United States Department of the Interior
National Park Service

MP-1477

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Nat. Register of Historic Places
National Park Service

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: Fort Patrick Henry Hydroelectric Project

Other names/site number: Fort Patrick Henry Dam

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

2. Location

Street & Number: Route 1 Box 2385

City or town: Kingsport State: Tennessee County: Sullivan

Not For Publication: N/A Vicinity: N/A Zip: 37663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 11-9-16

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

Sr. Program Mgr., Tribal Relations & 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: Claudette Lynn **Date** 11-30-16

Deputy State Historic Preservation Officer,
Tennessee Historical Commission

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

Fort Patrick Henry Hydroelectric Project
Name of Property

Sullivan County, 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	
3	1	buildings
1	1	sites
4	3	structures
0	0	objects
8	5	Total

Number of contributing resources previously listed in the National Register 0

Fort Patrick Henry Hydroelectric Project | Sullivan County, 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

MODERN MOVEMENT: Streamlined Moderne
OTHER: Hydroelectric Dam

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

Narrative Description

The Fort Patrick Henry Hydroelectric Project was constructed from 1950-1953 by the Tennessee Valley Authority (TVA). The project is located on the South Fork of the Holston River within the city of Kingsport (pop. 52,777 in 2010) in Sullivan County. It is located eight miles above the South Fork of the Holston River's confluence with the North Fork of the Holston River (which forms the Holston River proper). It is the lowermost of three dams on the South Fork of the Holston River owned and operated by TVA, which built the dam in 1953 to take advantage of the hydroelectric potential created by the regulation of river flow with the completion of the Watauga, South Holston, and Boone Hydroelectric Projects, which were built further upstream. The Fort Patrick Henry Dam impounds the 872-acre, 10.3-mile long Fort Patrick Henry Reservoir (also called Fort Patrick Henry Lake), which provides 27,100 acre-feet total volume.[1] Fort Patrick Henry

[1] 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), 4.

Reservoir lies in Sullivan and Washington Counties. While originally built for hydroelectric generation, the dam now plays an important role in the regulation of water flow and water temperature for the John Sevier Fossil Plant and other industrial plants downstream. The Fort Patrick Henry Hydroelectric Project is named for the Revolutionary War-era fort which was located at nearby Long Island of the Holston (National Register-listed, 10-15-1996).

INVENTORY

Construction of the Fort Patrick Henry project began August 29, 1950 and the dam was closed October 27, 1953. The facility was placed in commercial operation December 5, 1953. The Fort Patrick Henry Hydroelectric Project's principal structures spanning the river from south to north include a concrete non-overflow section, a five-bay spillway, a concrete intake and powerhouse, and a concrete non-overflow section. The overall crest length is 737 feet (*see Photos 1 and 2*).[2] The project also includes a control bay structure located downstream of the dam, adjacent to the powerhouse. The switchyard is on the east bank downstream from the non-overflow dam. At the top of the hill overlooking the dam is an original visitor's building. Since completion of the original project, other buildings and sites have been added to the property.

1. Fort Patrick Henry Dam, 1953 (Contributing Structure)

The Fort Patrick Henry Dam is a concrete gravity spillway dam constructed mainly of concrete and steel and consists of the spillway and non-overflow sections to either side. Beginning at the left (south) bank is a twenty-seven-foot long concrete non-overflow dam, next to the 214-foot spillway with five bays, each measuring thirty-five feet in width, next to the powerhouse (*see Photo 3*). The bays are divided by concrete piers, each six-and-one-half feet wide. The spillway capacity is 141,000 cubic feet per second. There is another concrete non-overflow dam on the other side of the spillway. This short dam adjoins the powerhouse; on the other side of the powerhouse is a straight concrete gravity non-overflow dam, 214.5 feet in length. The Fort Patrick Henry dam is at an elevation of 1263 feet at the top of its gates. The gates are operated by five (5) sixty-six-ton capacity fixed hoists. The maximum height of the dam is ninety-five feet above the foundation (*see Photo 4*), which consists of Nolichucky shale and Honaker limestone and dolomite. The project required 72,500 cubic yards of concrete and 30,400 cubic yards of earth and/or rock fill.[3]

A drain curtain was originally installed as part of the design under the dam structures to counter seepage potential at the foundation and to reduce uplift pressures. The drain curtain is about ten feet from the upstream face of the dam. Holes in the drain curtain were designed on eight-and-one-quarter-foot centers (the center of each drain is that distance from the center of the next drain) under the foundation of the spillway and non-overflow dam; however, where the foundation was irregular, the holes are on seven-foot centers. The holes are specified to extend to thirty-five feet below the base of the structures.[4] Below the spillway is a concrete stilling pool (*see Photo 5*).

[2] 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.
[3] Ibid., 23, 314.
[4] Ibid., 320.

2. Powerhouse, 1953 (Contributing Building)

The Fort Patrick Henry Powerhouse measures 151.5 feet in length and 59.5 feet in width. The powerhouse is the indoor type of reinforced concrete construction and has a structural steel roof.[5] It has two unit bays and a service bay the project name appears on the downstream wall (west) of the powerhouse in red porcelain enameled steel letters. Next to the letters there is a partial-width clerestory bank of fixed, vertical-light windows. On exterior walls, tongue-in-groove form boards were used to impart a textured surface. The control building is a one-story wing on the north side of the powerhouse. It is sixty-two feet in length and has textured concrete walls and a flat roof. The upstream side of the dam forms its back (east) wall; its front elevation is recessed from that of the main block of the powerhouse. The façade of the control building has three three-light aluminum windows and a solid steel pedestrian door. In the north wall of the projecting powerhouse's main block is a large, overhead-tracking, metal bay door. There is a metal rail across the walkway in front of the ground level of the powerhouse (*see Photo 6*).

The intake is integral to the dam and provides water to the two turbines. The concrete structure consists of two blocks, each fifty-eight feet long and forty-one feet and nine inches wide. Each intake passage has one set of two gates (*see Photo 7*). The gates can close off the intake passages for inspection and maintenance or in an emergency. Each gate section is operated by a twenty-ton gantry crane on the intake deck on the rear (east) elevation of the powerhouse (*see Photo 8*). The crane has a structural frame with a wheel at each corner. Steel plate housing protects hoist equipment from the elements. There is a metal rail along the outside track of the crane and another metal rail on the outside edge of the intake deck. The powerhouse has a tail-race channel approximately three-quarter mile in length.[6]

The powerhouse is entered via the one-story control room's ground floor. The interior of the control room has original plaster walls and ceilings and linoleum floors (*see Photo 9*). The building has a sub-floor that contains the communications room, fan room and spreading room. It is accessed via a concrete staircase with aluminum treads. The ground floor of the control room is at the same level as the powerhouse's lobby and mezzanine. Inside the powerhouse, the lobby has original ceramic tile floors and fired tile walls. The mezzanine has ceramic tile floors and overlooks the generator room. A stairwell with ceramic tile floors and fired tile wall leads down to the generator room floor (*see Photo 10*). The machine shop is located in the generator room, which has ceramic tile floors, poured concrete walls with form board texture, and metal and steel beam ceiling (*see Photo 11*). On the north interior wall of the generator room is metal lettering with the sign, "1950 – BUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA-1954" (*see Photo 12*). The powerhouse has two adjustable-blade, propeller type turbines directly connected to two vertical shaft generators each with a capacity of 18,000 kilowatts at sixty-one-foot head at 0.9 power factor *(see Photo 13*). The generators were built at Newport News Shipbuilding and Dry Docks in Newport News, Virginia, in 1953. The powerhouse is equipped with a 125-ton gantry cane for maintenance of the generators.[7] On initial installation, the powerhouse's generating capacity was 36,000 kilowatts in two units.[8] The control cabinets are also located on the floor of the generator room (*see Photo 14*). Restrooms with the powerhouse have concrete floors, glazed tile walls, and marble stall partitions (*see Photo 15*). Within the substructure of the powerhouse, a cable tunnel connects to the switchyard (*see Photo 16*).

[5] TVA powerhouses varied in type. Indoor powerhouses have their turbines completely enclosed within the building. This differs from semi-outdoor type powerhouses, where the turbines project through the roof of the building and are shielded from the elements by materials appropriate for outdoor use.
[6] Tennessee Valley Authority, *The Upper Holston Projects*, 314, 330-32, 346-48.
[7] Ibid.
[8] Ibid., 1029.

3. Transformer Yard, 1953 (Contributing Structure)
The transformer yard containing the main transformer is located to the north of the control building within an enclosure measuring thirty-five by forty-four feet (*see Photo 17*). The electrical current of the transformer is carried to the switchyard via an overhead line. The transformer equipment is sited on a concrete pad and the yard is surrounded by a chain link fence.

Switchyard Area- 2 resources
The switchyard is downstream from the dam on the north bank of the river and includes one structure and one building as follows:

4. Switchyard/Transmission lines, 1953 (Contributing Structure)
The 69-kilovolt switchyard is enclosed within an area measuring eighty-two feet by 300 feet (*see Photos 18-19*). The equipment rests on earth and gravel fill, and surrounding the switchyard is a chain link fence. The sixty-nine-kilovolt switching structure is made up of structural steels angles and plate gussets and consists of five transverse, steel trussed-framed bents, each with integral tower and ground wire peak. These bents are spaced on twenty-six-foot centers (the center of each bent is twenty-six feet from the next) and are connected with longitudinal trussed box members which serve as pull-off appurtenant electrical equipment. Columns are spaced on thirty-foot centers. Insulators are of porcelain.

5. Switchyard Oil Purification Building, 1953 (Contributing Building)
Within the switchyard enclosure is the oil purification building constructed in 1953 (*see Photo 20*). This is a one-story, reinforced concrete building measuring forty feet in length by eighteen feet in width. The building houses the insulating oil purification and pumping equipment as well as fire protection equipment. The exterior walls are of scored poured concrete and the interior consists of concrete floors, walls and ceiling. The windows on the west elevation are original single-light fixed design. On the façade (south) are single and paired single-light, glass and steel doors.

6. Visitor Building, 1954 (Contributing Building)
On a hillside north of the dam is a Visitor Building constructed in 1953 in Mid-Century Modern style (*see Photos 21-25*). The building is a variation of a standardized plan used by TVA at other hydroelectric facilities. The building rests on a concrete foundation and has a flat roof and an exterior of random-course stone veneer. Original, full-height single-light, fixed windows with lower hopper panels span three sides on the cantilevered south elevation of the building (see Photo 21). A T wing projects from the rear (north) elevation. Its walls are random-course stone veneer and are sloped on the north end. In between the sloped walls, the north elevation of the building has four vertical fixed light windows each over a smaller horizontal-light window, all above a skirt wall with vertical wood board siding. A concrete ramp with metal railing runs along the east elevation of the building and leads to the main entrance in the north side of the observation room. This entrance has a single-light glass and metal door (*see Photo 22*).

The visitor building has two levels. The main (upper) level is reached by two concrete ramps, and this level contains the visitor's reception room and office spaces, overlooking the project site (*see Photo 23*). The interior of the reception room retains its original maroon-colored tile floor and acoustical tile ceiling. On the north wall of the reception room is a mural painted by Robert Birdwell in 1955 depicting various aspects of TVA's contributions to the region (*see Photo 24*). Birdwell, a TVA staff artist, also painted a mural featured within the visitor building at the Boone Hydroelectric Project. The lower level contains storage spaces and public

bathrooms with original marble walls and partitions and original fixtures (*see Photo 25*). Leading into the bathrooms are original solid wood doors with louvered vents.

7. Picnic Area, 1954 (Contributing Site)
To the north of the Visitor's Building is a landscaped picnic area containing a series of original concrete and ca. 1980 added metal picnic tables (*see Photo 26*). Concrete walkways connect the picnic area with the adjacent parking area.

8. Boat Ramp ca. 2010 (Non-Contributing Site)
On the north bank of the river downstream from the dam and powerhouse is a boat ramp which was rebuilt ca. 2000 with an asphalt driveway and stone riprap along the river (*see Photo 27*).

9. State Route 36 Bridge – Southbound (Non-Contributing Structure)
This bridge is west of the dam and carries the southbound lanes of State Route 36 over the Holston River. The bridge was erected in 1929 and is a three-span, open spandrel, dual-ribbed concrete arch bridge. The bridge was identified as National Register-eligible under the context of transportation by the Tennessee Department of Transportation in 2008. This bridge pre-dates the construction of the Fort Patrick Henry Hydroelectric Project and is not associated with this context. Therefore, the bridge is assessed as non-contributing for this nomination.

10. State Route 36 Bridge – Northbound (Non-Contributing Structure)
This bridge is located west of the dam and carries the northbound lanes of State Route 36. This concrete bridge and steel girder bridge was erected in 1969 and spans the Holston River.

Maintenance Area- 3 resources

On the north bank of the river to the northwest of the dam and powerhouse is a maintenance area containing three buildings and structures constructed ca. 1980. These are:

11. Maintenance Building, ca. 1980 (Non-Contributing Building)
The main building has a concrete foundation, an exterior of aluminum panel siding, and a flat, metal roof. The building has no windows, one steel pedestrian door, and one overhead track door (*see Photo 281*).

12. Shed, ca. 1980 (Non-Contributing Structure)
This is a ca. 1980 open air shed with square, wood posts and a wood-frame, shed roof with standing-seam metal (*see Photo 29*).

13. Chemical Storage Structure, ca. 1953 (Contributing Structure)
This is a 1953 one-story, brick structure for chemical storage with a flat roof and two openings covered with chain-link gates (*see Photo 30*).

Fort Patrick Henry Hydroelectric Project | Sullivan County, Tennessee
Name of Property | 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 Fort Patrick Henry Hydroelectric Project meets National Register Criterion C for its 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 Fort Patrick Henry Hydroelectric Project is significant in the improvement of quality of life in the region through transmission of electricity, control of seasonal flooding, and creation of public recreational facilities. The Fort Patrick Henry 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. Objectives of the 1933 Tennessee Valley Authority Act were the creation of a continuously navigable nine-foot channel from the mouth of the Tennessee River to Knoxville, in addition to flood control, power generation, and public benefits. Given its location east of Knoxville, the Fort Patrick Henry project was not original to TVA's unified plan (for navigation) submitted to Congress in 1936. Construction of the Fort Patrick Henry project began August 29, 1950 and the dam was closed October 27, 1953. Generator Unit 2 was placed in commercial operation December 5, 1953 followed by Unit 1, on February 22, 1954.[9] The project's significance in engineering is reflected in TVA's overall plan for an integrated system of river management through site-specific designs tested on scaled models. The project is also significant under Criterion A for recreation because of the extensive outdoor opportunities it fostered. The Fort Patrick Henry Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, "Historical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979."

Narrative Statement of Significance

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 Watauga with South Holston. Together, the projects were key for flood control and power production. The House and Senate agreed on TVA's requested funding for the projects, and President Harry Truman approved the projects 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. The Korean War began in June of 1950 which greatly increased the demand for power from TVA's system for regional defense industries.[10]

The Fort Patrick Henry project required the purchase of 1,466.19 acres of land, a total of 145 tracts, displacing twenty-two (22) families. Seventy percent (101) of the tracts were acquired from private owners, accounting for just thirty-one percent (454.29) of total acreage. Of this area, 167 acres were wooded and required clearing. The remaining tracts were purchased from the East Tennessee Light and Power Company, which had bought the land several years before in connection with other proposed projects. Of the land acquired for the project, ninety-eight per cent was by voluntary transfer, while the remainder was by condemnation for title issues (one tract) or for refusal to sell (three tracts). The area of the Fort Patrick Henry project was similar to other Upper Holston project areas in the degree of suburban development surrounding several towns. Only twelve of the 145 tracts were classified as farm property. Several of the acquired tracts were located among four subdivisions, which influenced land costs. These were purchased for an average of $951 per acre for land ($533) with improvements ($418). Of the twenty-two families affected, seventeen were non-farming, while two were farm

[9] Tennessee Valley Authority, *The Upper Holston Projects*, 1, 3.
[10] Ibid., 18-20.

owners, and three were farm tenants. The Fort Patrick Henry project area was investigated for cemeteries, and no relocation of graves was required.[11]

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 three in the Fort Patrick Henry Reservoir.[12]

In the course of the project, just two miles of roads and highways were constructed, relocated, resurfaced and/or improved in Sullivan County. One bridge was built across the Fort Patrick Henry Reservoir, and just over one mile of utility lines were adjusted or constructed.[13]

Total land costs for the project amounted to $793,566, 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 $9,594,709. Indirect construction costs, including accounting, timekeeping, office supplies, and police service, came to $536,259. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians, and inspectors, amounted to $873,137. These amounts plus other categorized costs brought the total project to $12,419,842.[14]

Since its construction the powerhouse has not been significantly altered and retains its original exterior and interior design and detailing. The original visitor center also retains much of its original design.

SIGNIFICANCE IN ENGINEERING

The Fort Patrick Henry 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 Fort Patrick Henry Dam's release provides power to the Cherokee Hydroelectric Project downstream. Above Fort Patrick Henry Dam, the Fort Patrick Henry Reservoir extends upstream to Boone Dam. Releases from the Boone Dam provide power to the Fort Patrick Henry 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

[11] Ibid., 23, 764-66, 815, 853.
[12] Ibid., 770-772.
[13] Ibid., 23.
[14] Ibid., 871.

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 Fort Patrick Henry 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 twenty-four 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 during the flood season of 1957.[15]

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 attracted outdoor enthusiasts who enjoyed fishing, boating, camping, and hiking in the environs the TVA helped create, re-forest, and conserve. Today, the agency operates some 100 public recreation areas throughout the TVA region.

The State of Tennessee requested for development the five public access areas designated by TVA. From the beginning of planning stages of the Fort Patrick Henry project, there were plans for a state park. This was the first instance of participation of a state agency throughout the process of a TVA hydroelectric project. Also unique to the project was the swapping of lands between the State and TVA: the State of Tennessee transferred to TVA sixty-eight acres essential to the reservoir, while TVA transferred 415 acres to the State for its park. This land was combined with additional purchases from private owners for the creation of Warriors Path State Park, on both sides of the reservoir for a distance of three miles. Within the park the State built a large boat harbor, a picnic area, and roads, including a new bridge across the reservoir and passing through the park. TVA built a visitor's building and parking areas within the project reservation.[16] The reservoir enhanced the natural scenic beauty and recreational opportunities of a multi-metropolitan industrial area with growing populations.

A component of TVA's hydroelectric projects was the accommodations for visitors. At many of the projects built in the 1930s, visitors were greeted by ornate lobbies within the control buildings or powerhouses and could view the turbines and generators from visitor galleries. At other projects such as at Fort Patrick Henry, separate Visitor's Buildings were constructed to provide expansive views of the project and reservoirs. Some of these

[15] Ibid., 24.
[16] Ibid., 860-61.

buildings were also decorated with murals or other descriptive panels or exhibits describing the work of TVA. The Visitor Building at Fort Patrick Henry is one of the best preserved of those built by TVA in the 1950s.

SUMMARY

The Fort Patrick Henry Hydroelectric Project is one of twenty-five 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 later electricity to the region. 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 Fort Patrick Henry Reservoir is a popular recreational spot for camping, hiking, and especially game fishing, drawing tourism dollars to local economies.

The Fort Patrick Henry Hydroelectric Project retains much of its integrity from its original design in the 1950s. The dam and powerhouse have not been significantly altered, and the powerhouse displays its original modest Streamlined Moderne design in its exterior and interior detailing. The project continues to be an integral part of the TVA system. The Fort Patrick Henry Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, "Historical Resources of the Tennessee Valley Authority Hydroelectric Project," and this MPDF contains additional contextual information concerning TVA and its hydroelectric system.

9. Major Bibliographic References

Bibliography

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

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

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

Tennessee Valley Authority. *Design of TVA Projects Technical Report No. 24, Vol. 1, Civil and Structural Design.* Washington, D.C.: U.S. Government Printing Office, 1952.

_____. *The Fort Patrick Henry Project: A Comprehensive Report on the Planning, Design, Construction, and Initial Operations of the Fort Patrick Henry Project, Technical Report no. 7.* Washington, D.C.: U.S. Government Printing Office, 1946.

_____. "Fort Patrick Henry Reservoir." At TVA webpage http://www.tva.com/sites/fortpatrickhenry.htm. Accessed June 22, 2105.

_____. "John Sevier Fossil Plant." At TVA http://www.tva.com/sites/johnsevier.htm. Accessed June 22, 2105.

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):			

10. Geographical Data

Acreage of Property ≈ 158 acres **USGS Quadrangle** Kingsport 188 SE
Sullivan Gardens 189 NE

Latitude/Longitude Coordinates

A. Latitude: 36.503340 Longitude: -82.515963

B. Latitude: 36.503328 Longitude: -82.500615

C. Latitude: 36.495656 Longitude: -82.515914

D. Latitude: 36.495638 Longitude: -82.500304

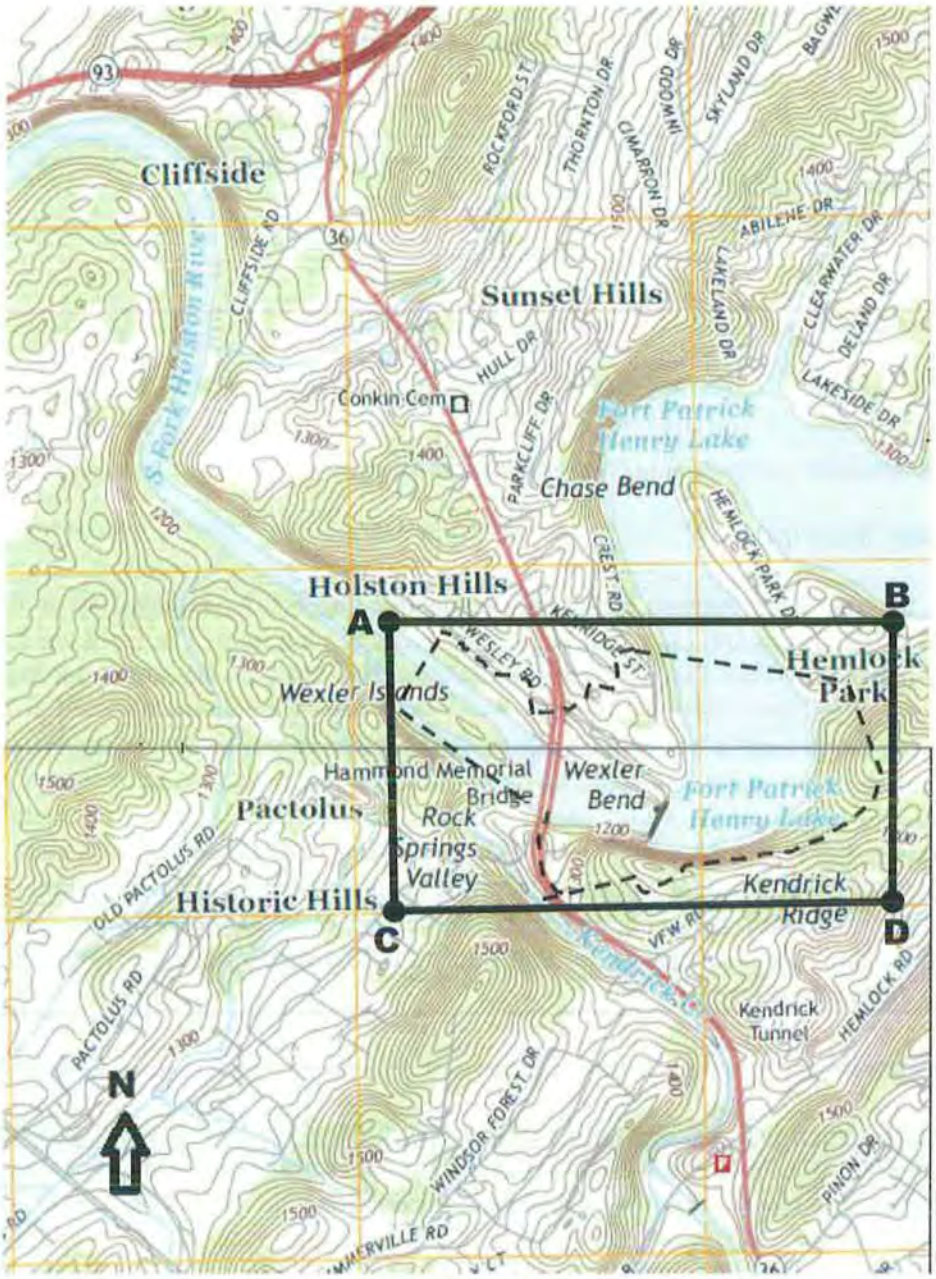
Verbal Boundary Description

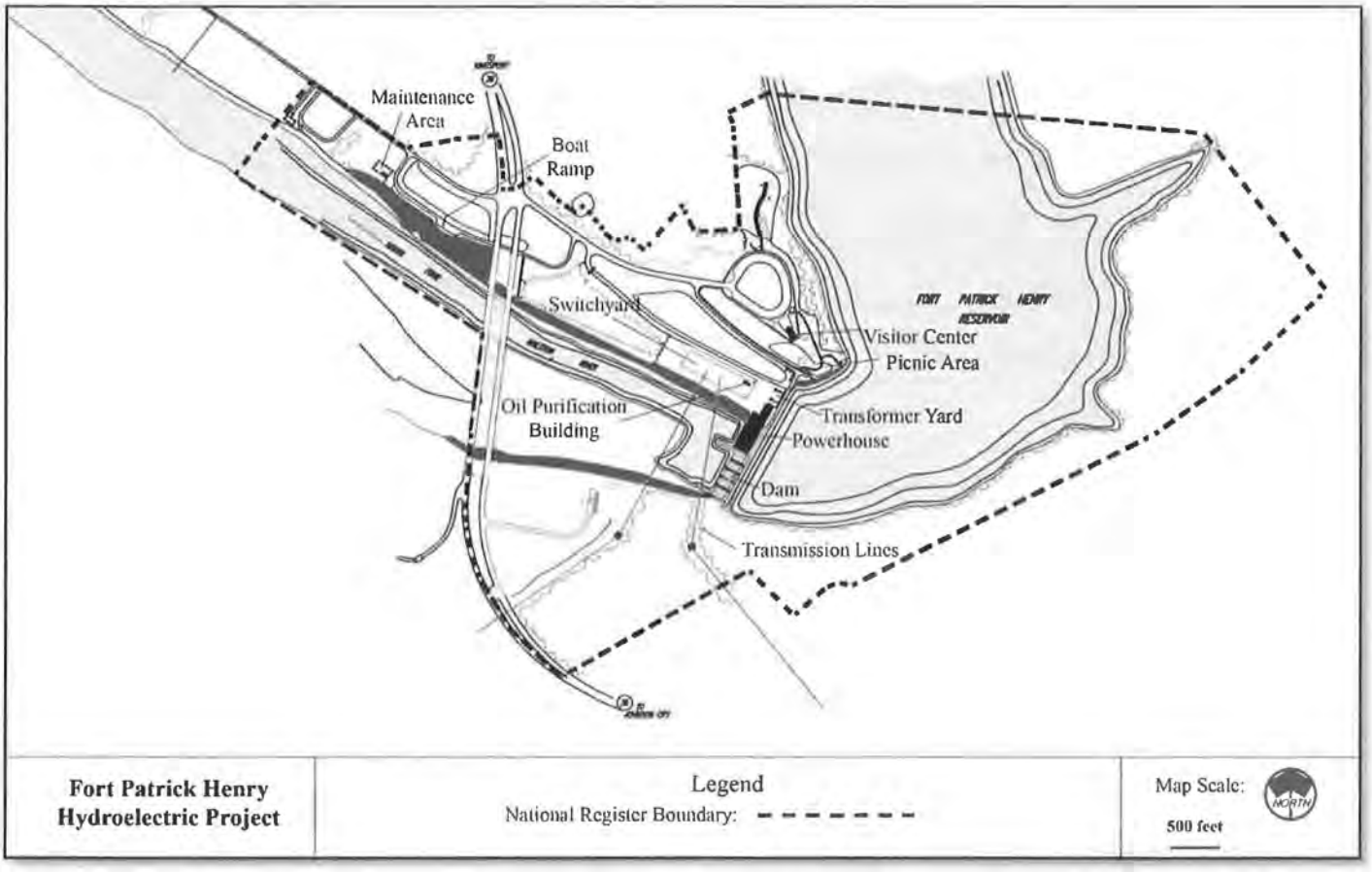
The boundary for the Fort Patrick Henry Hydroelectric Project is depicted as a dashed line on the accompanying USGS Topographical Quadrangle map and site plan map. The National Register boundary is consistent with the overall Fort Patrick Henry reservation boundary on the northeast and southeast. On the west, the National Register boundary departs from the reservation boundary and follows the curve of Highway 36 to the north until it meets the Holston River, then angles to the northwest and continues along the south bank of the river and turns north to cross the river at a point that encompasses a boat launch and parking area on the north bank. From there, the boundary continues in a southeasterly, then easterly direction overlaying the reservation boundary. The overlaying boundaries turn at a right angle to the north, then the National Register boundary departs from the reservation boundary at a right angle to the east to cross the Fort Patrick Henry reservoir and then rejoins the reservation boundary on the northwest. The northern boundary line, thus, includes only that portion of the reservoir necessary to encompass the main land area of the district resources.

Boundary Justification

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

Kingsport and Sullivan Gardens USGS Topographical Quadrangles depicting the National Register Boundary of the Fort Patrick Henry Hydroelectric Project





Site Plan and National Register Boundary for Fort Patrick Henry Hydroelectric Project
(see 11 x 17" map enlarged version)

11. Form Prepared By

Name	Andra Kowalczyk Martens; Rebecca Hightower; Phil Thomason		
Organization	Thomason and Associates		
Street & Number	P.O. Box 121225	Date	October 26, 2016
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

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

1 of 30 - General View of Fort Patrick Henry Dam, looking southeast.

2 of 30 - Fort Patrick Henry Dam on reservoir side, looking southwest.

3 of 30 - Across top of dam, looking north.

4 of 30 - Side wall of dam, looking northwest

5 of 30 - Fort Patrick Henry Dam, looking southeast.

6 of 30 - Powerhouse exterior, northwest elevation, looking south.

7 of 30 - Powerhouse exterior, west elevation, looking southeast.

8 of 30 - Powerhouse exterior, east elevation, looking north.

9 of 30 - Powerhouse interior, control room.

10 of 30 - Powerhouse interior, lobby stairwell with tile floor and fired tile walls.

11 of 30 - Powerhouse interior, generator room signage on south elevation.

12 of 30 - Powerhouse interior, generator room machine shop.

13 of 30 - Powerhouse interior, generators from overlook mezzanine.

14 of 30 - Powerhouse interior, generator governor cabinet.

15 of 30 - Powerhouse interior, restroom.

16 of 30 - Powerhouse interior, cable tray tunnel to switchyard.

17 of 30 - Transformer yard looking south.

18 of 30 - Switchyard looking west.

19 of 30 - Switchyard looking northwest

20 of 30 - Switchyard Oil Purification Building, looking northeast.

21 of 30 - Visitor Building, exterior south elevation, looking north.

22 of 30 - Visitor Building, exterior northeast elevation, looking southwest.

23 of 30 - Visitor Building, interior lobby view to the south.

24 of 30 - Visitor Building, interior lobby mural.

25 of 30 - Visitor Building, interior restroom.

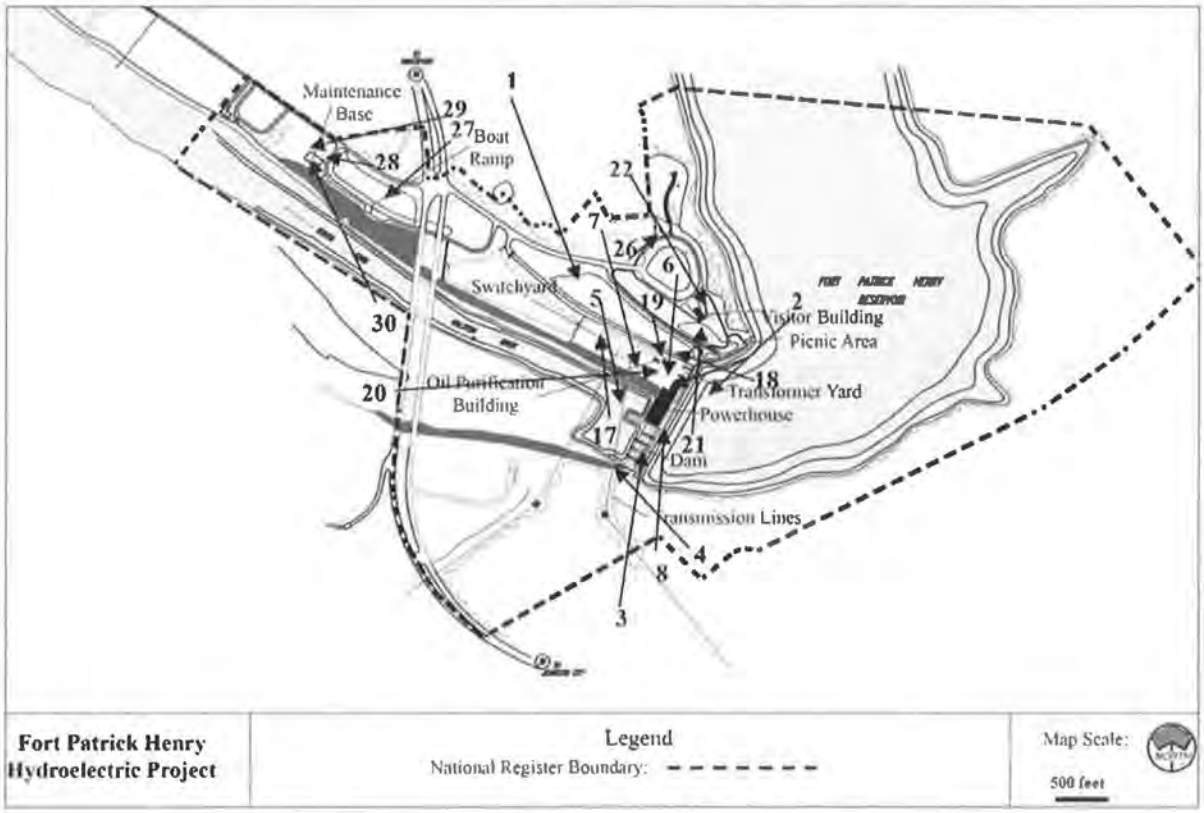
26 of 30 - Picnic Area, looking northeast.

27 of 30 - Boat Ramp, looking south.

28 of 30 - Maintenance Base, main building, looking west.

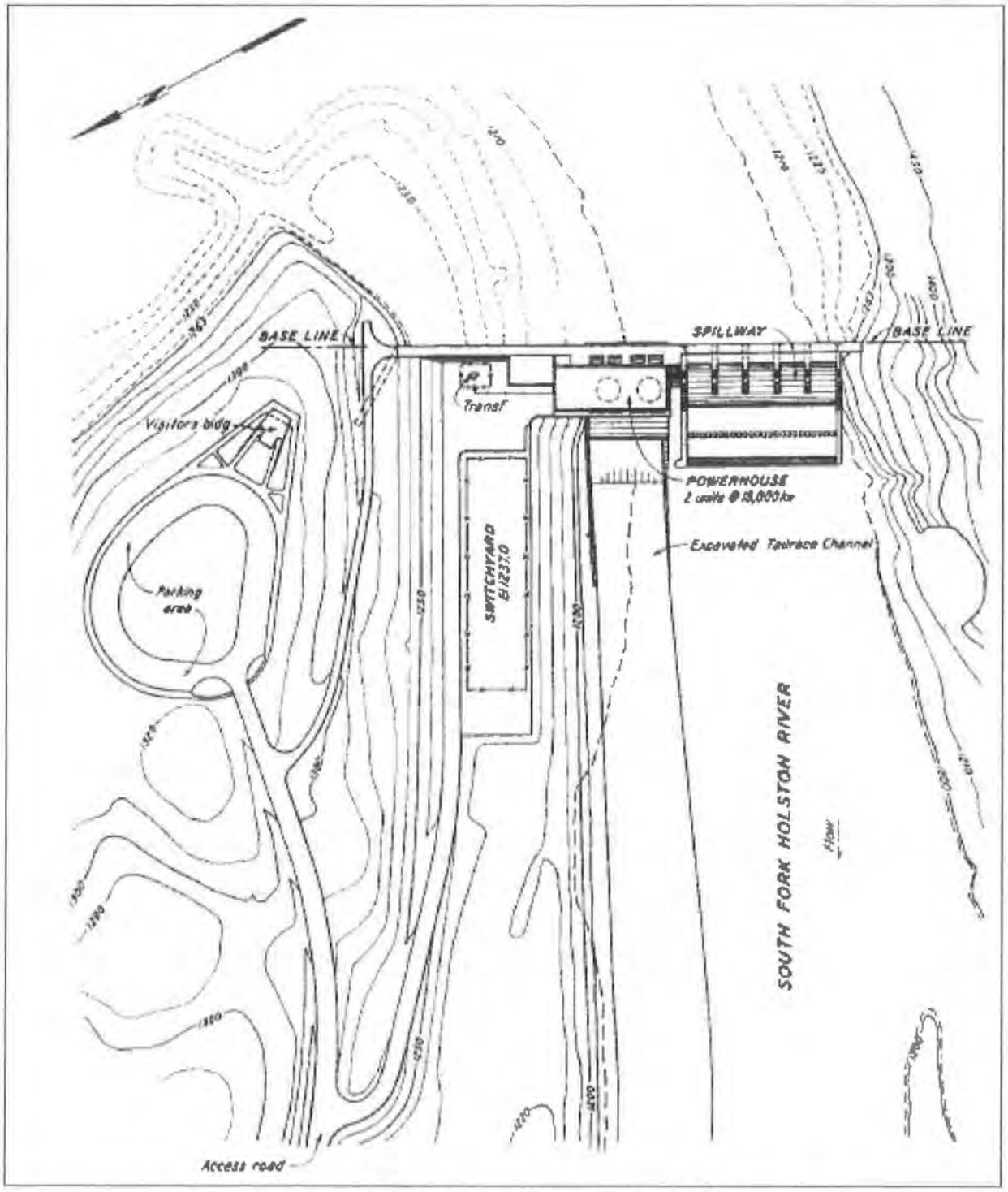
29 of 30 - Maintenance Base, open air equipment shed, looking southwest.

30 of 30 - Maintenance Base, chemical storage building looking northwest.



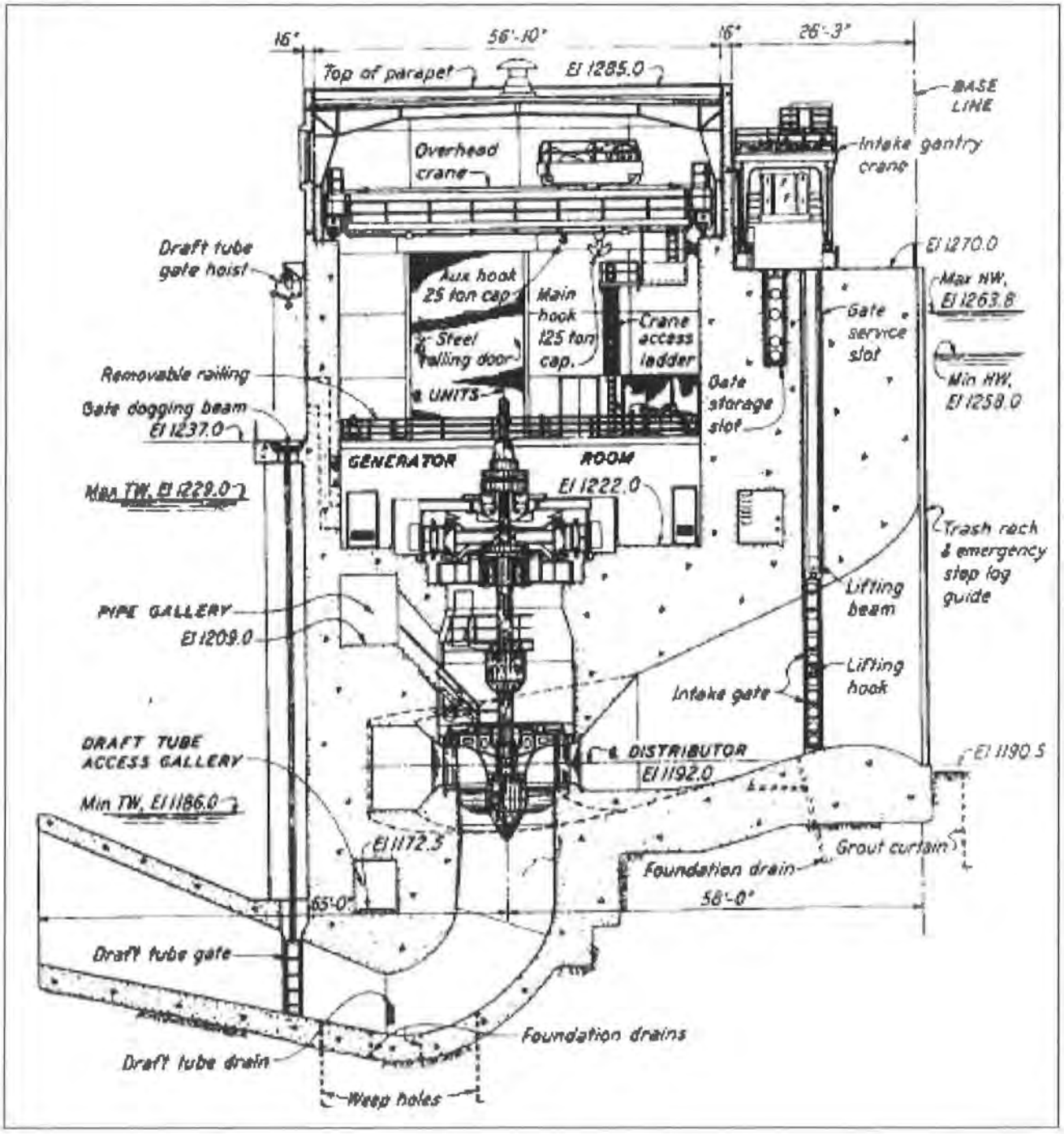
Fort Patrick Henry Photo Key Map
(see 11 x 17" Photo Key Map)

Site Plan



TVA Site Plan of Fort Patrick Henry Dam and Reservoir

Schematic



Transverse section Thru Powerhouse

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

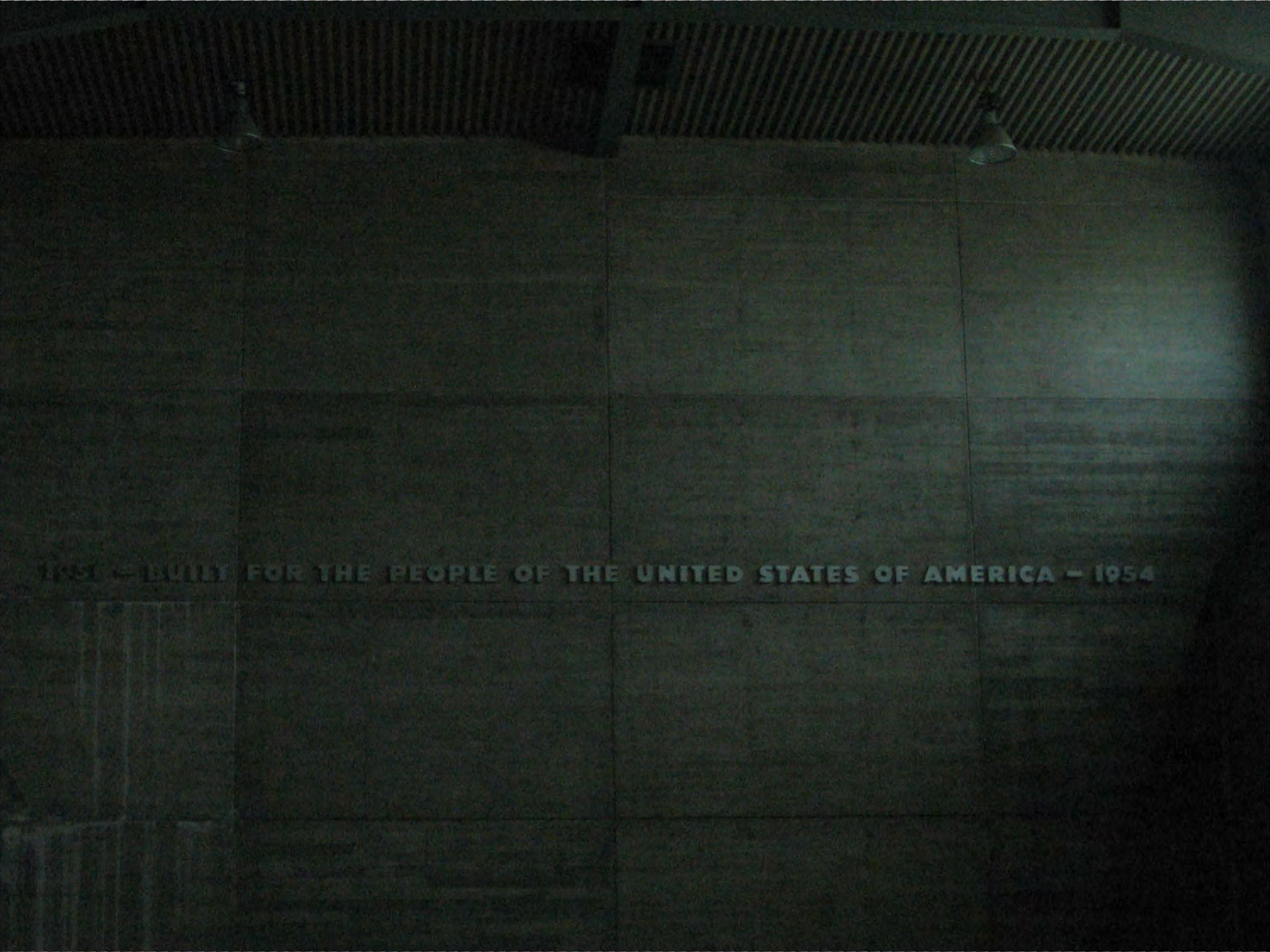

PORT PATRICK HARDY

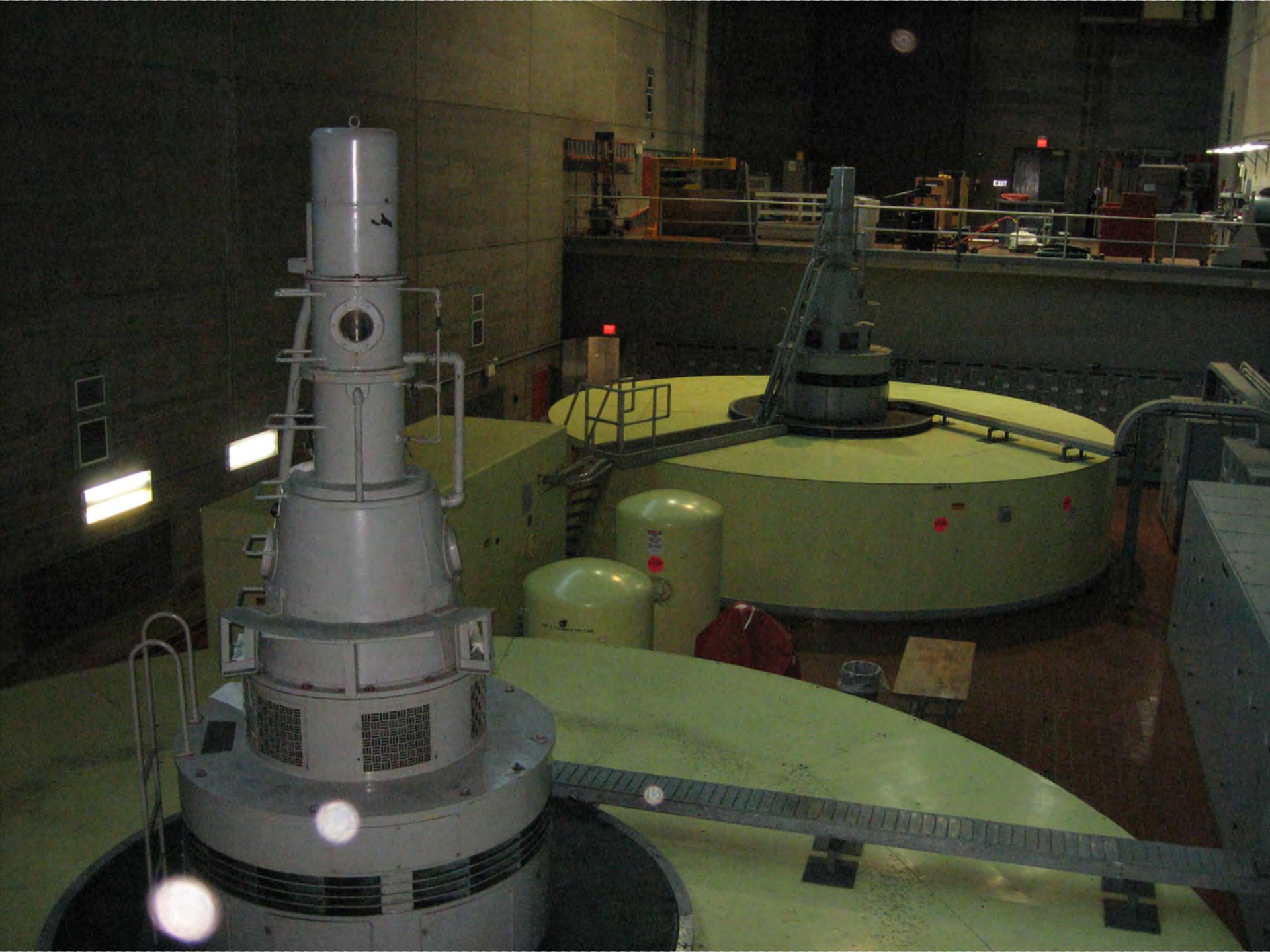

FORT PATRICK HENRY

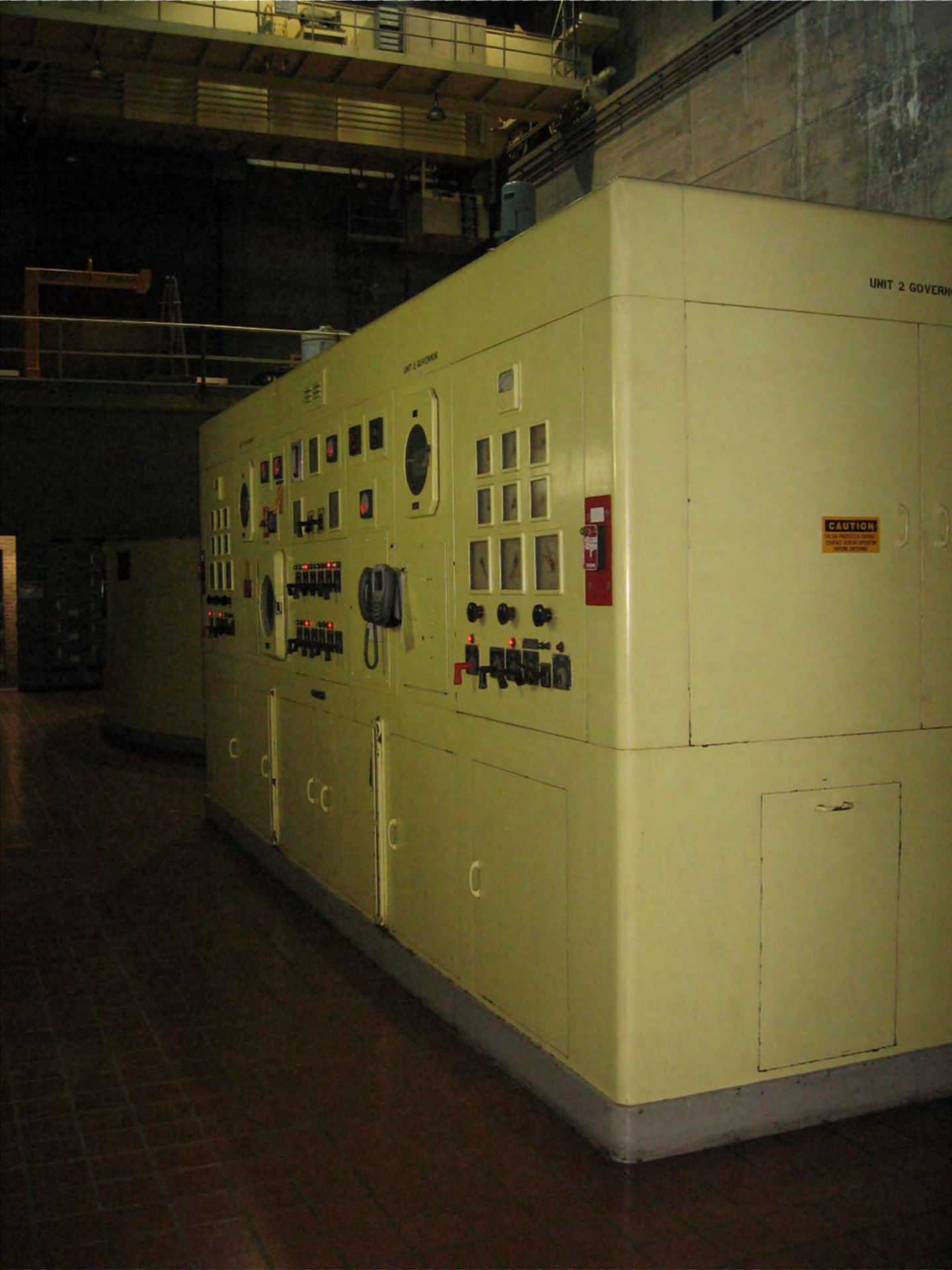

FORT PATRICK HENRY
DANGER
AUTOMATIC TURBINES
KEEP AWAY
DANGER
FLASHING LIGHTS SOUNDING
OF SIREN MEANS RISING
AND DANGEROUS WATERS
KEEP AWAY


EMERGENCY
STOP
FOR CRANE


WORK
THE PROMISE
WE MAKE TO
EACH OTHER
SAFE


1951 – BUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA – 1954




UNIT 2 GOVERN
CAUTION


CAUTION


FIRE HOSE


3560

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:	Fort Patrick Henry 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:	MP100001477
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

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- 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.

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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-1477

RECEIVED
JUN 30 2017
Nat. Register of Historic Places
National Park Service

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: Fort Patrick Henry Hydroelectric Project

Other names/site number: Fort Patrick Henry Dam

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

2. Location

Street & Number: Route 1 Box 2385

City or town: Kingsport State: Tennessee County: Sullivan

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.

Returned

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 11-9-16
Signature of certifying official/Title: **Date**

Sr. Program Mgr., Tribal Relations & 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: Claudette Lyon **Date** 11-30-16

Deputy State Historic Preservation Officer,
Tennessee Historical Commission

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

Fort Patrick Henry Hydroelectric Project | Sullivan County, Tennessee
Name of Property | 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	
3	1	buildings
1	1	sites
4	1	structures
0	0	objects
8	3	Total

Number of contributing resources previously listed in the National Register 0

Fort Patrick Henry Hydroelectric Project | Sullivan County, 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

MODERN MOVEMENT: Streamlined Moderne
OTHER: Hydroelectric Dam

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

Narrative Description

The Fort Patrick Henry Hydroelectric Project was constructed from 1950-1953 by the Tennessee Valley Authority (TVA). The project is located on the South Fork of the Holston River within the city of Kingsport (pop. 52,777 in 2010) in Sullivan County. It is located eight miles above the South Fork of the Holston River's confluence with the North Fork of the Holston River (which forms the Holston River proper). It is the lowermost of three dams on the South Fork of the Holston River owned and operated by TVA, which built the dam in 1953 to take advantage of the hydroelectric potential created by the regulation of river flow with the completion of the Watauga, South Holston, and Boone Hydroelectric Projects, which were built further upstream. The Fort Patrick Henry Dam impounds the 872-acre, 10.3-mile long Fort Patrick Henry Reservoir (also called Fort Patrick Henry Lake), which provides 27,100 acre-feet total volume.[1] Fort Patrick Henry

[1] 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), 4.

Reservoir lies in Sullivan and Washington Counties. While originally built for hydroelectric generation, the dam now plays an important role in the regulation of water flow and water temperature for the John Sevier Fossil Plant and other industrial plants downstream. The Fort Patrick Henry Hydroelectric Project is named for the Revolutionary War-era fort which was located at nearby Long Island of the Holston (National Register-listed, 10-15-1996).

INVENTORY

Construction of the Fort Patrick Henry project began August 29, 1950 and the dam was closed October 27, 1953. The facility was placed in commercial operation December 5, 1953. The Fort Patrick Henry Hydroelectric Projectôs principal structures spanning the river from south to north include a concrete non-overflow section, a five-bay spillway, a concrete intake and powerhouse, and a concrete non-overflow section. The overall crest length is 737 feet (*see Photos 1 and 2*).[2] The project also includes a control bay structure located downstream of the dam, adjacent to the powerhouse. The switchyard is on the east bank downstream from the non-overflow dam. At the top of the hill overlooking the dam is an original visitorôs building. Since completion of the original project, other buildings and sites have been added to the property.

1. Fort Patrick Henry Dam, 1953 (Contributing Structure)

The Fort Patrick Henry Dam is a concrete gravity spillway dam constructed mainly of concrete and steel and consists of the spillway and non-overflow sections to either side. Beginning at the left (south) bank is a twenty-seven-foot long concrete non-overflow dam, next to the 214-foot spillway with five bays, each measuring thirty-five feet in width, next to the powerhouse (*see Photo 3*). The bays are divided by concrete piers, each six-and-one-half feet wide. The spillway capacity is 141,000 cubic feet per second. There is another concrete non-overflow dam on the other side of the spillway. This short dam adjoins the powerhouse; on the other side of the powerhouse is a straight concrete gravity non-overflow dam, 204.5 feet in length. The Fort Patrick Henry dam is at an elevation of 1263 feet at the top of its gates. The gates are operated by five (5) sixty-six-ton capacity fixed hoists. The maximum height of the dam is ninety-five feet above the foundation (*see Photo 4*), which consists of Nolichucky shale and Honaker limestone and dolomite. The project required 72,500 cubic yards of concrete and 30,400 cubic yards of earth and/or rock fill.[3]

A drain curtain was originally installed as part of the design under the dam structures to counter seepage potential at the foundation and to reduce uplift pressures. The drain curtain is about ten feet from the upstream face of the dam. Holes in the drain curtain were designed on eight-and-one-quarter-foot centers (the center of each drain is that distance from the center of the next drain) under the foundation of the spillway and non-overflow dam; however, where the foundation was irregular, the holes are on seven-foot centers. The holes are specified to extend to thirty-five feet below the base of the structures.[4] Below the spillway is a concrete stilling pool (*see Photo 5*).

[2] 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.
[3] Ibid., 23, 314.
[4] Ibid., 320.

2. Powerhouse, 1953 (Contributing Building)

The Fort Patrick Henry Powerhouse measures 151.5 feet in length and 59.5 feet in width. The powerhouse is the indoor type of reinforced concrete construction and has a structural steel roof.[5] It has two unit bays and a service bay the project name appears on the downstream wall (west) of the powerhouse in red porcelain enameled steel letters. Next to the letters there is a partial-width clerestory bank of fixed, vertical-light windows. On exterior walls, tongue-in-groove form boards were used to impart a textured surface. The control building is a one-story wing on the north side of the powerhouse. It is sixty-two feet in length and has textured concrete walls and a flat roof. The upstream side of the dam forms its back (east) wall; its front elevation is recessed from that of the main block of the powerhouse. The façade of the control building has three three-light aluminum windows and a solid steel pedestrian door. In the north wall of the projecting powerhouseôs main block is a large, overhead-tracking, metal bay door. There is a metal rail across the walkway in front of the ground level of the powerhouse (*see Photo 6*).

The intake is integral to the dam and provides water to the two turbines. The concrete structure consists of two blocks, each fifty-eight feet long and forty-one feet and nine inches wide. Each intake passage has one set of two gates (*see Photo 7*). The gates can close off the intake passages for inspection and maintenance or in an emergency. Each gate section is operated by a twenty-ton gantry crane on the intake deck on the rear (east) elevation of the powerhouse (*see Photo 8*). The crane has a structural frame with a wheel at each corner. Steel plate housing protects hoist equipment from the elements. There is a metal rail along the outside track of the crane and another metal rail on the outside edge of the intake deck. The powerhouse has a tail-race channel approximately three-quarter mile in length.[6]

The powerhouse is entered via the one-story control roomôs ground floor. The interior of the control room has original plaster walls and ceilings and linoleum floors (*see Photo 9*). The building has a sub-floor that contains the communications room, fan room and spreading room. It is accessed via a concrete staircase with aluminum treads. The ground floor of the control room is at the same level as the powerhouseôs lobby and mezzanine. Inside the powerhouse, the lobby has original ceramic tile floors and fired tile walls. The mezzanine has ceramic tile floors and overlooks the generator room. A stairwell with ceramic tile floors and fired tile wall leads down to the generator room floor (*see Photo 10*). The machine shop is located in the generator room, which has ceramic tile floors, poured concrete walls with form board texture, and metal and steel beam ceiling (*see Photo 11*). On the north interior wall of the generator room is metal lettering with the sign, ñ1950 ï BUILT FOR THE PEOPLE OF THE UNITED STATES OF AMERICA-1954ò (*see Photo 12*). The powerhouse has two adjustable-blade, propeller type turbines directly connected to two vertical shaft generators each with a capacity of 18,000 kilowatts at sixty-one-foot head at 0.9 power factor *(see Photo 13*). The generators were built at Newport News Shipbuilding and Dry Docks in Newport News, Virginia, in 1953. The powerhouse is equipped with a 125-ton gantry cane for maintenance of the generators.[7] On initial installation, the powerhouseôs generating capacity was 36,000 kilowatts in two units.[8] The control cabinets are also located on the floor of the generator room (*see Photo 14*). Restrooms with the powerhouse have concrete floors, glazed tile

[5] TVA powerhouses varied in type. Indoor powerhouses have their turbines completely enclosed within the building. This differs from semi-outdoor type powerhouses, where the turbines project through the roof of the building and are shielded from the elements by materials appropriate for outdoor use.
[6] Tennessee Valley Authority, *The Upper Holston Projects*, 314, 330-32, 346-48.
[7] Ibid.
[8] Ibid., 1029.

walls, and marble stall partitions (*see Photo 15*). Within the substructure of the powerhouse, a cable tunnel connects to the switchyard (*see Photo 16*).

3. Transformer Yard, 1953 (Contributing Structure)
The transformer yard containing the main transformer is located to the north of the control building within an enclosure measuring thirty-five by forty-four feet (*see Photo 17*). The electrical current of the transformer is carried to the switchyard via an overhead line. The transformer equipment is sited on a concrete pad and the yard is surrounded by a chain link fence.

Switchyard Area- 2 resources
The switchyard is downstream from the dam on the north bank of the river and includes one structure and one building as follows:

4. Switchyard/Transmission lines, 1953 (Contributing Structure)
The 69-kilovolt switchyard is enclosed within an area measuring eighty-two feet by 300 feet (*see Photos 18-19)*. The equipment rests on earth and gravel fill, and surrounding the switchyard is a chain link fence. The sixty-nine-kilovolt switching structure is made up of structural steels angles and plate gussets and consists of five transverse, steel trussed-framed bents, each with integral tower and ground wire peak. These bents are spaced on twenty-six-foot centers (the center of each bent is twenty-six feet from the next) and are connected with longitudinal trussed box members which serve as pull-off appurtenant electrical equipment. Columns are spaced on thirty-foot centers. Insulators are of porcelain.

5. Switchyard Oil Purification Building, 1953 (Contributing Building)
Within the switchyard enclosure is the oil purification building constructed in 1953 (*see Photo 20)*. This is a one-story, reinforced concrete building measuring forty feet in length by eighteen feet in width. The building houses the insulating oil purification and pumping equipment as well as fire protection equipment. The exterior walls are of scored poured concrete and the interior consists of concrete floors, walls and ceiling. The windows on the west elevation are original single-light fixed design. On the façade (south) are single and paired single-light, glass and steel doors.

6. Visitor Building, 1954 (Contributing Building)
On a hillside north of the dam is a Visitor Building constructed in 1953 in Mid-Century Modern style (*see Photos 21-25*). The building is a variation of a standardized plan used by TVA at other hydroelectric facilities. The building rests on a concrete foundation and has a flat roof and an exterior of random-course stone veneer. Original, full-height single-light, fixed windows with lower hopper panels span three sides on the cantilevered south elevation of the building (see Photo 21). A T wing projects from the rear (north) elevation. Its walls are random-course stone veneer and are sloped on the north end. In between the sloped walls, the north elevation of the building has four vertical fixed light windows each over a smaller horizontal-light window, all above a skirt wall with vertical wood board siding. A concrete ramp with metal railing runs along the east elevation of the building and leads to the main entrance in the north side of the observation room. This entrance has a single-light glass and metal door (*see Photo 22*).

The visitor building has two levels. The main (upper) level is reached by two concrete ramps, and this level contains the visitorôs reception room and office spaces, overlooking the project site (*see Photo 23*). The interior

of the reception room retains its original maroon-colored tile floor and acoustical tile ceiling. On the north wall of the reception room is a mural painted by Robert Birdwell in 1955 depicting various aspects of TVAôs contributions to the region (*see Photo 24*). Birdwell, a TVA staff artist, also painted a mural featured within the visitor building at the Boone Hydroelectric Project. The lower level contains storage spaces and public bathrooms with original marble walls and partitions and original fixtures (*see Photo 25*). Leading into the bathrooms are original solid wood doors with louvered vents.

7. Picnic Area, 1954 (Contributing Site)
To the north of the Visitorôs Building is a landscaped picnic area containing a series of original concrete and ca. 1980 added metal picnic tables (*see Photo 26*). Concrete walkways connect the picnic area with the adjacent parking area.

8. Boat Ramp ca. 2010 (Non-Contributing Site)
On the north bank of the river downstream from the dam and powerhouse is a boat ramp which was rebuilt ca. 2000 with an asphalt driveway and stone riprap along the river (*see Photo 27*).

Maintenance Area- 3 resources

On the north bank of the river to the northwest of the dam and powerhouse is a maintenance area containing three buildings and structures constructed ca. 1980. These are:

9. Maintenance Building, ca. 1980 (Non-Contributing Building)
The main building has a concrete foundation, an exterior of aluminum panel siding, and a flat, metal roof. The building has no windows, one steel pedestrian door, and one overhead track door (*see Photo 281*).

10. Shed, ca. 1980 (Non-Contributing Structure)
This is a ca. 1980 open air shed with square, wood posts and a wood-frame, shed roof with standing-seam metal (*see Photo 29*).

11. Chemical Storage Structure, ca. 1953 (Contributing Structure)
This is a 1953 one-story, brick structure for chemical storage with a flat roof and two openings covered with chain-link gates (*see Photo 30*).

Fort Patrick Henry Hydroelectric Project | Sullivan County, Tennessee
Name of Property | 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

Statement of Significance Summary Paragraph

The Fort Patrick Henry 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 Fort Patrick Henry Hydroelectric Project is significant in the improvement of quality of life in the region through transmission of electricity, control of seasonal flooding, and creation of public recreational facilities. The Fort Patrick Henry 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. Objectives of the 1933 Tennessee Valley Authority Act were the creation of a continuously navigable nine-foot channel from the mouth of the Tennessee River to Knoxville, in addition to flood control, power generation, and public benefits. Given its location east of Knoxville, the Fort Patrick Henry project was not original to TVAôs unified plan (for navigation) submitted to Congress in 1936. Construction of the Fort Patrick Henry project began August 29, 1950 and the dam was closed October 27, 1953. Generator Unit 2 was placed in commercial operation December 5, 1953 followed by Unit 1, on February 22, 1954.[9] The projectôs significance in engineering is reflected in TVAôs overall plan for an integrated system of river management through site-specific designs tested on scaled models. The significance of the Fort Patrick Henry project in industry is seen through the increase of household electricity use and in war-related manufacturing. The project is significant in the area of military for its contributions to the war effort. The project is significant in recreation because of the extensive outdoor opportunities it fostered. Finally, the project is significant in social history for its role in employment, housing, and improvement of quality of life.

Under criterion C, the Fort Patrick Henry Hydroelectric Project is a notable example of the Streamlined Moderne style of the twentieth century. This style is expressed in the design of the dam and the interior and exterior of the powerhouse. Few changes have occurred to the exterior of these structures, and they retain integrity of their original design. The Fort Patrick Henry Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979.ò

Narrative Statement of Significance

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 Watauga with South Holston. Together, the projects were key for flood control and power production. The House and Senate agreed on TVAôs requested funding for the projects, and President Harry Truman approved the projects 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. The Korean War began in June of 1950 which greatly increased the demand for power from TVAôs system for regional defense industries.[10]

The Fort Patrick Henry project required the purchase of 1,466.19 acres of land, a total of 145 tracts, displacing twenty-two (22) families. Seventy percent (101) of the tracts were acquired from private owners, accounting for just thirty-one percent (454.29) of total acreage. Of this area, 167 acres were wooded and required clearing. The

[9] Tennessee Valley Authority, *The Upper Holston Projects*, 1, 3.
[10] Ibid., 18-20.

remaining tracts were purchased from the East Tennessee Light and Power Company, which had bought the land several years before in connection with other proposed projects. Of the land acquired for the project, ninety-eight per cent was by voluntary transfer, while the remainder was by condemnation for title issues (one tract) or for refusal to sell (three tracts). The area of the Fort Patrick Henry project was similar to other Upper Holston project areas in the degree of suburban development surrounding several towns. Only twelve of the 145 tracts were classified as farm property. Several of the acquired tracts were located among four subdivisions, which influenced land costs. These were purchased for an average of $951 per acre for land ($533) with improvements ($418). Of the twenty-two families affected, seventeen were non-farming, while two were farm owners, and three were farm tenants. The Fort Patrick Henry project area was investigated for cemeteries, and no relocation of graves was required.[11]

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 three in the Fort Patrick Henry Reservoir.[12]

In the course of the project, just two miles of roads and highways were constructed, relocated, resurfaced and/or improved in Sullivan County. One bridge was built across the Fort Patrick Henry Reservoir, and just over one mile of utility lines were adjusted or constructed.[13]

Total land costs for the project amounted to $793,566, 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 $9,594,709. Indirect construction costs, including accounting, timekeeping, office supplies, and police service, came to $536,259. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians, and inspectors, amounted to $873,137. These amounts plus other categorized costs brought the total project to $12,419,842.[14]

Since its construction the powerhouse has not been significantly altered and retains its original exterior and interior design and detailing. The original visitor center also retains much of its original design.

SIGNIFICANCE IN ARCHITECTURE

TVAôs hydroelectric projects were designed to embody its mission for social progress. The goals and achievements of these projects - power production, navigation, flood control, malaria prevention, reforestation,

[11] Ibid., 23, 764-66, 815, 853.
[12] Ibid., 770-772.
[13] Ibid., 23.
[14] Ibid., 871.

and erosion control ï reached across the Valley region penetrating Americaôs social and economic strata. Architect Roland Wank impressed upon a receptive board of directors that government projects were beholden to their real stockholders, the American taxpayers, and should be open for public viewing. Further, Wank stated that the design of powerhouses should both welcome the public and convey strength in purpose. Thus, TVA powerhouses were designed as massive monoliths with visitor reception areas.[15] A prominently displayed message in every TVA powerhouse would emphasize the project as ñBuilt for the People of the United States of America.ò

The pre-World War II TVA projects exemplify the Streamlined Moderne style, a late version of the Art Deco style popular during this period. Streamlined Moderne was an expression of progress, a particularly important underpinning of the New Deal agenda. Stylistic elements that manifested this ideology include the use of geometric shapes, basic and pure in form, sleek and shiny materials evoking machinery and movement, and restrained décor suggesting an economical design ethic. Streamlined Moderne architecture often emphasized curved forms and horizontal lines, sometime including nautical motifs.

The design of the Fort Patrick Henry dam and powerhouse reflects the ñmodernismò that the TVA architects and engineers strived for in the 1930s and early 1940s. The dam was built utilizing the most advanced methods of its time, and the powerhouse was built with Streamlined Moderne characteristics on both its exterior and interior. The Fort Patrick Henry powerhouse retains several elements expressing the style. The generating units themselves convey the Streamlined Moderne style, with their smooth-finish metal housing and perfectly cylindrical form. The powerhouse interior retains its original interior aluminum doors, original light fixtures, interior wall and floor finishes, and original restroom fixtures and finishes. These elements express the polished minimalism of the Streamlined Moderne architectural style.

SIGNIFICANCE IN ENGINEERING

The Fort Patrick Henry 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 Fort Patrick Henry Damôs release provides power to the Cherokee Hydroelectric Project downstream. Above Fort Patrick Henry Dam, the Fort Patrick Henry Reservoir extends upstream to Boone Dam. Releases from the Boone Dam provide power to the Fort Patrick Henry 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.

[15] North Callahan, *TVA ï Bridge Over Troubled Waters: A History of the Tennessee Valley Authority*, (Cranbury, NJ: A. S. Barnes and Co., Inc., 1980), 33; and Erwin C. Hargrove, *Pioneers of Myth: The Leadership of the Tennessee Valley Authority, 1933-1990*, (Princeton, NJ: Princeton University Press, 1994), 30-33.

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 Fort Patrick Henry 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 twenty-four 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.[16]

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 the 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.[17] Additionally, the Fort Patrick Henry Hydroelectric Project was built to supply water for local industry and cooling water to TVAôs John Sevier Fossil Plant. This coal-fired power plant was constructed beginning in 1952 and completed in 1957.[18]

Since then 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.[19] Today the Fort Patrick Henry Hydroelectric Project, with two generating units, has a net dependable capacity (average daily power produced minus what is used by the dam itself) of forty-one (41) megawatts.[20]

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 attracted outdoor enthusiasts who enjoyed fishing, boating, camping, and hiking in the environs the TVA helped create, re-forest, and conserve. Today, the agency operates some 100 public recreation areas throughout the TVA region.

[16] Ibid., 24.
[17] Ibid., 18-19.
[18] Tennessee Valley Authority, ñFort Patrick Henry Reservoir,ò TVA webpage http://www.tva.com/sites/fortpatrickhenry.htm and ñJohn Sevier Fossil Plant,ò and TVA webpage http://www.tva.com/sites/johnsevier.htm accessed June 22, 2105.
[19] ñEconomic Development,ò at TVA webpage http://www.tva.com/econdev/index.htm accessed May 5, 2015.
[20] ñFort Patrick Henry Reservoirò webpage.

The State of Tennessee requested for development the five public access areas designated by TVA. From the beginning of planning stages of the Fort Patrick Henry project, there were plans for a state park. This was the first instance of participation of a state agency throughout the process of a TVA hydroelectric project. Also unique to the project was the swapping of lands between the State and TVA: the State of Tennessee transferred to TVA sixty-eight acres essential to the reservoir, while TVA transferred 415 acres to the State for its park. This land was combined with additional purchases from private owners for the creation of Warriors Path State Park, on both sides of the reservoir for a distance of three miles. Within the park the State built a large boat harbor, a picnic area, and roads, including a new bridge across the reservoir and passing through the park. TVA built a visitorôs building and parking areas within the project reservation.[21] The reservoir enhanced the natural scenic beauty and recreational opportunities of a multi-metropolitan industrial area with growing populations.

A component of TVAôs hydroelectric projects was the accommodations for visitors. At many of the projects built in the 1930s, visitors were greeted by ornate lobbies within the control buildings or powerhouses and could view the turbines and generators from visitor galleries. At other projects such as at Fort Patrick Henry, separate Visitorôs Buildings were constructed to provide expansive views of the project and reservoirs. Some of these buildings were also decorated with murals or other descriptive panels or exhibits describing the work of TVA. The Visitor Building at Fort Patrick Henry is one of the best preserved of those built by TVA in the 1950s.

SIGNIFICANCE IN SOCIAL HISTORY

At the end of World War II, it was hoped that returning GIs would fill the personnel vacancies at the Upper Holston hydroelectric projects. A local housing shortage, however, resulted in veterans refusing TVA job offers. 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 Fort Patrick Henry. 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.[22]

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 Upper Holston project required a far greater medical staff than at previous project sites. The medical staff at Watauga moved on to the South Holston project and then to the Boone project, and on May, 21, 1951, a medical aid was assigned to Fort Patrick Henry with supervision from Boone. Because the latter two projects were running concurrently, TVA employed a large medical staff with two resident officers, a nursing staff, nurse technicians, and medical aides in order to provide adequate care at both facilities, ten miles apart. The Boone medical building originated at and was moved from the Watauga site for re-use at Boone.[23]

[21] Tennessee Valley Authority, *The Upper Holston Project*, 860-61.
[22] Ibid., 525-27.
[23] Ibid., 1133-1135.

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 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.[24] Employment at the Fort Patrick Henry project peaked at over 450 hourly workers in the first quarter of 1953 and remained at that level into the third quarter of the year 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.[25]

Due to Fort Patrick Henryôs 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 projects, twenty and twenty-eight mile distant, respectively. No cafeteria was built at either project site, and no food service of any type was needed at Fort Patrick Henry.[26]

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 homesites, not vast 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 homesite 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.[27]

[24] Ibid., 529, 531.
[25] Ibid., 530.
[26] Ibid., 398-99.
[27] Ibid., 755, 758, 771.

In the course of the project, a total of two (2) miles of roads were affected by the project in Sullivan County. No state highways or railroads were affected. The major road project resulting from the Fort Patrick Henry Project involved the existing Moody Bluff Bridge over the South Fork of the Holston River. The one-lane, 533-foot long structure was sited such that improvements would have been more costly than relocation. After prolonged negotiations between TVA and Sullivan County, agreed to construct a new bridge at a new location next to Warriors Path State Park, then in development.[28] The road and bridge improvements contributed to an upgrade in local infrastructure, benefitting commerce and quality of life for area residents.

SUMMARY

The Fort Patrick Henry Hydroelectric Project is one of twenty-five 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 later electricity to the region. 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 Fort Patrick Henry Reservoir is a popular recreational spot for camping, hiking, and especially game fishing, drawing tourism dollars to local economies.

The Fort Patrick Henry Hydroelectric Project retains much of its integrity from its original design in the 1950s. The dam and powerhouse have not been significantly altered, and the powerhouse displays its original modest Streamlined Moderne design in its exterior and interior detailing. The project continues to be an integral part of the TVA system. The Fort Patrick Henry Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, ñHistorical Resources of the Tennessee Valley Authority Hydroelectric Project,ò and this MPDF contains additional contextual information concerning TVA and its hydroelectric system.

[28] Ibid., 806-07.

9. Major Bibliographic References

Bibliography

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

ñHistory of the Tennessee Valley Authority.ò At TVA website http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed April 16, 2015.

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

Tennessee Valley Authority. *Design of TVA Projects Technical Report No. 24, Vol. 1, Civil and Structural Design*. Washington, D.C.: U.S. Government Printing Office, 1952.

_____. *The Fort Patrick Henry Project: A Comprehensive Report on the Planning, Design, Construction, and Initial Operations of the Fort Patrick Henry Project, Technical Report no. 7.* Washington, D.C.: U.S. Government Printing Office, 1946.

_____. ñFort Patrick Henry Reservoir.ò At TVA webpage http://www.tva.com/sites/fortpatrickhenry.htm. Accessed June 22, 2105.

_____. ñJohn Sevier Fossil Plant.ò At TVA http://www.tva.com/sites/johnsevier.htm. Accessed June 22, 2105.

Fort Patrick Henry Hydroelectric Project — Name of Property
Sullivan County, 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):			

Fort Patrick Henry Hydroelectric Project | Sullivan County, Tennessee
Name of Property | County and State

10. Geographical Data

Acreage of Property å 158 acres **USGS Quadrangle** Kingsport 188 SE
Sullivan Gardens 189 NE

Latitude/Longitude Coordinates

A. Latitude: 36.503340 Longitude: -82.515963

B. Latitude: 36.503328 Longitude: -82.500615

C. Latitude: 36.495656 Longitude: -82.515914

D. Latitude: 36.495638 Longitude: -82.500304

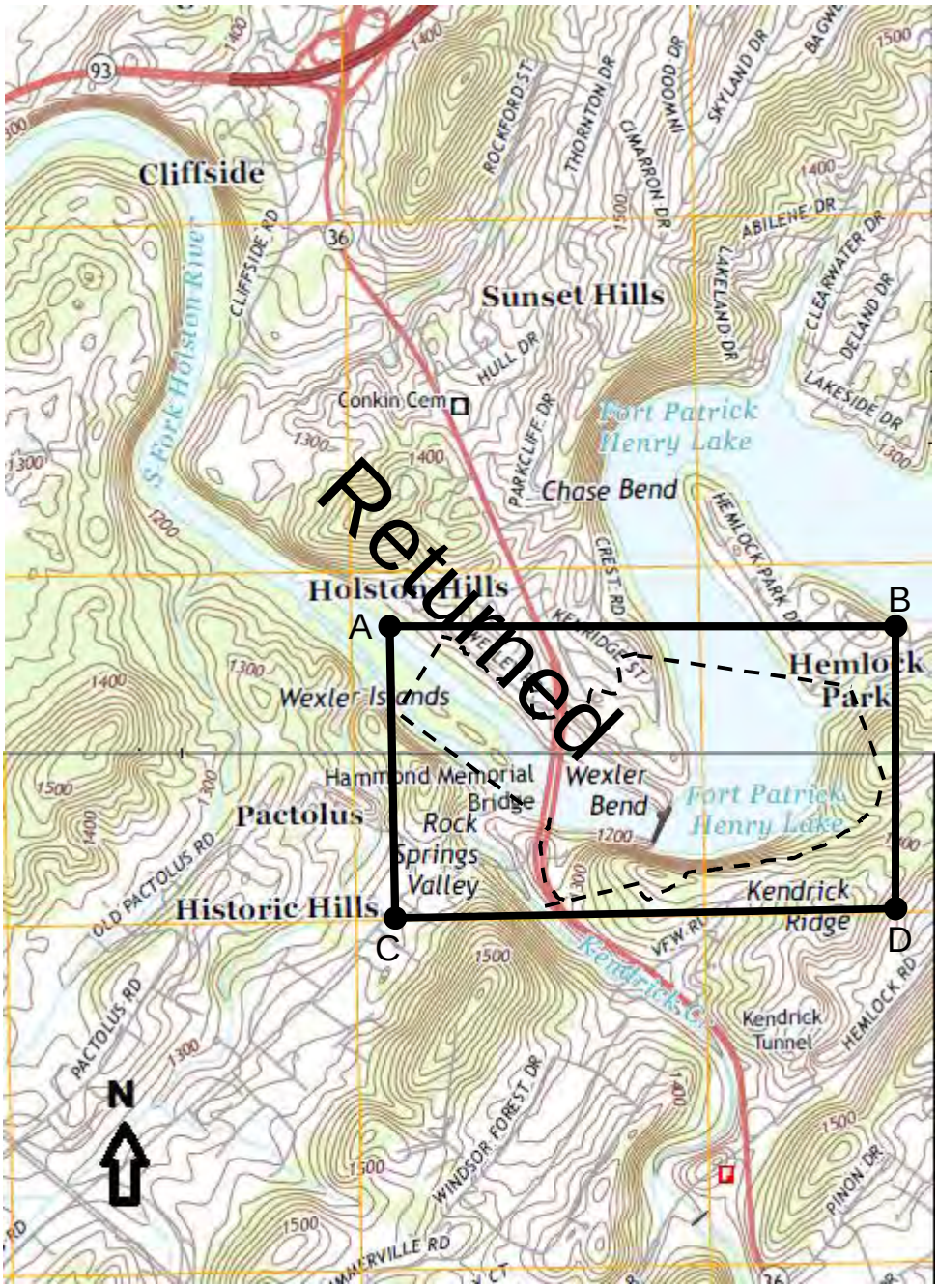
Verbal Boundary Description

The boundary for the Fort Patrick Henry 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 Fort Patrick Henry reservation boundary on the northeast and southeast. On the west, the National Register boundary departs from the reservation boundary and follows the curve of Highway 36 to the north until it meets the Holston River, then angles to the northwest and continues along the south bank of the river and turns north to cross the river at a point that encompasses a boat launch and parking area on the north bank. From there, the boundary continues in a southeasterly, then easterly direction overlaying the reservation boundary. The overlaying boundaries turn at a right angle to the north, then the National Register boundary departs from the reservation boundary at a right angle to the east to cross the Fort Patrick Henry reservoir and then rejoins the reservation boundary on the northwest. The northern boundary line, thus, includes only that portion of the reservoir necessary to encompass the main land area of the district resources.

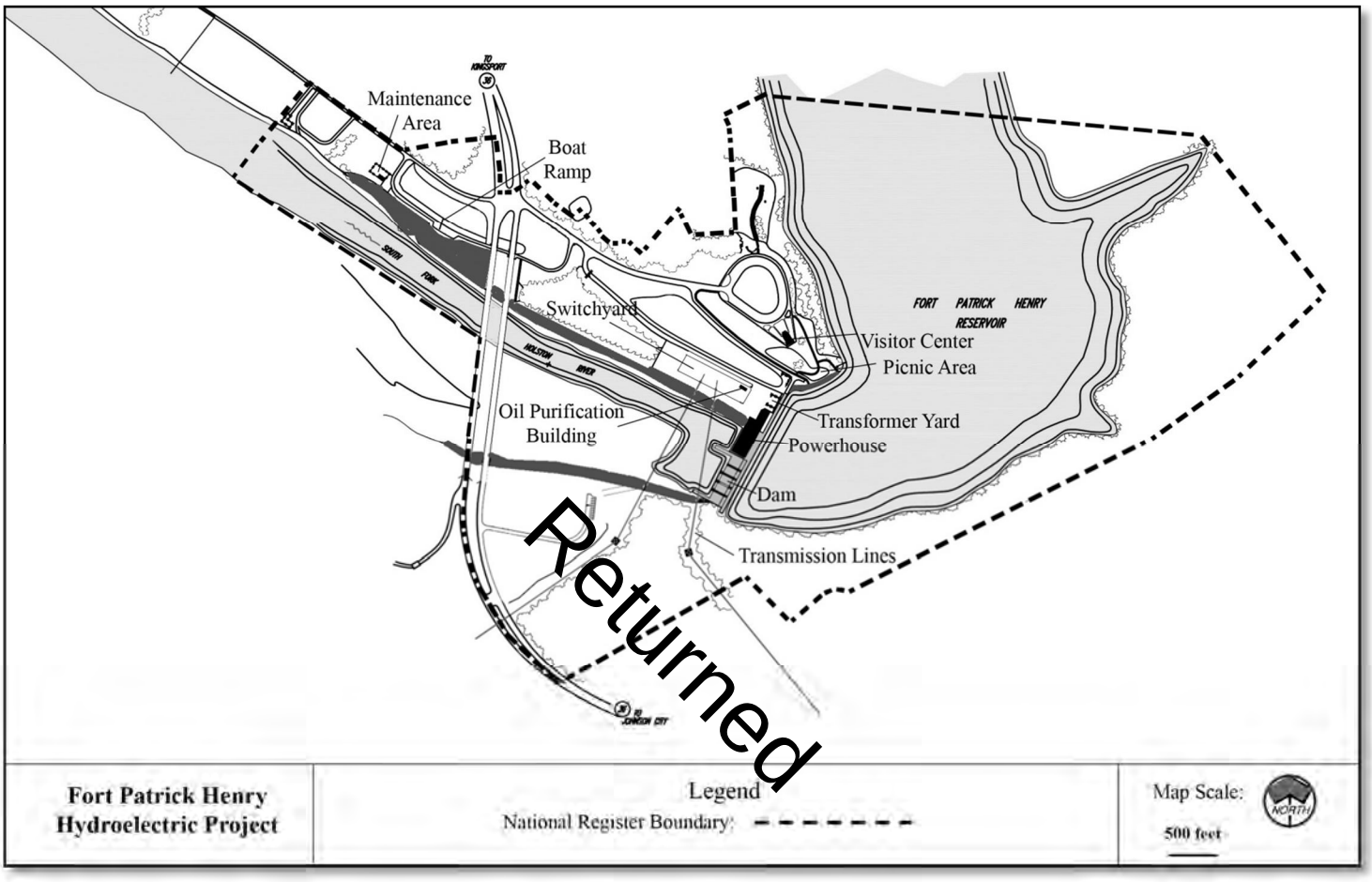
Boundary Justification

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

Kingsport and Sullivan Gardens USGS Topographical Quadrangles depicting the National Register Boundary of the Fort Patrick Henry Hydroelectric Project



Fort Patrick Henry Hydroelectric Project | Sullivan County, Tennessee
Name of Property | County and State



Site Plan and National Register Boundary for Fort Patrick Henry Hydroelectric Project
(see 11 x 17" map enlarged version)

Fort Patrick Henry Hydroelectric Project | Sullivan County, 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 26, 2016
City or Town	Nashville	Telephone	615-385-4960
E-mail	Thomason@bellsouth.net	State TN	Zip Code 37212

Additional Documentation

Returned

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

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

1 of 30 - General View of Fort Patrick Henry Dam, looking southeast.

2 of 30 - Fort Patrick Henry Dam on reservoir side, looking southwest.

3 of 30 - Across top of dam, looking north.

4 of 30 - Side wall of dam, looking northwest.

5 of 30 - Fort Patrick Henry Dam, looking southeast.

6 of 30 - Powerhouse exterior, northwest elevation, looking south.

7 of 30 - Powerhouse exterior, west elevation, looking southeast.

8 of 30 - Powerhouse exterior, east elevation, looking north.

9 of 30 - Powerhouse interior, control room.

10 of 30 - Powerhouse interior, lobby stairwell with tile floor and fired tile walls.

11 of 30 - Powerhouse interior, generator room signage on south elevation.

12 of 30 - Powerhouse interior, generator room machine shop.

13 of 30 - Powerhouse interior, generators from overlook mezzanine.

14 of 30 - Powerhouse interior, generator governor cabinet.

15 of 30 - Powerhouse interior, restroom.

16 of 30 - Powerhouse interior, cable tray tunnel to switchyard.

17 of 30 - Transformer yard looking south.

18 of 30 - Switchyard looking west.

19 of 30 - Switchyard looking northwest

20 of 30 - Switchyard Oil Purification Building, looking northeast.

21 of 30 - Visitor Building, exterior south elevation, looking north.

22 of 30 - Visitor Building, exterior northeast elevation, looking southwest.

23 of 30 - Visitor Building, interior lobby view to the south.

24 of 30 - Visitor Building, interior lobby mural.

25 of 30 - Visitor Building, interior restroom.

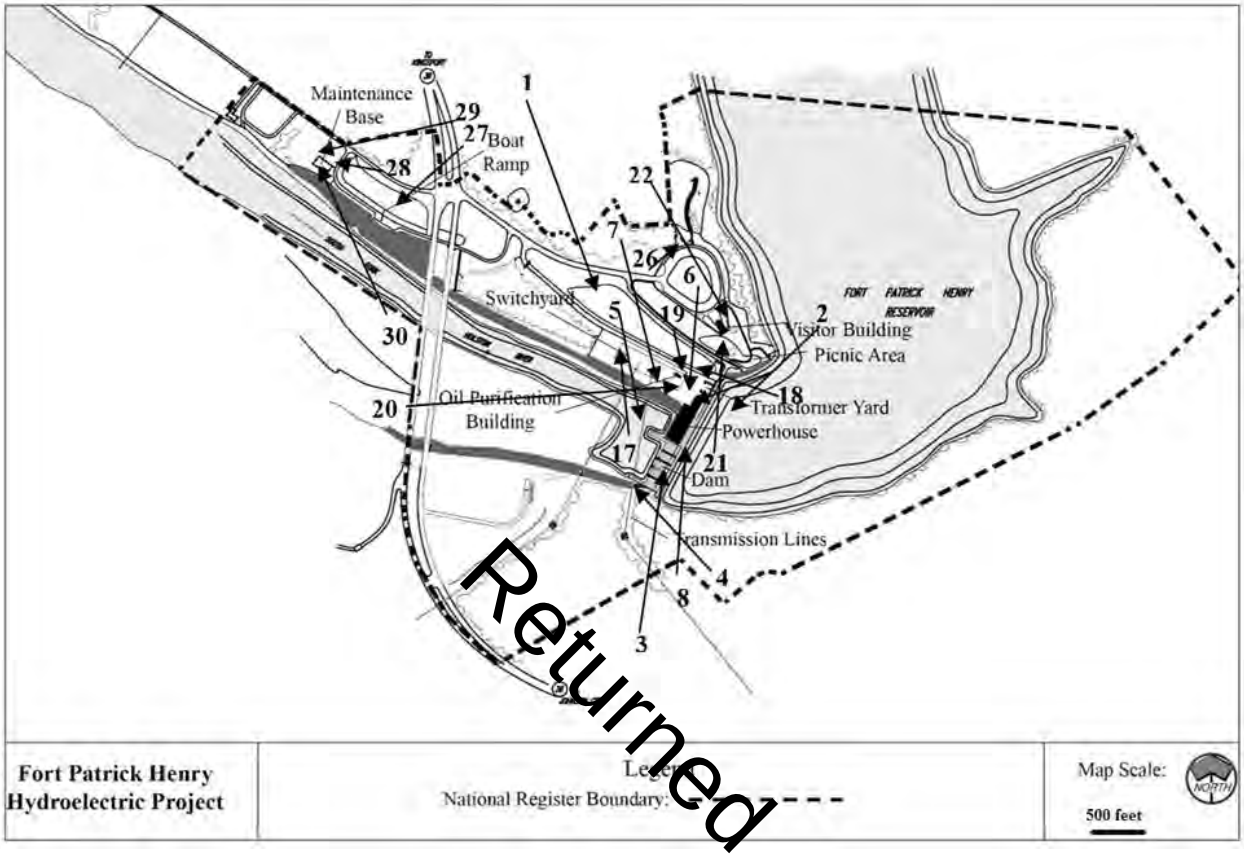
26 of 30 - Picnic Area, looking northeast.

27 of 30 - Boat Ramp, looking south.

28 of 30 - Maintenance Base, main building, looking west.

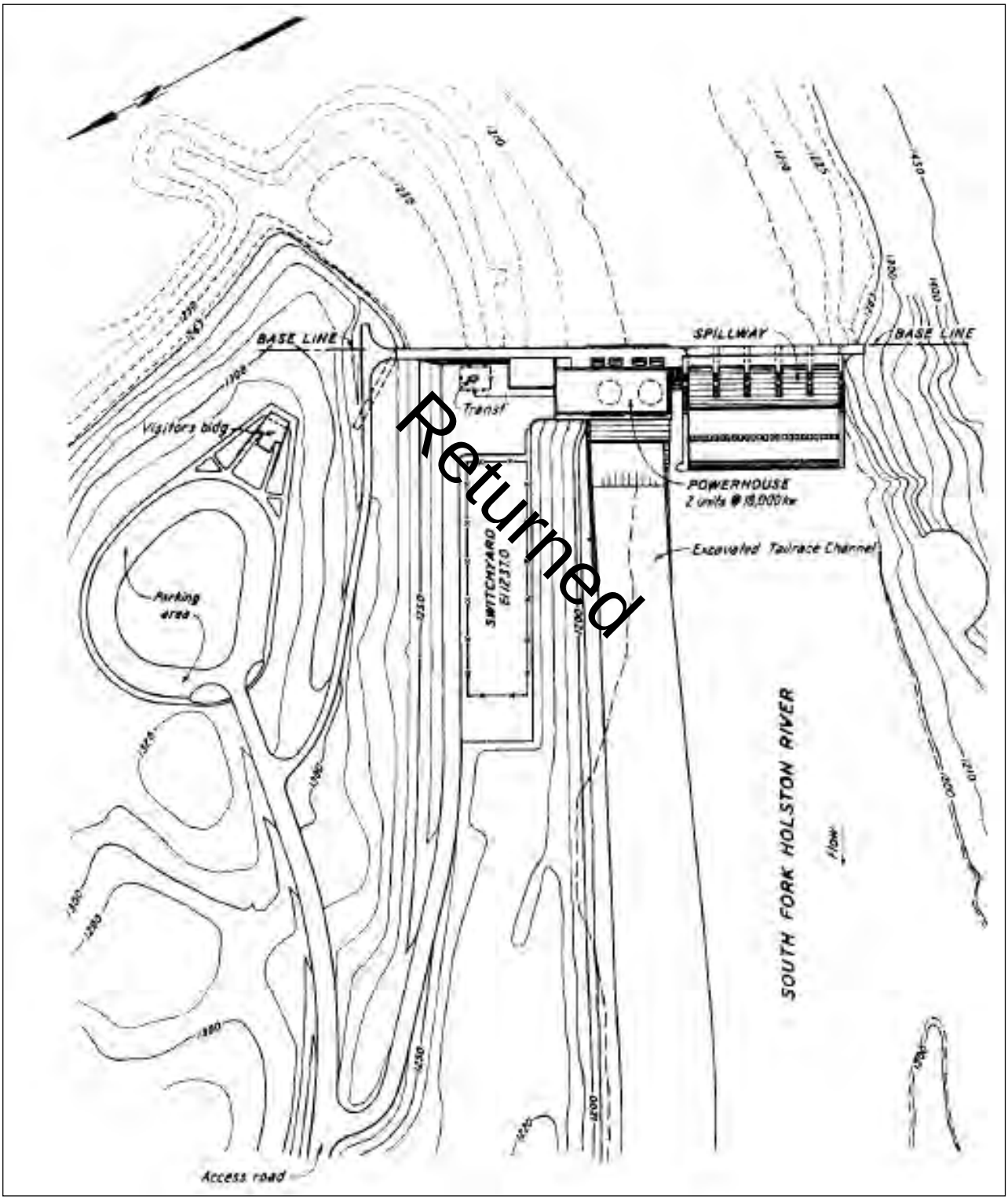
29 of 30 - Maintenance Base, open air equipment shed, looking southwest.

30 of 30 - Maintenance Base, chemical storage building looking northwest.



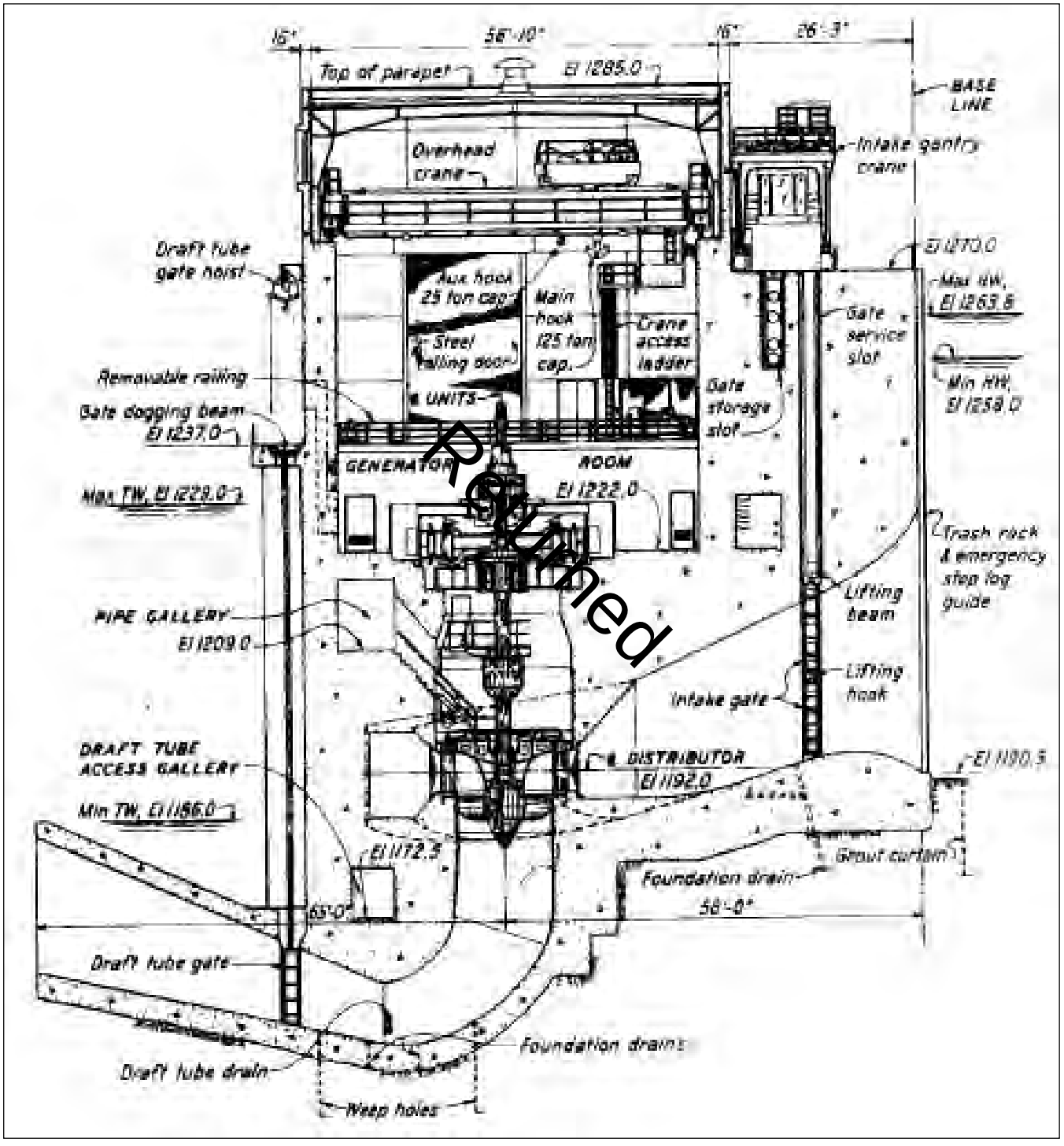
Fort Patrick Henry Photo Key Map
(see 11 x 17" Photo Key Map)

Site Plan



TVA Site Plan of Fort Patrick Henry Dam and Reservoir

Schematic



Transverse section Thru Powerhouse

Property Owner:

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

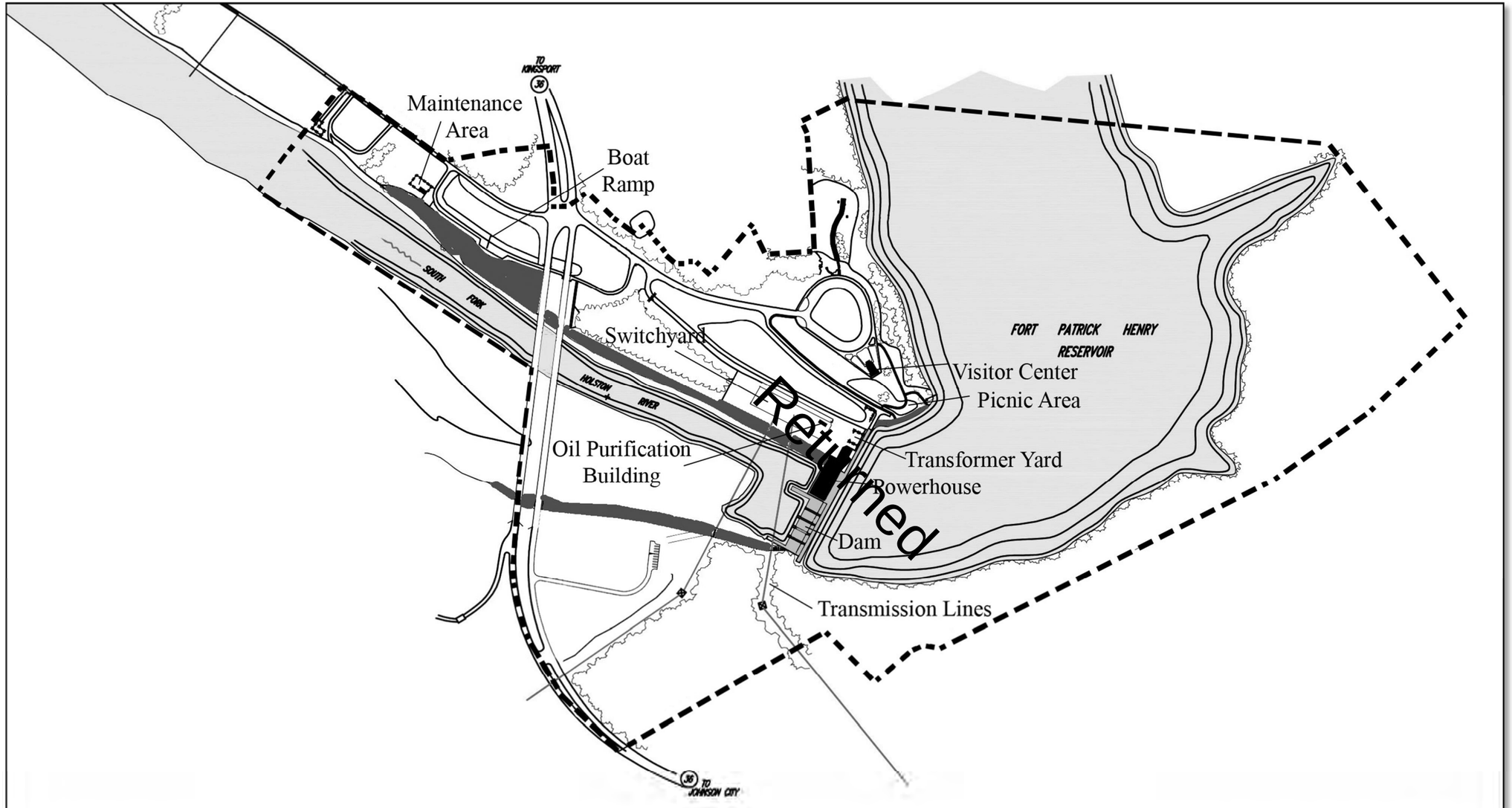
Name Tennessee Valley Authority ï Pat Ezzell

Street & Number 400 West Summit Hill Drive 460WT7D-K Telephone 865-632-6461

City or Town Knoxville State/Zip TN 37902

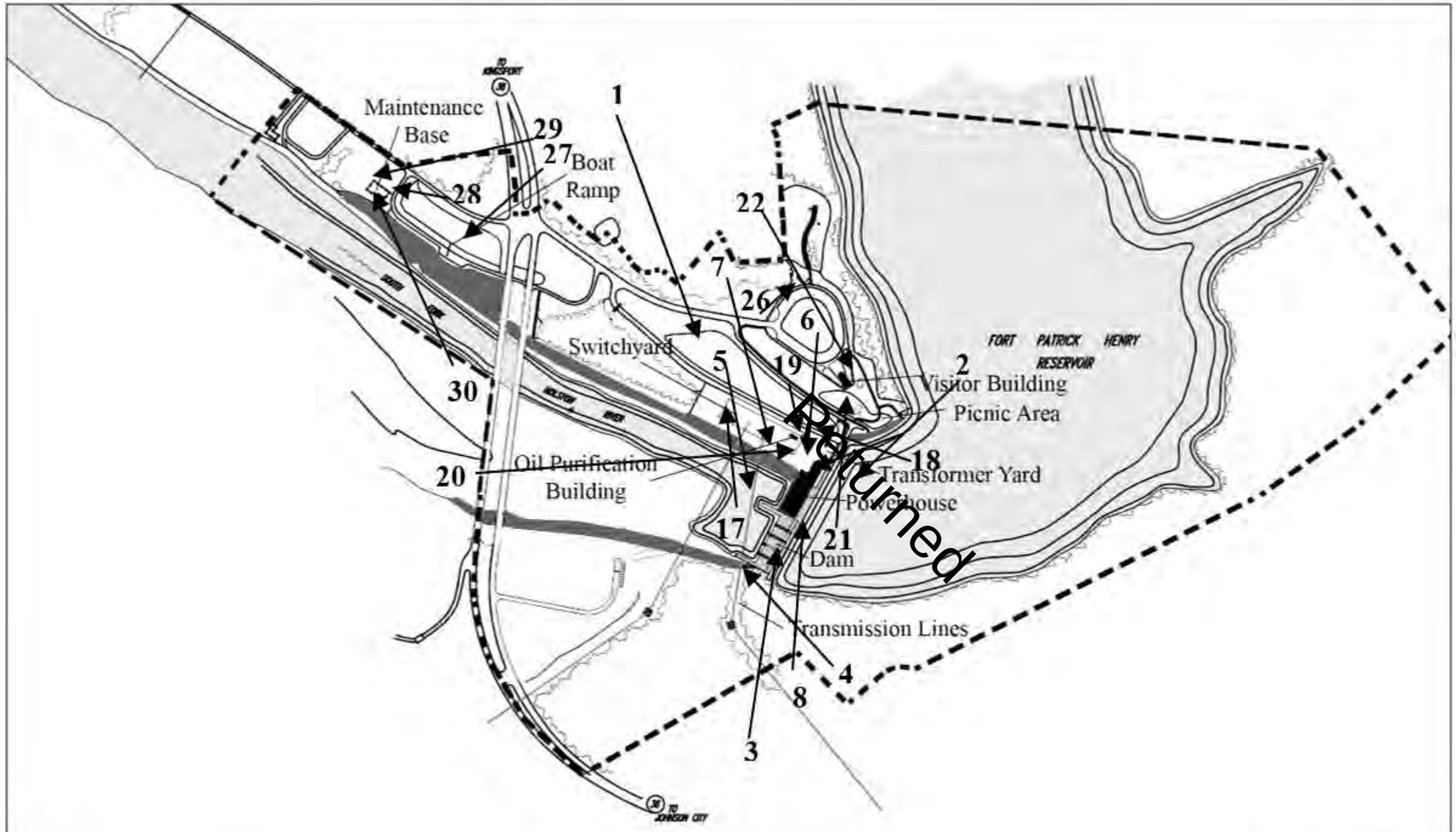
Returned

Site plan and National Register boundary for Fort Patrick Henry Hydroelectric Project



Fort Patrick Henry Hydroelectric Project	Legend National Register Boundary: - - - - - - -	Map Scale: NORTH 500 feet

Site plan with photo key map for Fort Patrick Henry Hydroelectric Project



Fort Patrick Henry Hydroelectric Project	Legend National Register Boundary: - - - - - - -	Map Scale: 500 feet

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Nomination
Property Name:	Fort Patrick Henry 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:	MP100001477
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:	Does not include resources within boundary. Weak criterion A arguemnts for areas of significance
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: Fort Patrick Henry Hydroelectic Project, Sullivan County, TN
(TVA Hydroelectric System MPS)

Reference Number: 100001477

Comment

The nomination for the Fort Patrick Henry Hydroelectic Project is being returned for revision.

The primary reason for returning the nomination is that there are two bridges included in the nomination that are not accounted for. There are two bridges that carry highway 36 over the river to the northwest of the dam. These need to be described and evaluated for their relationship with the overall Fort Patrick Henry Hydroelectic Project. Procedurally, the owners of these bridges need to be informed of the nomination and should be allowed to comment.

The nomination makes claims of significance for five areas of significance, architecture, engineering, industry, recreation, and social history. 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. Similarly,

in the summary statement of significance for this property, "military" significance is noted (but not claimed in section 8). Please remove this reference.

While there is no doubt that 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 Fort Patrick Henry 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