

North Carolina Department of Cultural Resources
State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Pat McCrory
Secretary Susan Kluttz

Office of Archives and History
Deputy Secretary Kevin Cherry

April 13, 2015

Lynn Hicks
National Forests in North Carolina
160 Zillicoa Street, Suite A
Asheville, NC 28801

Re: Removal of Little Buck Creek Dam, Tusquitee Ranger District, Nantahala National Forest,
Clay County, ER 15-0758

Dear Mr. Hicks:

Thank you for your letter of March 20, 2015, regarding the above-referenced undertaking. We have reviewed *The Documentation and Assessment of the Little Buck Creek Dam* and offer the following comments.

We understand the US Forest Service would like to remove the earthen dam structure, referred to as Little Buck Creek Dam, and restore the natural stream channel so brook trout can be introduced to the creek and its tributaries. We concur with your findings that the Little Buck Creek Dam is not eligible for listing in the National Register of Historic Places, as it lacks historical, architectural and cultural significance. Thus, the dam's removal will not affect any historic properties which may be in the area.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

for Ramona M. Bartos

**Historic Structure Documentation and Assessment of the Little Buck Creek Dam
Tusquitee Ranger District, Nantahala National Forest,
Clay County, North Carolina**

National Forests in North Carolina
Asheville, North Carolina



Andrew M. Triplett
February 2015

Distribution:
Supervisor's Office
Ranger District
NC SHPO
EBCI THPO
Other

MANAGEMENT SUMMARY

In compliance with Federal laws and regulations, Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended, (NHPA) and the Programmatic Memorandum of Agreement (PMOA) with the State Historic Preservation Officer (SHPO), documentation and assessment was completed for the historic Little Buck Creek dam on the Tusquitee Ranger District of the Nantahala National Forest in Clay County, North Carolina. It is proposed to remove the dam because of structural integrity concerns that have made this a high hazard dam responsibility for the U.S. Forest Service, and, additionally, the restoration of native brook trout habitat.

Given it is not unique, and in a very deteriorated state of condition, it has been determined that the Little Buck Creek dam is *not eligible* for listing on the National Register of Historic Places (NRHP [36CFR60.4]). ***The proposed removal of the dam will have no effect on a NRHP eligible property.*** A copy of this report will be sent to the SHPO for review and comment.

ANDREW M. TRIPLETT

Nantahala National Forest, Zone Archaeologist

INTRODUCTION

The Little Buck Creek dam is located along FS Road 71, within the Buck Creek watershed which is approximately halfway between Hayesville, NC and Franklin, NC, off U.S. Highway 64, and just to the west of the Clay/Macon County line (Figures 1 and 2). The Forest Service proposes to remove the earthen dam structure on Little Buck Creek, reconstruct the natural stream channel where the old dam/pond is located, and introduce brook trout to headwaters of tributaries where there currently are no fish. The restoration of stream channels would include the excavation and reshaping of stream banks at specific locations, and installation of rock and/or log J-hook structures to stabilize stream banks. All disturbed soils will be stabilized to prevent erosion. Before the second part of the project begins a cultural resources survey will be conducted in the areas in which the stream stabilization and restoration will take place (the area now inundated by the pond). The findings of that report will also be submitted to the SHPO for review and comment.



Plate 1. View south, showing the approximately 150 feet long, 18-foot tall earthen dam across Little Buck Creek. Photograph taken from FS Road 71. Note in the background that the water level is above the roadway across the dam due to beaver activity.



Plate 2 (top).
Showing the 1 acre
pond created by
the Little Buck
Creek dam.

Plate 3 (bottom).
Beaver dam across
the top of the
bridge and recent
beaver activity.



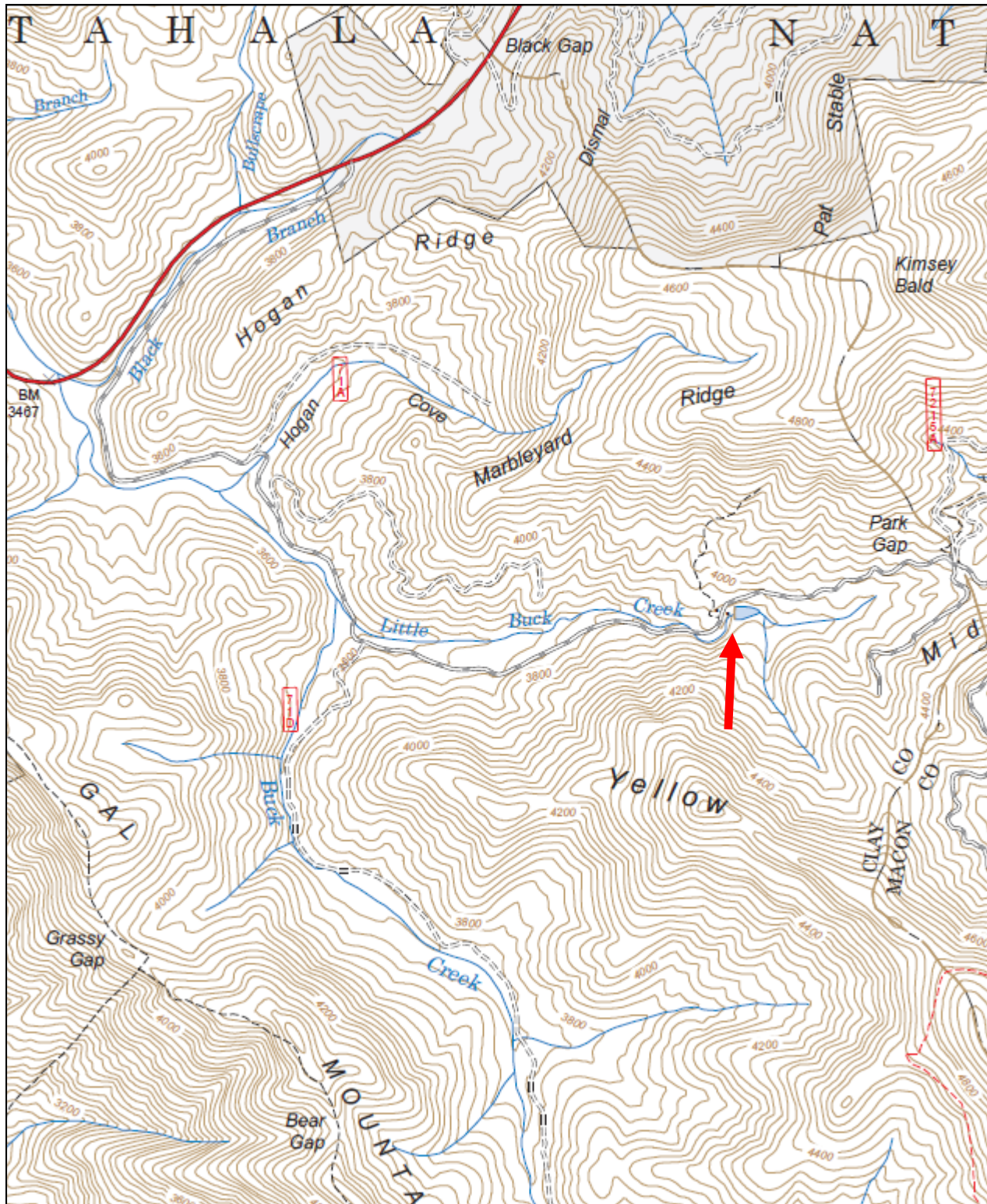


Figure 1. Rainbow Springs quad, 1:24,000 scale, showing the location (red arrow) of the Little Buck Creek dam. The route of U.S. Highway 64 is indicated by the thick red line in the upper left portion of the map.

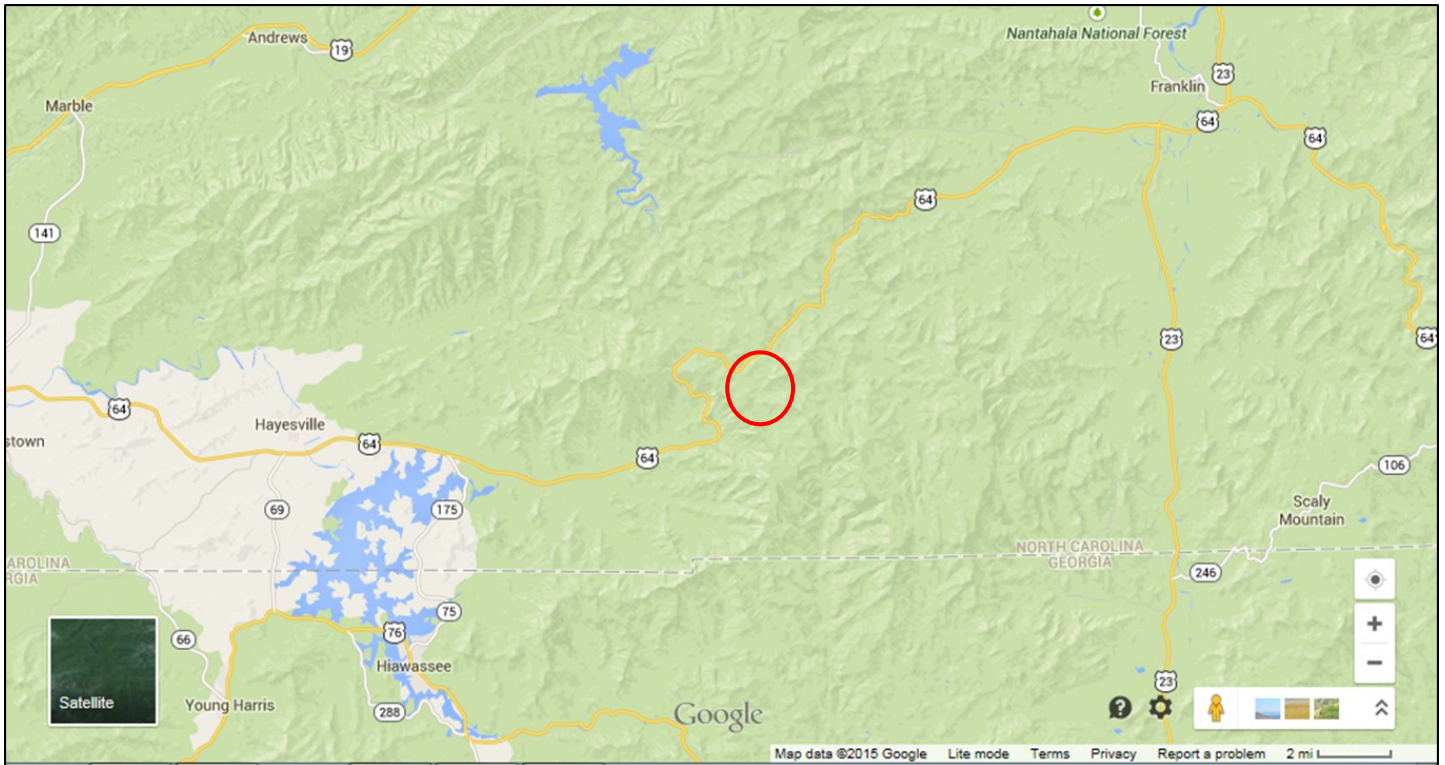


Figure 2 (above).
Google Map screen
shot showing the
general project area
(red circle).

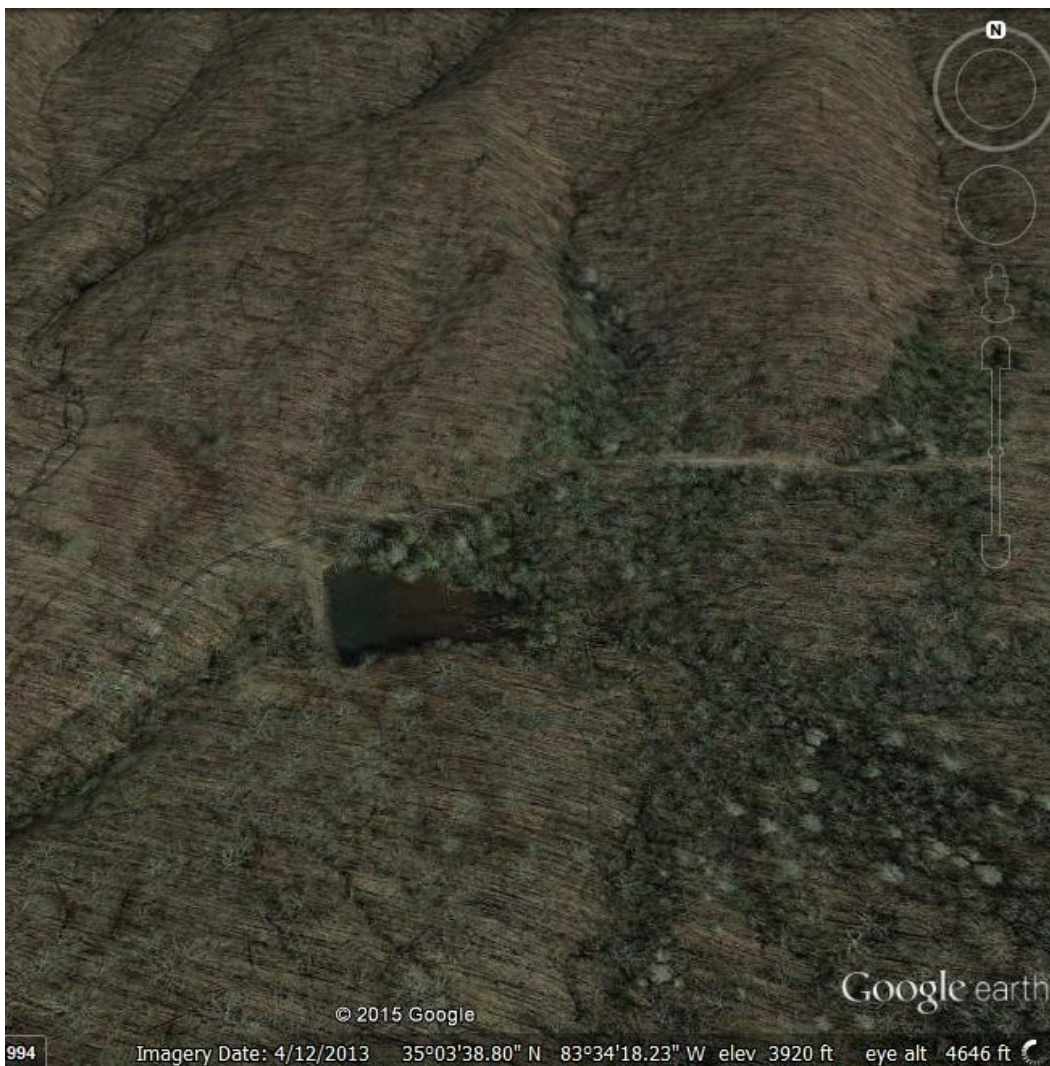


Plate 4 (left). Google
Earth image of the
pond created by the
Little Buck Creek dam.

EARTHEN DAM CONSTRUCTION

The exact method of construction for the Little Buck Creek dam is unknown, but based on its setting and the amount of exposed rock in the downstream face of the dam (Plates 5 and 6), it is thought to be a rock-filled dam with an earthen inner slope. The screen shot below was taken from *Earth Dams: a Study*, written by Burr Bassel, and published by the Engineering News Publishing Company of New York City in 1904 (https://npdp.stanford.edu/sites/default/files/other_materials/earth_dams.pdf).

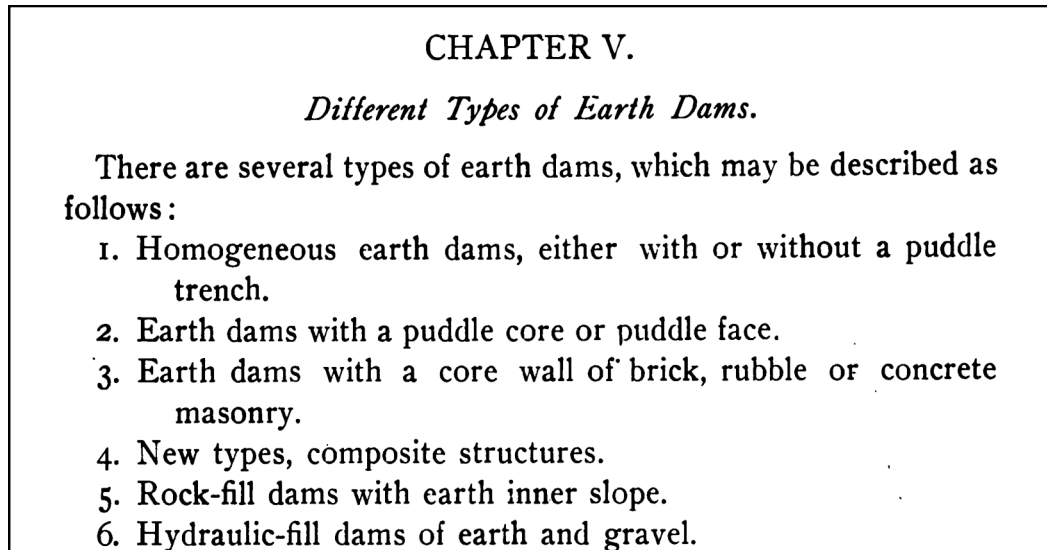


Figure 3. List of the different types of earth dam construction. Copied from page 33, Bassel, 1904.

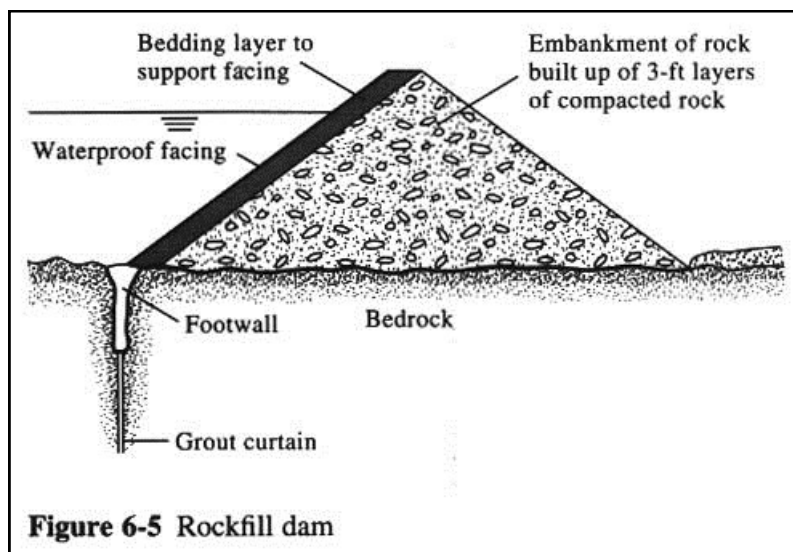


Figure 4. A cross-section diagram showing the construction of a typical rockfill dam. The description of the construction of this type of dam states the rock is laid down in layers and each layer is subsequently compacted. Diagram and description copied from website (http://parra.sdsu.edu/roberson_chapter06.html)

Plate 5 (right).
Showing the spillway
(red arrow) of the
Little Buck Creek dam
in 2009.



Plate 6 (below).
Showing the spillway
(red arrow) and
downstream face of the
dam in 2015. Note the
amount of erosion that
has taken place due to
water topping the dam
because of beaver
activity.



BACKGROUND OF THE LITTLE BUCK CREEK DAM

A thorough search for documents concerning the Little Buck Creek dam was conducted by the author at the Clay County Register of Deeds Office in Hayesville, NC, the Tusquitee Ranger District office in Murphy NC, and the National Forests in North Carolina Supervisor's Office in Asheville, NC. No documentation for the construction of the dam exists, but it is known that the dam was built sometime between 1935 and 1957, based on Rainbow Springs quad maps from 1937 and 1953 (Figure 6) The dam is approximately 18 feet high and impounds a reservoir of approximately 1 acre or less.

The tract of land on which the dam is located (Tract N-628, in Figure 2) was purchased by the U.S. Forest Service from Leroy H. Simpkins in June of 1977. Records indicate that when the property was purchased by the Forest Service that it had been abandoned for some time.

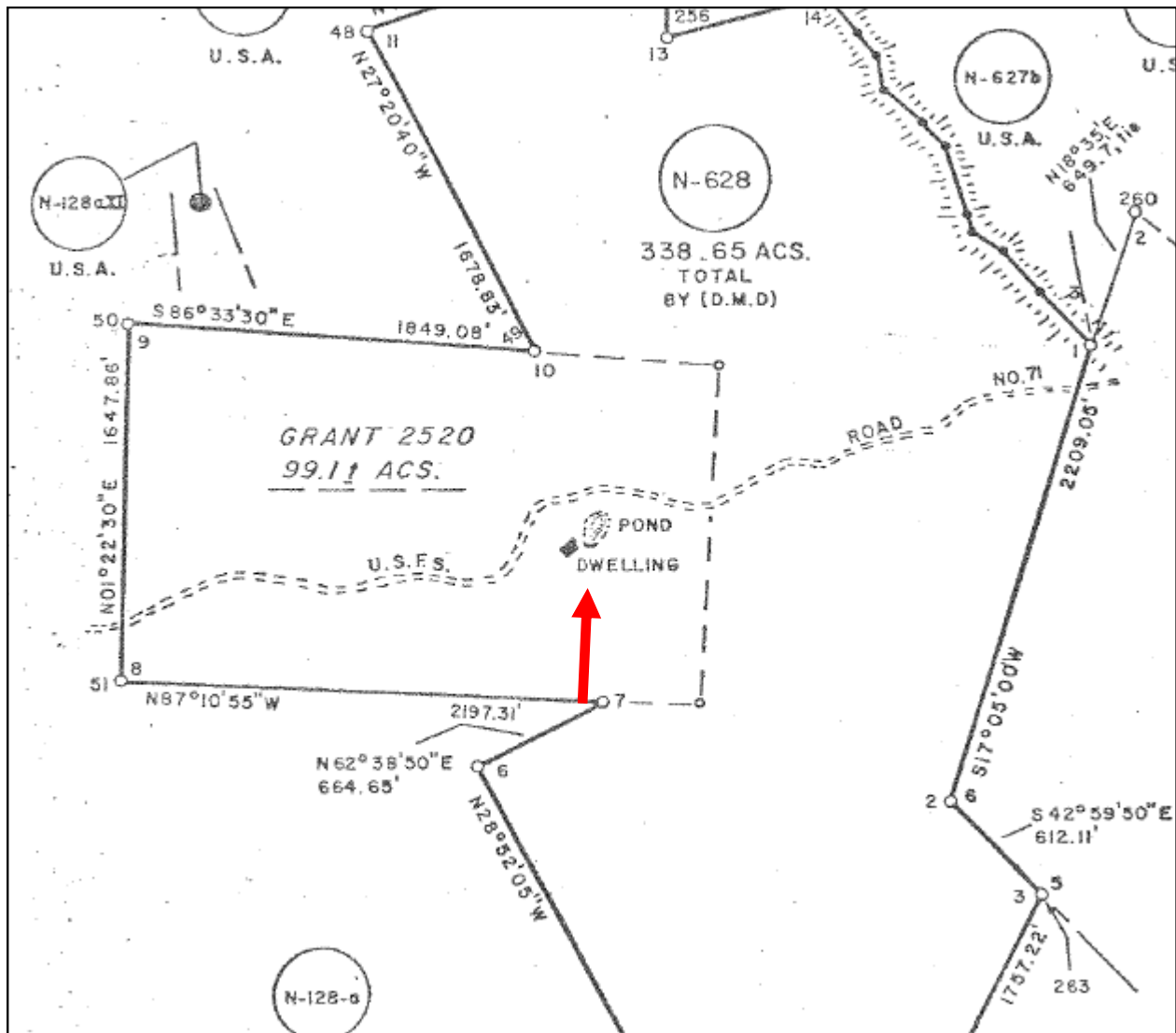


Figure 5. Survey map of Tract N-628, created when the U.S. Forest Service was in negotiations to purchase the property in 1977.

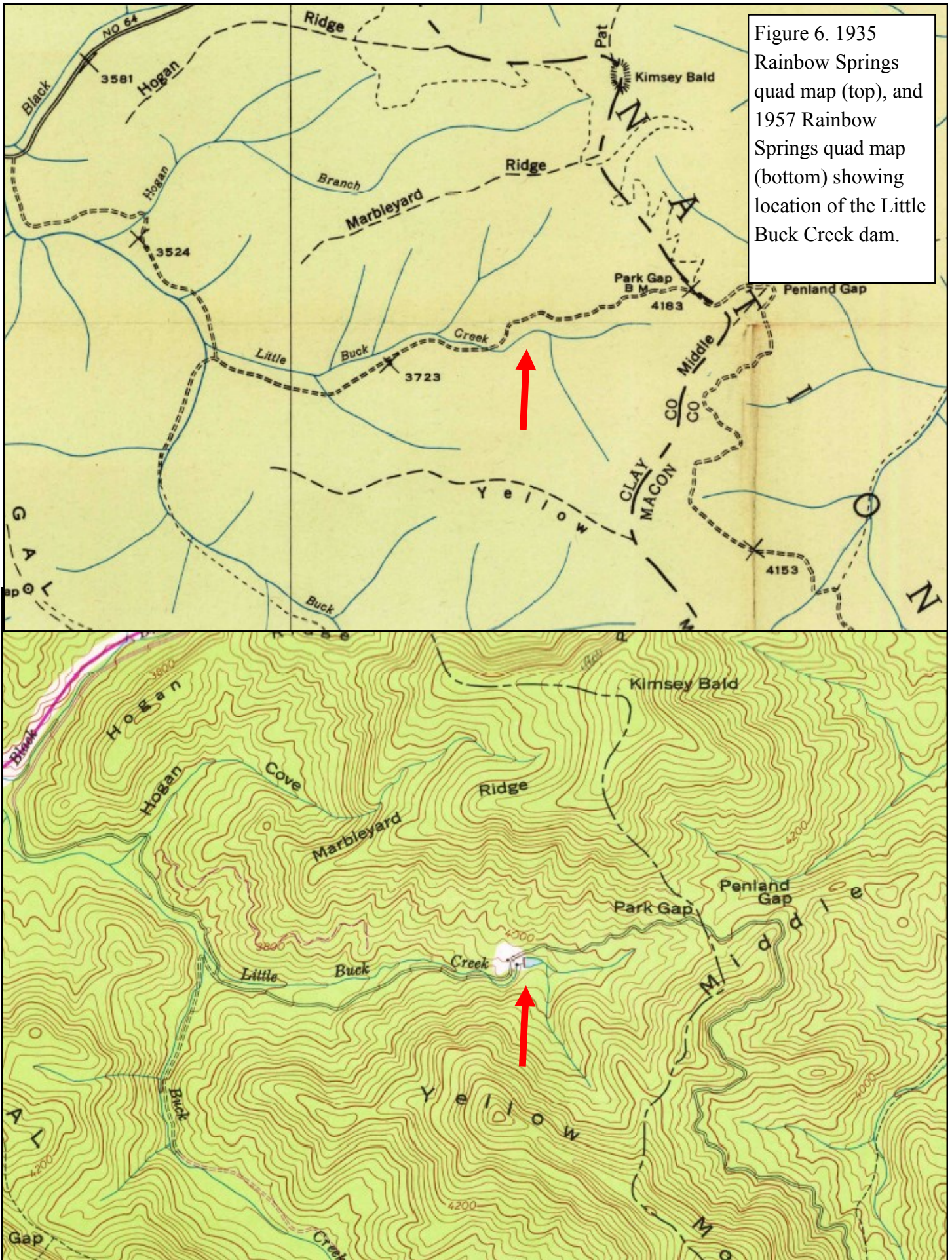


Figure 6. 1935 Rainbow Springs quad map (top), and 1957 Rainbow Springs quad map (bottom) showing location of the Little Buck Creek dam.

LITTLE BUCK CREEK -AREA NRHP PROPERTIES

A search of the North Carolina Department of Cultural Resources' (NCDCCR), Historic Preservation Office's (HPO) website (<http://www.hpo.ncdcr.gov/NR-PDFs.html#M>) for NRHP listed properties in the vicinity of Little Buck Creek turned up no properties, but the Appalachian Trail, which has recently been determined to be eligible for the NRHP, is somewhat in the general area (Figure 7). The communities of Hayesville, NC and Franklin, NC both have NRHP listed and eligible properties, but the Little Buck Creek dam is not associated with any of them, nor is it in close proximity to any of them.

A search for the phrase "earthen dam" on the HPO website resulted in a total of 61 results, but all of them are mentioned in association with a listed house, mill, or other such structure. From the research conducted for this project it is determined that the Little Buck Creek dam is a deteriorating, obsolete structure that holds no historical, architectural, or cultural significance for the US Forest Service or the areas around Buck Creek and Little Buck Creek in Clay and Macon Counties, North Carolina

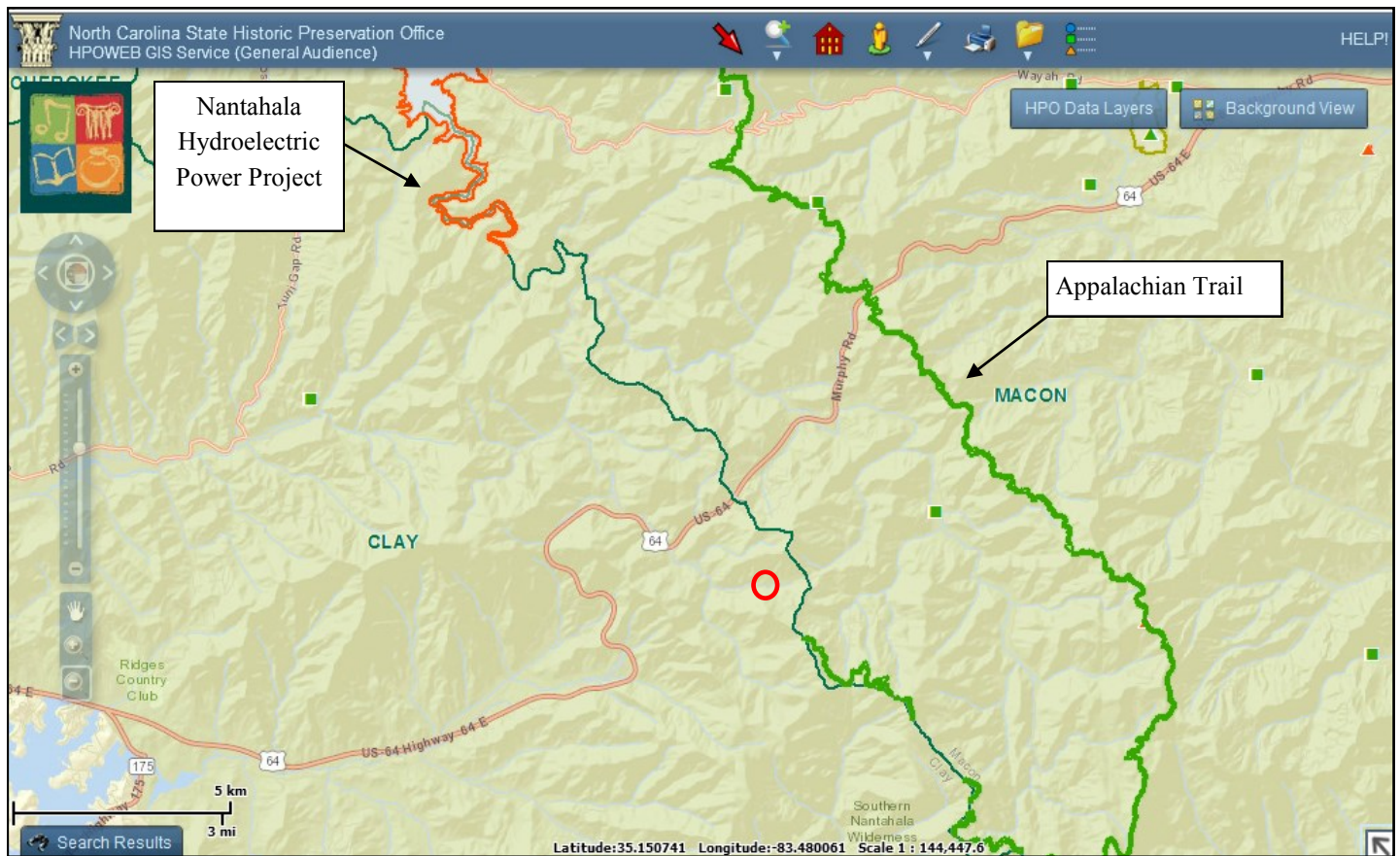


Figure 7. The map from <http://gis.ncdcr.gov/hpoweb/default.htm?center=-9262870,4172570&scale=4514> of the area between Hayesville, NC and Franklin, NC, showing the NRHP surveyed properties in the general vicinity of the Little Buck Creek dam, which is indicated by the red circle. The green squares represent properties that are on the Historic Preservation Office's NRHP study list.

DAMS ON U.S. FOREST SERVICE PROPERTY

Nation-wide there are 1,745 dams on Forest Service lands that meet the requirements of the National Inventory of Dams. The Forest Service owns and operates 499 of these dams. The remainder are non FS owned dams owned and operated under Special Use Permit or other authorities.

The Forest Service owns a variety of dam types, including concrete arch, concrete gravity, timber crib, and even steel. However, embankment dams made of either earth or rock fill constitute more than 80 percent of the FS owned dams. Eighty percent have normal reservoir storage less than 500 acre feet. Recreation, wildlife, and fire are the primary purposes for the dams. Over half of FS owned dams are more than 50 years old. Non FS owned dams are owned and operated by other Federal, State, and local government agencies, public utilities, and private parties. Information gathered from: <http://www.fs.fed.us/eng/dams/>

DAMS IN THE LITTLE BUCK CREEK-AREA

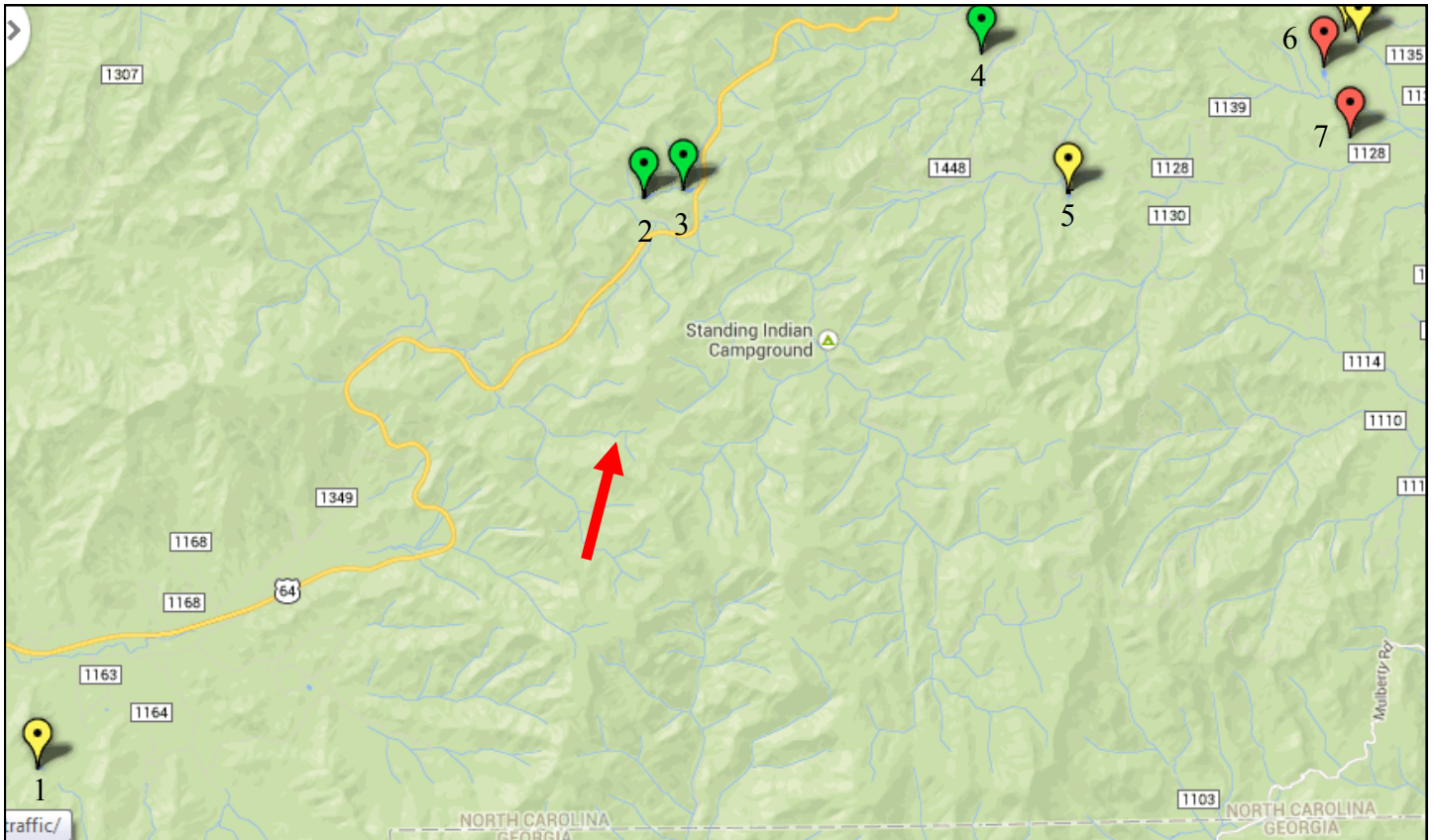


Figure 8. A screenshot showing a portion of an interactive map indicating all of the state-recorded dams in the area between Hayesville, NC and Franklin, NC. **Note:** there is no record for the dam on Little Buck Creek (red arrow shows its location) This map was taken from: <http://www.wcnc.com/news/iteam/North-Carolina-has-more-than-5000-dams-232338021.html>

The online version of the interactive map shown above was used to survey the name, age and ownership of all of the dams in the general vicinity of Little Buck Creek, NC. The survey area encompassed all of the dams between Hayesville, NC on the west to just southwest of Franklin, NC to the east. A total of seven dams are located within this area (Table 1). All of these dams are privately-owned, and the date of construction is known for only one of them.

Number	Dam Name	Year Constructed	Assesment/Status	Ownership
1	Shephard Lake Dam	Unknown	Breached	Mrs. Wilson Shephard
2	Moore Creek Lower Dam	Unknown	Satisfactory	Rainbow Springs Company
3	Moore Creek Upper Dam	Unknown	Fair	Virgina Butler
4	Hooper Dam	Unknown	Unknown	Mirror Lake Ranch HOA
5	Southard Dam	Unknown	Poor	J.D. Southard
6	Vitale Orchard Dam	1965	Satisfactory	Robert Vitale
7	Palmisano Dam	Unknown	Satisfactory	Linda Crockett

FINAL RECOMMENDATIONS

After research and documentation of the history of the Little Buck Creek dam it has been determined that the dam is *not eligible* for listing in the National Register of Historic Places (NRHP) (36CFR60.4). In general, an earthen dam such as this is rather ubiquitous across the landscape of western North Carolina as shown by the list above. The Little Buck Creek dam is not associated with any significant event, significant person, distinctive characteristic or method of construction, nor could it provide significant information concerning the history of the US Forest Service, or western North Carolina. In particular, the Little Buck Creek Dam is over 50 years of age, being constructed between 1935 and 1957, but due to its age, and extensive beaver activity, it has begun to deteriorate to a dangerous condition. The proposed demolition of the dam will have no effect on a property eligible to the NRHP.