North Carolina Department of Natural and Cultural Resources

State Historic Preservation Office

Ramona M. Bartos, Administrator

Governor Roy Cooper
Secretary Susi H. Hamilton

Office of Archives and History
Deputy Secretary Kevin Cherry

January 14, 2020

Amanda Jones
U.S. Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

Amanda.Jones@usace.army.mil

RE: Project Ranger, Asheville, Buncombe County, ER 19-4972

Dear Ms. Jones:

Thank you for your December 23, 2019, email transmitting the electronic copy of the Historic Structures Survey Report for the above-referenced undertaking. Although we received the two hard copies, the GIS data was missing and we contacted the author to obtain it.

Having reviewed the report and accompanying data, we concur with its finding that the French Broad River Gaging Station (BN6468) is eligible for listing in the National Register of Historic Places under Criteria A & C. The proposed boundary for the gaging station appears appropriate.

We also concur that the following properties are not eligible for listing in the National Register under any criteria for the reasons outlined in the report.

- American Enka Corp Water Intake (BN6469)
- Riverside Dairy Not Eligible (BN6470)
- Campsite (BN6471)

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 919-814-6579 or environmental.review@ncdcr.gov. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Ramona M. Bartos
Deputy State Historic Preservation Officer

cc:	Clement Riddle	clement@cwenv.com
	Lee E. Thomason III, Biltmore Farms LLC	lthomason@biltmorefarms.com
	Russell Townsend, EBCI	russtown@nc-cherokee.com
	Elizabeth Toombs, Cherokee Nation	elizabeth-toombs@cherokee.org
	Whitney Warrior, United Keetoowah Band	wwarrior@ukb-nsn.gov
	Dr. Wenonah Haire, Catawba Indian Nation	wenonahh@ccppcrafts.com
	LeeAnne Wendt, Muscogee (Creek) Nation	lwendt@mcn-nsn.gov

From: Fuemmeler, Amanda J CIV (US)
To: DCR - Environmental Review
Subject: [External] Buncombe County/ Project Ranger - Historic Strictures report
Date: Monday, December 23, 2019 9:00:37 AM
Attachments: 2019-282NC Historic Structures Report Biltmore West 12-20-19 REDUCED.pdf

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CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to report.spam@nc.gov<mailto:report.spam@nc.gov>

Hard copies should be mailed as well.

Amanda
828-271-7980 ext. 4225

-----Original Message-----
From: Clement Riddle [mailto:clement@cwenv.com]
Sent: Monday, December 23, 2019 8:16 AM
To: Fuemmeler, Amanda J CIV (US) <Amanda.Jones@usace.army.mil>
Subject: [Non-DoD Source] Project Ranger - Historic Strictures report

Amanda,

Good morning, attached is the historic structures report for project ranger. Would you please forward to the NC SHPO for review.

Thank you,

Clement

32 Clayton Street

Asheville, NC 28801

Office: 828-698-9800

Mobile: 828-606-5168

clement@cwenv.com <mailto:clement@cwenv.com>

BlockedWWW.CWENV.COM <Blockedhttp://www.cwenv.com/>

HISTORIC STRUCTURES SURVEY REPORT

THE BILTMORE WEST TRACT FOR PROJECT RANGER SITE

Asheville, Buncombe County, North Carolina

SUBMITTED TO:

BILTMORE FARMS, LLC
One Town Square Boulevard, Suite 330
Asheville, North Carolina 2880

USACE Action ID 2019-01867
NCSHPO ER 19-4972
RGA Technical Report # 2019-282NC

December 2019

RICHARD GRUBB & ASSOCIATES

HISTORIC STRUCTURES SURVEY REPORT

THE BILTMORE WEST TRACT FOR PROJECT RANGER SITE

Asheville, Buncombe County, North Carolina

Principal Investigator and Author:

Ellen Turco

Prepared by:

Richard Grubb & Associates, Inc.
106 North Avenue
Wake Forest, North Carolina 27587

Submitted to:

BILTMORE FARMS, LLC
One Town Square Boulevard, Suite 330
Asheville, North Carolina 2880

Date:

December 20, 2019

USACE Action ID 2019-01867
NCSHPO ER 19-4972
RGA Technical Report # 2019-282NC

TABLE OF CONTENTS

LIST OF FIGURES, PLATES AND TABLES

FIGURES:

PHOTO PLATES:

TABLES:

1.0 MANAGEMENT SUMMARY

Richard Grubb & Associates, Inc. (RGA) has completed a Historic Structures Survey of the 63.92-acre proposed Project Ranger site on the Biltmore Park West tract southwest of the City of Asheville in Buncombe County, North Carolina. The survey was conducted on behalf of BILTMORE FARMS, LLC. The proposed Project Ranger is anticipated to require a U.S. Army Corps of Engineers (USACE) permit (USACE Action ID 2019-01867). The purpose of this Historic Structures Survey Report is to identify and evaluate historic resources present within the project's Area of Potential Effects (APE) in order to comply with Section 106 of the National Historic Preservation Act, as amended.

The project is located on Biltmore Farm's Arrowhead Peninsula, north of the Blue Ridge Parkway, on the east side of the French Broad River. The project area consists of the development site, an access road, a bridge crossing the French Broad River, and a sewer line corridor. Together, the components of the development site are known as Project Ranger (the Project). The APE for the undertaking was defined as the Arrowhead Peninsula north of the Blue Ridge Parkway and a small area on the west bank of the French Broad River where the footprint or visual impact of the proposed bridge may affect historic properties.

In November 2019, RGA architectural historians recorded all above-ground resources approximately 50 years of age or more within the APE (Appendix A). Each resource was evaluated using the National Register of Historic Places (NRHP) Criteria for Eligibility (Table 1.1; see Appendix B). As a result of this assessment, RGA recommends the French Broad River Gaging Station eligible for the NRHP.

Table 1.1: Resources evaluated for the current undertaking.

Survey Site No.	Resource Name	NRHP Recommendation	NRHP Criteria
BN6468	French Broad River Gaging Station	Eligible	A & C
BN6469	American Enka Corp Water Intake	Not Eligible	-
BN6470	Riverside Dairy	Not Eligible	-
BN6471	Campsite	Not Eligible	-

NRHP – National Register of Historic Places

2.0 PROJECT DESCRIPTION AND METHODOLOGY

In November 2019, under contract to BILTMORE FARMS, LLC, RGA completed a Historic Structures Survey and National Register of Historic Places Evaluation for the 63.92-acre proposed Project Ranger site. The survey was conducted on behalf of Biltmore Farms, LLC. The purpose of the survey and this report is to identify and evaluate historic resources present within the project's Area of Potential Effects (APE) in order to comply with Section 106 of the National Historic Preservation Act, as amended. This report meets the requirements of Section 106 and the manual *Report Standards for Historic Structure Survey Reports/Section 16/110 Compliance Reports in North Carolina* (North Carolina State Historic Preservation Office, 2019).

Project Location and Setting

The proposed Project Ranger (the Project) will be southwest of the City of Asheville in Avery Township, Buncombe County, North Carolina (Figure 2.1). The project is proposed for the north end of the "Arrowhead Peninsula," which is formed by an ox bow in the French Broad River. The peninsula is bounded by the river on the north, west, and south sides. Interstate-26 traverses the east side of the peninsula creating a hard boundary on its eastern edge. The Biltmore Estate National Historic Landmark (BN0004 and BN 1835; National Historic Landmark [NHL] 1996 and 2006) is adjacent to the east side of the Project area, east of Interstate-26. NC 191 (Brevard Road) runs north-to-south along the west bank of the French Broad River. The Bent Creek Campus of the Appalachian Forest Experiment Station (NR 1993; BN 0898) is on the west side of NC 191 in the project vicinity but not directly adjacent to it. The Blue Ridge Parkway (NC0001; DOE 1990; 2018) runs east-to-west across the Arrowhead Peninsula dividing it roughly into equal north and south sections (see Figure 2.1). Project Ranger is proposed for the area north of the Blue Ridge Parkway. The area south of the Parkway is not addressed in this report.

Today, the Arrowhead Peninsula is wooded in secondary growth and is crossed by several unimproved roads. A cleared power line easement zigzags north-to-south along the west side of the peninsula. There are very few buildings in this area and those that stand are vacant and deteriorated. Much of the area is steeply sloped, although there are relatively level landforms along the ridge tops and stream drainages. Vehicular access to the parcel is provided by an unimproved road leading from the Biltmore Park subdivision, on the east side of I-26, to a gate at the southeast end of the peninsula. The road follows the east bank of the French Broad River, accessing the proposed development site at the north end of the peninsula.

Project Description

The scope and details for Project Ranger are still being developed. General schematic drawings are available (Figures 2.2 and 2.3). The project consists of the development site and a sewer line corridor that runs from the development site north to the river (Phases 1 and 2), an access road leading to the development site (Phase 3), and a vehicular bridge crossing the French Broad River that will provide access to the Project site from NC 191 (Phase 4). Together, these components are known as Project Ranger. The proposed bridge is anticipated to require a U.S. Army Corps of Engineers (USACE) permit (USACE Action ID 2019-01867) and is the Section 106 undertaking for which this report has been prepared.

Area of Potential Effects

Section 106 of the National Historic Preservation Act, as amended, defines the APE as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. "The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking" (Figure 2.4). The recommended APE for Project Ranger consists of the Arrowhead Peninsula north of the Blue Ridge Parkway and a small area on the west bank of the French Broad River where the physical footprint and/or visual impacts of the proposed bridge may affect historic properties.[1] The APE

1 RGA Senior Historian Ellen Turco and North Carolina Historic Preservation Office Environmental Review Specialist Katie Hargrove discussed the recommended APE by phone on November 25, 2019.

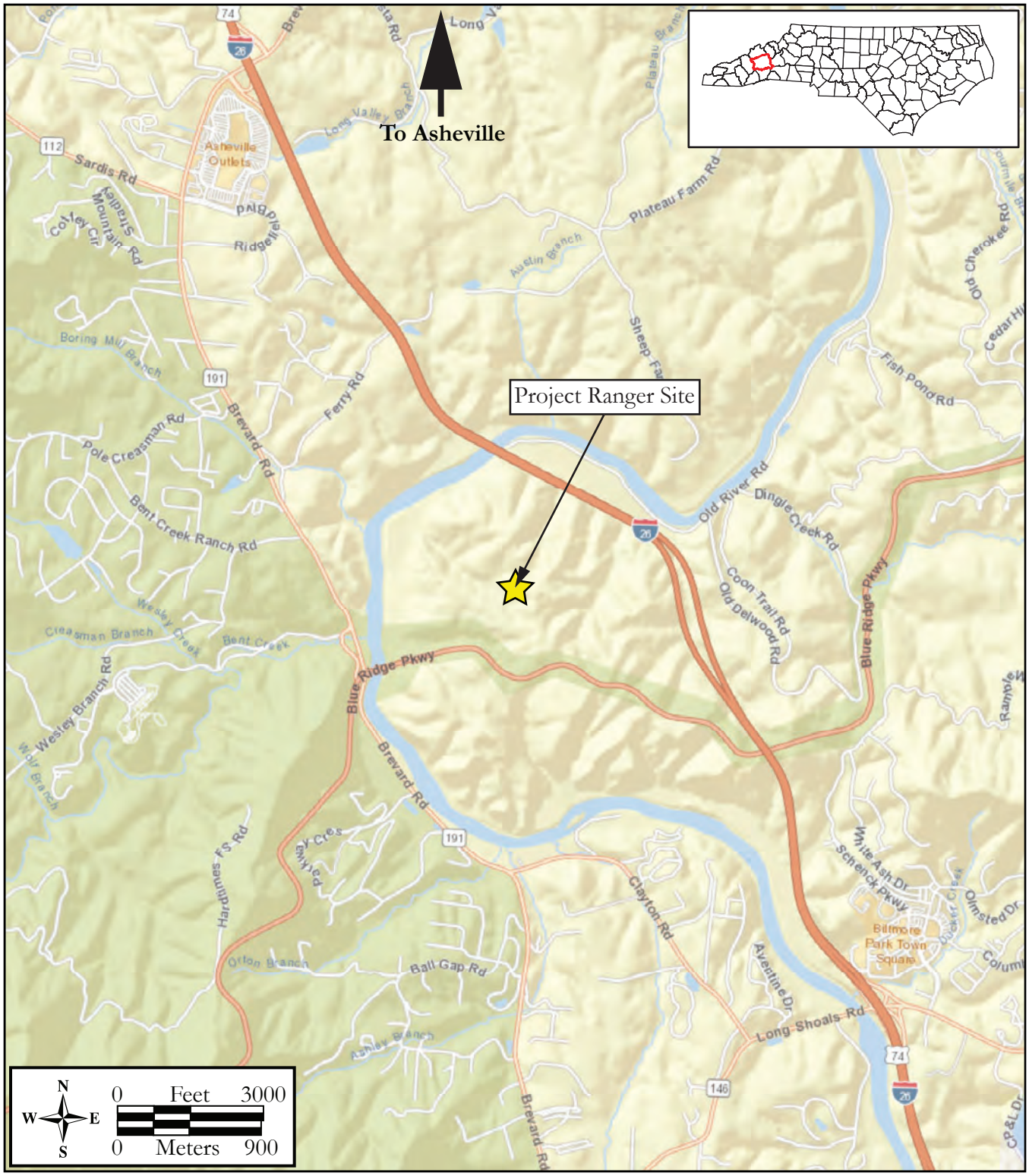

Figure 2.1: Road Map showing the Project Ranger Site
(World Street Map, ESRI 2019).

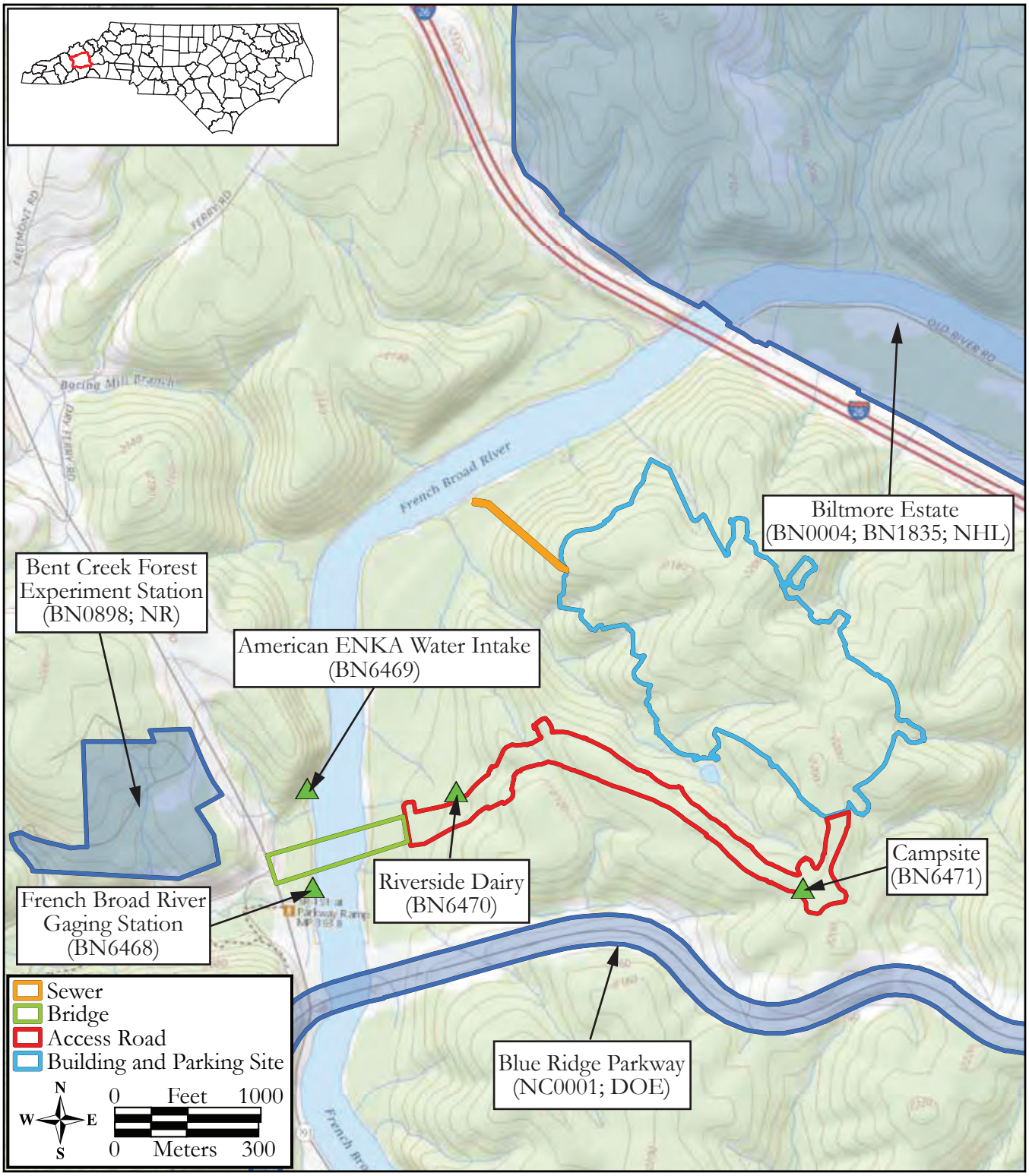

Figure 2.2: U.S.G.S. Map showing project components and historic properties in proximity to the project site (National Map 2019).

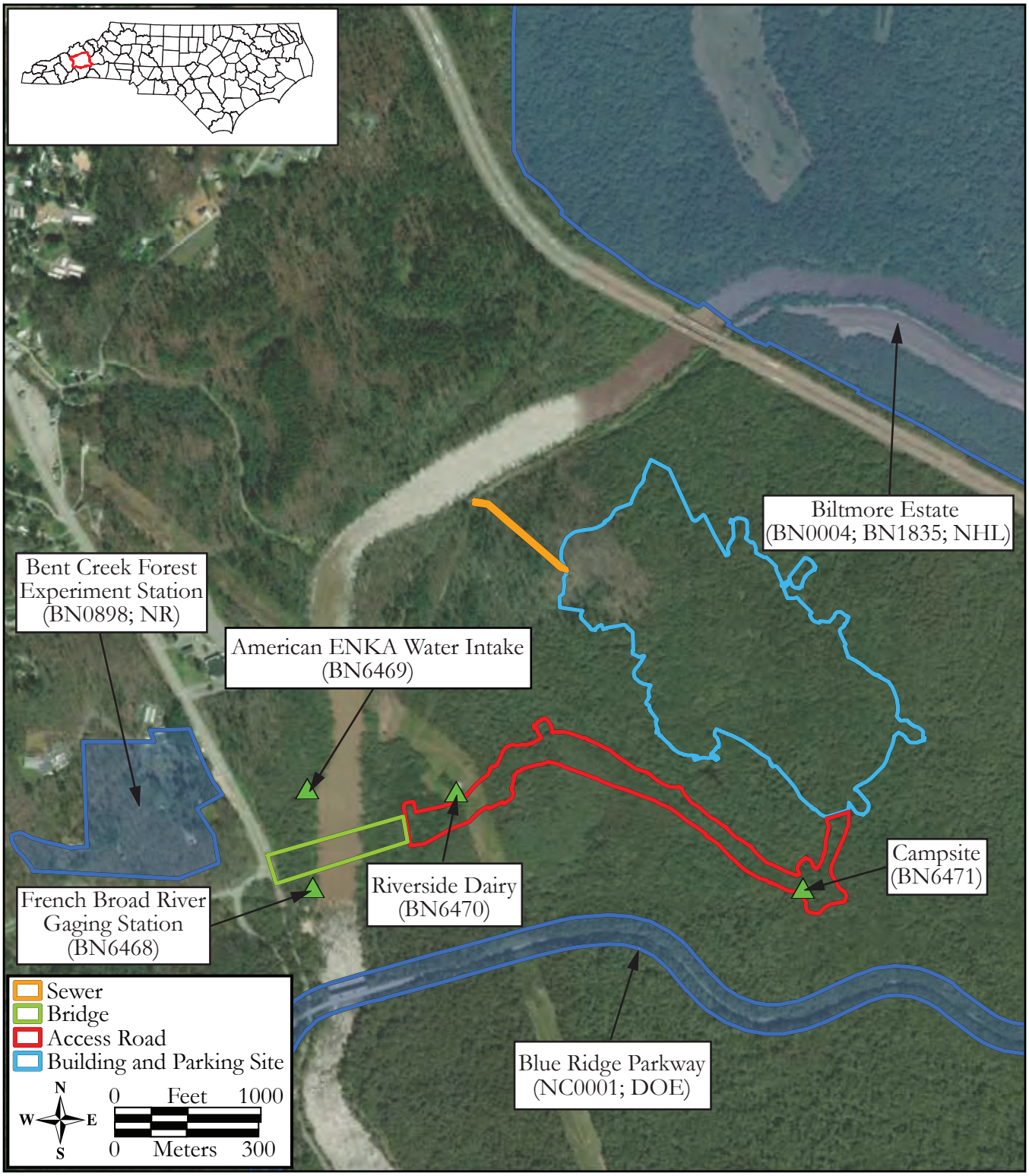

Figure 2.3: Aerial photograph showing project components and historic properties in proximity to the project site (World Imagery, ESRI 2019.)

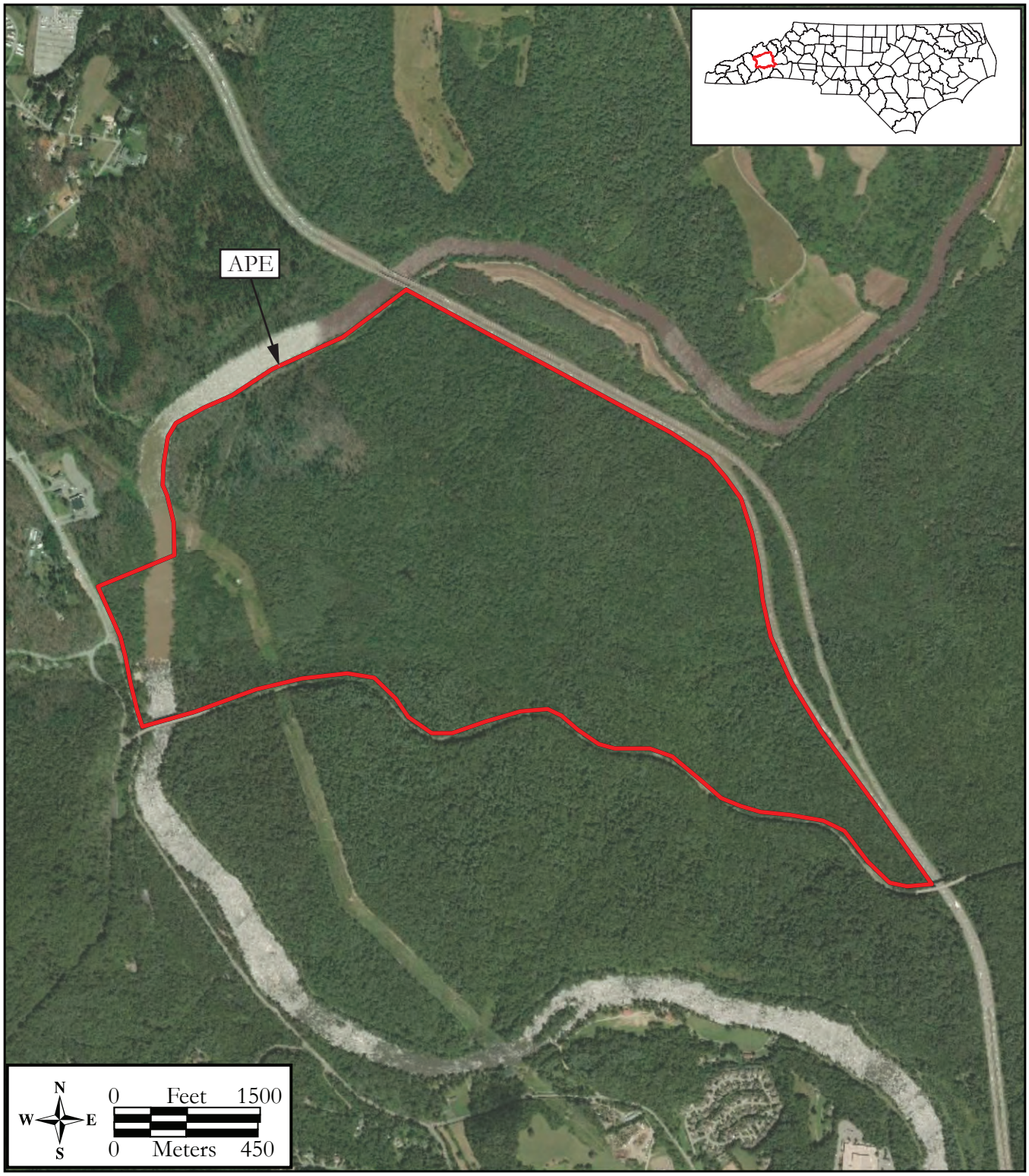

Figure 2.4: Aerial photograph showing the APE
(World Imagery, ESRI 2019).

includes the Blue Ridge Parkway but does not include areas on the peninsula south of the road, as it is anticipated that the Parkway's elevated roadbed will provide a sufficient visual barrier between the Project site and areas to the south. There is the potential for the APE to be revaluated as the Project evolves.

Background Research and Previous Surveys

Research was conducted to locate previously identified historic properties in the APE and near the project area, to identify the potential for additional surveyed resources over 50 years of age, and to develop an appropriate historic context. Research was primarily conducted at the Raleigh and Asheville offices of the North Carolina Historic Preservation Office (HPO), the North Carolina Room of the Pack Library in Asheville, and online at Ancestry.com and Newspapers.com. The Project archaeological consultant, TRC Environmental Corporation (TRC), provided RGA staff with research materials obtained from the Biltmore Estate Archives that was incorporated into this report.

Several reports were of particular assistance in the preparation of this Historic Structures Report. The National Historic Landmark Forms for Biltmore Estate and Forestry School Site (Steely 1963), and Biltmore Estate (Additional Documentation and Boundary Reduction) (Hood 2003) were reviewed. The Environmental review report, entitled Historic Structures Survey Report, Upgrade Existing NC 191 (Brevard Road) from NC 146 (Long Shoals Road) to North of the Blue Ridge Parkway (David 2018), and the two addenda to the report (Furr 2019) provided additional background research. The Archaeological Survey and Site Evaluation on the Biltmore Park West Tract for Project Ranger (Webb and Nelson 2019) provided research materials for the present survey.

The HPO records identified three previously recorded historic properties in or adjacent to the APE that were either listed in or determined eligible for listing in the NRHP (Table 2.1).

Table 2.1: NRHP-listed or eligible resources in or adjacent to the APE.

Survey Site No.	Resource Name	NRHP Status
BN0001	Blue Ridge Parkway	Determined Eligible
BN0898	Appalachian Forest Experiment Station (Bent Creek)	NRHP-listed
BN1835; BN0004	Biltmore Estate	National Historic Landmark

NRHP – National Register of Historic Places

Field Methods

On November 20, 2019, RGA Senior Historian Ellen Turco conducted a visit to the Project Ranger site. Paul Webb and Michael Nelson of TRC accompanied Ms. Turco and assisted in locating the standing structures in the APE. Four newly surveyed resources were visually inspected, and the interior, exterior, and setting were documented with notes and digital photographs. The historical development, architecture, cultural significance and physical integrity of each property were assessed and evaluated within their respective historic contexts according to the established NRHP criteria. The HPO issued survey site numbers for the four newly identified resources in the APE.

The results of this Historic Structures Report are presented in the following chapters. This report meets the HPO's Standards for Historic Structure Survey Reports/Determinations of Eligibility/ Section 106/110 Compliance Reports in North Carolina

Table 2.2: Newly identified resources in the APE.

Survey Site No.	Resource Name
BN6468	French Broad River Gaging Station
BN6469	American ENKA Corp Water Intake
BN6470	Riverside Dairy
BN6471	Campsite

3.0 HISTORIC CONTEXT FOR ARROWHEAD PENINSULA

This recent history of the Arrowhead Peninsula begins with its acquisition by George Washington Vanderbilt (1862 – 1914). It continues through the 1980s with the peninsula's use as one of the Biltmore Estate's diary units.

In 1888, Vanderbilt began accumulating massive tracts of land near Asheville, North Carolina. He was the youngest of the three sons of William Henry Vanderbilt, who was among the wealthiest men in the United States in the year of his death in 1887. George's older brothers ran the family business, leaving George time to focus on his interests such as forestry, agriculture and land conservation. George W. Vanderbilt acquired over 100,000 acres in four North Carolina counites where he would put his theories into practice and erect the largest private residence ever built in the United States at the time, the French Chateau-style Biltmore House, completed in 1895.

Vanderbilt collaborated with Richard Morris Hunt and Frederick Law Olmsted on his North Carolina project. The pair were the country's foremost architect and landscape architect, respectively, during the Gilded Age. Vanderbilt aimed to build a winter "country house" with landscaped grounds, gardens, paths, and roadways of about 8,000 acres (Hood 2003:9). The rest of the tract was to be a demonstration farm employing the current best practices for forestry and agriculture. Hunt, who had designed homes for the Vanderbilt family in Newport, Rhode Island, set out on the design of the Biltmore House and the numerous buildings, structures, and facilities needed to support the giant estate. Olmsted designed the estate's formal gardens and monumental planned landscapes of vast size and scope. Between 1891 and 1896, Olmsted's firm, Olmsted, Olmsted and Elliot, made a series topographic maps of the Arrowhead Peninsula, Vanderbilt's land created by an ox bow in the French Broad River, approximately two-and-half miles south of the Biltmore House site (Figures 3.1 and 3.2). Historic maps and records indicate that prior to Vanderbilt's purchase, the Johnson and Willis families maintained small farms on the peninsula. Olmsted and Vanderbilt were actively discussing a plan for an arboretum, or botanical museum, on the peninsula as early as 1893. Construction of the main Arboretum Road was underway in early 1894 and was completed in 1896. Vanderbilt's interest in the arboretum appears to have fluctuated over the next several years, and while some clearing was accomplished and thousands of plants collected, by early 1901 he abandoned the plan (Scott Shumate, personal communication with Ellen Turco).

The Estate Map shows Arboretum Road skirting the southern end of the peninsula, and then switching back to the east and crossing the peninsula from east to west in a serpentine manner (see Figures 3.3 and 3.4). River Road follows the north bank of the peninsula before heading east in the direction of the Biltmore House. A number of buildings are also shown on the 1896 maps, including the Johnson House at the present-day Riverside Dairy site. The 1896 detail map of the Arrowhead Peninsula provides elevations, identifies tree species, and also shows the "Johnson Place," now the Riverside Dairy site, at the west edge of the map along with other buildings scattered across the site. The buildings that survive today at Riverside Diary postdate the buildings shown as part of the Johnson property on the 1896 maps.

Part of Vanderbilt's grand plan for Biltmore was to create an experimental farm where the latest progressive practices in agriculture and forestry could be implemented. In the late nineteenth and early twentieth centuries a subset of wealthy men developed showplace "hobby farms" that utilized modern farming techniques and state-of-the-art equipment. Vanderbilt's efforts at Biltmore were an extreme example of the hobby farm trend. Beyond Biltmore's manor house and village, the property contained massive commercial greenhouses and plant nurseries which specialized in local plants, fruit orchards, crop fields growing silage and vegetables for truck farming, and areas dedicated to the raising of small livestock such as pigs and chickens. Vanderbilt had a particular interest in dairying that could be traced to his family's farm in New Dorp, Staten Island, New York.

The estate's dairy operations were initiated by Vanderbilt in the 1890s (Hood 2003:8). Vanderbilt's chosen breed of cow was the Jersey, known for the high quality of its milk and easy-going nature. At first, the dairy products were used for the estate's household and workforce. Faced with a surplus,

Figure 3.1: Section of *Guide Map of the Biltmore Estate*, 1896.
Olmsted, Olmsted and Eliot, Landscape Architects. Courtesy of the National Park Service, Frederick Law Olmsted National Historic Site.

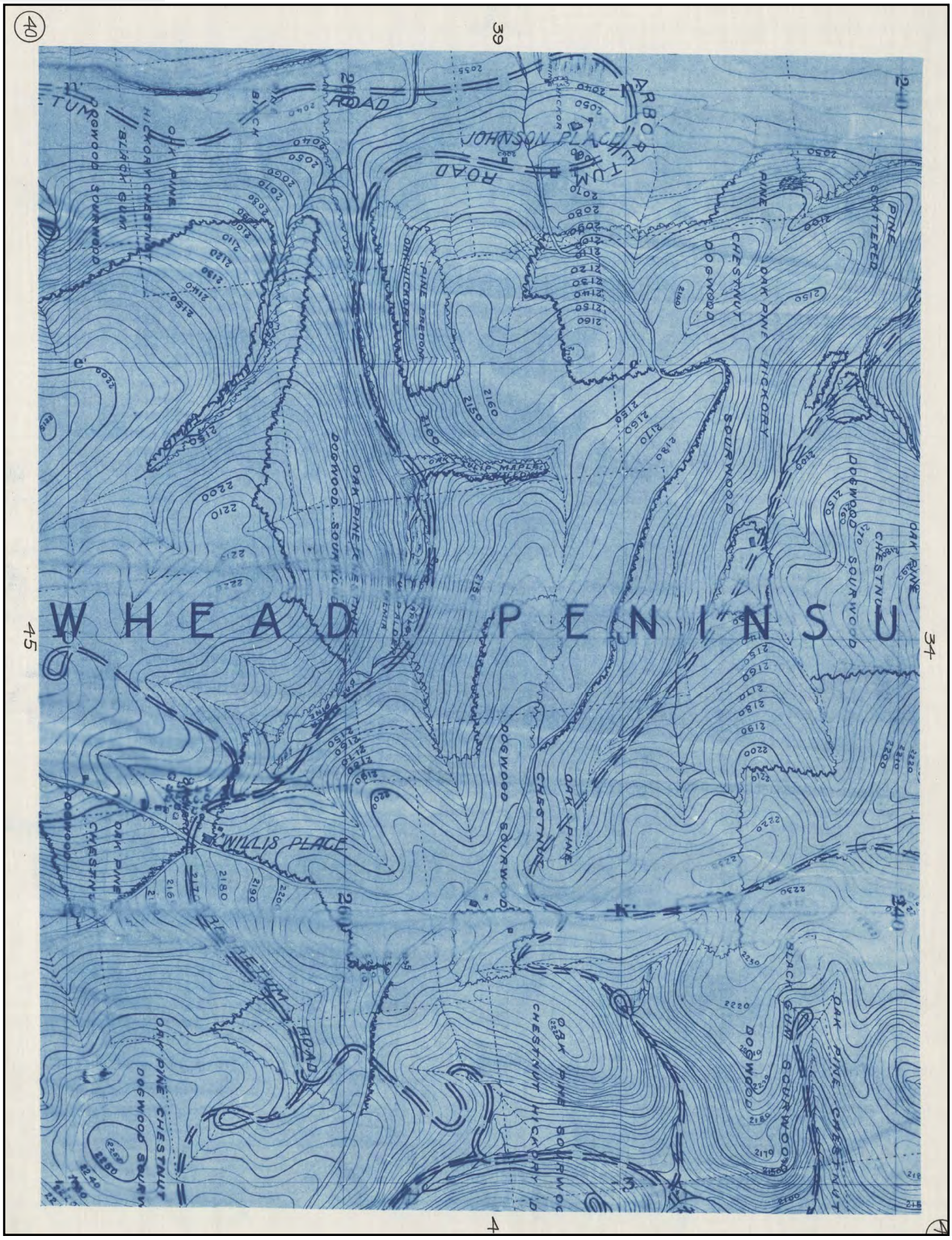

Figure 3.2: Detail Map of Arrowhead Peninsula, 1896.
Olmsted, Olmsted and Eliot, Landscape Architects. Courtesy of the National Park Service, Frederick Law Olmsted National Historic Site.

Vanderbilt gave milk away to local hospitals. By 1897, Vanderbilt had expanded his herd to a size that enabled him to sell milk and cream commercially (Biltmore Farms 1991:9). A large and modern dairy barn was completed in 1902 (Biltmore Farms 1991:10).

George W. Vanderbilt died in 1914, leaving his wife, Edith, and daughter, Cornelia, to reckon his estate. As a result, in 1916, Edith Vanderbilt deeded in excess of 86,000 acres of land to the federal government. This land would form the basis of the Pisgah National Forest. In 1930, Cornelia Vanderbilt Cecil and her husband John Cecil opened the Biltmore House to the public, an enterprise based on the English model of estate preservation (Hood 2003: 93). In 1932, the Biltmore Company was formed to hold the assets of the estate in trust for Cornelia and John's two sons.

Although greatly reduced in size, Biltmore continued as a viable agricultural enterprise (Hood 2003:9). The dairy part of the farm business grew in the 1920s as mechanization replaced horses, mules, and hand labor, and gasoline-powered trucks replaced horse-drawn delivery wagons (Biltmore Farms 1991:11). A second major building campaign was undertaken between the 1930s and 1950s that effectively rebuilt the dairy farm side of agricultural operations on the estate (Hood 2003:9). A number of dairy-related buildings were erected including a new gambrel-roofed Main Barn with an attached milk house in 1938 (Hood 2003: 41-42). This building was converted to the Biltmore Winery in the 1980s. The company grew its milk processing and distribution infrastructure with the opening of a bottling plant in Charlotte in 1935, followed by branches in the 1940s and 1950s in Marion, Hickory, Statesville, Winston-Salem, Greensboro, Spindale, Gastonia, Monroe, Wadesboro, and Wilmington (Biltmore Farms 14; 18). Biltmore Dairy expanded into home and supermarket delivery. In 1957, bottling operations were consolidated at a new brick Colonial Revival-style plant on Vanderbilt Road in Asheville (Figure 3.3). A dairy bar was integrated into the plant and the company's fleet of distinctive yellow and black delivery trucks were seen around town (Biltmore Farms 1991:18-19). Dairy operations remained robust in the 1950s through the 1970s due to management by Vanderbilt's grandsons, George H.V. Cecil and William A.V. Cecil.

In order to supply its growing processing facilities, the Biltmore Dairy contracted with, or acquired, local dairy farmers across the state. This model was an evolution of George Vanderbilt's practice of employing local tenant farmers in the early years of his estate. Scattered around the Biltmore property were a number of small family farms that continued to operate under a lease system after George Vanderbilt acquired the properties. The Johnson Farm shown on Olmsted's 1896 estate maps was leased in the 1920s by members of the Jones family. According to a 2001 interview with Paul Martin Jones on file at the Biltmore Archives, Jones's family:

> kept a herd of 30 to 35 Jersey cows and sold the milk to the Biltmore Dairy. They used some of the fields for pasture and some for food crops. They lost the dairy during the Depression and the Estate may have closed it for a time (Biltmore Estate Oral History Collection OH/03-0055, interview with Paul Martin Jones, October 4, 2001.)

A 1991 popular history of George W. Vanderbilt's achievements in the areas of forestry and agriculture produced by Biltmore Farms explained that milking and cattle care was "a family operation" and described how estate families "were paid a good wage; a house, fuel, free milk, and a vegetable garden" in exchange for the their labor on the small dairy units that made up the larger Biltmore Dairy (Biltmore Farms 1991:16).

Dairy operations continued at Biltmore at some level until 1985 when Biltmore's dairy division was sold to Pet, Inc. (Biltmore Farms 1991: 22; Hood 2003:116). While the exact date that dairying ceased at Riverside Farm on the Arrowhead Peninsula is unknown, it is presumed to have occurred between 1964 and 1975 when aerial photographs show that the large dairy barn was removed. Cornelia Vanderbilt Cecil's death in 1976 led to the division of the estate in 1979. William A.V. Cecil's Biltmore Company retained the north part of the estate which included the Biltmore House and virtually all of the historic buildings associated with it, including Biltmore Village. George H.V. Cecil obtained ownership of about 5,000 acres of the estate's outlying lands to the south, including the Arrowhead

Figure 3.3: Biltmore Diary Bottling Plant on Vanderbilt Road, circa 1957.
Photograph courtesy of the North Carolina Collection, Pack Memorial Library, Asheville, North Carolina.

Peninsula (Hood 2003:84). Over the past decades, George H.V. Cecil's real estate holding company, Biltmore Dairy Farms, Inc. has developed many commercial and residential subdivisions on the former lands of the Biltmore Estate.

The Arrowhead Peninsula underwent physical changes in the 1950s starting with planning and construction of the southern part of the Blue Ridge Parkway in the early 1950s. When built, the Parkway divided the peninsula into two roughly equal northern and southern sections. In the early 1960s, Interstate-26 was routed across the eastern neck of the peninsula, effectively cutting it off from the historically associated estate lands to the east (Hood 2003:83). Around 1970, Carolina Power and Light erected a power transmission line within a cleared 100-foot easement that runs from north to south on the west side of the peninsula, roughly parallel with the course of the French Broad River.

4.0 NATIONAL REGISTER EVALUATION OF FRENCH BROAD RIVER GAGING STATION

Table 4.1: French Broad River Gaging Station Information Table.

Resource Name	French Broad River Gaging Station
HPO Survey Site Number	BN6468
Location	Wets Bank of French Broad River, near Brevard Road and Frederick Law Olmsted Way
PIN	963507658700000
Date of Construction	Circa 1935
NRHP Recommendation	Eligible Under A and C

NRHP – National Register of Historic Places

Setting

The French Broad River Gaging Station (BN0421) is located on the west bank of the French Broad River, north of its confluence with Bent Creek and east of NC 191 (Brevard Road) in Asheville. The site is approximately 300-feet north of the parking lot for the Buncombe County-owned Bent Creek River Park at 1610 Brevard Road (Figure 4.1).

Physical Description

The French Broad River Gaging Station is a poured concrete tower with a square footprint. The structure stands roughly 20-feet in height (Plate 4.1-4.5). The base of the tower is surrounded by vegetative debris from recent flooding and the structure is presently covered with vines. The Gaging Station displays simplified elements of the Art Deco style of architecture including a shallow pyramidal roof and cutaway corners that emphasize the structure's verticality. A 20-foot depth gauge is mounted to the north, or upstream, side of the gaging station. The south elevation has a square opening near the roofline that is blocked by an inset metal panel. The east side, facing the river, has three rectangular metal vents arranged triangularly near the roofline and a solid metal door affixed with metal strap hinges at the base. The west side has three rectangular metal vents that mirror the triangular placement of the east side. A U.S. Geological Survey benchmark set in a concrete slab is on the ground on the north side of the tower. Inscriptions on the marker indicate the use of the resource as a gaging station and note a fine for disturbing the mark.

History and Historic and Architectural Context

The following context is adapted from reports on the South Mills River Stream Gaging Station (Patch 2011) and the Davidson River Gaging Station (Gillett and Person 2017).

Gaging Stations measuring the depth, velocity, and fluctuation in river flow were erected by the Water Resources Division of the United States Geological Survey (U.S.G.S.) beginning as early as 1893. The headquarters of the U.S.G.S. Water Resources Division was established in Asheville by 1920 (Coleman 1940). The city was chosen as the division headquarters because of its proximity to major waterpower developments. The division worked closely with the North Carolina Department of Conservation and Development, sharing financial responsibilities and data.

Figure 4.1: Location map and site plan for the French Broad River Gaging Station (NCOneMap Aerial Imagery, 2019).

Figure 4.2: Pink Beds Gaging Station (TV0614).
Courtesy Scott Shumate.

Plate 4.1: North and west sides of the French Broad River Gaging Station.

Photo view: Southeast

Photographer: Ellen Turco

Date: November 20, 2019

Plate 4.2: West side of the French Broad River Gaging Station.

Photo view: East

Photographer: Ellen Turco

Date: November 20, 2019

Plate 4.3: South and east sides of the French Broad River Gaging Station.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 4.4: Door at the base of the east side of the French Broad River Gaging Station.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Plate 4.5: U.S. Geological Survey benchmark at French Broad River Gaging Station.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Between 1920 and 1940, the division grew steadily. The number of stream gages in the state exploded from 23 to 132, with more being built. Stream gages were located all over North Carolina but were concentrated in the western counties (Ramsey 1953).

Growth in Western North Carolina was partially due to the efforts of the Water Resources branch of the U.S.G.S. The office was responsible for gathering and inventory of basic data for water resources in the region. Records of water resources were critical to industrial and commercial activities. This work played a leading role in the location of hydroelectric plants, mills, and factories, as well as provided data on flood control and stream pollution.

Records for stream gages appear as early as the 1890s, although on a limited scale (Smith and Pratt 1911). By 1911, the U.S.G.S. and state survey had maintained between 20 and 30 gaging stations on the principal rivers and streams of North Carolina (Smith and Pratt 1911). One early gage in western North Carolina was located on the South Fork Mills River in the village of Pink Beds. It was established May 18, 1904 and attached to a wagon bridge. At that time, the gage was described as a vertical timber 10 feet long spiked to the log crib on the right bank at the upper side of the bridge (Smith and Pratt 1911:335). This reference suggests it was a staff gage. This timber gage was replaced with a rustic rock masonry gage house (TV0614) built by the Civilian Conservation Corps (CCC) work relief program of the Works Progress Administration (WPA) in 1935 (Shumate 2003) (Figure 4.2). The rock gage house at Pink Beds was determined eligible for the NRHP in 2011.

Gaging stations are located on riverbanks and are connected to the stream by intake pipes. The stations were positioned upstream from a shoal or other constricted point to provide a relatively stable surface. A water stage recorder was then placed in the gage house over the well. The instrument was in contact with the well by a float that moved up

and down with fluctuations in water level. Continuous measurements were then recorded by pencil on graph paper.

Measuring stream flow was a complicated task that required specialized training and equipment (Buchanan and Somers 1976). Typical activities at a gaging station involved developing a cross section of the stream, with the gage recording the level of the stream at all times. Flow measurements were then captured by either wading in the water or suspending a meter from a cable car. Both methods may have been employed at a gage depending on conditions such as water level, flow rate, and season. Multiple measurements would then be collected across different portions of the stream. The results were then compiled to calculate the rate of discharge in cubic feet per second. Teams of two typically collected measurements, which was a rigorous and physically demanding job.

Engineers measured discharge by placing a current meter in the water at different locations in the stream (Buchanan and Somers 1976). Depending on specific conditions such as stream depth, width, flow, and accessibility, one of several methods was chosen. The simplest method was to physically wade into the stream carrying a portable rod with a paddle or click wheel. Data were then collected using a watch. A second method, common in remote areas, was to use a cable car system suspended over the pool above the gage. Engineers would then use a similar instrument. A third method was reserved for high water or deeper streams and involved the use of a small crane. The velocity meter was attached to a cable and lowered into the water along with a weight to maintain its position.

Once values for stream width, depth, and velocity were known, it was then possible to calculate the total discharge. Streams were measured on a monthly basis because of changing seasonal conditions and localized weather events. These data could then be used to calculate average daily discharge rates. All data was published in the water supply papers of the U.S.G.S., with copies distributed to local libraries and survey offices. In 1937, it was reported that 96 gaging stations were in operation throughout the state (U.S. Department of the Interior 1937:154). In 1946, there were 56 gaging stations in the entire Tennessee Basin, which included western North Carolina and North Georgia (Peterson 1946). By 1953, the number of stations in that same region had grown to 96, but some of those were no longer active or were submerged under recent dams and reservoirs (Ramsey 1953).

A search of HPOWEB found one recorded gaging station in Buncombe County. The North Fork of the Swannanoa River Gaging Station (BN6393) was determined eligible for the NRHP in 2018. The station, built in 1936 by the CCC for use by the U.S.G.S. is a rustic rock masonry gage house like that at Pink Beds (Figure 4.3). Transylvania County, southwest of Buncombe County, has three recorded gaging stations in addition to the one previously noted at Pink Beds. The circa 1955 Blantyre Gaging Station (TV0483) is built of concrete block and the circa 1935 Rosman Gaging Station (TV0039) (Study List 1992) is a small frame building on top of a concrete block base. Both are utilitarian and stylistically non-descript structures. The more elaborate stone masonry 1934 Calvert Gaging Station was destroyed in 2010 (Gillett and Person 19).

The 1936 Asheville Quadrangle map produced by the U.S.G.S. shows the French Broad River Gaging Station in place (Figure 4.4). The station's mid-1930s constriction date coincides with an expansion of gaging station facilities in Western North Carolina and the time period during which CCC workers were building these facilities. The station's Art Deco styling also supports a 1930s construction date.

Integrity

In order for a resource to be individually eligible for the NRHP, it must possess several, and usually most, of the seven aspects of integrity, location, design, setting, materials, workmanship, feeling, and association, in addition to possessing significance under at least one of the four NRHP evaluation criteria (Appendix B). The French Broad River Gaging Station maintains a very high level of all aspects of integrity. The structure stands on its original location on the west bank of the French Broad River. Its location and physical appearance strongly associate the gaging station to its historical use and CCC origins. The exterior design is largely the same as when it was completed around 1935 by CCC workers. The structure retains its authentic, original building materials such as poured concrete and metal vents and doors.

Figure 4.3: North Fork of the Swannanoa River Gaging Station (BN6393).
Courtesy North Carolina State Historic Preservation Office.

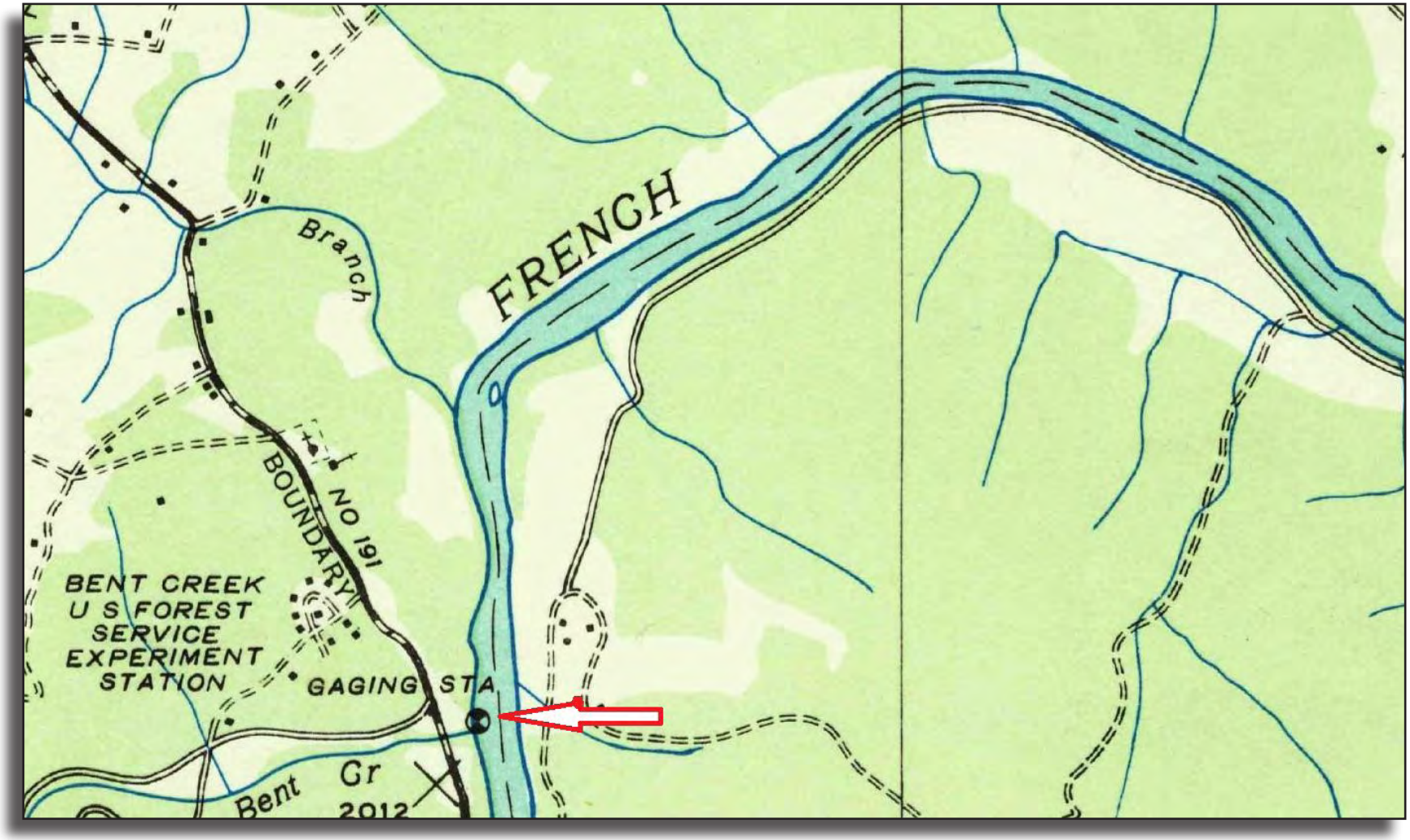

Figure 4.4: Section of U.S.G.S. 7.5' Asheville, NC Quadrangle, 1936.

NRHP Evaluation

Properties can be eligible for the NRHP under Criterion A if they are associated with a significant event or pattern of events that have made contributions to the history at the local, state, or national level. The French Broad River Gaging Station is significant as a part of the larger water management system of the Water Resources Branch of the U.S.G.S. This system provided vital data related to stream flows and flooding which was used for regional planning and influenced the development of industrial and commercial throughout Western North Carolina in the activities. The Gaging Station is also significant for its association with the 1930s CCC work program of the WPA. The build-out of the Water Resources Branch water monitoring system and the work of the CCC related to these facilities has been established as historically significant in NRHP eligibility reports for the Swannanoa River Gaging Station and the South Fork Mills River Gaging Station. For these reasons, the French Broad River Gaging Station is recommended eligible for the NRHP under Criterion A.

Properties can be eligible for the NRHP under Criterion B if they are associated with persons significant within community, state, or national historic contexts. No associations with persons found to be historically significant within local, state, or national historic contexts were discovered during historical research. Therefore, the French Broad River Gaging Station is not recommended eligible for listing for the NRHP under Criterion B.

Properties may be eligible under Criterion C if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value. The French Broad River Gaging Station is significant as the embodiment of a mid-1930s river gaging station. In Western North Carolina, these building types take on either a rustic stone appearance or are rendered in poured concrete with paired-down Art Deco motifs. The French Broad River Gaging Station is an example of the latter. Therefore, French Broad River Gaging Station is recommended eligible for the NRHP under Criterion C.

It is unlikely that additional study of Gaging Station property would yield any unretrieved data not discoverable through informant interviews and documentary sources. Therefore, the French Broad River Gaging Station is recommended not eligible for the NRHP under Criterion D.

NRHP Boundary Recommendation and Justification

The recommended NRHP boundary for the French Broad River Gaging Station includes the poured concrete tower, benchmark and approximately 50 feet of riverbank of the French Broad River for visual context (Figure 4.5). The recommended boundary contains approximately 0.05 of an acre.

Figure 4.5: Recommended NRHP Boundary for French Broad River Gaging Station.

5.0 NATIONAL REGISTER EVALUATION OF AMERICAN ENKA CORPORATION WATER INTAKE

Table 5.1: American ENKA Corporation Water Intake Information Table.

PIN 963507722200000

Resource Name	American ENKA Corporation Water Intake
HPO Survey Site Number	BN6469
Location	East side of NC 191 (Brevard Road), north of Bent Creek
PIN	963507722200000
Date of Construction	Circa 1945
NRHP Recommendation	Not eligible

NRHP – National Register of Historic Places

Setting

The American ENKA Corporation Water Intake (BN6469) is in a wooded area on the west bank of the French Broad River, north of its confluence with Bent Creek. The structure is on the east side of NC 191 (Brevard Road) and approximately 900 feet north of the parking lot for the Buncombe County-owned Bent Creek River Park at 1610 Brevard Road (Figure 5.1). The Water Intake sits in a narrow strip of river floodplain at the base of a plateau. The site is accessed by a cleared path on the east side of Brevard Road.

Physical Description

The circa 1945 American ENKA Corporation Water Intake is a rectangular, flat-roofed, 5:1 bond, load-bearing brick structure measuring approximately 45 by 55 feet (Plates 5.1 - 5.10). A lower, flat-roofed section projects off the north elevation. A square chimney stack rises between the two sections. Colorful graffiti covers the interior and exterior walls of the structure. The long sides of the structure are parallel with the river and consist of four window bays. The shorter ends, facing up and downstream, are two bays wide. Each bay is separated by brick pilasters. Above each bay is a lintel of corbelled brick. The entry is in the south bay of the west elevation. The three bays north of the entry had windows of glass block, which are still visible on the interior but have been covered with brick on the outside. The four window openings of the east elevation are open. A concrete loading dock projects from the south elevation. The structure sits on a massive foundation of poured concrete. On the east side, the foundation is pierced by three vents with metal grates that allow river water to flow under the structure. West of the main Water Intake is a much smaller flat-roofed auxiliary building built into a slope. The building is constructed of 5:1 bond, load bearing brick walls, and it rests on a poured concrete foundation.

The interior of the Water Intake consists of one large, main room and two smaller rooms that are contained within the north section. The structure's brick walls, concrete floor, steel I-beams and concrete roof panels are exposed. In the main room, a rectangular section of the concrete floor is cut away to the water level revealing the remnants of the structure's equipment.

History and Historic Context

The American ENKA Corporation Water Intake was constructed around 1945 to supply water to ENKA's rayon mill, located approximately four miles northwest of the intake site. American ENKA, a subsidiary of a Dutch company, began construction of the mill and worker community known as ENKA Village in the Hominy Valley west of Asheville in 1929. The plant would become the country's largest rayon factory, employing over 4,300 workers after World War II. At its peak the plant employed 7,000 people and was a major driver of Asheville's industrial economy, particularly through the Great Depression when the plant maintained a staff of 1,900 workers (Anon 2015). By the early 1940s, the adjacent Hominy Creek proved to be an insufficient water supply for the plant, so in 1944 American

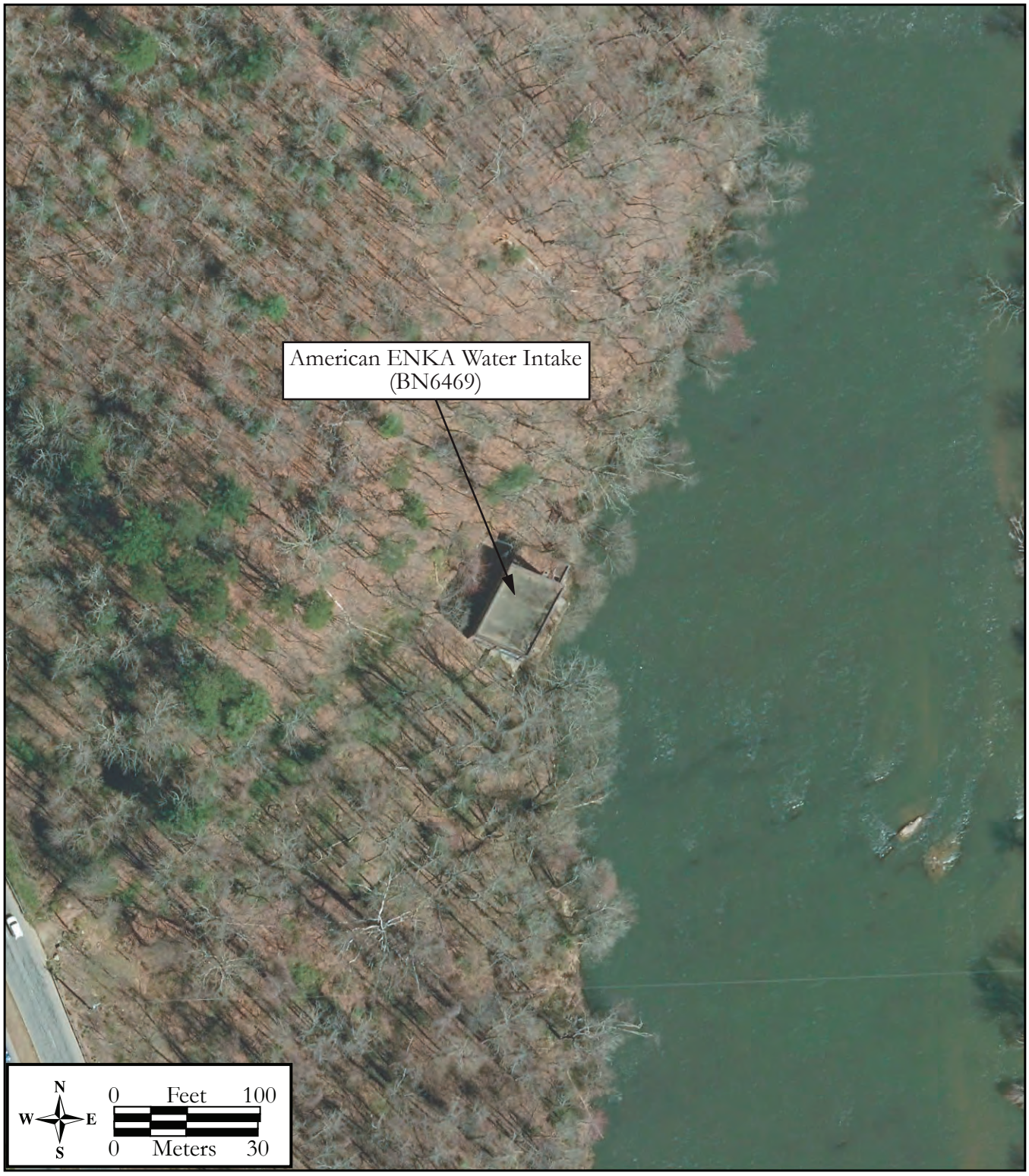

Figure 5.1: Location map for the American ENKA Corporation Water Intake (NCOneMap Aerial Imagery, 2019).

Plate 5.1: American ENKA Corporation Water Intake from east bank of French Broad River.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.2: American ENKA Corporation Water Intake.

Photo view: Northeast

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.3: American ENKA Corporation Water Intake.

Photo view: South

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.4: American ENKA Corporation Water Intake.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.5: American ENKA Corporation Water Intake with a view of the French Broad River.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.6: American ENKA Corporation Water Intake Auxiliary Building.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.7: American ENKA Corporation Water Intake interior.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.8: American ENKA Corporation Water Intake interior equipment.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.9: American ENKA Corporation Water Intake interior.

Photo view: South

Photographer: Ellen Turco

Date: November 20, 2019

Plate 5.10: American ENKA Corporation Water Intake interior showing glass block windows infilled with brick.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

ENKA purchased a 2.287-acre tract on the west side of French Broad River from Biltmore Company for $1,143.50 (Buncombe County Deed Book 525, Page 275). Construction on the brick Water Intake began shortly after ENKA's acquisition of the property. Once complete, water pulled from the French Broad River was carried to the ENKA plant by a 36-inch pipe with a capacity of 25 million gallons per day (Niven 1985).

Precisely when the Water Intake ceased operation is not known. The ENKA plant operated robustly through the 1970s when textile manufacturing began to move overseas. Environmental regulations also contributed to the end of rayon production (Anon 2015). ENKA sold the rayon plant to BASF in 1985 and they operated the plant in a reduced manner until closing it in 2007. The land was subdivided, and the parcels sold to private developers and Asheville-Buncombe Technical Community College. Many of the old building were demolished.

Shortly after BASF's purchase of ENKA in 1985, the City of Asheville purchased the American ENKA Corporation Water Intake to serve as a proposed municipal water plant. An *Asheville Citizen-Times* article describing the sale stated that the Water Intake had been "little used in recent years," which suggested the water intake was needed less as rayon production slowed in the 1970s and 1980s (Niven 1985). Today, the American ENKA Corporation Water Intake is owned by the City of Asheville and stands mothballed and unused. Much of the interior machinery has been removed from the structure.

In 2006, three discontiguous residential districts (BN0377) were added to the North Carolina NRHP Study List. The districts contain worker housing and amenities designed and built as part of the ENKA Village in the 1920s. Area A was the worker housing, Area B was the manager housing, and Area C was for the owners and upper management. The ENKA textile mill is north of the districts. The mill is significantly altered and portions of it have been demolished.

Integrity

In order to be individually eligible for the NRHP, a property must possess several, and usually most, of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association) in addition to possessing significance under at least one of the four NRHP evaluation criteria. The American ENKA Corporation Water Intake retains a high degree of setting, feeling, and location, as it remains on its original site on the west bank of the French Broad River. Its location was integral to its function. The building has been altered by the removal or covering of its windows, and the loss of its essential water intake equipment. However, its original design and workmanship are still evident, and its construction materials are largely intact. The Water Intake's historical association with the American ENKA Rayon Plant is weak due to its geographic distance of four miles from its plant site and the fact that the plant itself is significantly altered from its historical appearance.

NRHP Evaluation

Properties can be eligible for the NRHP under Criterion A if they are associated with a significant event or pattern of events that have made contributions to history at the local, state, or national level. The American ENKA Corporation Water Intake is historically associated with the production of rayon at the American ENKA plant, which was a vital part of Asheville's industrial economy from 1929 until the 1970s. However, the Water Intake is now a discontiguous artifact and remnant of a much larger manufacturing facility whose size has been substantially reduced through demolition. For these reasons, the American ENKA Corporation Water Intake is recommended not eligible for the NRHP under Criterion A.

Properties can be eligible for the NRHP under Criterion B if they are associated with persons significant within community, state, or national historic contexts. The American ENKA Corporation Water Intake was not found to be directly associated with persons historically significant within local, state, or national historic contexts. Therefore, the American ENKA Corporation Water Intake is not recommended eligible for listing for the NRHP under Criterion B.

Properties may be eligible under Criterion C if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value. The American ENKA Corporation Water Intake is a typical masonry industrial building of which there are many examples in Buncombe County. Therefore, the American ENKA Corporation Water Intake is recommended not eligible for the NRHP under Criterion C.

It is unlikely that additional study of American ENKA Corporation Water Intake property would yield any unretrieved data not discoverable through informant interviews and documentary sources. Therefore, the American ENKA Corporation Water Intake is recommended not eligible for the NRHP under Criterion D.

6.0 NATIONAL REGISTER EVALUATION OF RIVERSIDE DAIRY

Table 6.1: Riverside Dairy Information Table.

Resource Name	Riverside Dairy
HPO Survey Site Number	BN6470
Location	Arrowhead Peninsula
PIN	963548920700000
Date of Construction	Circa 1935; 1950;1975;1985
NRHP Recommendation	Not Eligible

NRHP – National Register of Historic Places

Setting
The Riverside Dairy (BN6470) is located on the Biltmore Park West tract at the north end of the Arrowhead Peninsula, on the east side of the French Broad River (Figure 6.1). The farm is accessed from a cleared powerline easement that leads to the silo, shed, and a concrete pad on the farm's east side. The house and barn are approximately 250 feet to the west in a wooded area, nearer the river. South of the house and barn is a house ruin and outbuilding. The Riverside Dairy is unoccupied, and its buildings and structures are vacant and deteriorating.

Physical Description (Plates 6.1 – 6.12)
The estimated construction dates provided in the descriptions below were determined by a comparison of available aerial photographs.

Silo, circa 1935
This round silo is constructed of poured concrete belted with metal bands. The silo is in good condition.

Shed; circa 1985
This front-gabled, frame shed is built of dimensional lumber and prefabricated roof trusses. The exterior is sheathed with a combination of vertical planks and plywood sheets. The roof is covered with 5-V metal. The shed sits on a composite foundation of posts, woodblocks, and low brick piers. A low brick wall, approximately two feet in height runs southeast of the shed and is wall parged with cement. The shed is in fair condition.

Concrete pad; post-1975
The concrete pad is approximately 70 feet northeast of the silo (no photo). Its original use was not determined. It is possibly the foundation for a building that no longer stands.

Log House, circa 1935
The side-gable, four-room log house has a full-façade shed front porch. The house was documented as "Riverside Dwelling No. 70" by the Biltmore Company in 1980 (Figure 6.2). The house is oriented roughly east-west and faces east; it is constructed of small diameter round logs chinked with cement. Wood shingles cover the gables. The roof is covered with metal. The building sits on stacked stone piers. No window sashes remain in place. The interior consists of four principal rooms organized around a central stone chimney. The two rear rooms are partially collapsed. Beadboard covers the walls and ceilings of the front two rooms. A five-panel door connects the two rooms. The fireplace consists of exposed stone over a simple shelf over the firebox. The house is in a deteriorated condition. The roof has failed, and the rear rooms are in a state of collapse.

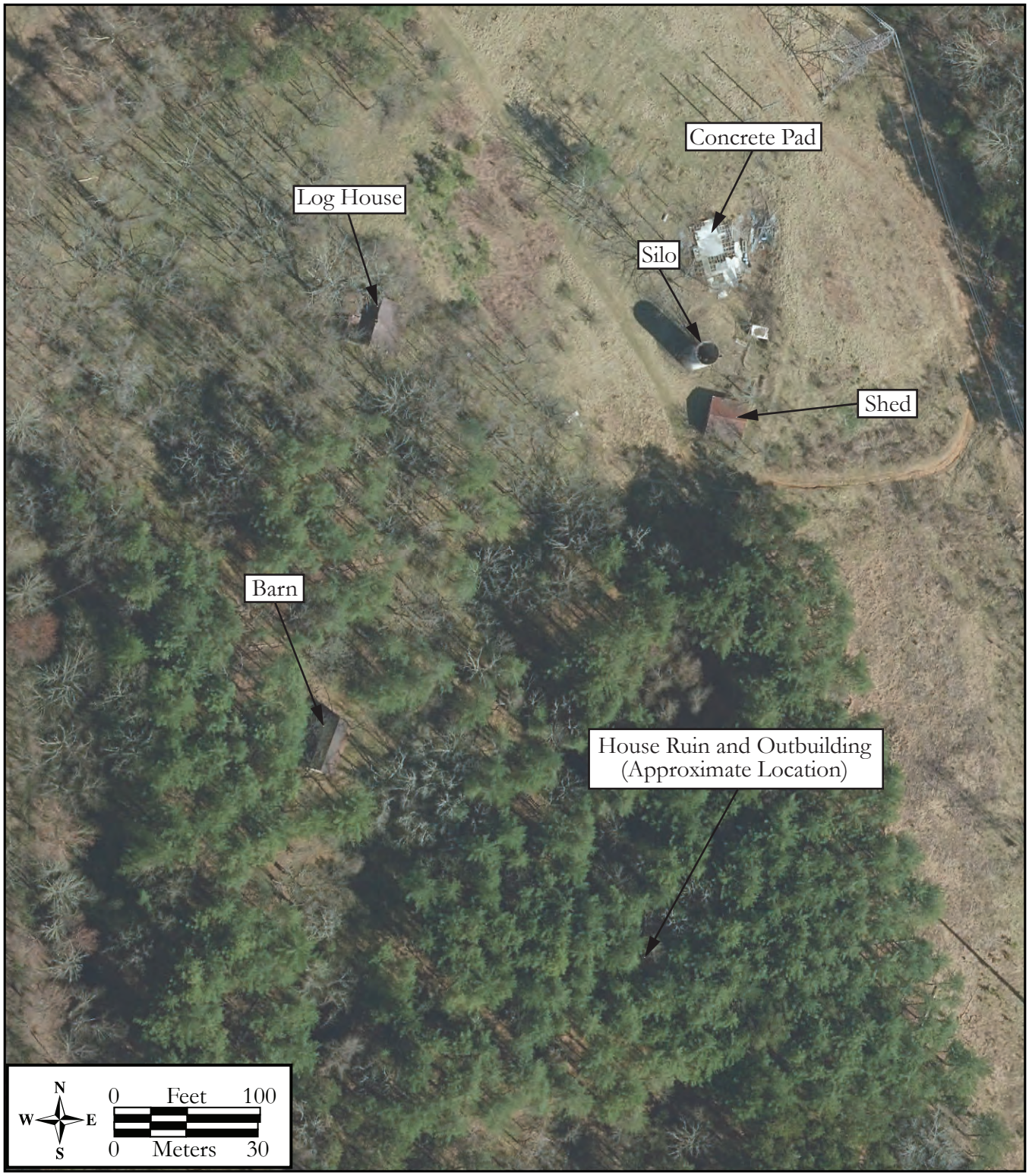

Figure 6.1: Location map for the Riverside Dairy
(NCOneMap Aerial Imagery, 2019).

Figure 6.2: Riverside Dwelling No. 70.
(Image BHA4-07777r, permission of the Biltmore Company, Asheville, North Carolina. PENDING.)

Plate 6.1: Silo.

Photo view: East

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.2: Shed.

Photo view: Southeast

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.3: Shed interior.

Photo view: South

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.4: Front of Log House.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.5: South side of Log House.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.6: North side of Log House.

Photo view: East

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.7: South and west sides of Log House.

Photo view: Northeast

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.8: Log House interior, southeast front room.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.9: North and west sides of Barn.

Photo view: Southeast

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.10: East side of Barn.

Photo view: West

Photographer: Ellen Turco

Date: November 20, 2019

Plate 6.11: House Ruin.

Photo view: East

Photographer: Paul Webb

Date: November 20, 2019

Plate 6.12: Outbuilding next to House Ruin.

Photo view: South

Photographer: Paul Webb

Date: November 20, 2019

Barn, circa 1950
The gambrel roof, frame barn is approximately 250 feet south of the log house. The barn was documented as "Riverside Bldg. No. 68" by the Biltmore Company in 1980 (Figure 6.3). The exterior walls are sheathed with German siding, which has been painted a dark red color. The roof is covered with 5-V tin. The foundation is poured concrete. The interior of the barn has five stalls and a storage area in the northwest corner. There is a second level hayloft. Each stall, as well as the storage area, is accessed directly from the exterior; there is no interior hallway. There are two Z-batten doors on the north elevation and three on the south side. A rectangular opening in each gable end accesses the hayloft.

House Ruin and Outbuilding; circa 1950
South of the barn is a rectangular frame house, now in ruins. Still visible are its German siding and central chimney made of machine-made brick. South of the house is a windowless frame shed with a metal-covered shed roof, a five-panel door and vertical siding.

History and Historic and Architectural Context
The following context is adapted from the Archaeological Survey and Site Evaluation for Project Ranger (Draft Report) (Webb and Nelson 2019).

The Riverside Dairy consists of seven buildings, structures, and ruins which are the remains of a small farming complex that was associated with the Biltmore Dairy operation from circa 1935 to the 1980s. The site lies within a 250-acre parcel that William Foster Johnston and his wife Mary P. Johnston sold to Charles McNamee, an agent for George W. Vanderbilt II, in 1890 (Hood 2003: 103). The earliest maps of the Biltmore tract prepared by the Massachusetts landscape architecture firm Olmsted, Olmsted & Eliot show the Riverside Dairy marked as the "Johnson Place" (see Figure 3.2). William Foster Johnston (1837–1893) was born in Buncombe County and was the son of Andrew Hadijah Johnston (1802–1868) and Mary Elizabeth Stevens. Johnson married Mary Priscella Glenn in 1863. His father, Andrew Johnston, had begun acquiring land in the area by at least 1833, and also owned parcels to the southeast and adjacent to the Arrowhead Peninsula and across the river to the west (Scott Shumate, Personal Communication with Paul Webb). Andrew Johnston sold the 250-acre parcel that includes site 31BN1052 to his son in 1864, a year after his son's marriage and four years before his own death. None of the examined deeds contain references to structures on the 250-acre tract, although William Foster Johnston presumably lived there when he sold the property in 1890[2]. It is evident from an 1868 plat map of Andrew Johnston's holdings that at the time of his death he lived elsewhere (at the southeastern edge of the Arrowhead Peninsula), and it is possible that William Foster Johnston developed the Johnston Farm after he obtained the 250-acres in 1864 at the age of 27. Foster appears

2 The family name is spelled both Johnson and Johnston in historical records.

Figure 6.3: Riverside Building No. 68.
(Image BHA4-07777r, permission of the Biltmore Company, Asheville, North Carolina. PENDING.)

in the 1880 census as head of a household of eight, including two servants (www.ancestry.com). There are no buildings on the Riverside Dairy site that appear to date from the Johnson family occupation.

The 250-acre parcel sold by Foster Johnston included parts of at least four North Carolina state land grants (one to Meshack Hyatt, one to Joseph Young, and two to Andrew H. Johnston), and had been assembled in its final form by Andrew H. Johnston in 1840.

In the 1920s, the farm was leased by the Jones family. It was at this time that the farm acquired the name Riverside Dairy, due to its function as a unit of the Biltmore Diary and its river side location. According to a descendent, the Jones family maintained a herd of around 30 Jersey dairy cows and raised their own vegetables on site (Jones 2001). The Joneses lived at the farm until the Depression.

A 1951 aerial photograph depicts the log house and barn within the prominent loop in Arboretum Road (Figure 6.4). A cultivated field or garden is south of the house; substantial pastures are present to the north and east. The extant silo is situated on the east side of the loop road among a cluster of buildings that contained a large dairy barn, a second silo, and at least three smaller agricultural buildings. A second dwelling, now a ruin, stands at the end of the unpaved drive south of the house.

Integrity

In order to be individually eligible for the NRHP, a property must possess several, and usually most, of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association) in addition to possessing significance under at least one of the four NRHP evaluation criteria. The surviving buildings of the Riverside Dairy retain integrity of location, but the remaining six aspects of integrity have been compromised by the loss of the agricultural landscape, the loss of significant buildings and structures, and the deterioration of extant structures. The pastures and open land necessary to support a 30-head dairy farm are no longer maintained and the landscape is returning to that of a woodland. The loss of the farm's large main dairy barn sometime prior to 1975 has erased the pivotal historic building around which daily farm work was oriented. The materials and workmanship of the log house are in peril due to its severely deteriorated condition. The Riverside Dairy lacks the requisite integrity to illustrate its historical connection to twentieth century dairy practices and its association with the Biltmore Dairy.

NRHP Evaluation

Properties can be eligible for the NRHP under Criterion A if they are associated with a significant event or pattern of events that have made contributions to history at the local, state, or national level. The Riverside Diary was associated with the mature operations of the Biltmore Dairy enterprise between 1932 and 1979. This era began in 1932 when Cornelia Vanderbilt Cecil and her husband formed the Biltmore Company to monetize the estate's various resources and ensure its long-term preservation and lasted until the estate was partitioned in 1979. The physical condition of the extant buildings and the loss of key landscape elements and buildings inhibits the property's ability to convey its historical significance and associations with the Biltmore Dairy. One NRHP-listed 1930s diary complex was identified in the HPO's HPOWEB, the Eilada Home (BN0901; BN0899). The survival of this intact 1930s dairy complex illustrates modern dairy practices of the 1930s in ways that the Riverside Diary is no longer able. For these reasons, the Riverside Dairy is recommended not eligible for the NRHP under Criterion A.

Properties can be eligible for the NRHP under Criterion B if they are proven to be associated with the lives of persons significant in our past. The Riverside Dairy is associated with the Jones family of tenant farmers who resided at the farm from the 1920s through the 1930s, and the Cecil family who owned and managed the Biltmore Dairy indirectly through a trust. Members of the Jones family are not known to be of demonstrable importance to community, state, or national historic contexts. The Biltmore Estate National Historic Landmark better illustrates the historical contributions of the Vanderbilt and Cecil families. Therefore, the Riverside Dairy is recommended not eligible for the NRHP under Criterion B.

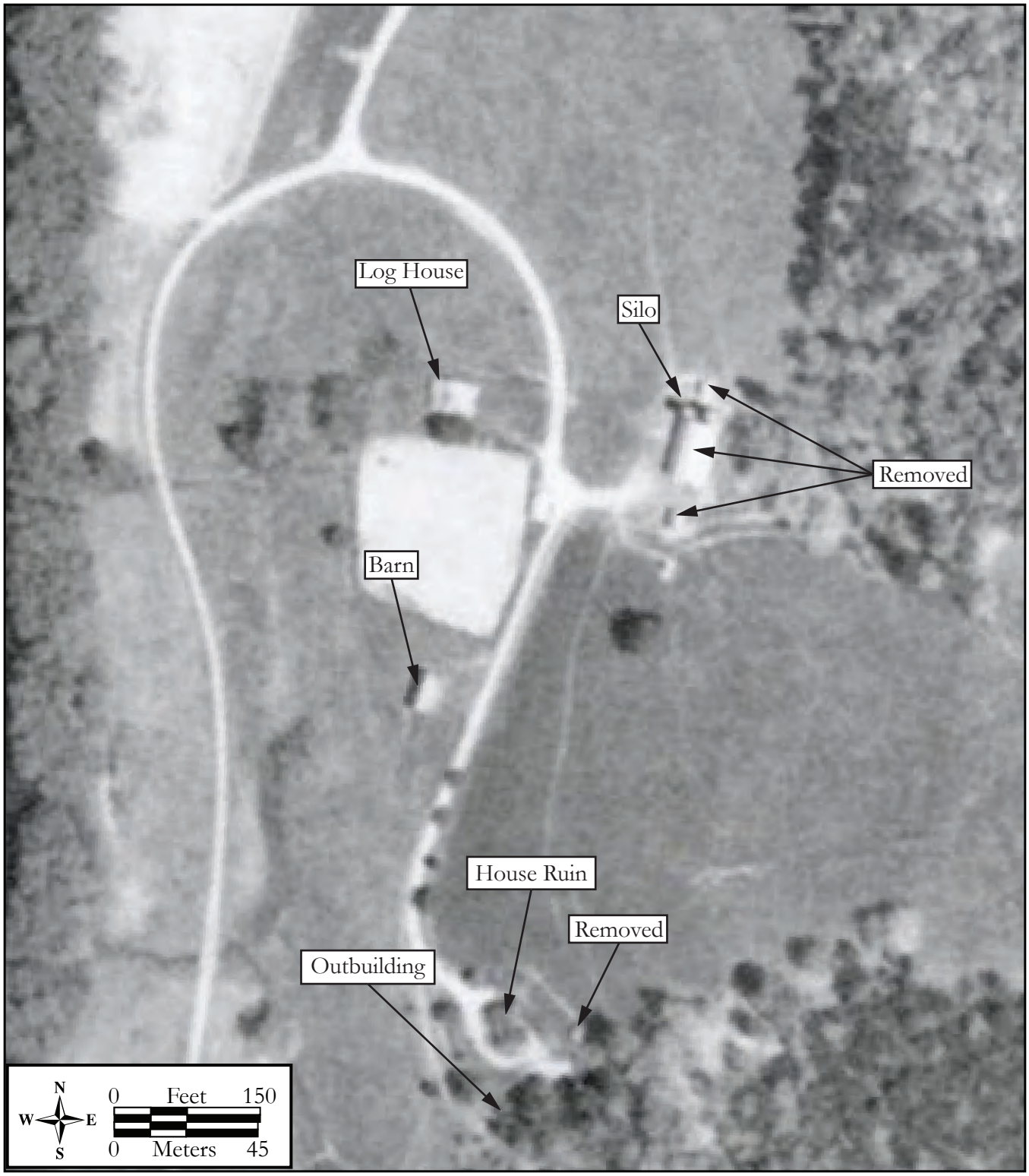

Figure 6.4. 1951 aerial photograph of the Riverside Dairy (https://earthexplorer.usgs.gov/).

Properties may be eligible under Criterion C if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values. The Riverside Dairy was a small dairy complex whose historic buildings date between circa 1935 and circa 1950. The circa 1935 log house is in a state of partial collapse; the circa 1935 silo and circa 1950 barn are in better condition but are unremarkable in their design and construction. Therefore, the Riverside Dairy is recommended not eligible for the NRHP under Criterion C.

It is unlikely that additional study of this property would yield any unretrieved data not discoverable through informant interviews and documentary sources. Therefore, the Riverside Dairy is recommended not eligible for the NRHP under Criterion D.

7.0 NATIONAL REGISTER EVALUATION OF CAMPSITE

Setting
The Campsite (BN6470) is located on the Biltmore Park West tract at the north end of the Arrowhead Peninsula, on the east side of the French Broad River (Figure 7.1). The wooded campsite is accessed from an unimproved road.

Physical Description
The campsite consists of a stone fire pit, a stone fire circle, a low stone spring box, and a shed-roof, concrete block bath house containing a shower, toilet, and hot water tank (Plates 7.1 – 7.8). An aboveground, metal box reservoir, approximately 200-feet upstream from the bathhouse provided water to it. The exterior walls are covered with vertically-placed pine logs. An exterior concrete block chimney flue rises from the east elevation. These structures date from the 1970s (Scott Shumate, personal communication with Ellen Turco).

History
This campsite was used in the 1970s and 1980s by the Cecil family's Biltmore companies as a place to host primitive fishing and camping parties for Biltmore employees. The camp was the site of an annual party at which Biltmore Farms played host to reporters from the *Asheville-Citizen Times*. In recent years, the Campsite may be a destination for horseback riders departing from the Biltmore Equestrian Center (Scott Shumate, personal communication with Ellen Turco).

Integrity
In order for a resource to be individually eligible for the NRHP, it must possess several, and usually most, of the seven aspects of integrity, location, design, setting, materials, workmanship, feeling, and association, in addition to possessing significance under at least one of the four NRHP evaluation criteria (Appendix B). The overall integrity of the campsite cannot be assessed because its original configuration and components could not be determined. The extant components of the Campsite-the fire pit, fire circle, spring box, bathhouse, and reservoir-appear in good condition and retain integrity of location, design, setting, materials, workmanship and feeling. As an intermittently used recreational campsite for different groups, the property does not retain strong historical associations with an important historic event.

NRHP Evaluation
Properties can be eligible for the NRHP under Criterion A if they are associated with a significant event or pattern of events that have made contributions to history at the local, state, or national level. The Campsite was used intermittently by the Biltmore companies as a place to entertain employees and the public in a naturalistic setting. These singular events were not found to be historically significant, nor was the Campsite's overall pattern of use. Therefore, the Campsite is recommended not eligible for the NRHP under Criterion A.

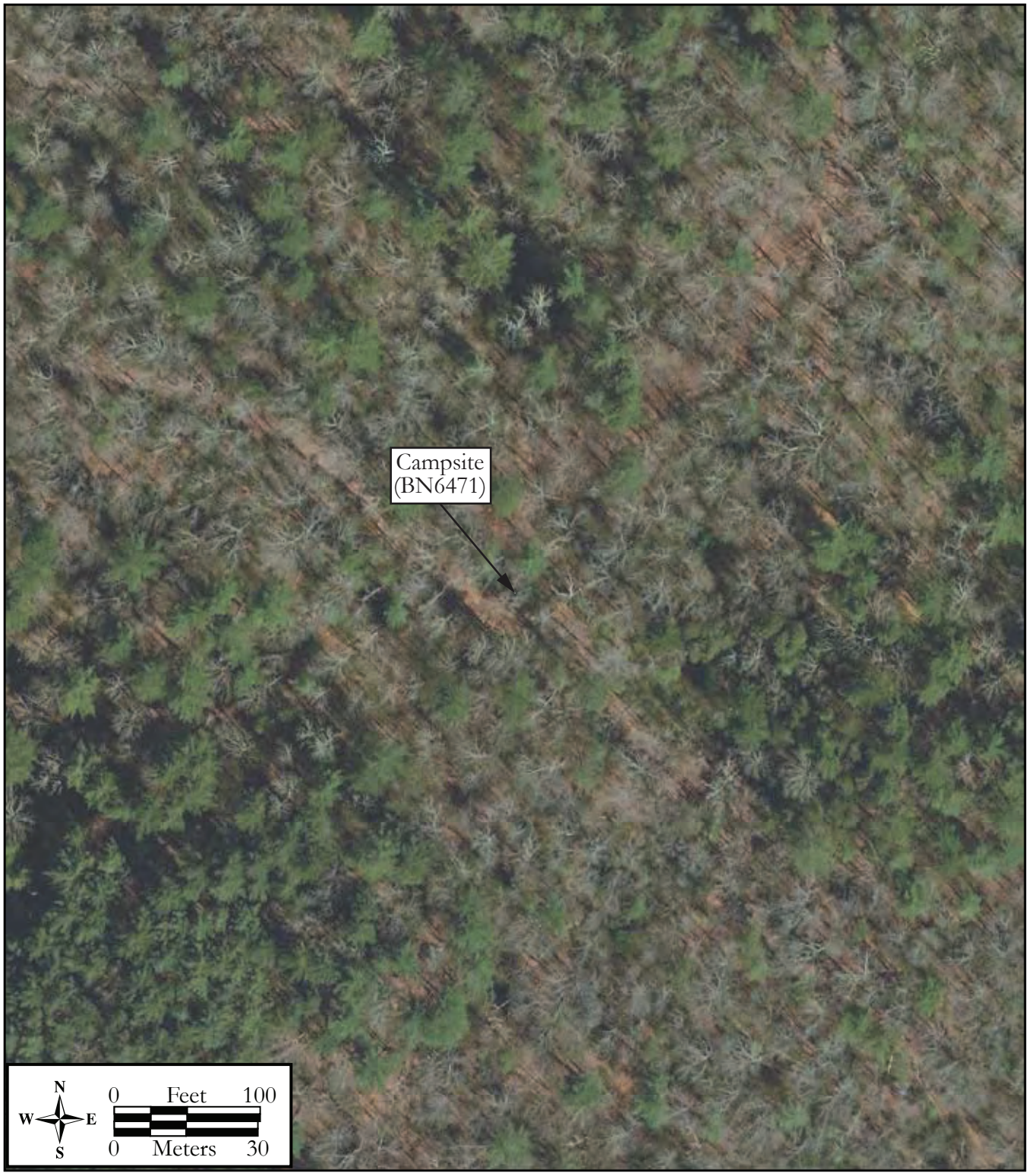

Figure 7.1: Location map (approximate) for the Campsite (NCOneMap Aerial Imagery, 2019).

Plate 7.1: Stone Fire pit.

Photo view: North

Photographer: Paul Webb

Date: November 20, 2019

Plate 7.2: Spring Box.

Photo view: Northwest

Photographer: Ellen Turco

Date: November 20, 2019

Plate 7.3: Bathhouse.

Photo view: South

Photographer: Ellen Turco

Date: November 20, 2019

Plate 7.4: Bathhouse.

Photo view: North

Photographer: Ellen Turco

Date: November 20, 2019

Plate 7.5: Bathhouse interior.

Photo view: South

Photographer: Ellen Turco

Date: November 20, 2019

Plate 7.6: Metal box reservoir.

Photo view: East

Photographer: Ellen Turco

Date: November 20, 2019

Properties can be eligible for the NRHP under Criterion B if they are proven to be associated with the lives of persons significant in our past. No individuals were found to be associated with the Campsite. Therefore, the Campsite is recommended not eligible for the NRHP under Criterion B.

Properties may be eligible under Criterion C if they embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values. The Campsite is on the cusp of 50 years old, the age at which properties are typically evaluated for the NRHP. The Campsite's structures are unremarkable in their design and construction. Therefore, the Campsite is recommended not eligible for the NRHP under Criterion C.

It is unlikely that additional study of this property would yield any unretrieved data not discoverable through informant interviews and documentary sources. Therefore, the Campsite is recommended not eligible for the NRHP under Criterion D.

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APPENDIX A: STAFF QUALIFICATIONS

ELLEN TURCO
PRINCIPAL SENIOR HISTORIAN (36 CFR 61)

YEARS OF EXPERIENCE

With this firm: 2018-Present
With other firms: 23

EDUCATION

MA 1995
North Carolina State University
Public History

BA 1992
Eckerd College
Philosophy

PROFESSIONAL TRAINING

Section 106 for Experienced Practitioners

Preparing Section 106 Agreement Documents

Section 106 Review for Planners and CRM professionals

Innovative Approaches to Section 106 Mitigation

Project Budgeting for CRM Professionals

PROFESSIONAL SOCIETIES

(former) Director, American Cultural Resources Association

Chair, Wake Forest Historic Preservation Commission

Voting Member, Capital Area Preservation Anthemion Awards Committee

Ellen Turco has over 20 years' experience in cultural resources management across multiple industries such as transportation, telecommunications, oil and gas infrastructure, and land development. Her experience includes historical research and writing, architectural surveys and analysis, National Register of Historic Places evaluations for individual resources, districts and landscapes, both state and federal Historic Preservation Tax Credit applications, and the preparation of both Memorandum of Agreement and Programmatic Agreement documents. She has conducted and directed cultural resources surveys in accordance with Sections 106 and 110 of the National Historic Preservation Act, as amended, NEPA, and other municipal and state cultural resource regulations. Ms. Turco exceeds the qualifications set forth in the Secretary of Interior's Standards for an Historian and Architectural Historian [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE

Improvements to U.S. 70, James City, NC (Sponsor: NCDOT) Principal Investigator and Historian for a Phase I and II Historic Architectural Resource Inventory and National Register evaluation of 250 resources in a post-Civil War African American freedmen's community in eastern North Carolina. Authored background history and historic contexts for James City and evaluated resources under the NRHP Criteria both individually and as a historic district. The identification of NRHP eligible resources was a key element of the planning process in this historically sensitive community where environmental justice issues were a factor.

Upgrades to U.S. 70, Johnston and Wayne Counties (Sponsor: NCDOT) This fast-tracked report evaluated the National Register eligibility of the Waverly H. Edwards House in a compressed timeframe. The house was the one resource located within alternative corridors so determining National Register status early on in project planning was essential. The house was recommended not eligible and a historic architecture survey of the larger areas around the alternative corridors was undertaken subsequently.

Improvements to NC 42 Interchange with I-40, Johnston County, (Sponsor: NCDOT) Principal Investigator and Historian for a Phase I Historic Architectural Resource Inventory of a formerly rural but now heavily developed 5-mile long corridor. The Phase I work eliminated 25 resources from intensive study and identified 4 resources that required Phase II National Register evaluations. The phased approach allows project planning and design to proceed in areas without historic sensitivity.

Mount Ararat African American Episcopal Church, Wilmington, New Hanover County, NC (Sponsor: NDOT) Principal Investigator and Historian for this multi-part mitigation of a Reconstruction-era African American church and cemetery. Authored NRHP nomination text for the church, former school site, and adjacent cemetery. Provided background on folk burial practices in the eastern Coastal Plain for the ground-penetrating radar cemetery survey and authored an illustrated public history booklet about the history of the Middle Sound community entitled "Kin, Kindred, Relatives and Friends." Work on this project identified a potentially eligible resource, the Nixon Oyster Plant, that had been omitted in previous planning surveys. The Oyster Plant was treated in a subsequent document to ensure that all Section 106 and NEPA requirements were met.

APPENDIX B: NATIONAL REGISTER OF HISTORIC PLACES CRITERIA FOR EVALUATION

Significant historic properties include districts, structures, objects, or sites that are at least 50 years of age and meet at least one National Register criterion. Criteria used in the evaluation process are specified in the Code of Federal Regulations, Title 36, Part 60, National Register of Historic Places (36 CFR 60.4). To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

> the quality of significance in American History, architecture, archaeology, engineering, and culture [that] is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a) that are associated with events that have made a significant contribution to the broad patterns of our history, or

b) that are associated with the lives of persons significant in our past, or

c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction, or

d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register of Historic Places. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or

b) a building or structure removed from its original location but which is sig-nificant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or

c) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or

d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or

e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or

f) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or

g) a property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

When conducting National Register evaluations, the physical characteristics and historic significance of the overall property are examined. While a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data is also required for individual components therein based on date, function, history, and physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.