field investigations for this project will include visual reconnaissance of exposed below-pool surfaces, shovel tests of above-pool surfaces with vegetation cover, and assessment of archaeological deposits with small diameter soil samplers. The field survey will be confined to areas within the project boundaries. The boundaries are defined as the drawdown area, which ranges from 10 feet at Wolf Creek Reservoir to 5 feet at Bear Creek Reservoir, and 10 feet above full-pond elevation.

The primary component of field activities will be an extensive systematic pedestrian survey of exposed surfaces. The pedestrian survey of the below-pool area will focus on unsilted surfaces and will involve close-interval coverage accomplished by a field crew of 3-5 persons who will walk spaced at 20-meter (65-foot) intervals scanning for artifacts, features, architectural remains, and other evidence of human occupation or utilization. The remaining steep sloped areas will be inspected for evidence of architectural ruins and rockshelters.

Two procedures will be employed in the survey of above-pool tracts. Exposed area will be subject to visual inspection during pedestrian reconnaissance. In areas where vegetation cover inhibits or obscures surface visibility, 40-cm diameter shovel test pits will be excavated at 15-30 meter intervals as a means of site discovery. These test pits will be excavated through plow zone or A-horizon sediments and will be continued until residual soils or sterile deposits are encountered. All excavated sediment will be screened through ¼-inch mesh to recover artifacts.

When archaeological materials are encountered, additional shovel tests will be excavated to ascertain site integrity and artifact density and to gather preliminary information on cultural affiliation and age of site.

### **Site Assessment Methodology**

When sites are discovered, the survey interval will be reduced to three meters in order to establish site limits, increase artifact samples and establish artifact density, and to assess the contextual integrity of discovered sites. The preliminary assessment of archaeological sites will consist of the delineation of site boundaries that will be marked with pin flags before artifacts are recovered. The maximum length and width of each site will be measured and recorded. Site dimensions and elevations will be recorded on standardized field forms along with sketch maps of site settings and notations regarding landform setting, site aspect, temporal affiliations and density of observed materials, site condition, and nature of site deposits.

Representative soil profiles exposed in the shovel tests at each site will be recorded by measured field sketches with notations of soil color, texture, and content.

Subsequently, artifacts will be collected from the surface to establish site function and chronology. Surface collection strategies will be context specific and will vary between prehistoric and historic components. For prehistoric contexts, an effort will be made to recover all temporally or functionally diagnostic artifacts (e.g. projectile points and other lithic tools; ceramic sherds) visible on site surfaces, as well as a sample of lithic debitage representative of the full range of raw materials and debris types. Locations exhibiting unusually high frequencies of lithic debitage will be sampled by complete collection of two-meter square units in order to provide a measure of artifact density. Fire-cracked rock will be noted in terms of presence and relative density, but will not be recovered. For historic aboriginal contexts, all diagnostic materials (e.g. aboriginal ceramics, commercially manufactured items) will be recovered. For historic Anglo-American contexts, which will be characterized by extremely high densities of diagnostic materials, a sample of artifacts representative of the full temporal and functional range will be collected.

Site surfaces will also be examined for evidence of exposed middens, pit features, architectural elements, and any other human-made facilities. Potential midden deposits, pit features, and postmolds observed on sites in the project area will be tested with a small diameter (1 inch) soil tube sampler in order to confirm the identification of the contexts and to determine the depth and stratigraphic profiles of such deposits. These discrete contexts will be measured and their positions recorded on the site sketch maps. In most instances, a photographic record will also be made to document discrete contexts.

Historic Anglo-American sites will be frequently indicated by the presence of architectural ruins or associated structural elements (i.e. chimney piles, structural foundations, bridge emplacements, roads, etc.). These ruins and facilities will be documented by photography, mapping, and measurement.

During the survey, exposed river banks and other profiles will be inspected in order to document alluvial stratigraphy and buried archaeological contexts (e.g. occupational surfaces, middens, pit features) exposed by stream meander or bank collapse. Stratigraphic profiles will be troweled, drawn to scale, and photo-documented in order to demonstrate the presence of buried deposits within the project area.

### **Data Analysis**

All recovered artifacts will be cleaned and conserved in a manner appropriate to assure their stability. All diagnostic artifacts will be fully provenienced and labeled. The cultural and temporal affiliation, material of manufacture, style, function, and form of recovered artifacts will be identified to the fullest extent possible.

All archaeological sites located during the survey will be given a permanent state site number obtained from North Carolina State Archaeology Office and archaeological site forms will be prepared and submitted to Duke Energy. All archeological data and field notes will be submitted to the Museum of the Cherokee. A copy of all field notes will also be submitted to the North Carolina Office of State Archaeology Research Center (OSARC), the state repository for archaeological materials.

## Report Preparation

All information submitted in the technical report will be factual and sufficiently complete to enable Duke Power and the North Carolina State Historic Preservation Office to perform the necessary reviews. Duke Power will provide a copy of both the draft and final reports to the Eastern Band of Cherokee Indians.

The report will detail findings and recommendations for additional studies. All reports and documents shall be provided in both hard copy and electronic formats.

## V. Schedules and Required Conditions

The surveys are timed to coincide with the maximum drawdown of the reservoir in February, 2001. Conducting the surveys during the maximum drawdown provides the greatest opportunity to survey the maximum amount of land.

## VI. Results

The results of the study will determine what types of additional surveys need to take place and directly affect any cultural resources management plans developed for the project.

## VII. Participants

	Organization	Name	Phone #	E-Mail
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<b>NP&amp;L Supporting Consultant</b>	Legacy Research Associates, Inc.	Deborah Joy	919.682.2408	Djoy@legacy-research.com
<b>Other Participants</b>	Eastern Band of Cherokee	Brian Burgess	828.488.5637	B_bur_gess@yahoo.com

## VIII. Expected Benefits

The Phase I archaeological survey will result in the identification of all archaeological sites adjacent to the shoreline. This knowledge is critical to compliance with Section 106 of the National Historic Preservation Act.

## IX. List of Attachments

## X. List of References