United States Department of the Interior
National Park Service

MP-1476

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Boone Hydroelectric Project

Other names/site number: Boone Dam

Name of related multiple property listing: Historic Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979

2. Location

Street & Number: 301 Boone Dam Road

City or town: Kingsport State: Tennessee County: Sullivan and Washington

Not For Publication: N/A Vicinity: N/A Zip: 37663

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

[ ] national [X] statewide [X] local

Applicable National Register Criteria: [X] A [ ] B [X] C [ ] D

Patricia Bernard Eggell 11-09-16

Signature of certifying official/Title: **Date**

Sr. Program Manager, Tribal Relations & Corporate History & Federal Preservation Officer

State or Federal agency/bureau or Tribal Government

In my opinion, the property ✓ meets ___ does not meet the National Register criteria.

Signature of Commenting Official: [signature] **Date** 11-28-16

Deputy State Historic Preservation Officer,
Tennessee Historical Commission

Title: **State of Federal agency/bureau or Tribal Government**

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

4. National Park Service Certification

I hereby certify that this property is:

✓ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain:) _____

Signature of the Keeper

10·26·2017
Date of Action

5. Classification

Ownership of Property
(Check as many boxes as apply.)

Private	☐
Public – Local	☐
Public – State	☐
Public – Federal	X

Category of Property
(Check only **one** box.)

Building(s)	☐
District	X
Site	☐
Structure	☐
Object	☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
6	3	buildings
1	0	sites
4	1	structures
0	0	objects
11	4	Total

Number of contributing resources previously listed in the National Register 0

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

6. Function or Use

Historic Functions (Enter categories from instructions)	Current Functions (Enter categories from instructions)
INDUSTRY/PROCESSING/EXTRACTION/ Energy Facility	INDUSTRY/PROCESSING/EXTRACTION/ Energy Facility
RECREATION AND CULTURE/Outdoor Recreation	RECREATION AND CULTURE/Outdoor Recreation

7. Description

Architectural Classification

No Style
OTHER: Hydroelectric Dam

Materials:
Principal exterior materials of the property: CONCRETE; BRICK: STEEL; GLASS; ROCK; EARTH; PORCELAIN; TILE: Terrazzo, Ceramic; STONE: Marble

Narrative Description

The Boone Hydroelectric Project was constructed from 1950-1953 by the Tennessee Valley Authority (TVA). The project was constructed for the purpose of generating power, flood control, aquatic ecology, and supplementing water flow across the TVA hydroelectric system during dry periods. It is located on the South Fork of the Holston River, nineteen miles above its confluence with the North Fork of the Holston River. The Boone Hydroelectric Project is ten miles southeast of Kingsport, Tennessee, (est. pop. 53,028, in 2014) in Sullivan County and 1.4 miles below the mouth of the Watauga River. The two-pronged Boone Reservoir extends 17.3 miles up the South Fork of the river, joining the tailwaters of TVA's South Holston Hydroelectric Project, and 15.3 miles up from the Watauga River. The drainage area of the South Fork Holston River and its tributaries (i.e., Watauga River) forms a triangle of 2048 square miles in the states of Tennessee, Virginia, and North Carolina. This area represents five percent of the Tennessee Valley watershed. Boone is one of four TVA hydroelectric projects (Watauga, South Holston, Boone, and Fort Patrick Henry) located here. The Boone

Hydroelectric Project is named in honor of frontiersman Daniel Boone, who explored this area of east Tennessee in the 1760s.

INVENTORY

Construction of the Boone project began August 29, 1950. The dam was closed December 16, 1952. The facility was place in commercial operation on March 6, 1953. The Boone Hydroelectric Project originally consisted of the dam, earth embankments, powerhouse, control building, and switchyard, which are interconnected and integral to one another *(see Photo 1)*. Since completion of the original project, other buildings and sites have been added to the property.

1. Boone Dam, 1953 (Contributing Structure)

The 160-foot high Boone Dam has an overall crest length of 1,532 feet. Boone Dam is a concrete gravity spillway dam constructed mainly of concrete and steel, with an impervious rolled fill embankment. The Boone Dam consists of the spillway and non-overflow sections to either side (*see Photo 2*).[1] Adjoining the earth embankment on the right (east) bank of the river is a 252-foot long concrete non-overflow section; next to this is the 214-foot spillway; an eighty-four-foot long non-overflow section connects the spillway to the left (west) bank of the river. The two non-overflow sections are composed of concrete blocks: the six blocks composing the right non-overflow section are numbered one through six from the right embankment to the powerhouse. The two blocks composing the left non-overflow section are numbered seventeen and eighteen from the spillway to the left abutment. Most of the blocks are forty-one-and-one-half feet long, making them the same length as each spillway block and pier combined. However, block one is three feet longer in order to tie into the right embankment, and block seventeen is seven feet narrower.[2]

The spillway is on the left (west) side of the original river bed (*see Photo 3*). This concrete gravity structure consists of blocks eleven through sixteen within the entire length of the dam structure. The spillway has five radial gates, each measuring thirty-five feet by thirty-five feet. The gates are divided by six-and-one-half-foot thick concrete piers. The piers of the spillway support a roadway deck at elevation 1392 feet and an operating deck at elevation 1394 feet. On the operating deck are fixed hoists that operate the spillway gates controlling the reservoir to elevation 1385 feet. The spillway also has a sluice (in block twelve) to allow for the minimum discharge required downstream when the power plant is not generating. The sluice measures five feet, eight inches by ten feet and is located at an elevation of 1265 feet. The spillway has a bucket-type apron to deflect water from the toe of the spillway.[3]

The original design of the Boone project called for a concrete dam structure across the entire length of the water barrier. However, rock conditions at the site allowed for an earth embankment. This substitution resulted in a

[1] Commonly, dam design includes a section that permits the overflow of water from the reservoir (the spillway) and other sections that do not allow the passage of water (non-overflow). Together, these sections contribute to the total length of the dam structure that impounds the reservoir. A gravity type dam is one constructed of concrete or stone and uses the sheer weight of the structure to resist the horizontal pressure of the water pushing against it. Gravity dams are designed in sections that are independently stable.

[2] Tennessee Valley Authority, *The Upper Holston Projects: A Comprehensive Report on the Planning, Design, Construction, Initial Operations and Costs of Four Hydro Projects in the Holston Basin at the Eastern Tip of Tennessee*, Technical Report no. 14, (Washington, D.C.: U.S. Government Printing Office, 1958), 245.

[3] Ibid., 246-47.

savings of more than one-half million dollars in construction costs. The earthen embankment begins at the right end of the concrete dam and remains in line with it for sixty feet before turning downstream.[4]

In October of 2014, TVA Dam employees discovered a sinkhole near the earthen embankment at the base of the dam. The sinkhole was repaired, but inspectors found sediment and water seeping from river bank just below the dam. TVA expedited its typical winter draw-down at the site to alleviate pressure on the dam. In March of 2015 TVA discovered an extensive network of seepage paths originating from the east side of the dam. This area is higher in elevation than the dam, and large rain events can cause surface runoff to flow underneath the dam. This internal erosion can become exacerbated over time. The lowered reservoir level helps reduce the risk of dam failure temporarily. Permanent remedies for the seepage problem range from removing or replacing the current dam to building seepage filters or barriers to constructing berms to strengthen the dam. After careful consideration of the many variables, TVA and outside experts concurred that a composite seepage barrier is the preferred remediation option. The composite seepage barrier will consist of a grout curtain in the foundation soils and epikarst limestone and a concrete diaphragm wall through the dam and epikarst. Work is expected to begin in early 2016 and could take five to seven years to complete.[5]

2. Powerhouse, 1953 (Contributing Building)

The facility's powerhouse is located in the original river channel adjacent to the spillway (*see Photo 4*). It is a semi-outdoor type[6] and is remotely controlled from the control building. The powerhouse includes the service bay, and together they measure 232 feet in length. The powerhouse is above the intake. The service bay, powerhouse, and intake are built as a monolith gravity-type structure. This design requires less mass to meet stability requirements, as they are integral to the dam on their south elevation. The intake consists of three blocks, each fifty-eight feet wide. The top of the intake is at elevation 1392 feet, seven feet above maximum headwater. The deck is thirty-five feet wide, allowing for an eleven-foot roadway in addition to the intake gate hoists. The gates can close off the intake passages for inspection and maintenance or in an emergency. Gates are operated in pairs.[7] The façade (north) of the powerhouse has two entrances, each with original single-light glass and metal double doors (*see Photo 5*). The doors of each entrance are flanked by metal panels over metal louvered vents. All three sections of each entrance are topped by a fixed, single-light metal-frame window. The eastern of the two entrances is flanked by the outdoor covers of generator units 1 and 2; the western entrance, by the outdoor covers of generator units two and three (*see Photo 6*).

The service bay is integral to the dam and is located at the east end of the powerhouse. Its upstream wall (south) aligns with the dam, and the downstream (north) wall aligns with the wall of the powerhouse. From this wall, a deck extends ten feet downstream. Above the deck abutting the upstream wall, the service bay has an eighteen-foot wide, two-story building. The exterior of the two-story section has seven tiers of horizontal concrete panels. On the east elevation of the two-story section there is a set of solid metal double doors at ground level and a horizontal metal louvered vent in the concrete panel second from the top. The one-story section next to generator unit 1 has an exterior wall of three horizontal concrete panels. The east elevation of this section has two pedestrian entrance, one with a single solid metal door and another with similar double doors (*see Photo 7*).

[4] Ibid., 258.
[5] "Boone Lake Drawdown," at TVA webpage http://www.tva.gov/boonedrawdown/index.htm accessed June 12, 2015.
[6] TVA powerhouses varied in type. Semi-outdoor type powerhouses are designed with generators projecting through the roof of the building and are shielded from the elements by materials appropriate for outdoor use. This design differs from indoor powerhouses, which have their generators completely enclosed within the building.
[7] Tennessee Valley Authority, *The Upper Holston Projects*, 260-64.

Inside the powerhouse are three vertical Francis reaction-type turbines with a rated capacity of 25,000 kilowatts each at 90-foot head (*see Photo 8*). The generators were built at Newport News Shipbuilding and Dry Docks in Newport News, Virginia, in 1951. The generator deck is roofed over from the center line of the units to the intake. On initial installation, the powerhouse's generating capacity was 75,000 kilowatts in three units.[8] The three units remain in use today. Inside this space are the electrical boards and governors. The generator room floor of the powerhouse is at an elevation of 1302, eight feet above maximum tailwater. The generator room is equipped with a 160-ton capacity gantry crane for removing and installing the turbine units. The floor below the generator room is at an elevation of 1288 feet, where the pipe gallery is located. It connects to the service bay by a stairwell. On this floor is the carbon-dioxide tanks and raw water equipment.[9]

On the upper floor of the service bay are ventilating fans, lockers, and toilets. The lower floor contains the main entrance. Below the service bay deck are two floors, where the machine shop (*see Photo 9*) and oil storage area are located.[10] The lowest level also has the cable tunnel to the switchyard (*see Photo 10*).

3. Control Building, 1952 (Contributing Building)

The Boone control building measures eighty feet by eighty-seven feet and has a flat roof. Its main portion is two-stories in height. A smaller section is one-story. Constructed in 1952, it was designed to avoid the use of critical construction materials, such as aluminum, used plentifully at the Watauga and South Holston projects. Instead, the Boone control building utilized brick, (reinforced) concrete, and limestone. The east elevation of the building is all brick with no window or door openings. It is two stories (*see Photo 11*). On the south elevation of the control building, the two-story section is visible rising above the one-story section, which has three bays of fixed, single-light, vertical, metal-frame windows and a fourth bay of brick wall with a clerestory row of horizontal, fixed, single-light, metal-frame windows. The bays are divided by concrete pilasters, and there is a concrete course below the roofline. The one-story section wraps around the two-story section on the west elevation of the control building. The all-brick two-story section has porcelain letters spelling the name BOONE below its roofline. The one-story section has five bays of fixed, single-light, vertical, metal-frame windows. Each bay has four windows above a low brick skirt wall, and the bays are divided by concrete pilasters (*see Photo 12*). The north elevation consists of the one- and two-story sections, and their walls are flush. The one-story section to the west has three fixed, single-light, vertical, metal-frame windows above a brick skirt wall next to the main entrance, which consists of a single-light glass and metal door with a fixed, square transom light and a narrow, full-height, vertical sidelight. On the opposite side of the door from the sidelight is a horizontal, fixed single-light window below the concrete beltcourse below the roofline. The two-story section of the north elevation is mostly brick, with three horizontal, fixed single-light windows in the lower level (*see Photo 13*).

In the building is control equipment for both the Boone and Fort Patrick Henry powerhouses and switchyards. The walls of the lobby are "Coral Rouge Fleuri" marble, and the floors are terrazzo (*see Photo 14*). Within the lobby is metal lettering spelling, "BUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA, 1950-1953." On the ground floor are offices, toilets, the relay room, locker rooms, test rooms, and the control room. The corridors have terrazzo floors and plaster walls. Original interior doors off the corridor are solid wood with metal louvered insets (*see Photo 15*). The restrooms and locker rooms have original terrazzo floors,

[8] Ibid., 1010.
[9] Ibid., 267.
[10] Ibid., 272.

tile walls, and plaster ceilings (*see Photo 16*). The offices have linoleum tile floors, plaster walls, and ca. 1995 added dropped ceiling (*see Photo 17*). The conference room has tile walls, linoleum floors and steel partitions. The basement houses the motor-generator room, the water-purification room, the battery room, and the spreading room. These spaces have concrete finished floors and concrete and brick walls.[11]

4. Switchyard/Transmission lines, 1953 (Contributing Structure)

The switchyard is located 360 feet downstream of the non-overflow dam on the right bank, next to the control building (*see Photo 18 & 19*). The yard is at elevation 1331 feet. The yard is earth, so the structures and equipment have concrete footings. The cable tunnel from the dam is reinforced concrete, embedded in the earth embankment and passing under the control building plaza. The main transformer yard has 161- and 69-kilovolt structures. The switchyard consists of a bay of 161 kilovolts, a bay of 138 kilovolts, six (6) bays of 69 kilovolts, and five (5) bays of 12.5 kilovolts. The plan of the space allowed for future addition of six (6) 138- or 161kilovolt bays, five (5) 69-kilovolts bays, and two (2) 12.5-kilovolt bays. The towers are free-standing suspension type with spread legs and braced angles.[12]

5. Switchyard Building, 1953 (Contributing Building)

This is a one-story building of concrete construction with a flat roof and concrete foundation (*see Photo 20*). The façade (west) has five, single-light glass and metal doors. The side elevations have a brick wall below three fixed windows.

6. Visitor Building, 1953 (Contributing Building)

Due to the Boone project's proximity to populated areas, TVA constructed a visitor building at the site. It is located one-quarter mile upstream and east of the dam, at the end of the access highway, above the reservoir. There are three parking areas that provide views of the project structures. The visitor building is rectangular in plan, measuring approximately twenty-eight feet by seventy-three feet. The building is one-story and has a basement level twenty-eight feet by thirty-three feet as the grade slopes down towards the reservoir. The building's flat roof overhangs the walls, especially wide on the lakeside façade, which has a bank of fixed windows overlooking the reservoir. The building has a poured concrete foundation, and the exterior walls consist of random-course stone and original cypress siding.

At the time of the site visit in 2015, the visitor building was being used as the temporary offices for a construction project at the dam. A pre-fab portable office building was located directly to the east elevation of the visitor building, and the recessed walkway of the visitor building had a temporary enclosure attached to the pre-fab building. The west elevation was not concealed. From north to south, the west elevation consists of the thick, stone façade wall, three bays of vertical cypress board below three single-light, wood casement clerestory windows in each bay, a section of random-course stone with three recessed window openings, and a glass wall with a large single-light picture window over three smaller fixed windows (*see Photo 21*). When on-covered, the east elevation is similar, though the bays with cypress board are recessed with a walkway beneath the integral roof. The roof portion over the walkway is supported by square, wood posts. The walkway leads to the building's main entrance, located in the north wall of main observation room, which extends to the east from the recessed portion.

[11] Ibid., 287-88.
[12] Ibid., 304-306

The visitor's building's interior lobby has ceramic tile floors, stone veneer, and original aluminum fixed windows and an original aluminum and glass entry door. On the interior, the main floor has public toilets, a visitor reception room, and public safety offices. The restrooms have original marble walls, linoleum floors, and plaster ceilings.[13] Within the visitor building is an original mural painted by Kingsport artist Robert Birdwell. A TVA staff artist, Birdwell was born in Knoxville and moved to Kingsport in 1938 at the age of twelve. His artwork is featured at the Boone and Fort Patrick Henry Hydroelectric Projects, in each site's overlook building.[14] (Interior photography was unavailable at the time of the site visit.)

7. Bathhouse, 1953 (Contributing Building)
This is a concrete block structure with a saltbox roof of asphalt shingles, original tile flooring, three original, fixed windows at each gable field (west and east elevation). The façade (south) has a recessed opening that has been enclosed with a full-height chain-link fence. The entrances are within the recessed bay, and the original, steel doors are still visible on the inner walls of the recessed bay. (*see Photo 22*).

8. Picnic Pavilion, 1986 (Non-Contributing Structure)
This is a 1986 open-air structure with square, wood posts set in a concrete foundation with stone skirting and a gable roof of asphalt shingles. Each side of the pavilion has five openings between the posts (*see Photo 23*).

9. Picnic Area, 1953 (Contributing Site)
The Boone Hydroelectric Project site was developed with informal picnic areas with sidewalks and picnic benches. Picnic benches include both original concrete models and late 20th-century metal-frame and fiberglass furniture. Adjacent to the picnic area is a sand beach and swimming area which is also part of this recreational site (*see Photo 24*).

Maintenance Area – 4 Utility Buildings (numbers 10-13)

10. Maintenance Building, 1953 (Contributing Building)
This is a 1953 one-story, concrete block building measuring twenty-five feet by eighty-four feet. An original hospital was removed from the yard after the completion of the Boone Hydroelectric Project. The yard was then graded, graveled, and fenced to provide for a storage yard.[15] The maintenance building has a concrete block foundation, a gable roof of asphalt shingles, original windows in a shed roof dormer, six replacement fanlight doors, ca. 1995 one-over-one, vinyl-sash replacement windows, and three original, three-light, twelve-panel, wood, overhead track doors (*see Photo 25*).

11. Chemical Storage Building, 1953 (Contributing Structure,)
A 1953, one-story, brick structure for chemical storage with a flat roof and two openings covered with chain-link gates (*see Photo 26*).

12. Shed, ca. 1990, (Non-Contributing Building)
A ca. 1990 pre-fabricated metal building with a shed roof of standing-seam metal and three garage bay openings (*see Photo 27*).

[13] Ibid., 310-11.
[14] *Kingsport Times-News*, Kingsport, Tennessee, 15 May 1955, 30.
[15] Tennessee Valley Authority, *The Upper Holston Projects*, 313.

13. Equipment Building, ca. 1990 (Non-Contributing Building)
A ca. 1990 one-story frame equipment building with a shed roof metal, corrugated metal siding, and two open bays (*see Photo 28*).

14. Garage, ca. 1990 (Non-Contributing Building)
This is a one-story concrete block building with a flat roof and a poured concrete foundation. On the façade is a metal, overhead-tracking bay door and a solid metal pedestrian door. On the side elevation there is a shed-roof lateral addition with corrugated metal siding and a metal, overhead-tracking bay door (*see Photo 29*).

15. Water Tank, 1953 (Contributing Structure)
At the top of a hill just above the switchyard is a 50,000 gallon steel water tank that supplies water for fire protection and utilities at the control building and powerhouse. This tank is round with a conical roof and composed of interlocking steel panels (*see Photo 30*).

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

8. Statement of Significance
Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

[X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.

[ ] B Property is associated with the lives of persons significant in our past.

[X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

[ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations N/A
(Mark "x" in all the boxes that apply.)
Property is:

[ ] A Owned by a religious institution or used for religious purposes.

[ ] B removed from its original location.

[ ] C a birthplace or grave.

[ ] D a cemetery.

[ ] E a reconstructed building, object, or structure.

[ ] F a commemorative property.

[ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)
ENGINEERING
RECREATION

Period of Significance
1950-1965

Significant Dates
1950-1953

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
Architect: Tennessee Valley Authority; U.S. Army Corps of Engineers
Builder: Tennessee Valley Authority

Statement of Significance Summary Paragraph

The Boone Hydroelectric Project meets National Register Criteria A and C for its significance at the state and local level for recreation and engineering as an integral part of the Tennessee Valley Authority Hydroelectric Project. Its period of significance is from 1950, when the project commenced, to 1965, in keeping with the fifty year guideline. The Boone Hydroelectric Project is significant in the improvement of quality of life through transmission of electricity, control of seasonal flooding, and creation of public recreational facilities. The Boone Hydroelectric Project was one of twenty-five (25) constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The main objective of the 1933 Tennessee Valley Authority Act was the creation of a continuously navigable nine-foot channel from the mouth of the Tennessee River to Knoxville, as well as flood control, power generation, and public benefits. Given its location east of Knoxville on the South Fork of the Holston River, the Boone project was not original to TVA's unified plan (for navigation) submitted to Congress in 1936. Construction of the Boone project began August 29, 1950. The dam was closed December 16, 1952. Generator Unit 3 was placed in commercial operation on March 6, 1953; Unit 2, on June 12, 1953; and Unit 1 on September 3, 1953.[16] The Boone Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, "Historical Resources of the Tennessee Valley Authority Hydroelectric Project."

Narrative Statement of Significance

TVA was created under President Roosevelt's New Deal program as part of his "First One Hundred Days." Roosevelt envisioned "a corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise." To this end, Congress passed the TVA Act on May 18, 1933.[17] The multi-purpose legislation sought to improve navigation and flood control of the Tennessee River, spur agricultural and industrial development in the Tennessee Valley, and provide for national defense via government facilities in the proximity of Muscle Shoals, Alabama (Sec. 1). The act authorized the TVA Corporation to acquire real estate for the construction of dams, reservoirs, power houses, transmission lines, or navigations projects at any point along the Tennessee River and its tributaries (Sec. 4i).[18]

Mobilization in Korea in June of 1950 greatly increased the demand for power from TVA's system. The Boone and Fort Patrick Henry Hydroelectric projects were presented to Congress simultaneously in 1949 for fiscal year 1951. The two projects were planned on a coordinated schedule, similar to that of the Watauga and South Holston projects. Together, the projects were key to increased power production, as well as for flood control. The House and Senate agreed on TVA's requested funding for the projects, and President Harry Truman

[16] Tennessee Valley Authority, *The Upper Holston Projects*, 1.
[17] "History of the Tennessee Valley Authority," at website TVA http://www.policyalmanac.org/economic/archive/ tva_history.shtml accessed April 16, 2015.
[18] Tennessee Valley Authority Act of 1933, at TVA website http://www.policyalmanac.org/economic/archive/tva_history.shtml, accessed April 16, 2015.

approved the projects on September 6, 1950. The projects' approval was in the context of normal peacetime energy needs, but their power capacity was soon expected to play a role in national defense.[19]

The Boone project required the purchase of a total of 5,160 acres of land. Of that, 4,330.61 acres were acquired from private owners, displacing 152 families. Over ninety-six percent was by voluntary transfer, while one percent was by condemnation for title issues, and two-and-one-third per cent by condemnation for refusal to sell. The area of the Boone project was similar to other Upper Holston project areas in the degree of rural development surrounding several towns. Approximately one-third of the land acquired was classified as farm property, and these averaged 18.2 acres in size. The majority (63 percent) of private land acquired for the project was classified as residential, suburban, or commercial. These averaged three acres in size and were purchased for an average of $951 per acre for land ($351) with improvements ($600). Of the 152 families, ninety-nine (sixty-five percent) derived their household income from industrial employment in one of the nearby cities. Still, in the area there was extensive agriculture, chiefly in dairy and tobacco farming. The reservoir tracts used for farming were sixty percent pasture, twenty-two percent for hay, eleven percent for corn, five percent for small grain, and two percent for tobacco. Of the total reservoir land acquired, 1363 acres were wooded and required clearing. Within the Boone Reservoir area, 104 graves were relocated.[20]

TVA participated less in the family readjustment aspect of the four Upper Holston projects than it had at any previous project. Most of this work was contracted with the University of Tennessee College of Agriculture. No family visits were conducted except in unusual circumstances conveyed to TVA by an Extension Service. TVA's direct involvement with family relocation had increasingly deferred to local Extension Services' participation, as the hydroelectric program advanced. This trend culminated in the Extension Service taking the lead, by the time of the Watauga project, the first of the Upper Holston projects. Of the 1,277 families relocated among the four upper Holston projects, 742 were property owners; 535 were tenants. Of the total number, 406 were farm families, 871 were non-farm families. Most relocated families stayed in the area, due to family ties and employment at local industries, and gravitated to population centers. A total of fifty-four businesses were affected, mostly service industries, including seven in the Boone Reservoir.[21]

In the course of the project, a total of eighteen miles of roads and highways were constructed, relocated, resurfaced and/or improved in Sullivan and Washington Counties. Three bridges were built across the Boone Reservoir, and twenty-one miles of utility lines were adjusted or constructed.[22]

Total land costs for the project amounted to $2,166,021, which included acquisition by fee and by certificate in condemnation proceedings when eminent domain was employed when landowners refused sale. Direct construction costs, such as labor, materials, equipment, transportation, totaled $20,870,493. Indirect construction costs, including accounting, timekeeping, office supplies, and police service, came to $1,185,353. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians,

[19] Tennessee Valley Authority, *The Upper Holston Projects*, 18-20.
[20] Ibid., 23, 762-63, 815, 852-53.
[21] Ibid., 770-772.
[22] Ibid., 23.

and inspectors, amounted to $1,688,333. These amounts plus other categorized costs brought the total project to $27,191,574.[23]

Since their construction the powerhouse and control building have not been significantly altered and retain original exterior and interior design and detailing. Of particular note is the intact original lobby with its marble walls and terrazzo floors. This lobby was originally open to visitors but due to security concerns it has been closed to the public since 2001.

SIGNIFICANCE IN ENGINEERING

The Boone Hydroelectric Project is an integral part of the overall engineering design of the TVA system. The dam was built utilizing the most advanced methods of its time. The Boone dam's release provides power to the Fort Patrick Henry Hydroelectric Project downstream. Above Boone Dam, the two-pronged Boone Reservoir extends 17.3 miles up the South Fork of the river, joining the tailwaters of TVA's South Holston Hydroelectric Project, and 15.3 miles up from the Watauga River. Releases from the South Holston Dam and from the Watauga and (pre-TVA) Wilbur Dam provide power to the Boone Hydroelectric Project.

The four Upper Holston projects (Boone, South Holston, Fort Patrick Henry, and Watauga) are located near the head of the Tennessee Valley. As the Valley progresses west and south from the main mountain chains, the topography is characterized by smaller ridges and valleys. The streams follow the contours of the valleys. TVA developed its network of hydroelectric projects in the context of the natural conditions at each location. Site plans, materials to be used, architectural designs, exact placement of a dam axis and its associated project components, spillway type, and many other engineering nuances of each project took into account the natural topography, elevation changes, rock strata, bedrock, annual rainfall, and watershed volume. Numerous laboratory models and studies were performed to obtain the ideal combination of dam site, reservoir size, turbine count, and many other inter-related aspects engineering design, at each project and in relation to up- and/or down-stream facilities.

TVA's hydroelectric projects were designed, in part, to manage the rise and fall of the annual cycles of the Tennessee River system. While the reservoirs on the Tennessee River are designed to provide proper water depth for navigation of barge traffic, reservoirs on the tributary rivers, such as the Boone Reservoir, serve as an emergency storage system to prevent flooding downstream. These reservoirs, therefore, must store an enormous amount of December-April precipitation. The completion of TVA's four projects in the Holston Valley averted potentially disastrous floods at Chattanooga. By the beginning of the annual flood season (January 1- April 1) of 1957, flood regulation since TVA started operations had spared Chattanooga of an estimated $53.5 million in damages. The 1957 season alone produced heavy rains that would have caused the second greatest flood of record at Chattanooga, with an estimated river cresting of 24 feet above flood stage. The four Upper Holston reservoirs, completed between 1948 and 1953, are credited with avoiding an estimated $66 million in damages at Chattanooga.[24]

[23] Ibid., 25, 870.
[24] Ibid., 24.

SIGNIFICANCE IN RECREATION

Following World War II, as middle class American households gained wealth and indoor electricity, a by-product was outdoor leisure time. The TVA's contribution to recreational activities is noteworthy. The agency's hydroelectric projects' reservoirs attract outdoor enthusiasts who enjoy fishing, boating, camping, and hiking in the environs the TVA helped create, re-forest, and conserve. The agency operates some 100 public recreation areas throughout the TVA region.

In the first year following impoundment of the Boone reservoir, one private yacht club was established. Fifteen boat docks were opened by the second spring following impoundment. At the Boone reservation, TVA provided a visitors building, picnic grounds, play area and swimming beach.[25] The reservoir enhanced the natural scenic beauty and recreational opportunities of a multi-metropolitan industrial area with growing populations.

Another social aspect of the TVA's hydroelectric project involved the removal and relocation of graves located within the reservoir area. In twenty-three cemeteries surveyed within the Boone Reservoir area, 804 graves were investigated. Of these. 104 were relocated. The remainder were determined unaffected by the project. Additionally, ninety-two grave markers and eighty-seven footstones were moved. Additionally, a large masonry memorial monument was dismantled and rebuilt above the reservoir line. It belonged to the Daughters of the American Revolution and marked the homestead site of settler William Bean.[26]

In the course of the project, several miles of state and federal highways had to be relocated or constructed in Sullivan and Washington Counties. Road construction due to the project included 1.4 miles of permanent access highways, 16.3 miles of county and tertiary roads, and two-tenths of a mile of city streets. Also, two state highway bridges were built. Tennessee State Route (SR) 34 (U.S. 11E) crossed both the Watauga and South Holston Rivers, and both bridges required some protective work. Additionally, a key intersection at US 11E at a Sullivan County highway required improvement outside the responsibility of TVA. The State reimbursed TVA $2,000 for the safety improvements at the intersection.[27] The road and bridge improvements contributed to an upgrade in local infrastructure, benefitting commerce and quality of life for area residents.

SUMMARY

The Boone Hydroelectric Project is one of twenty-five projects constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The project brought construction jobs and electricity to this area of Tennessee. During planning and construction, TVA provided technical assistance in local schools, municipal land use planning, road relocation and improvement, and shoreline development. While some individual families expressed a sense of loss in displacement from their homes, many relocated in neighboring communities with higher quality amenities. Business leaders in the area capitalized on the potential of the

[25] Ibid., 859.
[26] Ibid., 23, 762-63, 815, 852-53.
[27] Ibid., 801-02.

project to stimulate development and draw new industry. The Boone Reservoir is a popular recreational spot for camping, hiking, and especially game fishing, drawing tourism dollars to local economies. Additional information on the context of the Boone Hydroelectric Project is located within the accompanying Multiple Property Documentation Form, "Historical Resources of the Tennessee Valley Authority Hydroelectric Project."

9. Major Bibliographic References

Bibliography

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"Boone Reservoir." At TVA webpage http://www.tva.gov/sites/boone.htm. Accessed June 12, 2015.

Callahan, North. *TVA – Bridge Over Troubled Waters: A History of the Tennessee Valley Authority*. Cranbury, NJ: A. S. Barnes and Co., Inc., 1980.

"Economic Development." At TVA webpage http://www.tva.com/econdev/index.htm. Accessed May 5, 2015.

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_____. "Tennessee Valley Authority in Alabama (TVA)." At Encyclopedia of Alabama webpage http://www.encyclopediaofalabama.org/article/h-2380. Accessed April 22, 2015.

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"History of the Tennessee Valley Authority." At TVA webpage http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed April 16, 2015.

Kingsport Times-News, Kingsport, Tennessee, 15 May 1955.

Tennessee Valley Authority Act of 1933. At TVA webpage http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed April 16, 2015.

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_____. *The Upper Holston Projects: A Comprehensive Report on the Planning, Design, Construction, Initial Operations and Costs of Four Hydro Projects in the Holston Basin at the Eastern Tip of Tennessee, Technical Report no. 14.* Washington, D.C.: U.S. Government Printing Office, 1958.

West, Carroll Van. *Tennessee's New Deal Landscape*. Knoxville: University of Tennessee Press, 2001.

Boone Hydroelectric Project — Name of Property

Sullivan and Washington Counties, Tennessee — County and State

Previous documentation on file (NPS):			Primary location of additional data:
	preliminary determination of individual listing (36 CFR 67 has been requested)	X	State Historic Preservation Office
	previously listed in the National Register		Other State agency
	previously determined eligible by the National Register	X	Federal agency
	designated a National Historic Landmark		Local government
	recorded by Historic American Buildings Survey #		University
	recorded by Historic American Engineering Record #		Other
	recorded by Historic American Landscape Survey #	Name of repository: Tennessee Valley Authority Knoxville, TN	
Historic Resources Survey Number (if assigned):			

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

10. Geographical Data

Acreage of Property ≈ 209 acres **USGS Quadrangle** Boone Dam 198 NW

Latitude/Longitude Coordinates

A. Latitude: 36.435962 Longitude: -82.436569

B. Latitude: 36.444179 Longitude: -82.429188

C. Latitude: 36.451221 Longitude: -82.438457

D. Latitude: 36.446112 Longitude: -82.443951

E. Latitude: 36.436791 Longitude: -82.438887

Verbal Boundary Description

The National Register boundary for the Boone Hydroelectric Project is depicted as a dashed line on the accompanying USGS Topographical Quadrangle map and site plan map. The National Register boundary is consistent with the overall Boone reservation boundary on the southwest, northwest, and northeast sides. On the southeast, the National Register boundary departs from the Boone reservation boundary at a right angle and continues across the Boone reservoir as a straight line in a southwesterly direction until its rejoins the Boone reservation boundary on the southwest. This southeast boundary line, thus, includes only that portion of the Boone reservoir necessary to encompass the original visitor building and picnic area on the southern peninsula.

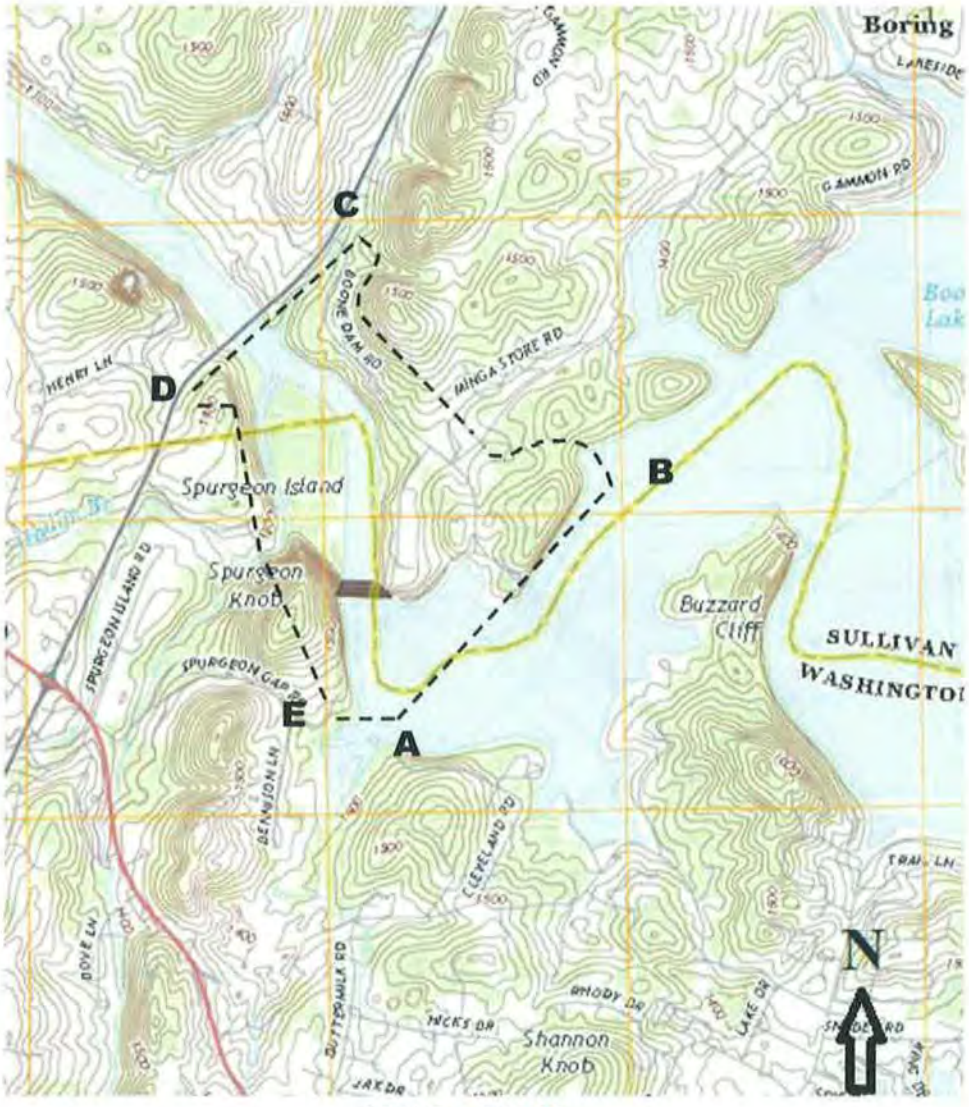
Boundary Justification

The boundary includes all facilities necessary for the operation of the hydroelectric project and/or associated with the mission of TVA, which includes power generation, navigation, and public recreation. The boundary omits other TVA lands not directly associated with hydroelectric production.

Boone Hydroelectric Project
Name of Property

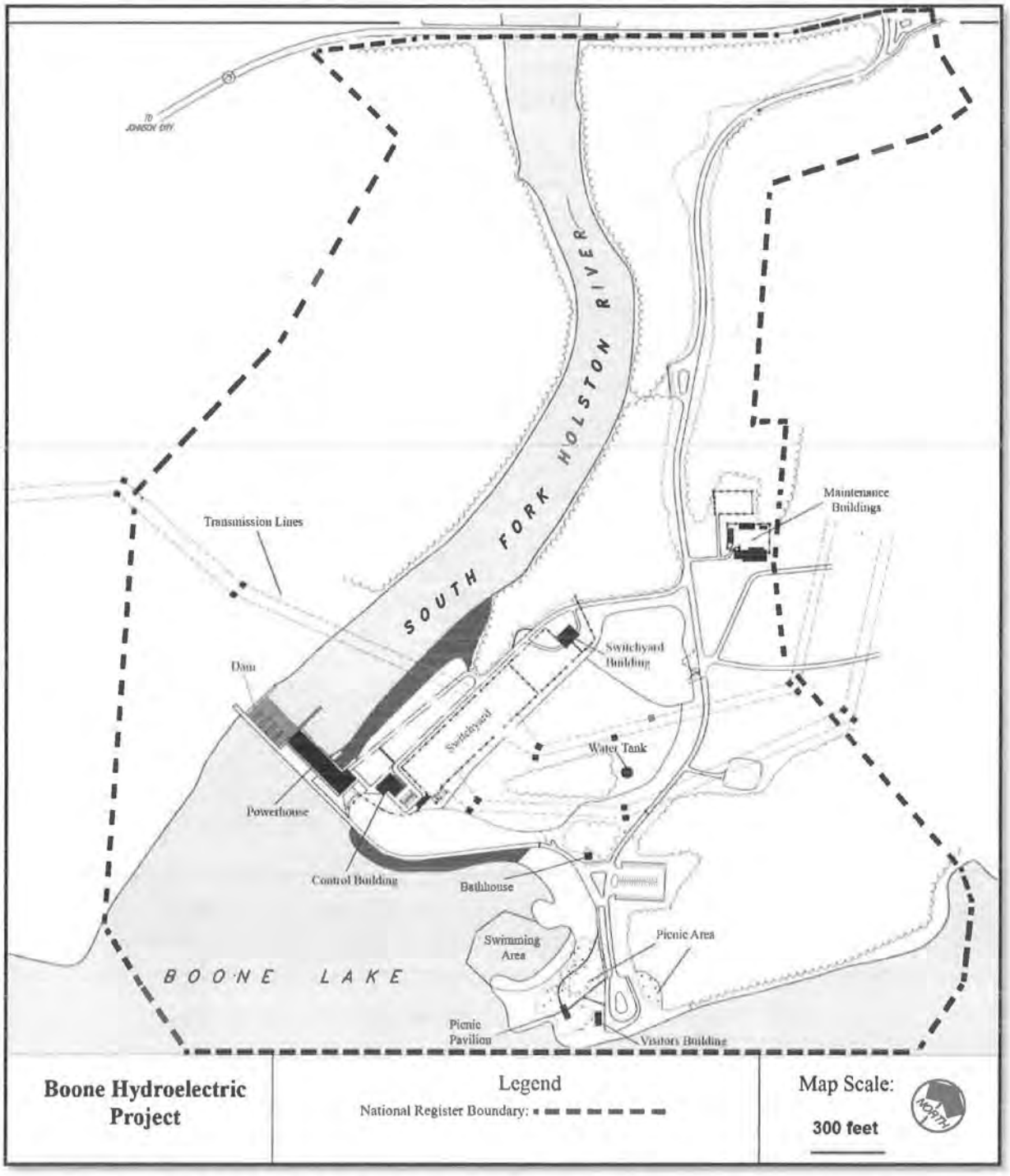
Sullivan and Washington Counties, Tennessee
County and State

Boone Dam USGS Topographical Quadrangle depicting the National Register Boundary for Boone Hydroelectric Project



Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State



Boone Hydroelectric Project Site Plan ***(see 11 x 17" map for enlarged version)***

Boone Hydroelectric Project | Sullivan and Washington Counties, Tennessee
Name of Property | County and State

11. Form Prepared By

Name: Andra Kowalczyk Martens; Rebecca Hightower; Phil Thomason
Organization: Thomason and Associates
Street & Number: P.O. Box 121225 Date: September 15, 2017
City or Town: Nashville Telephone: 615-385-4960
E-mail: Thomason@bellsouth.net State: TN Zip Code: 37212

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to map.
- **Photographs** (refer to Tennessee Historical Commission National Register *Photo Policy* for submittal of digital images and prints)
- **Additional items:** (additional supporting documentation including historic photographs, historic maps, etc. should be included on a Continuation Sheet following the photographic log and sketch maps)

PHOTOGRAPHS

Photo Log Photo

Name of Property: Boone Hydroelectric Project
City or Vicinity: Kingsport
County: Sullivan/Washington State: TN
Photographer: Thomason and Associates
Date Photographed: May 27, 2015

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 30 – General View of Boone Dam looking west.

2 of 30 – Boone Dam looking southwest.

3 of 30 – Spillway gates looking southwest.

4 of 30 – Powerhouse exterior, north elevation, looking southwest.

5 of 30 – Powerhouse exterior, powerhouse north elevation entry.

6 of 30 – Powerhouse exterior, powerhouse looking west.

7 of 30 – Powerhouse exterior, service bay looking west.

8 of 30 – Powerhouse interior, generator room floor.

9 of 30 – Powerhouse interior, machine shop.

10 of 30 – Powerhouse interior, cable tray tunnel to switchyard.

11 of 30 – Control Building exterior, northeast elevation, looking southwest.

12 of 30 – Control Building exterior, southwest elevation, looking northeast.

13 of 30 – Control Building exterior, north elevation.

14 of 30 – Control Building interior, lobby.

15 of 30 – Control Building interior, corridor.

16 of 30 – Control Building interior, restroom.

17 of 30 – Control Building interior, conference room.

18 of 30 – Switchyard looking east.

19 of 30 – Transmission Lines looking north.

20 of 30 – Switchyard Building exterior west elevation, looking east.

21 of 30 – Visitor Building exterior west elevation.

22 of 30 – Bathhouse exterior southeast elevation, looking west.

23 of 30 – Picnic Pavilion looking southwest.

24 of 30 – Picnic Area looking west.

25 of 30 – Maintenance Base Main Building exterior northwest elevation, looking east.

26 of 30 – Maintenance Base Chemical Storage Building looking north.

27 of 30 – Maintenance Base Prefabricated Metal Building looking north.

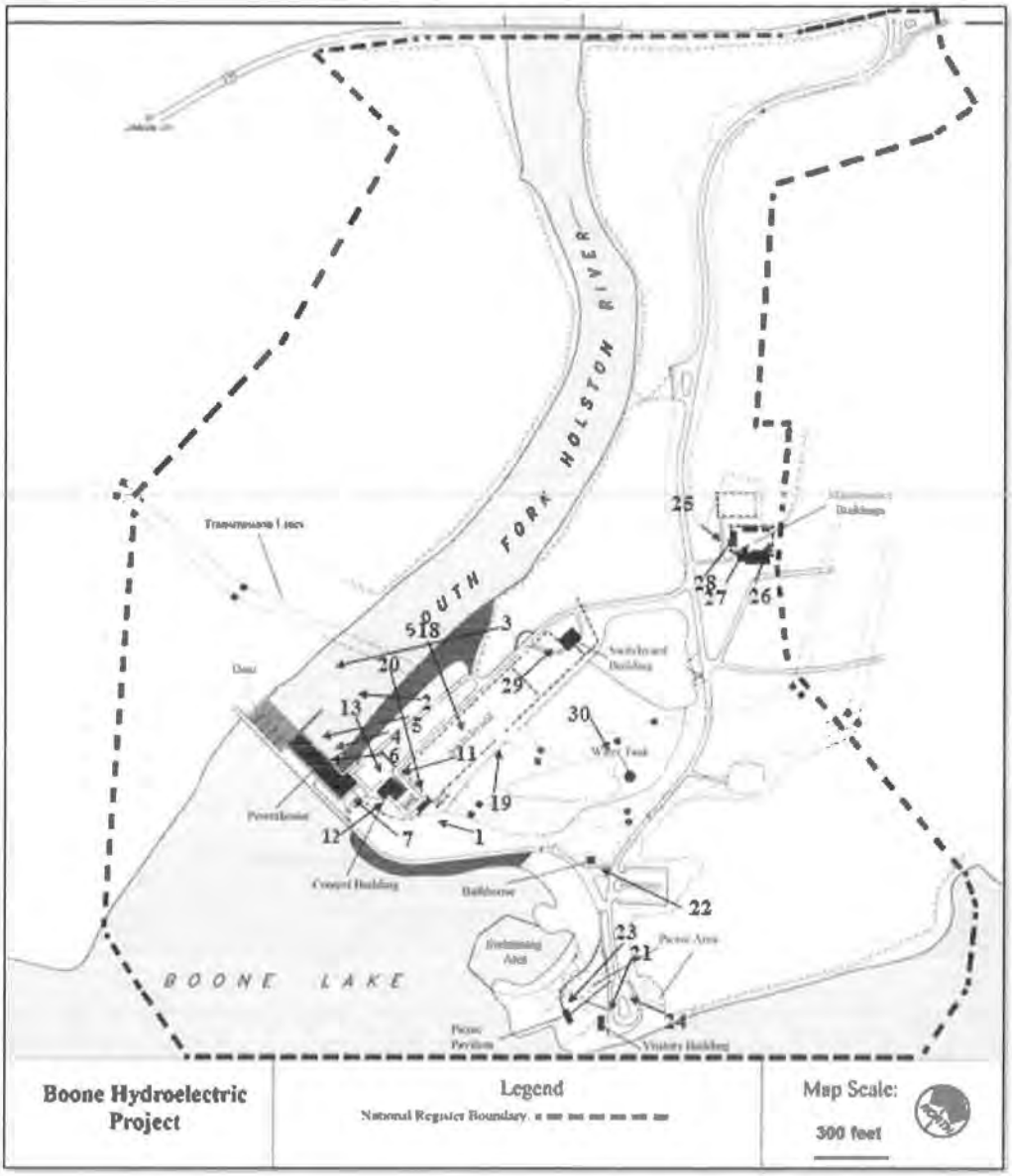
28 of 30 – Maintenance Base Metal Equipment Shed looking north.

29 of 30 – Garage Building exterior southwest elevation, looking north.

30 of 30 – Water Tank looking east.

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

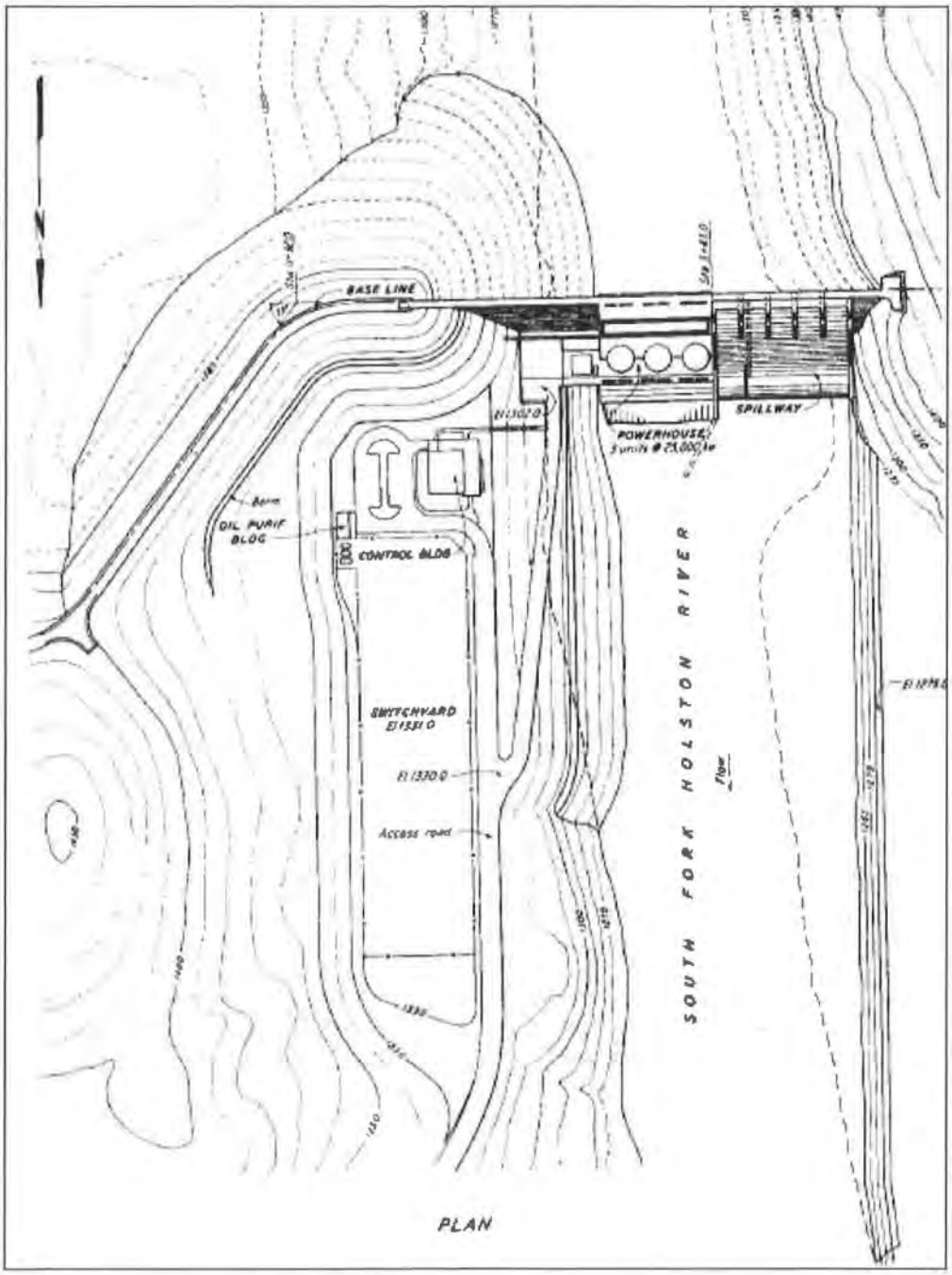


Boone Hydroelectric Project Photo Key Map
(see 11 x 17" map)

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

Site Plan

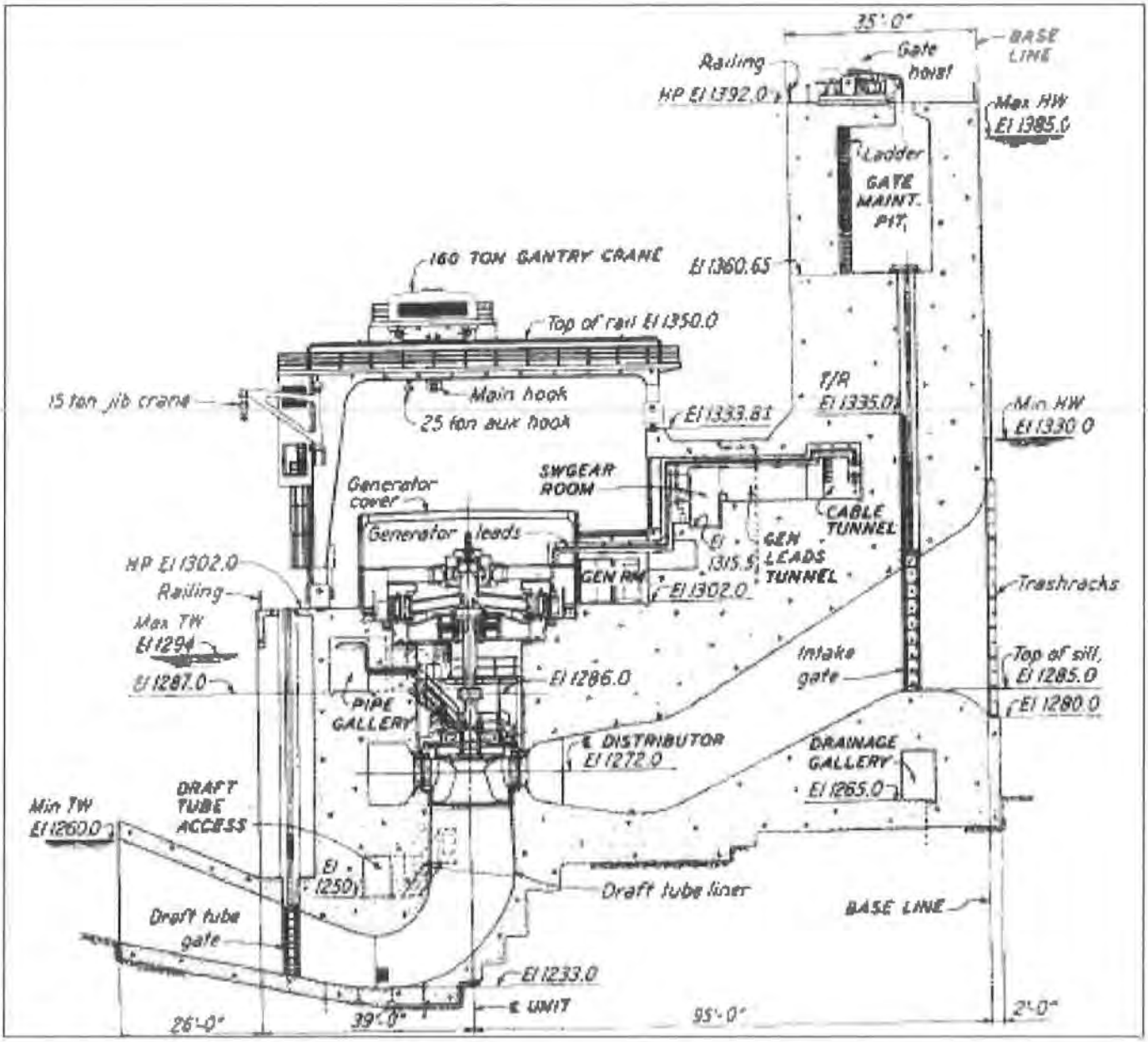


TVA Site Plan of Boone Dam and Reservoir

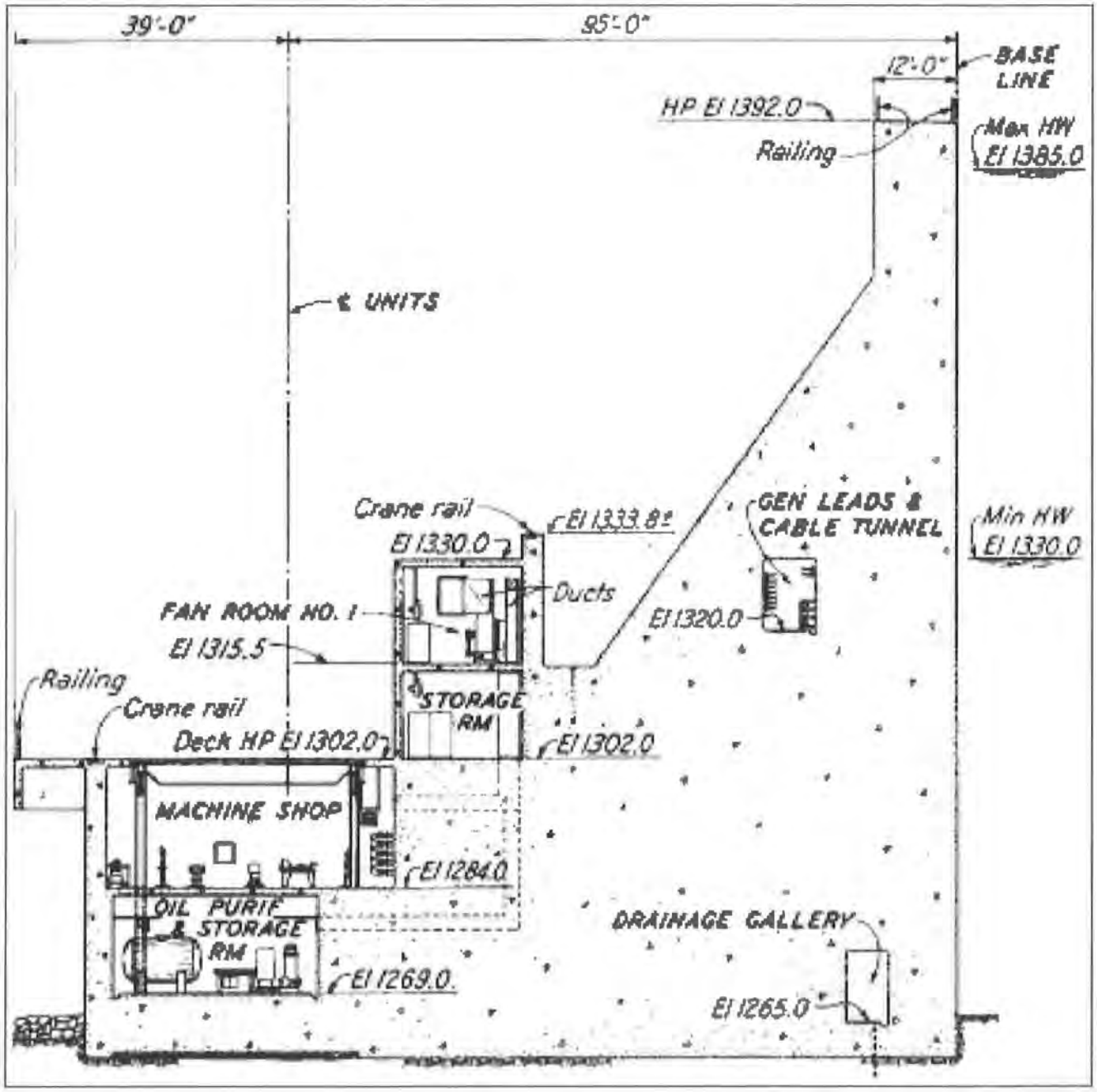
Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

Schematics



Transverse Section of the Boone Dam Powerhouse



Transverse Section of the Service Bay

Property Owner:

(This information will not be submitted to the National Park Service, but will remain on file at the Tennessee Historical Commission)

Name	Tennessee Valley Authority – Pat Ezzell		
Street & Number	400 West Summit Hill Drive 460WT7D-K	Telephone	865-632-6461
City or Town	Knoxville	State/Zip	TN 37902


DANGER
AUTOMATIC TURNING
KEEP AWAY


1
2
3


FME AREA
STOP
WARNING
Carbon Dioxide
Gas Release
Take appropriate precautions
before entering this area.
Authorized Personnel Only
1


Dayton
EXIT


AUST FAN


BOONE


Control Building


STORAGE
Gel


CAT


DANGER
NO SMOKING OR
OPEN FLAMES
WITHIN 50 FEET
FIRE
EXTG.
PILL
KIT


FORD


TVA

National Register of Historic Places
Memo to File

Correspondence

The Correspondence consists of communications from (and possibly to) the nominating authority, notes from the staff of the National Register of Historic Places, and/or other material the National Register of Historic Places received associated with the property.
Correspondence may also include information from other sources, drafts of the nomination, letters of support or objection, memorandums, and ephemera which document the efforts to recognize the property.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Nomination
Property Name:	Boone Hydroelectric Project
Multiple Name:	Tennessee Valley Authority Hydroelectric System, 1933-1979 MPS
State & County:	TENNESSEE, Sullivan

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
10/4/2017	7/27/2017	8/11/2017	11/20/2017	

Reference number:	MP100001476
Nominator:	State

Reason For Review:

__ Appeal	__ PDIL	__ Text/Data Issue
__ SHPO Request	__ Landscape	__ Photo
__ Waiver	__ National	__ Map/Boundary
X Resubmission	__ Mobile Resource	__ Period
__ Other	__ TCP	__ Less than 50 years
	__ CLG	

__X__ Accept _____ Return _____ Reject __10/26/2017__ Date

Abstract/Summary Comments:	Return comments addressed
Recommendation/ Criteria	Accept / A & C

Reviewer Jim Gabbert Discipline Historian

Telephone (202)354-2275 Date

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

Thomason&Associates
preservation planners

June 21, 2017

Paul Loether
National Register of Historic Places, Keeper
Mail Stop 7228
1849 C Street NW
Washington, D. C. 20240

Dear Mr. Loether,

The Tennessee Valley Authority (TVA) contracted with Thomason and Associates, Preservation Planners to complete nominations to the National Register of Historic Places (NRHP) for twenty-five of its hydroelectric projects. Three nominations - for the Norris, Guntersville, and Wheeler Hydroelectric Projects - were previously submitted, resulting in listing in the NRHP in 2016. The TVA proposes the nomination of the remaining twenty-two hydroelectric projects. The enclosed disks contain the true and correct copies of the nominations of:

Georgia: the Nottely Hydroelectric Project;
Kentucky: the Kentucky Hydroelectric Project;
North Carolina: the Apalachia, Chatuge, Fontana, and Hiwassee Hydroelectric Projects; and
Tennessee: the Boone, Cherokee, Chickamauga, Douglas, Fort Loudoun, Fort Patrick Henry, Melton Hill, Nickajack, Normandy, Ocoee No. 3, Pickwick Landing, South Holston, Tellico, Tims Ford, Watts Bar, and Watauga Hydroelectric Projects.

The overall context for these nominations, the MPDF "Historic Resources of the Tennessee Valley Authority Hydroelectric System, 1933-1979" was approved by your office on March 12, 2016. The enclosed nominations have been reviewed by TVA as well as the respective State Review Boards and enclosed are the twenty-two physical signed copies of the signature pages of each nomination. All local governments have been notified of the intent to list these hydroelectric projects in the National Register.

We are pleased to submit these nominations to you which recognize the diverse history and contributions made by the Tennessee Valley Authority to our nation.

Please contact me if any additional information is needed.

Sincerely,

Philip Thomason
Principal

cc. Pat Ezell, Senior Program Manager, TVA

Enc/

p.o. box 121225 . nashville, tn 37212 615.385.4960 www.thomasonandassociates.com

Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

August 9, 2017

Mr. Paul Loether
National Register of Historic Places, Keeper
Mail Stop 7228
1849 C Street NW
Washington, D. C. 20240

Dear Mr. Loether,

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Please contact me if any additional information is needed.

Sincerely,

Pat Bernard Ezzell

Patricia Bernard Ezzell
Federal Preservation Officer
Communications

Enclosures

United States Department of the Interior
National Park Service

MP-1476

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Boone Hydroelectric Project
Other names/site number: Boone Dam
Name of related multiple property listing: Historic Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979

2. Location

Street & Number: 301 Boone Dam Road
City or town: Kingsport State: Tennessee County: Sullivan and Washington
Not For Publication: N/A Vicinity: N/A Zip: 37663

3. State/Federal Agency Certification

Returned

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

[ ] national [X] statewide [X] local

Applicable National Register Criteria: [X] A [ ] B [X] C [ ] D

Patricia Bernard Eyzell 11-09-16
Signature of certifying official/Title: **Date**

Sr. Program Manager, Tribal Relations & Corporate History & Federal Preservation Officer
State or Federal agency/bureau or Tribal Government

In my opinion, the property ✓ meets ___ does not meet the National Register criteria.

Signature of Commenting Official: Date 11-28-16

Deputy State Historic Preservation Officer,
Tennessee Historical Commission

Title: **State of Federal agency/bureau or Tribal Government**

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain:) _____

Signature of the Keeper Date of Action

5. Classification

Returned

Ownership of Property
(Check as many boxes as apply.)

Private	☐
Public – Local	☐
Public – State	☐
Public – Federal	X

Category of Property
(Check only **one** box.)

Building(s)	☐
District	X
Site	☐
Structure	☐
Object	☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
6	3	buildings
1	0	sites
4	1	structures
0	0	objects
11	4	Total

Number of contributing resources previously listed in the National Register 0

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

6. Function or Use

Historic Functions (Enter categories from instructions)	Current Functions (Enter categories from instructions)
INDUSTRY/PROCESSING/EXTRACTION/ Energy Facility	INDUSTRY/PROCESSING/EXTRACTION/ Energy Facility
RECREATION AND CULTURE/Outdoor Recreation	RECREATION AND CULTURE/Outdoor Recreation

7. Description

Architectural Classification

No Style
OTHER: Hydroelectric Dam

Materials:
Principal exterior materials of the property: CONCRETE; BRICK: STEEL; GLASS; ROCK; EARTH; PORCELAIN; TILE: Terrazzo, Ceramic; STONE: Marble

Narrative Description

The Boone Hydroelectric Project was constructed from 1950-1953 by the Tennessee Valley Authority (TVA). The project was constructed for the purpose of generating power, flood control, aquatic ecology, and supplementing water flow across the TVA hydroelectric system during dry periods. It is located on the South Fork of the Holston River, nineteen miles above its confluence with the North Fork of the Holston River. The Boone Hydroelectric Project is ten miles southeast of Kingsport, Tennessee, (est. pop. 53,028, in 2014) in Sullivan County and 1.4 miles below the mouth of the Watauga River. The two-pronged Boone Reservoir extends 17.3 miles up the South Fork of the river, joining the tailwaters of TVAôs South Holston Hydroelectric Project, and 15.3 miles up from the Watauga River. The drainage area of the South Fork Holston River and its tributaries (i.e., Watauga River) forms a triangle of 2048 square miles in the states of Tennessee, Virginia, and North Carolina. This area represents five percent of the Tennessee Valley watershed. Boone is one of four TVA hydroelectric projects (Watauga, South Holston, Boone, and Fort Patrick Henry) located here. The Boone

Hydroelectric Project is named in honor of frontiersman Daniel Boone, who explored this area of east Tennessee in the 1760s.

INVENTORY

Construction of the Boone project began August 29, 1950. The dam was closed December 16, 1952. The facility was place in commercial operation on March 6, 1953. The Boone Hydroelectric Project originally consisted of the dam, earth embankments, powerhouse, control building, and switchyard, which are interconnected and integral to one another *(see Photo 1)*. Since completion of the original project, other buildings and sites have been added to the property.

1. Boone Dam, 1953 (Contributing Structure)

The 160-foot high Boone Dam has an overall crest length of 1,532 feet. Boone Dam is a concrete gravity spillway dam constructed mainly of concrete and steel, with an impervious rolled fill embankment. The Boone Dam consists of the spillway and non-overflow sections to either side (*see Photo 2*). [1] Adjoining the earth embankment on the right (east) bank of the river is a 252-foot long concrete non-overflow section; next to this is the 214-foot spillway; an eighty-four-foot long non-overflow section connects the spillway to the left (west) bank of the river. The two non-overflow sections are composed of concrete blocks: the six blocks composing the right non-overflow section are numbered one through six from the right embankment to the powerhouse. The two blocks composing the left non-overflow section are numbered seventeen and eighteen from the spillway to the left abutment. Most of the blocks are forty-one-and-one-half feet long, making them the same length as each spillway block and pier combined. However, block one is three feet longer in order to tie into the right embankment, and block seventeen is seven feet narrower.[2]

The spillway is on the left (west) side of the original river bed (*see Photo 3*). This concrete gravity structure consists of blocks eleven through sixteen within the entire length of the dam structure. The spillway has five radial gates, each measuring thirty-five feet by thirty-five feet. The gates are divided by six-and-one-half-foot thick concrete piers. The piers of the spillway support a roadway deck at elevation 1392 feet and an operating deck at elevation 1394 feet. On the operating deck are fixed hoists that operate the spillway gates controlling the reservoir to elevation 1385 feet. The spillway also has a sluice (in block twelve) to allow for the minimum discharge required downstream when the power plant is not generating. The sluice measures five feet, eight inches by ten feet and is located at an elevation of 1265 feet. The spillway has a bucket-type apron to deflect water from the toe of the spillway.[3]

The original design of the Boone project called for a concrete dam structure across the entire length of the water barrier. However, rock conditions at the site allowed for an earth embankment. This substitution resulted in a

[1] Commonly, dam design includes a section that permits the overflow of water from the reservoir (the spillway) and other sections that do not allow the passage of water (non-overflow). Together, these sections contribute to the total length of the dam structure that impounds the reservoir. A gravity type dam is one constructed of concrete or stone and uses the sheer weight of the structure to resist the horizontal pressure of the water pushing against it. Gravity dams are designed in sections that are independently stable.
[2] Tennessee Valley Authority, *The Upper Holston Projects: A Comprehensive Report on the Planning, Design, Construction, Initial Operations and Costs of Four Hydro Projects in the Holston Basin at the Eastern Tip of Tennessee*, Technical Report no. 14, (Washington, D.C.: U.S. Government Printing Office, 1958), 245.
[3] Ibid., 246-47.

savings of more than one-half million dollars in construction costs. The earthen embankment begins at the right end of the concrete dam and remains in line with it for sixty feet before turning downstream.[4]

In October of 2014, TVA Dam employees discovered a sinkhole near the earthen embankment at the base of the dam. The sinkhole was repaired, but inspectors found sediment and water seeping from river bank just below the dam. TVA expedited its typical winter draw-down at the site to alleviate pressure on the dam. In March of 2015 TVA discovered an extensive network of seepage paths originating from the east side of the dam. This area is higher in elevation than the dam, and large rain events can cause surface runoff to flow underneath the dam. This internal erosion can become exacerbated over time. The lowered reservoir level helps reduce the risk of dam failure temporarily. Permanent remedies for the seepage problem range from removing or replacing the current dam to building seepage filters or barriers to constructing berms to strengthen the dam. After careful consideration of the many variables, TVA and outside experts concurred that a composite seepage barrier is the preferred remediation option. The composite seepage barrier will consist of a grout curtain in the foundation soils and epikarst limestone and a concrete diaphragm wall through the dam and epikarst. Work is expected to begin in early 2016 and could take five to seven years to complete.[5]

2. Powerhouse, 1953 (Contributing Building)

The facilityôs powerhouse is located in the original river channel adjacent to the spillway (*see Photo 4*). It is a semi-outdoor type[6] and is remotely controlled from the control building. The powerhouse includes the service bay, and together they measure 232 feet in length. The powerhouse is above the intake. The service bay, powerhouse, and intake are built as a monolith gravity-type structure. This design requires less mass to meet stability requirements, as they are integral to the dam on their south elevation. The intake consists of three blocks, each fifty-eight feet wide. The top of the intake is at elevation 1392 feet, seven feet above maximum headwater. The deck is thirty-five feet wide, allowing for an eleven-foot roadway in addition to the intake gate hoists. The gates can close off the intake passages for inspection and maintenance or in an emergency. Gates are operated in pairs.[7] The façade (north) of the powerhouse has two entrances, each with original single-light glass and metal double doors (*see Photo 5*). The doors of each entrance are flanked by metal panels over metal louvered vents. All three sections of each entrance are topped by a fixed, single-light metal-frame window. The eastern of the two entrances is flanked by the outdoor covers of generator units 1 and 2; the western entrance, by the outdoor covers of generator units two and three (*see Photo 6*).

The service bay is integral to the dam and is located at the east end of the powerhouse. Its upstream wall (south) aligns with the dam, and the downstream (north) wall aligns with the wall of the powerhouse. From this wall, a deck extends ten feet downstream. Above the deck abutting the upstream wall, the service bay has an eighteen-foot wide, two-story building. The exterior of the two-story section has seven tiers of horizontal concrete panels. On the east elevation of the two-story section there is a set of solid metal double doors at ground level and a horizontal metal louvered vent in the concrete panel second from the top. The one-story section next to generator unit 1 has an exterior wall of three horizontal concrete panels. The east elevation of this section has two pedestrian entrance, one with a single solid metal door and another with similar double doors (*see Photo 7*).

[4] Ibid., 258.
[5] ñBoone Lake Drawdown,ò at TVA webpage http://www.tva.gov/boonedrawdown/index.htm accessed June 12, 2015.
[6] TVA powerhouses varied in type. Semi-outdoor type powerhouses are designed with generators projecting through the roof of the building and are shielded from the elements by materials appropriate for outdoor use. This design differs from indoor powerhouses, which have their generators completely enclosed within the building.
[7] Tennessee Valley Authority, *The Upper Holston Projects*, 260-64.

Inside the powerhouse are three vertical Francis reaction-type turbines with a rated capacity of 25,000 kilowatts each at 90-foot head (*see Photo 8*). The generators were built at Newport News Shipbuilding and Dry Docks in Newport News, Virginia, in 1951. The generator deck is roofed over from the center line of the units to the intake. On initial installation, the powerhouseôs generating capacity was 75,000 kilowatts in three units.[8] The three units remain in use today. Inside this space are the electrical boards and governors. The generator room floor of the powerhouse is at an elevation of 1302, eight feet above maximum tailwater. The generator room is equipped with a 160-ton capacity gantry crane for removing and installing the turbine units. The floor below the generator room is at an elevation of 1288 feet, where the pipe gallery is located. It connects to the service bay by a stairwell. On this floor is the carbon-dioxide tanks and raw water equipment.[9]

On the upper floor of the service bay are ventilating fans, lockers, and toilets. The lower floor contains the main entrance. Below the service bay deck are two floors, where the machine shop (*see Photo 9*) and oil storage area are located.[10] The lowest level also has the cable tunnel to the switchyard (*see Photo 10*).

3. Control Building, 1952 (Contributing Building)

The Boone control building measures eighty feet by eighty-seven feet and has a flat roof. Its main portion is two-stories in height. A smaller section is one-story. Constructed in 1952, it was designed to avoid the use of critical construction materials, such as aluminum used plentifully at the Watauga and South Holston projects. Instead, the Boone control building utilized brick, (reinforced) concrete, and limestone. The east elevation of the building is all brick with no window or door openings. It is two stories (*see Photo 11*). On the south elevation of the control building, the two-story section is visible rising above the one-story section, which has three bays of fixed, single-light, vertical, metal-frame windows and a fourth bay of brick wall with a clerestory row of horizontal, fixed, single-light, metal-frame windows. The bays are divided by concrete pilasters, and there is a concrete course below the roofline. The one-story section wraps around the two-story section on the west elevation of the control building. The all-brick two-story section has porcelain letters spelling the name BOONE below its roofline. The one-story section has five bays of fixed, single-light, vertical, metal-frame windows. Each bay has four windows above a low brick skirt wall, and the bays are divided by concrete pilasters (*see Photo 12*). The north elevation consists of the one- and two-story sections, and their walls are flush. The one-story section to the west has three fixed, single-light, vertical, metal-frame windows above a brick skirt wall next to the main entrance, which consists of a single-light glass and metal door with a fixed, square transom light and a narrow, full-height, vertical sidelight. On the opposite side of the door from the sidelight is a horizontal, fixed single-light window below the concrete beltcourse below the roofline. The two-story section of the north elevation is mostly brick, with three horizontal, fixed single-light windows in the lower level (*see Photo 13*).

In the building is control equipment for both the Boone and Fort Patrick Henry powerhouses and switchyards. The walls of the lobby are ñCoral Rouge Fleuriò marble, and the floors are terrazzo (s*ee Photo 14*). Within the lobby is metal lettering spelling, ñBUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA, 1950-1953.ò On the ground floor are offices, toilets, the relay room, locker rooms, test rooms, and the control room. The corridors have terrazzo floors and plaster walls. Original interior doors off the corridor are solid wood with metal louvered insets (*see Photo 15*). The restrooms and locker rooms have original terrazzo floors,

[8] Ibid., 1010.
[9] Ibid., 267.
[10] Ibid., 272.

tile walls, and plaster ceilings (*see Photo 16*). The offices have linoleum tile floors, plaster walls, and ca. 1995 added dropped ceiling (*see Photo 17*). The conference room has tile walls, linoleum floors and steel partitions. The basement houses the motor-generator room, the water-purification room, the battery room, and the spreading room. These spaces have concrete finished floors and concrete and brick walls.[11]

4. Switchyard/Transmission lines, 1953 (Contributing Structure)

The switchyard is located 360 feet downstream of the non-overflow dam on the right bank, next to the control building (*see Photo 18 & 19*). The yard is at elevation 1331 feet. The yard is earth, so the structures and equipment have concrete footings. The cable tunnel from the dam is reinforced concrete, embedded in the earth embankment and passing under the control building plaza. The main transformer yard has 161- and 69-kilovolt structures. The switchyard consists of a bay of 161 kilovolts, a bay of 138 kilovolts, six (6) bays of 69 kilovolts, and five (5) bays of 12.5 kilovolts. The plan of the space allowed for future addition of six (6) 138- or 161kilovolt bays, five (5) 69-kilovolts bays, and two (2) 12.5-kilovolt bays. The towers are free-standing suspension type with spread legs and braced angles.[12]

5. Switchyard Building, 1953 (Contributing Building)

This is a one-story building of concrete construction with a flat roof and concrete foundation (*see Photo 20*). The façade (west) has five, single-light glass and metal doors. The side elevations have a brick wall below three fixed windows.

6. Visitor Building, 1953 (Contributing Building)

Due to the Boone projectôs proximity to populated areas, TVA constructed a visitor building at the site. It is located one-quarter mile upstream and east of the dam, at the end of the access highway, above the reservoir. There are three parking areas that provide views of the project structures. The visitor building is rectangular in plan, measuring approximately twenty-eight feet by seventy-three feet. The building is one-story and has a basement level twenty-eight feet by thirty-three feet as the grade slopes down towards the reservoir. The buildingôs flat roof overhangs the walls, especially wide on the lakeside façade, which has a bank of fixed windows overlooking the reservoir. The building has a poured concrete foundation, and the exterior walls consist of random-course stone and original cypress siding.

At the time of the site visit in 2015, the visitor building was being used as the temporary offices for a construction project at the dam. A pre-fab portable office building was located directly to the east elevation of the visitor building, and the recessed walkway of the visitor building had a temporary enclosure attached to the pre-fab building. The west elevation was not concealed. From north to south, the west elevation consists of the thick, stone façade wall, three bays of vertical cypress board below three single-light, wood casement clerestory windows in each bay, a section of random-course stone with three recessed window openings, and a glass wall with a large single-light picture window over three smaller fixed windows (*see Photo 21*). When on-covered, the east elevation is similar, though the bays with cypress board are recessed with a walkway beneath the integral roof. The roof portion over the walkway is supported by square, wood posts. The walkway leads to the buildingôs main entrance, located in the north wall of main observation room, which extends to the east from the recessed portion.

[11] Ibid., 287-88.
[12] Ibid., 304-306

The visitorôs buildingôs interior lobby has ceramic tile floors, stone veneer, and original aluminum fixed windows and an original aluminum and glass entry door. On the interior, the main floor has public toilets, a visitor reception room, and public safety offices. The restrooms have original marble walls, linoleum floors, and plaster ceilings.[13] Within the visitor building is an original mural painted by Kingsport artist Robert Birdwell. A TVA staff artist, Birdwell was born in Knoxville and moved to Kingsport in 1938 at the age of twelve. His artwork is featured at the Boone and Fort Patrick Henry Hydroelectric Projects, in each siteôs overlook building.[14] (Interior photography was unavailable at the time of the site visit.)

7. Bathhouse, 1953 (Contributing Building)
This is a concrete block structure with a saltbox roof of asphalt shingles, original tile flooring, three original, fixed windows at each gable field (west and east elevation). The façade (south) has a recessed opening that has been enclosed with a full-height chain-link fence. The entrances are within the recessed bay, and the original, steel doors are still visible on the inner walls of the recessed bay. (*see Photo 22*).

8. Picnic Pavilion, 1986 (Non-Contributing Structure)
This is a 1986 open-air structure with square wood posts set in a concrete foundation with stone skirting and a gable roof of asphalt shingles. Each side of the pavilion has five openings between the posts (*see Photo 23*).

9. Picnic Area, 1953 (Contributing Site)
The Boone Hydroelectric Project site was developed with informal picnic areas with sidewalks and picnic benches. Picnic benches include both original concrete models and late 20th-century metal-frame and fiberglass furniture. Adjacent to the picnic area is a sand beach and swimming area which is also part of this recreational site (*see Photo 24*).

Maintenance Area – 4 Utility Buildings (numbers 10-13)

10. Maintenance Building, 1953 (Contributing Building)
This is a 1953 one-story, concrete block building measuring twenty-five feet by eighty-four feet. An original hospital was removed from the yard after the completion of the Boone Hydroelectric Project. The yard was then graded, graveled, and fenced to provide for a storage yard.[15] The maintenance building has a concrete block foundation, a gable roof of asphalt shingles, original windows in a shed roof dormer, six replacement fanlight doors, ca. 1995 one-over-one, vinyl-sash replacement windows, and three original, three-light, twelve-panel, wood, overhead track doors (*see Photo 25*).

11. Chemical Storage Building, 1953 (Contributing Structure,)
A 1953, one-story, brick structure for chemical storage with a flat roof and two openings covered with chain-link gates (*see Photo 26*).

[13] Ibid., 310-11.
[14] *Kingsport Times-News*, Kingsport, Tennessee, 15 May 1955, 30.
[15] Tennessee Valley Authority, *The Upper Holston Projects,* 313.

12. Shed, ca. 1990, (Non-Contributing Building)
A ca. 1990 pre-fabricated metal building with a shed roof of standing-seam metal and three garage bay openings (*see Photo 27*).

13. Equipment Building, ca. 1990 (Non-Contributing Building)
A ca. 1990 one-story frame equipment building with a shed roof metal, corrugated metal siding, and two open bays (*see Photo 28*).

14. Garage, ca. 1990 (Non-Contributing Building)
This is a one-story concrete block building with a flat roof and a poured concrete foundation. On the façade is a metal, overhead-tracking bay door and a solid metal pedestrian door. On the side elevation there is a shed-roof lateral addition with corrugated metal siding and a metal, overhead-tracking bay door (*see Photo 29*).

15. Water Tank, 1953 (Contributing Structure)
At the top of a hill just above the switchyard is a 50,000 gallon steel water tank that supplies water for fire protection and utilities at the control building and powerhouse. This tank is round with a conical roof and composed of interlocking steel panels (*see Photo 30*).

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations N/A
(Mark "x" in all the boxes that apply.)
Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)
ARCHITECTURE
ENGINEERING
INDUSTRY
RECREATION
SOCIAL HISTORY

Period of Significance
1950-1965

Significant Dates
1950-1953

Significant Person
(Complete only if Criterion B is marked above.)
N/A

Cultural Affiliation
N/A

Architect/Builder
Architect: Tennessee Valley Authority; U.S. Army Corps of Engineers
Builder: Tennessee Valley Authority

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

Statement of Significance Summary Paragraph

The Boone Hydroelectric Project meets National Register Criteria A and C for its historical and architectural and engineering significance at the state and local levels as an integral part of the Tennessee Valley Authority Hydroelectric Project. Its period of significance is from 1950, when the project commenced, to 1965, in keeping with the fifty year guideline. The Boone Hydroelectric Project is significant in the improvement of quality of life through transmission of electricity, control of seasonal flooding, and creation of public recreational facilities. The Boone Hydroelectric Project was one of twenty-five (25) constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The main objective of the 1933 Tennessee Valley Authority Act was the creation of a continuously navigable nine-foot channel from the mouth of the Tennessee River to Knoxville, as well as flood control, power generation, and public benefits. Given its location east of Knoxville on the South Fork of the Holston River, the Boone project was not original to TVAôs unified plan (for navigation) submitted to Congress in 1936. Construction of the Boone project began August 29, 1950. The dam was closed December 16, 1952. Generator Unit 3 was placed in commercial operation on March 6, 1953; Unit 2, on June 12, 1953; and Unit 1 on September 5, 1953.[16] The Boone Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project.ò

Narrative Statement of Significance

TVA was created under President Rooseveltôs New Deal program as part of his ñFirst One Hundred Days.ò Roosevelt envisioned ña corporation clothed with the power of government but possessed of the flexibility and initiative of a private enterprise.ò To this end, Congress passed the TVA Act on May 18, 1933.[17] The multi-purpose legislation sought to improve navigation and flood control of the Tennessee River, spur agricultural and industrial development in the Tennessee Valley, and provide for national defense via government facilities in the proximity of Muscle Shoals, Alabama (Sec. 1). The act authorized the TVA Corporation to acquire real estate for the construction of dams, reservoirs, power houses, transmission lines, or navigations projects at any point along the Tennessee River and its tributaries (Sec. 4i).[18]

Mobilization in Korea in June of 1950 greatly increased the demand for power from TVAôs system. The Boone and Fort Patrick Henry Hydroelectric projects were presented to Congress simultaneously in 1949 for fiscal year 1951. The two projects were planned on a coordinated schedule, similar to that of the Watauga and South Holston projects. Together, the projects were key to increased power production, as well as for flood control. The House and Senate agreed on TVAôs requested funding for the projects, and President Harry Truman approved the projects on September 6, 1950. The projectsô approval was in the context of normal peacetime energy needs, but their power capacity was soon expected to play a role in national defense.[19]

[16] Tennessee Valley Authority, *The Upper Holston Projects*, 1.
[17] ñHistory of the Tennessee Valley Authority,ò at website TVA http://www.policyalmanac.org/economic/archive/ tva_history.shtml accessed April 16, 2015.
[18] Tennessee Valley Authority Act of 1933, at TVA website http://www.policyalmanac.org/economic/archive/tva_history.shtml, accessed April 16, 2015.
[19] Tennessee Valley Authority, *The Upper Holston Projects*, 18-20.

The Boone project required the purchase of a total of 5,160 acres of land. Of that, 4,330.61 acres were acquired from private owners, displacing 152 families. Over ninety-six percent was by voluntary transfer, while one percent was by condemnation for title issues, and two-and-one-third per cent by condemnation for refusal to sell. The area of the Boone project was similar to other Upper Holston project areas in the degree of rural development surrounding several towns. Approximately one-third of the land acquired was classified as farm property, and these averaged 18.2 acres in size. The majority (63 percent) of private land acquired for the project was classified as residential, suburban, or commercial. These averaged three acres in size and were purchased for an average of $951 per acre for land ($351) with improvements ($600). Of the 152 families, ninety-nine (sixty-five percent) derived their household income from industrial employment in one of the nearby cities. Still, in the area there was extensive agriculture, chiefly in dairy and tobacco farming. The reservoir tracts used for farming were sixty percent pasture, twenty-two percent for hay, eleven percent for corn, five percent for small grain, and two percent for tobacco. Of the total reservoir land acquired, 1363 acres were wooded and required clearing. Within the Boone Reservoir area, 104 graves were relocated.[20]

TVA participated less in the family readjustment aspect of the four Upper Holston projects than it had at any previous project. Most of this work was contracted with the University of Tennessee College of Agriculture. No family visits were conducted except in unusual circumstances conveyed to TVA by an Extension Service. TVAôs direct involvement with family relocation had increasingly deferred to local Extension Servicesô participation, as the hydroelectric program advanced. This trend culminated in the Extension Service taking the lead, by the time of the Watauga project, the first of the Upper Holston projects. Of the 1,277 families relocated among the four upper Holston projects, 742 were property owners, 535 were tenants. Of the total number, 406 were farm families, 871 were non-farm families. Most relocated families stayed in the area, due to family ties and employment at local industries, and gravitated to population centers. A total of fifty-four businesses were affected, mostly service industries, including seven in the Boone Reservoir.[21]

In the course of the project, a total of eighteen miles of roads and highways were constructed, relocated, resurfaced and/or improved in Sullivan and Washington Counties. Three bridges were built across the Boone Reservoir, and twenty-one miles of utility lines were adjusted or constructed.[22]

Total land costs for the project amounted to $2,166,021, which included acquisition by fee and by certificate in condemnation proceedings when eminent domain was employed when landowners refused sale. Direct construction costs, such as labor, materials, equipment, transportation, totaled $20,870,493. Indirect construction costs, including accounting, timekeeping, office supplies, and police service, came to $1,185,353. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians, and inspectors, amounted to $1,688,333. These amounts plus other categorized costs brought the total project to $27,191,574.[23]

[20] Ibid., 23, 762-63, 815, 852-53.
[21] Ibid., 770-772.
[22] Ibid., 23.
[23] Ibid., 25, 870.

Since their construction the powerhouse and control building have not been significantly altered and retain original exterior and interior design and detailing. Of particular note is the intact original lobby with its marble walls and terrazzo floors. This lobby was originally open to visitors but due to security concerns it has been closed to the public since 2001.

SIGNIFICANCE IN ARCHITECTURE and ENGINEERING

The Boone Hydroelectric Project is an integral part of the overall engineering design of the TVA system. The dam was built utilizing the most advanced methods of its time. The Boone damôs release provides power to the Fort Patrick Henry Hydroelectric Project downstream. Above Boone Dam, the two-pronged Boone Reservoir extends 17.3 miles up the South Fork of the river, joining the tailwaters of TVAôs South Holston Hydroelectric Project, and 15.3 miles up from the Watauga River. Releases from the South Holston Dam and from the Watauga and (pre-TVA) Wilbur Dam provide power to the Boone Hydroelectric Project.

The four Upper Holston projects (Boone, South Holston, Fort Patrick Henry, and Watauga) are located near the head of the Tennessee Valley. As the Valley progresses west and south from the main mountain chains, the topography is characterized by smaller ridges and valleys. The streams follow the contours of the valleys. TVA developed its network of hydroelectric projects in the context of the natural conditions at each location. Site plans, materials to be used, architectural designs, exact placement of a dam axis and its associated project components, spillway type, and many other engineering nuances of each project took into account the natural topography, elevation changes, rock strata, bedrock, annual rainfall, and watershed volume. Numerous laboratory models and studies were performed to obtain the ideal combination of dam site, reservoir size, turbine count, and many other inter-related aspects engineering design, at each project and in relation to up- and/or down-stream facilities.

TVAôs hydroelectric projects were designed, in part, to manage the rise and fall of the annual cycles of the Tennessee River system. While the reservoirs on the Tennessee River are designed to provide proper water depth for navigation of barge traffic, reservoirs on the tributary rivers, such as the Boone Reservoir, serve as an emergency storage system to prevent flooding downstream. These reservoirs, therefore, must store an enormous amount of December-April precipitation. The completion of TVAôs four projects in the Holston Valley averted potentially disastrous floods at Chattanooga. By the beginning of the annual flood season (January 1- April 1) of 1957, flood regulation since TVA started operations had spared Chattanooga of an estimated $53.5 million in damages. The 1957 season alone produced heavy rains that would have caused the second greatest flood of record at Chattanooga, with an estimated river cresting of 24 feet above flood stage. The four Upper Holston reservoirs, completed between 1948 and 1953, are credited with avoiding an estimated $66 million in damages at Chattanooga.[24]

[24] Ibid., 24.

SIGNIFICANCE IN INDUSTRY

Planned in tandem, the Boone and Fort Patrick Henry Hydroelectric Projects were estimated to add 105,000 kilowatts of capacity in the northeastern area of the TVA system. In 1949, system requirements had increased by one-third since 1945. Residential customers used 840,000,000 kilowatt-hours of power in 1945; this usage type grew to 2,200,000,000 kilowatt-hours by 1949. The growth in power loads included increasing demand not only from consumers, but also Atomic Energy Commission (AEC) facilities in Oak Ridge. This upward trend was expected to continue, with an estimated forty percent increase from 1949 to 1953. Boone and Fort Patrick Henry were key additions to the TVA system at this time. The General Appropriations Bill for 1951 identified the two projects as necessary to TVAôs ability to meet its obligations to the AEC in Oak Ridge.[25]

With three units in operation, the gross generation of the Boone Hydroelectric Project from start-up through December of 1956 was 548,880,000 kilowatt-hours. Average output during that period was 16,498 kilowatts, and peak load, 93,000 kilowatts.[26] Since the 1950s, TVA has continued to recruit industry with attractive affordable power. Economic Development is a critical component of TVA's mission. In 2013, TVA Economic Development helped attract or retain almost 52,000 jobs and generate nearly $5.0 billion in capital investment across the TVA region.[27] Today the Boone Hydroelectric Project, with three generating units, has a net dependable capacity (average daily power produced minus what is used by the dam itself) of 89 megawatts.[28]

SIGNIFICANCE IN RECREATION

Following World War II, as middle class American households gained wealth and indoor electricity, a by-product was outdoor leisure time. The TVAôs contribution to recreational activities is noteworthy. The agencyôs hydroelectric projectsô reservoirs attract outdoor enthusiasts who enjoy fishing, boating, camping, and hiking in the environs the TVA helped create, re-forest, and conserve. The agency operates some 100 public recreation areas throughout the TVA region.

In the first year following impoundment of the Boone reservoir, one private yacht club was established. Fifteen boat docks were opened by the second spring following impoundment. At the Boone reservation, TVA provided a visitors building, picnic grounds, play area and swimming beach.[29] The reservoir enhanced the natural scenic beauty and recreational opportunities of a multi-metropolitan industrial area with growing populations.

SIGNIFICANCE IN SOCIAL HISTORY

At the end of World War II, it was hoped that returning soldiers would fill the personnel field at the Upper Holston hydroelectric projects. A local housing shortage, however, resulted in veterans refusing TVA job offers.

[25] Ibid., 18-19.
[26] Ibid., 24.
[27] ñEconomic Development,ò at TVA webpage http://www.tva.com/econdev/index.htm accessed May 5, 2015.
[28] ñBoone Reservoir,ò at TVA webpage http://www.tva.gov/sites/boone.htm accessed June 12, 2015.
[29] Ibid., 859.

Employee housing helped advance the recruitment process. TVA encouraged employees organizing unions, with the presumption that it streamlined the negotiation process, as well as defer labor disputes to union management. In 1940 TVA entered into a general agreement contract with the Tennessee Valley Trades and Labor Council delineating pay rate, hours, and work conditions. A joint cooperative committee was established under the agreement in 1947. A committee of this nature was established at each of the Upper Holston projects, including Boone. This committee met monthly to receive and act on employee suggestions regarding job efficiency, health and safety conditions, employee morale, and work relations with supervisors.[30]

TVA employees benefitted from services not readily available in the area. Medical services at Boone were provided to employees in the form of periodic health exams, immunizations, and emergency care. Due to the shortage of medical professionals in the general area at the time, the Watauga site had a medical center with three doctors, six nurses, and five medical assistants, clerks, technicians, orderlies, and a cook, a far greater medical staff than at previous project sites. This staff then moved on to the South Holston project, and on September 6, 1950, a medical aid was assigned to Boone with supervision from South Holston. At that time, pre-employment exams took place. Upon completion of the South Holston project, the medical staff there moved to Boone. The Boone medical building originated at and was moved from the Watauga site for re-use at Boone.[31]

Recreation and library services and employee training were available to employees at the four Upper Holston Projects. Evening classes were available for steamfitter journeymen and machinist apprentices at the Johnson City Vocational School. Among the four Upper Holston TVA projects, forty-seven men completed their apprenticeships, preparing them for the greater workforce in the future. Accounting and blueprint reading classes were held in Elizabethton. At Boone, public safety officer training and fire training were both available. Despite the benefits and opportunities, labor turnover was higher at Watauga and South Holston than at TVA projects before the war. Accounting for this turnover were several conditions: completion of specialized work by highly skilled workers, such as tunnel workers; difficulty in securing reliable transportation from outlying areas; and housing shortages. Yet, turnover at Boone and Fort Patrick Henry was unusually low.[32] Employment at the Boone project peaked at just under 1,000 hourly workers in the last quarter of 1951 and remained above 800 into the third quarter of the 1952 before dropping off sharply. Salaried employees, shared between the Fort Patrick Henry and Boone projects, were fairly constant in number between late 1951 and late 1953. Office staff numbered in the range of 175-200 employees, while camp management during the same period averaged around 250 workers.[33]

Due to Booneôs proximity to several towns and communities, a construction camp was not needed on site. TVA had begun accommodating project families by constructing houses in the Lilly Addition in the city of Elizabethton. These fifty-five single-family dwellings were all re-used during the Boone and Fort Patrick Henry

[30] Ibid., 525-27.
[31] Ibid., 1133-1135.
[32] Ibid., 529, 531.
[33] Ibid., 530.

projects, twenty and twenty-eight miles distant, respectively. No cafeteria was built at either project site, though lunch service was licensed to a private operator at Boone.[34]

TVAôs Upper Holston projects were characterized by very positive reception from local residents seeking flood control measures. Unlike some of TVAôs other projects where dislocated families were strongly attached to farming the fertile river valleys, residents of the more rugged Upper Holston were not as collectively invested in agriculture. Of the 1,277 families relocated among the four upper Holston projects, 406 were farm families, 871 were non-farm families. Except for the South Holston project, the land acquired was largely small-acreage home sites, not large rural farming tracts. While some of these families did farm, sixty percent had at least one family member employed at an industrial plant at Bristol, Kingsport, or Elizabethton. Employment opportunities at industrial plants included two of the countryôs largest rayon mills in Elizabethton, ten miles from the Watauga site. At Kingsport, a planned industrial community three miles from the Fort Patrick Henry Project, were the Tennessee Eastman plants, Blue Ridge Glass manufacturing plant, Kingsport Press, Mead Paper Corporation, and Holston Ordnance Works. Thus, over the decades between 1930 and 1950, there was a marked trend across the region of full-time farming ceding to subsistence farming that supplemented family income derived from industrial employment. This shift in economy resulted in a new demand for small, rural home site tracts of two to five acres. As industry attracted workers, and local populations grew, land values increased sharply. TVAôs per-acre acquisition of land among the four Upper Holston projects averaged $313, higher than all previous per-acre costs. At the South Holston project, the per-acre cost was $144. Of the four Upper Holston projects, the cost was lowest at South Holston, the only project where tracts of larger acreage composed the reservoir area.[35]

Another social aspect of the TVAôs hydroelectric project involved the removal and relocation of graves located within the reservoir area. In twenty-three cemeteries surveyed within the Boone Reservoir area, 804 graves were investigated. Of these, 104 were relocated. The remainder were determined unaffected by the project. Additionally, ninety-two grave markers and eighty-seven footstones were moved. Additionally, a large masonry memorial monument was dismantled and rebuilt above the reservoir line. It belonged to the Daughters of the American Revolution and marked the homestead site of settler William Bean.[36]

In the course of the project, several miles of state and federal highways had to be relocated or constructed in Sullivan and Washington Counties. Road construction due to the project included 1.4 miles of permanent access highways, 16.3 miles of county and tertiary roads, and two-tenths of a mile of city streets. Also, two state highway bridges were built. Tennessee State Route (SR) 34 (U.S. 11E) crossed both the Watauga and South Holston Rivers, and both bridges required some protective work. Additionally, a key intersection at US 11E at a Sullivan County highway required improvement outside the responsibility of TVA. The State reimbursed TVA $2,000 for the safety improvements at the intersection.[37] The road and bridge improvements contributed to an upgrade in local infrastructure, benefitting commerce and quality of life for area residents.

[34] Ibid., 398.
[35] Ibid., 755, 758, 771.
[36] Ibid., 23, 762-63, 815, 852-53.
[37] Ibid., 801-02.

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

SUMMARY

The Boone Hydroelectric Project is one of twenty-five projects constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The project brought construction jobs and electricity to this area of Tennessee. During planning and construction, TVA provided technical assistance in local schools, municipal land use planning, road relocation and improvement, and shoreline development. While some individual families expressed a sense of loss in displacement from their homes, many relocated in neighboring communities with higher quality amenities. Business leaders in the area capitalized on the potential of the project to stimulate development and draw new industry. The Boone Reservoir is a popular recreational spot for camping, hiking, and especially game fishing, drawing tourism dollars to local economies. Additional information on the context of the Boone Hydroelectric Project is located within the accompanying Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project.ò

9. Major Bibliographic References

Bibliography

ñBoone Lake Drawdown.ò At TVA webpage http://www.tva.gov/boonedrawdown/index.htm. Accessed June 12, 2015.

ñBoone Reservoir.ò At TVA webpage http://www.tva.gov/sites/boone.htm. Accessed June 12, 2015.

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_____. ñTennessee Valley Authority in Alabama (TVA).ò At Encyclopedia of Alabama webpage http://www.encyclopediaofalabama.org/article/h-2380. Accessed April 22, 2015.

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_____. *The Upper Holston Projects: A Comprehensive Report on the Planning, Design, Construction, Initial Operations and Costs of Four Hydro Projects in the Holston Basin at the Eastern Tip of Tennessee, Technical Report no. 14.* Washington, D.C.: U.S. Government Printing Office, 1958.

West, Carroll Van. *Tennessee's New Deal Landscape*. Knoxville: University of Tennessee Press, 2001.

Boone Hydroelectric Project — Name of Property

Sullivan and Washington Counties, Tennessee — County and State

Previous documentation on file (NPS):		Primary location of additional data:	
	preliminary determination of individual listing (36 CFR 67 has been requested)	**X**	State Historic Preservation Office
	previously listed in the National Register		Other State agency
	previously determined eligible by the National Register	**X**	Federal agency
	designated a National Historic Landmark		Local government
	recorded by Historic American Buildings Survey #		University
	recorded by Historic American Engineering Record #		Other
	recorded by Historic American Landscape Survey #	Name of repository: Tennessee Valley Authority Knoxville, TN	
Historic Resources Survey Number (if assigned):			

Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State

10. Geographical Data

Acreage of Property å 209 acres **USGS Quadrangle** Boone Dam 198 NW

Latitude/Longitude Coordinates

A. Latitude: 36.446266 Longitude: -82.445446

B. Latitude: 36.446229 Longitude: -82.430197

C. Latitude: 36.434658 Longitude: -82.445749

D. Latitude: 36.434501 Longitude: -82.430289

Verbal Boundary Description

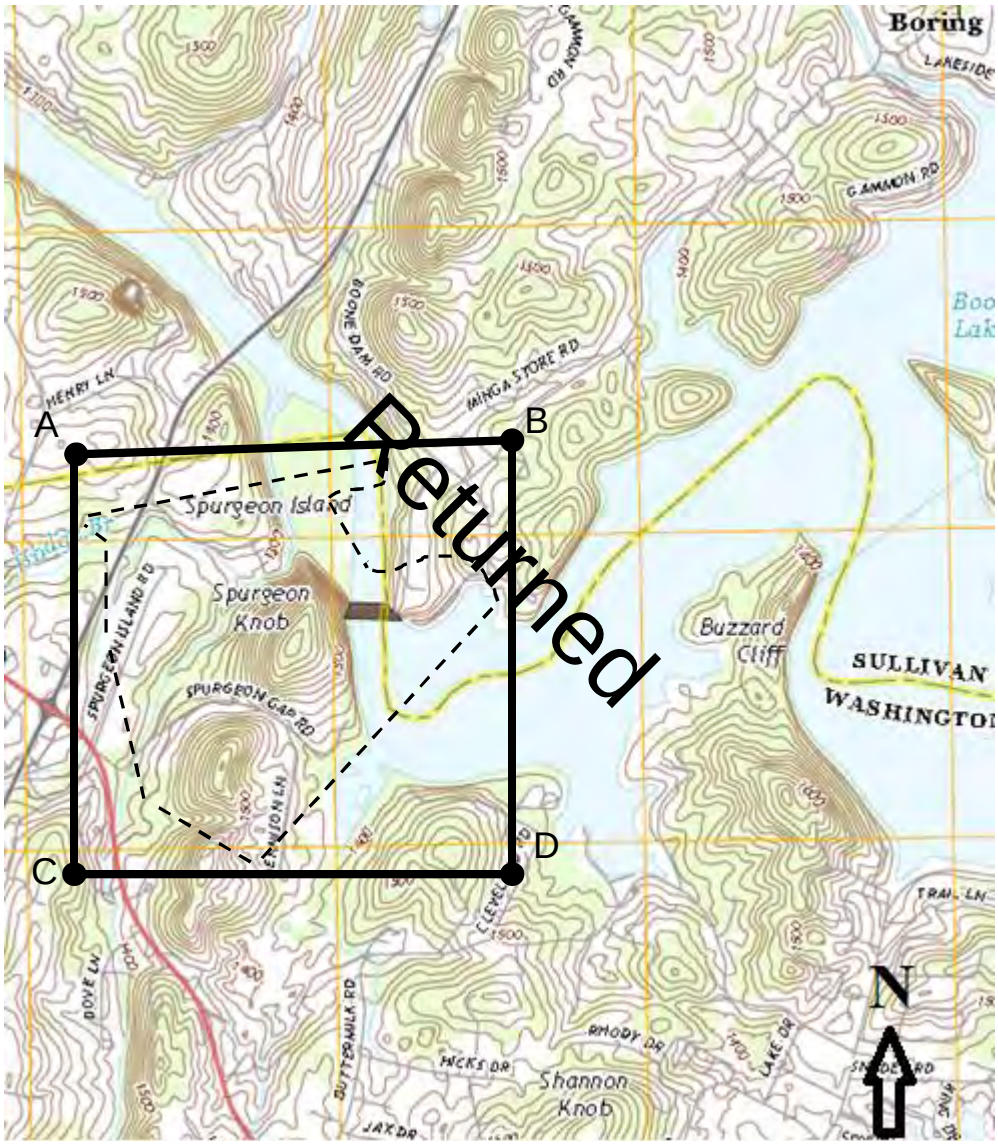
The National Register boundary for the Boone Hydroelectric Project is depicted as a dashed line on the accompanying USGS Topographical Quadrangle map and site plan map. The National Register boundary is consistent with the overall Boone reservation boundary on the southwest, northwest, and northeast sides. On the southeast, the National Register boundary departs from the Boone reservation boundary at a right angle and continues across the Boone reservoir as a straight line in a southwesterly direction until its rejoins the Boone reservation boundary on the southwest. This southeast boundary line, thus, includes only that portion of the Boone reservoir necessary to encompass the original visitor building and picnic area on the southern peninsula.

Boundary Justification

The boundary includes all facilities necessary for the operation of the hydroelectric project and/or associated with the mission of TVA, which includes power generation, navigation, and public recreation. The boundary omits other TVA lands not directly associated with hydroelectric production.

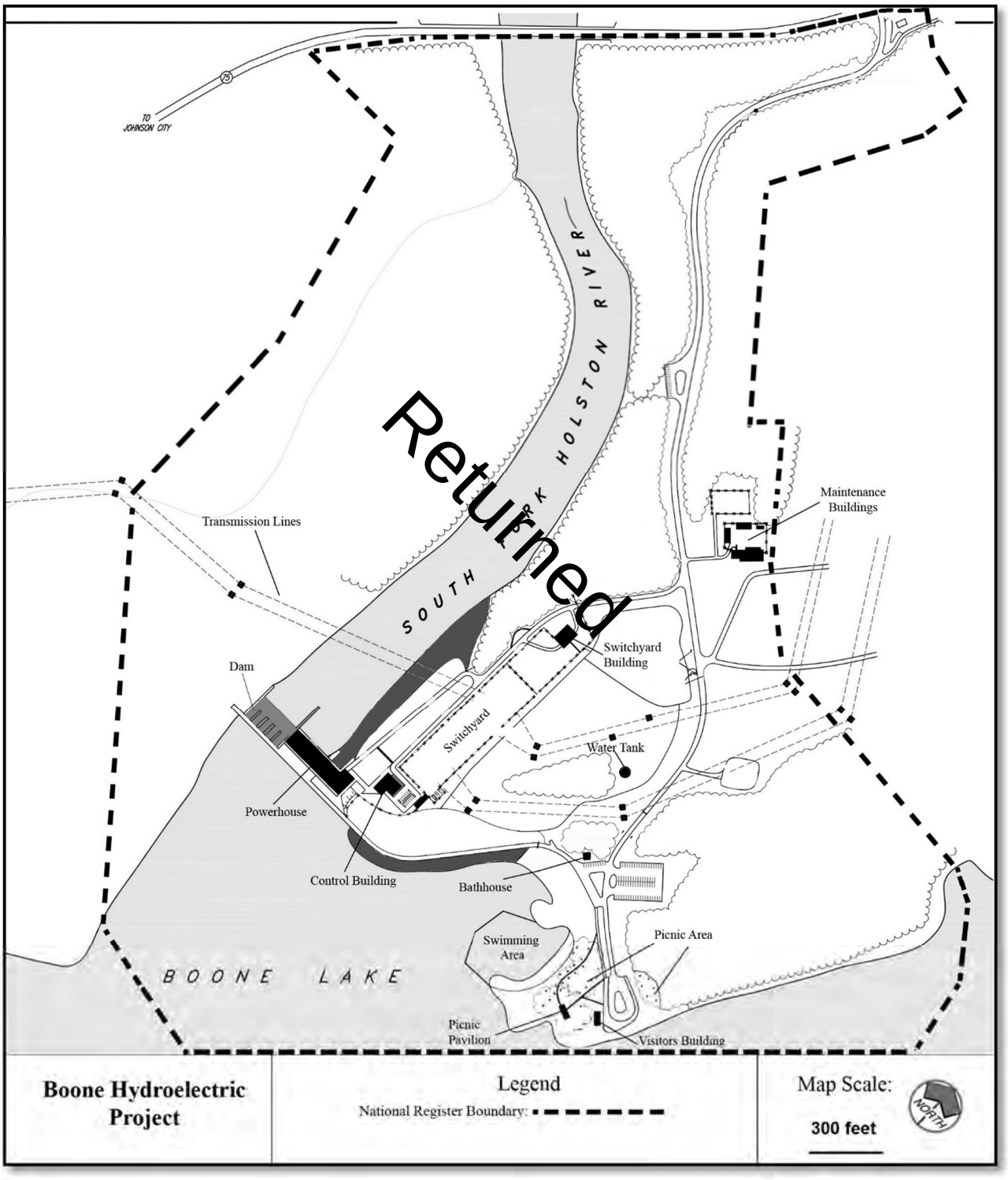
Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

Boone Dam USGS Topographical Quadrangle depicting the National Register Boundary for Boone Hydroelectric Project



Boone Hydroelectric Project
Name of Property

Sullivan and Washington Counties, Tennessee
County and State



Boone Hydroelectric Project Site Plan ***(see 11 x 17" map for enlarged version)***

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

11. Form Prepared By

Name	Andra Kowalczyk Martens; Rebecca Hightower; Phil Thomason				
Organization	Thomason and Associates				
Street & Number	P.O. Box 121225	Date	October 21, 2016		
City or Town	Nashville	Telephone	615-385-4960		
E-mail	Thomason@bellsouth.net	State	TN	Zip Code	37212

Returned

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to map.
- **Photographs (**refer to Tennessee Historical Commission National Register *Photo Policy* for submittal of digital images and prints**)**
- **Additional items:** (additional supporting documentation including historic photographs, historic maps, etc. should be included on a Continuation Sheet following the photographic log and sketch maps)

PHOTOGRAPHS

Photo Log Photo

Name of Property: Boone Hydroelectric Project
City or Vicinity: Kingsport
County: Sullivan/Washington State: TN
Photographer: Thomason and Associates
Date Photographed: May 27, 2015

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 30 ï General View of Boone Dam looking west.

2 of 30 ï Boone Dam looking southwest.

3 of 30 ï Spillway gates looking southwest.

4 of 30 ï Powerhouse exterior, north elevation, looking southwest.

5 of 30 ï Powerhouse exterior, powerhouse north elevation entry.

6 of 30 ï Powerhouse exterior, powerhouse looking west.

7 of 30 ï Powerhouse exterior, service bay looking west.

8 of 30 ï Powerhouse interior, generator room floor.

9 of 30 ï Powerhouse interior, machine shop.

10 of 30 ï Powerhouse interior, cable tray tunnel to switchyard.

11 of 30 ï Control Building exterior, northeast elevation, looking southwest.

12 of 30 ï Control Building exterior, southwest elevation, looking northeast.

13 of 30 ï Control Building exterior, north elevation.

14 of 30 ï Control Building interior, lobby.

15 of 30 ï Control Building interior, corridor.

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

16 of 30 ï Control Building interior, restroom.

17 of 30 ï Control Building interior, conference room.

18 of 30 ï Switchyard looking east.

19 of 30 ï Transmission Lines looking north.

20 of 30 ï Switchyard Building exterior west elevation, looking east.

21 of 30 ï Visitor Building exterior west elevation.

22 of 30 ï Bathhouse exterior southeast elevation, looking west.

23 of 30 ï Picnic Pavilion looking southwest.

24 of 30 ï Picnic Area looking west.

25 of 30 ï Maintenance Base Main Building exterior northwest elevation, looking east.

26 of 30 ï Maintenance Base Chemical Storage Building looking north.

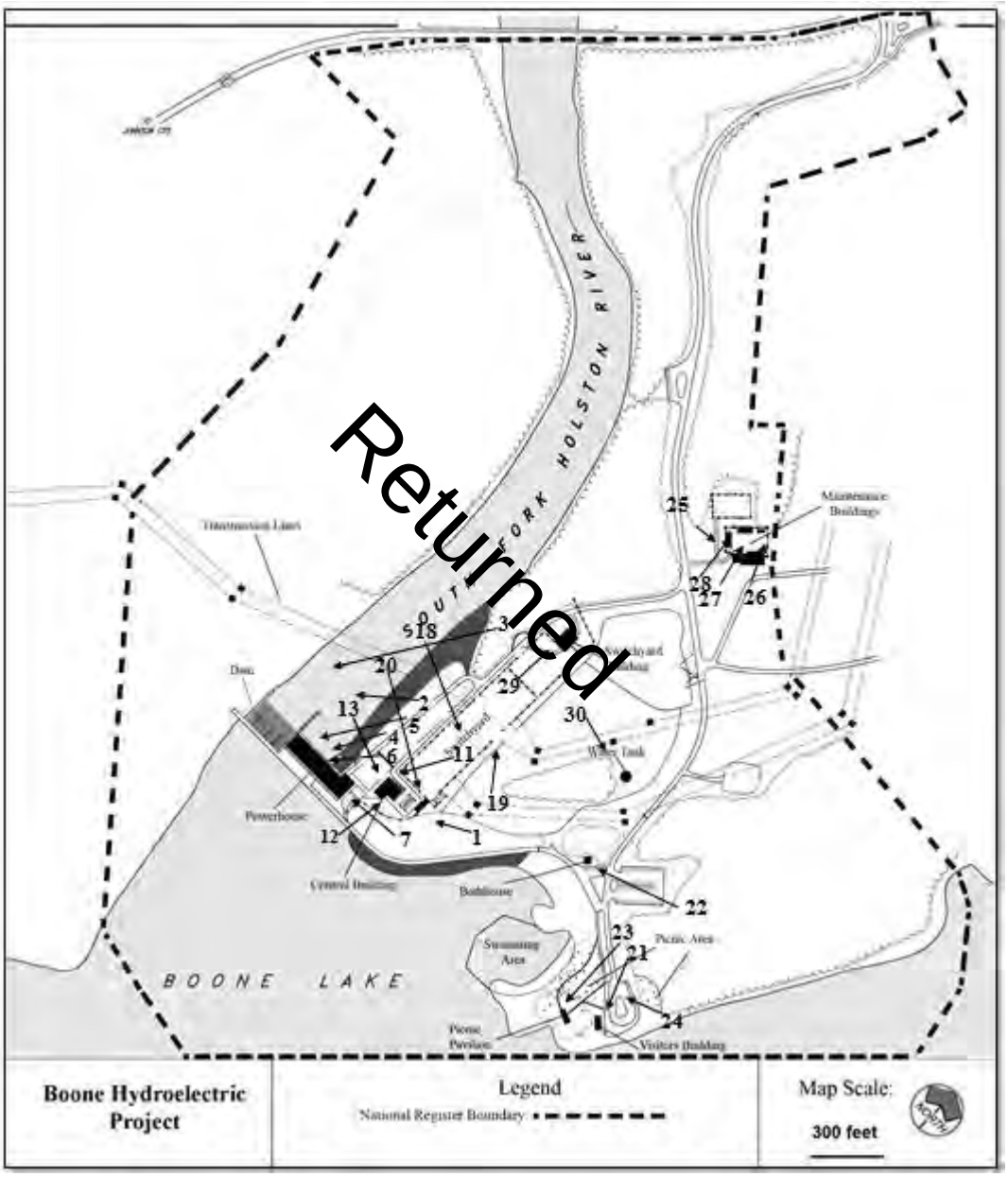
27 of 30 ï Maintenance Base Prefabricated Metal Building looking north.

28 of 30 ï Maintenance Base Metal Equipment Shed looking north.

29 of 30 ï Garage Building exterior southwest elevation, looking north.

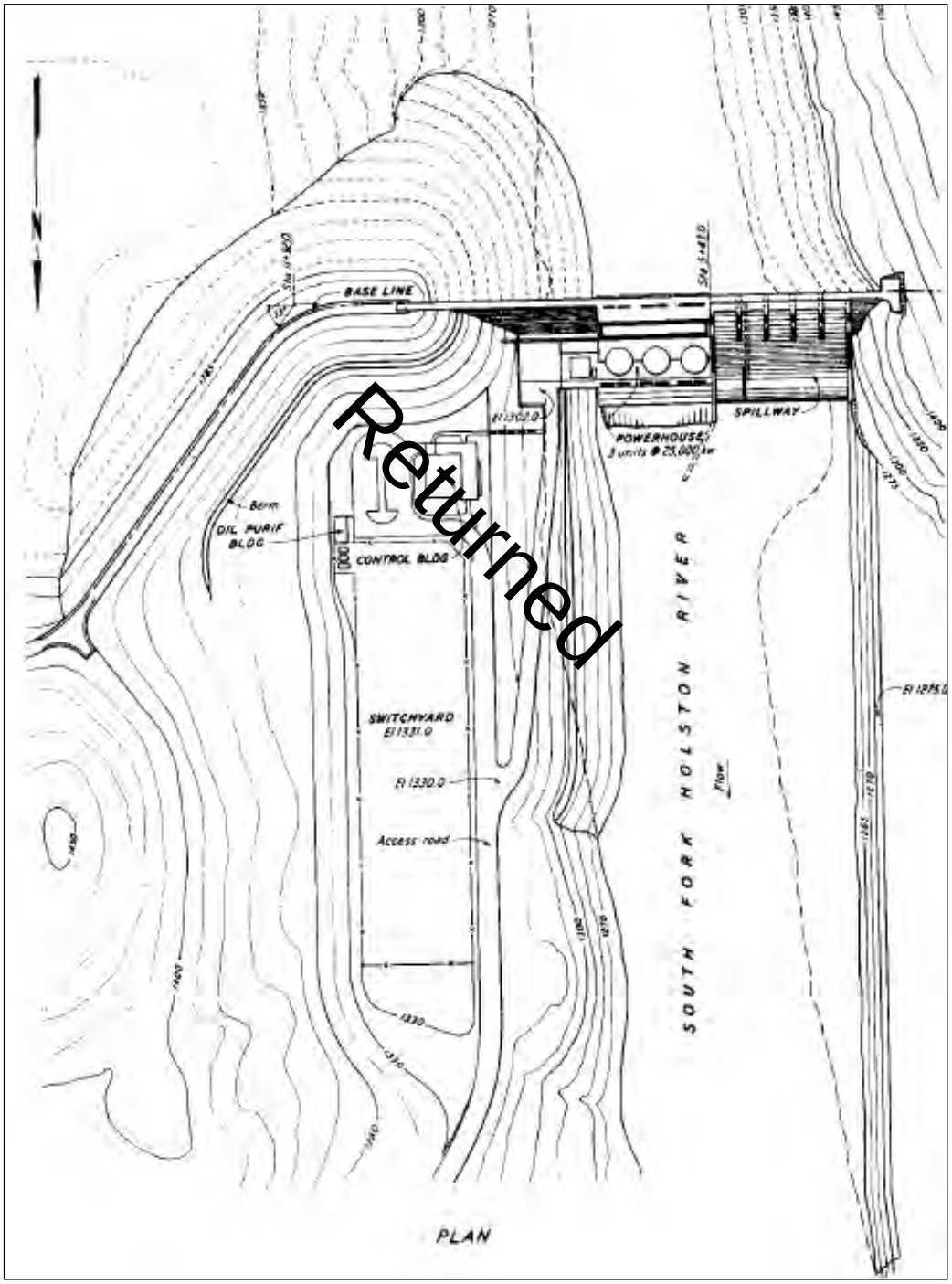
30 of 30 ï Water Tank looking east.

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State



Boone Hydroelectric Project Photo Key Map
(see 11 x 17" map)

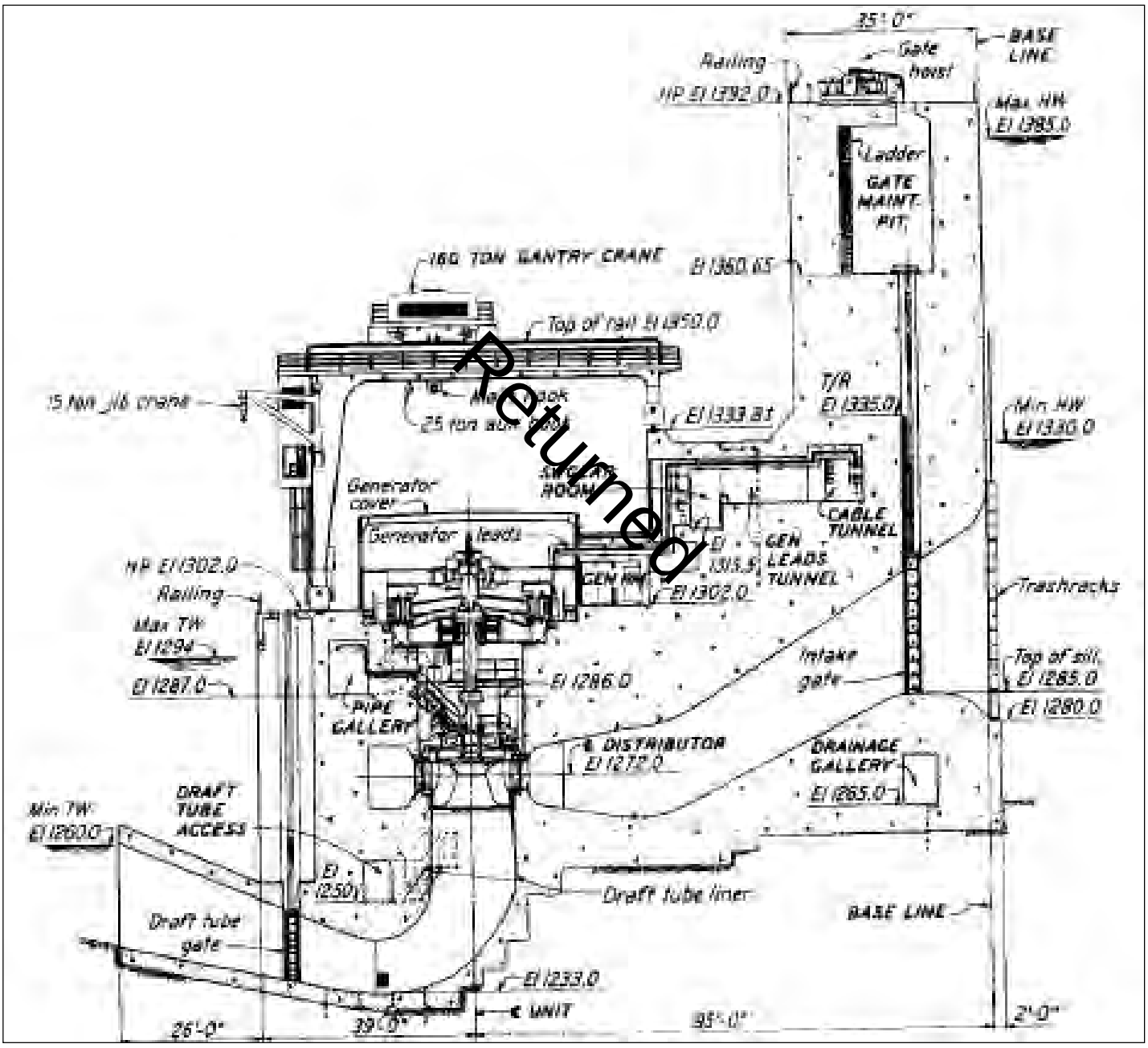
Site Plan



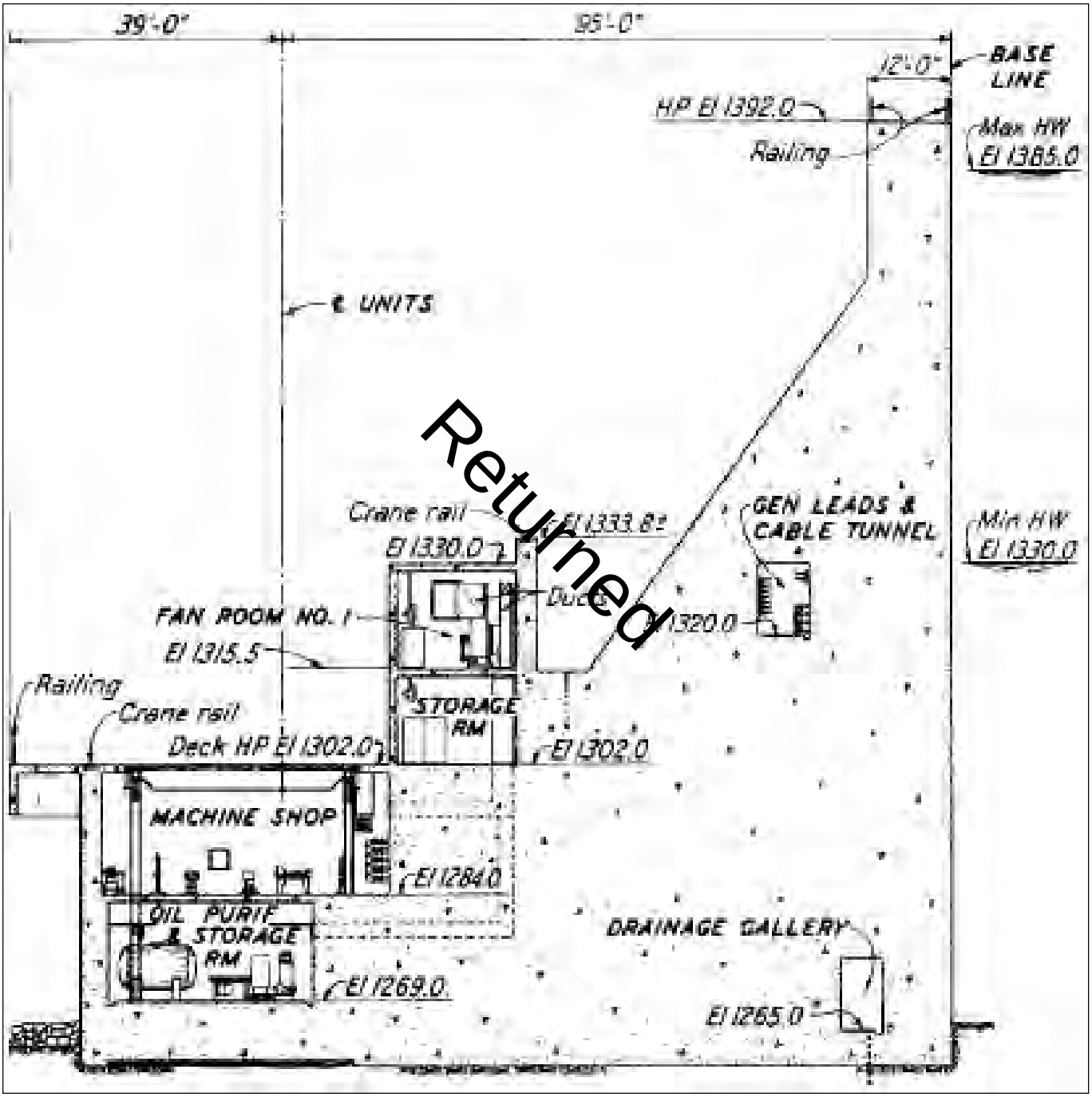
TVA Site Plan of Boone Dam and Reservoir

Boone Hydroelectric Project	Sullivan and Washington Counties, Tennessee
Name of Property	County and State

Schematics



Transverse Section of the Boone Dam Powerhouse



Transverse Section of the Service Bay

Property Owner:

(This information will not be submitted to the National Park Service, but will remain on file at the Tennessee Historical Commission)

Name	Tennessee Valley Authority ï Pat Ezzell		
Street & Number	400 West Summit Hill Drive 460WT7D-K	Telephone	865-632-6461
City or Town	Knoxville	State/Zip	TN 37902

Returned

Boone Hydroelectric Project Site Plan

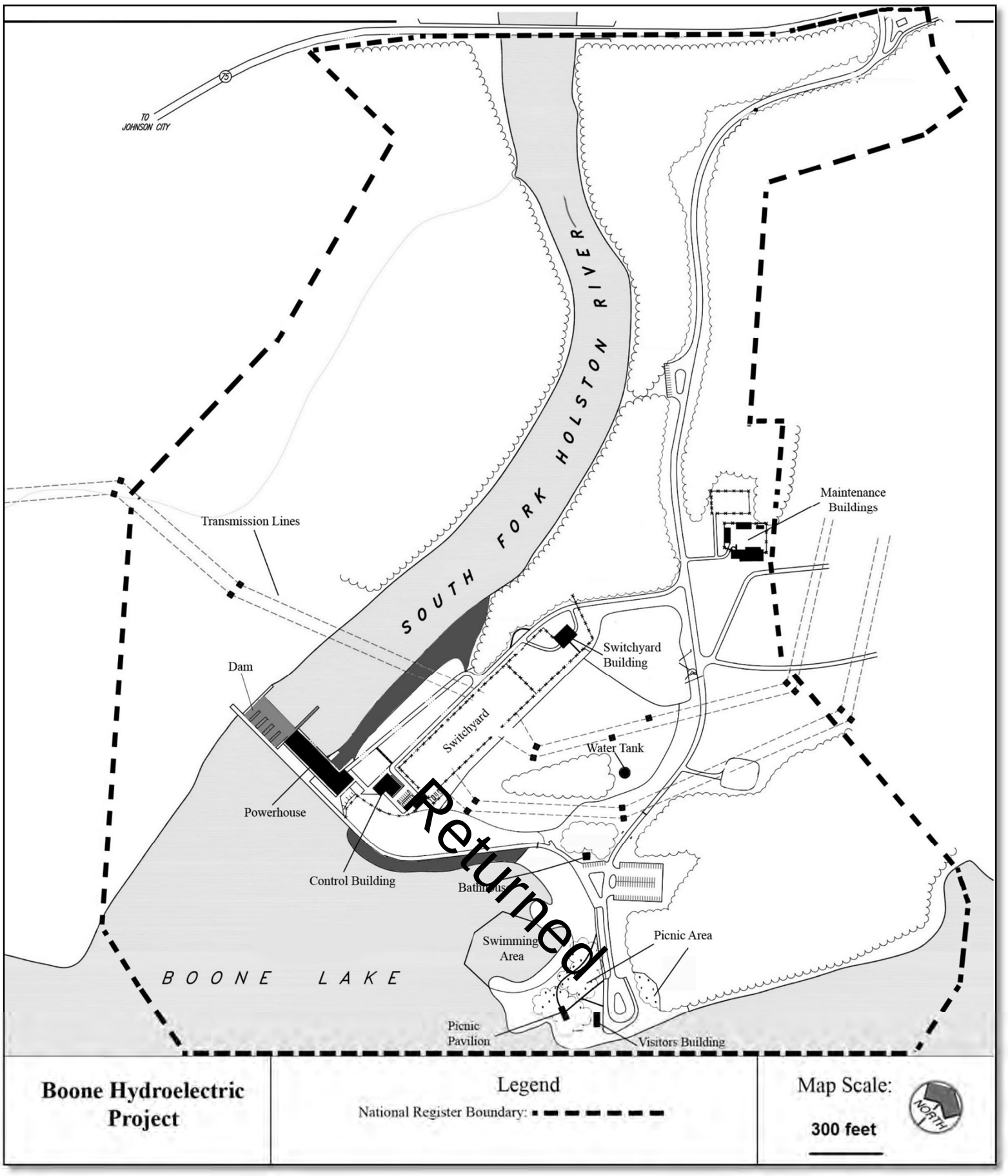
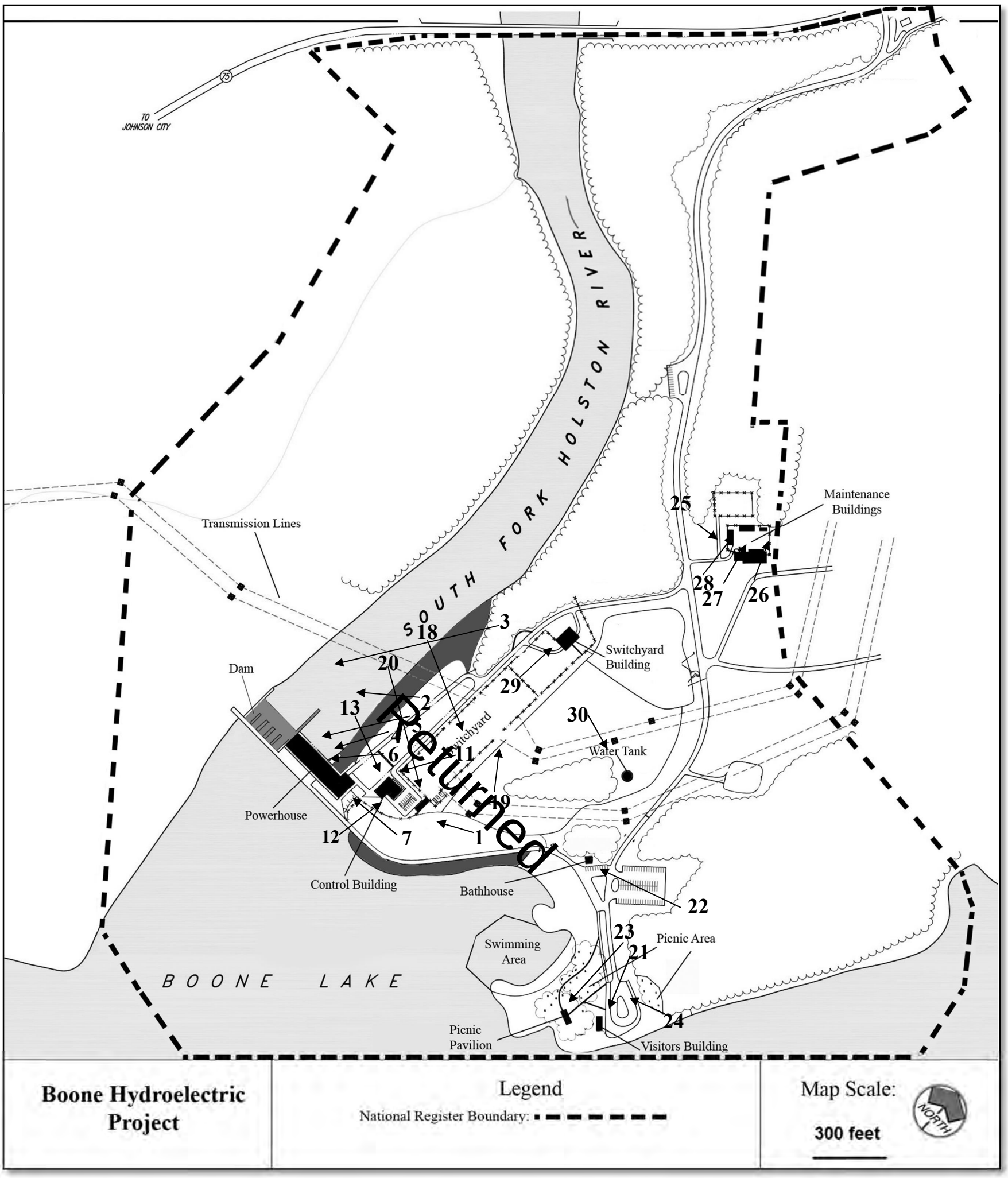


Photo Key Map for Boone Hydroelectric Project



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Nomination
Property Name:	Boone Hydroelectric Project
Multiple Name:	Tennessee Valley Authority Hydroelectric System, 1933-1979 MPS
State & County:	TENNESSEE, Sullivan

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
6/30/2017	7/27/2017	8/11/2017	8/14/2017	

Reference number:	MP100001476
Nominator:	State

Reason For Review:

__ Appeal	__ PDIL	__ Text/Data Issue
__ SHPO Request	__ Landscape	__ Photo
__ Waiver	__ National	__ Map/Boundary
__ Resubmission	__ Mobile Resource	__ Period
__ Other	__ TCP	__ Less than 50 years
	__ CLG	

_____ Accept ___X___ Return _____ Reject ___8/14/2017___ Date

Abstract/Summary Comments:	See comments
Recommendation/ Criteria	Return

Reviewer Jim Gabbert Discipline Historian

Telephone (202)354-2275 Date 8-14-2017

DOCUMENTATION: see attached comments : **Yes** see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

United States Department of the Interior

NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, DC 20240

IN REPLY REFER TO:

The United States Department of the Interior
National Park Service

National Register of Historic Places
Evaluation Sheet

Property Name: Boone Hydroelectic Project, Sullivan and Washington Counties, TN
(TVA Hydroelectric System MPS)

Reference Number: 100001476

Comment

The nomination for the Boone Hydroelectic Project is being returned for revision.

The primary reason for returning the nomination is that the map on page 21, which depicts the lat/long coordinates and the boundary of the property does not depict the actual area being nominated. Please provide an accurate locational map.

In addition to this technical error, the nomination does not fully support significance in Industry, Social History, or Architecture. You may either address these deficiencies or delete these areas of significance.

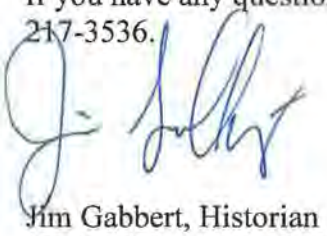
The narrative of the nomination does not fully support these areas of significance as they relate to the specific property being nominated. The nomination of this project, much like all of the nominations, relies on the general importance and effects of the TVA on the various areas of significance without providing an evaluative context for each. For nearly all of the nominations accepted, SLRs were issued to remove areas of significance that weren't supported; this was done rather than returning the whole lot.

For example, while there is no doubt that many of the dams had an impact in industry, either of themselves as power generators, or in providing increased energy for increased industrial capacity, the claim of industrial significance provides no specifics. Fort Patrick Henry dam, for instance, notes that its power went to Oak Ridge. What I would expect to see is how much (what percentage) of the power generated by this facility went to this industrial use. The same can be said for many other dams that were accepted.

While the greater TVA program had a significant impact on the social history of the Tennessee valley, claiming "social history" as an area of significance for nearly every nomination is not acceptable. Much of what is discussed relates to activities surrounding the dam construction without any analysis of long-term impact on those populations. And, in many cases, the places and activities noted in the nomination under the social history are no longer extant. It might be better to delete this area of significance.

I'm not sure that the claim of architectural significance for the Boone project stands, either. The pre-war projects did have a distinctive design which is well-explained in the statements of significance. The post-war projects are utilitarian and functional at best, with only a hint of thoughtful architectural design found in the visitors centers. This may not be enough to claim significance for the whole facility.

If you have any questions, feel free to contact me at james_gabbert@nps.gov or (571) 217-3536.



Jim Gabbert, Historian
National Register of Historic Places
8-14-2017

Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

October 3, 2017

Mr. Paul Loether
Keeper
National Register of Historic Places
Mail Stop 7228
1849 C Street NW
Washington, DC 20240

Dear Mr. Loether:

TENNESSEE VALLEY AUTHORITY, RESUBMITTAL OF NATIONAL REGISTER NOMINATION FORMS, BOONE, FORT PATRICK HENRY, AND APALACHIA HYDROELECTRIC PROJECTS, MULTI-COUNTIES AND STATES

The Tennessee Valley Authority (TVA) is resubmitting three nominations per comments received on August 15, 2017.

Per reference number 100001459 regarding the Apalachia Hydroelectric Project, Polk County, Tennessee, and Cherokee County, North Carolina, please find enclosed, the signature page from the Tennessee State Historic Preservation Office which was missing from our original submission.

Per reference number 100001476 regarding the Boone Hydroelectric Project, Sullivan and Washington Counties, Tennessee, please find enclosed, the revised nomination form which depicts the lat/long coordinates and the boundary of the property.

Per reference number 100001477 regarding the Fort Patrick Henry Hydroelectric Project, Sullivan County, Tennessee, please find enclosed, the revised nomination form with clarification of the bridges. We did notify the state and the local governments regarding the nominations of all of the TVA projects.

I trust these resubmissions will allow these three properties to be listed in the National Register of Historic Places. Please contact me by phone, 865-632-6461 or by email, pbezzell@tva.gov should you have any questions.

Sincerely,

Pat Bernard Ezzell

Patricia Bernard Ezzell
Senior Program Manager and Federal Preservation Officer
Communications

Enclosures