NPS Form 10-900 United States Department of the Interior National Park Service

OMB No. 1024-0018

MP-1455

Natl. Reg. 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 any 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.

N/A

1. Name of Property

Historic name: Nottely Hydroelectric Project

Other names/site number:

Name of related multiple property listing:

Historic Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979 (Enter "N/A" if property is not part of a multiple property listing

2. Location

Street & number	er: Notte	ely Dam Ro	ad		
City or town:	Blairsville	State:	GA	County: Union	
Not For Publica	ation:	Vicir	ity:		

3. State/Federal Agency Certification

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

I hereby certify that this \underline{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 \underline{X} meets $\underline{}$ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

-	national		statewide	X	local
App	licable Na	tional Reg	ister Criteria:		1.00
v		D	VC	D	

Signature of certifying official/Ti Date fley State or Federal agency/bureau or Tribal Government

In my opinion, the property X meets ______ does not meet the National Register criteria.

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 Signature of commenting official:
 Date

 D5HPO
 GEODG1A

 Title :
 State or Federal agency/bureau or Tribal Government

Nottely Hydroelectric Project

Name of Property

Union, GA County and State

4. National Park Service Certification

I hereby certify that this property is:

dentered in the National Register

____ determined eligible for the National Register

_____ determined not eligible for the National Register

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____ removed from the National Register

____ other (explain:)

Signature of the Keeper

For

8-11-2017

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.) Private:

Public - State

Public - Federal

Category of Property

(Check only one box.)

Building(s)	
District	x
Site	
Structure	
Object	

Union, GA County and State

Number of Resources within Property

(Do not include previously listed resources in the count)								
Contributing Noncontributing								
2	2	buildings						
2	0	sites						
6	0	structures						
0	0	objects						
10	2	Total						

Number of contributing resources previously listed in the National Register <u>N/A</u>

6. Function or Use **Historic Functions** (Enter categories from instructions.)

PROCESSING/ Energy Facility _RECREATION AND CULTURE/ Outdoor Recreation TRANSPORTATION/Road-related

Current Functions (Enter categories from instructions.) _PROCESSING/ Energy Facility_ **RECREATION AND CULTURE/** Outdoor Recreation _TRANSPORTATION/Road-related_

Union, GA County and State

7. Description

Architectural Classification

(Enter categories from instructions.) <u>NO STYLE</u>

Materials: (enter categories from instructions.) Principal exterior materials of the property: Concrete, Steel, Rock, Earth

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Nottely Hydroelectric Project is located along the Nottely River about twenty-one miles above its confluence at the Hiwassee River, ten miles northwest of Blairsville, Georgia the county seat of Union County. It impounds the Nottely Reservoir (also called Nottely Lake), which extends twenty miles south along the Nottely River towards Blairsville. The reservoir has a storage capacity of 61,600 acre-feet.¹ Construction of the project began in 1941 and was completed in 1942, with the addition of hydroelectric equipment and facilities added in 1954.² The reservoir has 106 miles of shoreline in Union County, Georgia. Nottely Reservoir is a 4,180 acre impoundment of the Nottely River with portions lying within the Chattahoochee National Forest in Georgia. From Nottely Dam, the Nottely River flows south and east through Georgia and twenty-one miles north to converge with the Hiwassee River in Murphy, North Carolina. The Nottely Project takes its name from the river it impounds, as well as an eighteenth-century Cherokee village of Naduhli which was once located along the banks of the reservoir.³

¹ Tennessee Valley Authority, "Civil and Structural Design," (Knoxville: Tennessee Valley Authority, 1952), 13.

² Tennessee Valley Authority, "Nottely Reservoir," at webpage http://www.tva.gov/sites/nottely.htm accessed August 4, 2015.

³ Ibid.

Union, GA County and State

Narrative Description

INDIVIDUAL PROPERTY DESCRIPTIONS

CB = Contributing Building CSt = Contributing Structure CSi= Contributing Site NCB = Non-contributing Building NCSt = Non-contributing Structure NCSi = Non-contributing Site

The Nottely Hydroelectric Project originally consisted of the main embankment (earthen dam) across the river valley, an intake tower above the dam, a valve building below the dam, and an operator building on top of the dam. In 1952, construction began for the purpose of adding the single hydroelectric unit, a powerhouse and a switchyard with transmission lines. Since completion of the original project, other buildings and sites have been added to the property. (Photo 1).

<u>1. Nottely Dam, 1942 (CSt)</u>

The Nottely Hydroelectric Projectøs dam is an embankment design across the natural river channel. It is constructed of a combination of rolled earth and rock fill with rock and riprap constructing the face of the upstream slope and grass on the downstream slope. The foundation rests on metamorphic rock. Its total crest length is 3,915 feet with a maximum height of 197 feet and a maximum width of 720 feet at the base. The top of the embankment is at elevation 1,780 feet above sea level. As part of the original plan of the project in 1942, a two lane highway, Georgia State Route (SR) 11, was constructed across the top of the dam, spillway and embankments.⁴

The spillway is located on the left (west) end of the main dam. The spillway is a chute type and has a long circular crest of 300 feet with an arched control weir gate. The top of the gates is at elevation 1,775 feet above sea level. At the top of the crest are vertical steel beams approximately six feet apart, which serve as flashboard units at the crest storing water along the crest at four feet deep.⁵ These flashboards can be removed by a hand-operated hoist traveling along the crest. From the weir control gate, the spillway five-foot side walls converge into a straight channel eighty feet wide and 621 feet long. The concrete floor of the spillway is constructed of nine-inch thick concrete and slopes down to end at a sill at the river bank. The spillway floor is divided into sections by contraction joints constructed of copper strips and asphalt filler material. As the water travels down the spillway, it accelerates in speed, requiring a steadily diminishing width as it proceeds.⁶ (Photo 2-5).

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⁴ Tennessee Valley Authority, "Civil and Structural Design," (Knoxville: Tennessee Valley Authority, 1952),

⁵ Ibid, 300.

⁶ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," (Knoxville: Tennessee Valley Authority, 1960), 291.

Union, GA County and State

2. Powerhouse, 1954 (CB)

The powerhouse is a rectangular plan building constructed of steel and reinforced concrete. The principal dimensions of the building are 96 feet, 5 inches in length by 41 feet in width by 70 feet in height. A 70-ton stiff leg derrick crane is installed on the roof of the powerhouse for the erection and maintenance of the single hydroelectric generating unit.⁷ The powerhouse¢s exterior walls are sectioned into rectangular panels with wood board impressions from construction. The powerhouse is a semi-outdoor type and has one generating unit. The main entrance has paired steel doors on the west elevation with an aluminum curved awning above. There is an identical entrance to the storage room to the left of the main entrance. This level is the main deck that accesses the generator top on the north elevation. The south elevation has a steel staircase which provides access to the rooftop crane. On top of the generator bay is the large cylindrical metal cover which houses the turbine unit. The north elevation of the generator bay contains the sluice gates. The west elevation does not contain any fenestration.

The main level of the powerhouse contains the control room which displays linoleum flooring, concrete ceilings and walls, and all control panels for the generator and switchyard. Adjacent to the control room is a storage room. This level has a restroom and access to the basement level is provided by a concrete staircase with a steel railing. The basement contains the generator wheel pit access and machine shop. The single Francis type turbine was manufactured in 1954 by James Leffel and Company of Springfield, Ohio. The turbine is rated at 21,000 horsepower with a net head of 124 feet and operates at a speed of 180 revolutions per minute. The Westinghouse Electric Corporation generator operates at 16,667 kilovolt-amperes or 15,000 kilowatts at 0.9 power factor, 6,900 volts, three phase, 60 cycles, and operates at 180 revolutions per minute.⁸ (Photo 6-15).

3. Powerhouse Storage Building, 1954 (CB)

To the east of the powerhouse is a one-story rectangular building of poured concrete used as a storage facility. This building is constructed of poured concrete panels. The south elevation has an overhead track metal door. The east elevation has a single-light and steel door. There is no fenestration on the north or west elevations. (Photo 16).

4. Flammable Storage Shed, ca. 1970 (NCB)

This is a ca. 1970 flammable storage building with metal side paneling and a flat metal roof. The west elevation has two steel access doors. (Photo 17).

5. Intake, 1942 (CSt)

The intake at Nottely is located above the dam. It is a concrete tower which consists of a vertical shaft twenty-five feet in diameter extending above the reservoir level. The height of the intake tower is 364 feet.⁹ The intake structure includes a crane house, which overhangs on the south side of the intake tower. This crane house contains a fifteen-ton crane for carrying and picking

⁷ Ibid, 294.

⁸ Ibid, 296.

⁹ Ibid. 293.

Union, GA County and State

up supplies and equipment for regular maintenance of the intake structure. A trashrack is located at the waterway entrance at the base of the intake tower. Located behind the trashrack and at the bottom of the tower, are two side by side hydraulically operated slide gates to close off water for maintenance and inspection of the diversion tunnel. The tower is accessed from the top of the dam by a steel footbridge. The gates at the upstream entrance to the intake tower act as emergency gates. Starting at the base of the intake tower is a diversion tunnel constructed on the left abutment at the initiation of dam construction to divert water from the project site. This diversion tunnel is lined with a steel plate and covered with concrete. This tunnel now connects the intake to the generating unit at the powerhouse and extends the full width of the dam at 738 feet long. The diversion tunnel carries a water load of 5,000 cubic feet per second. A 78-inch Howell-Bunger valve was located on the downstream side of the tunnel to allow water discharge without generating power at ninety feet power second. The valve also contains a sixteen-inch bypass line around the valve.¹⁰ (Photo 18 & 19).

6. Switchyard and Transmission Lines, 1954 (Cst)

There are two switchyards located downstream of the dam. The main switchyard is located adjacent to the east of the powerhouse, while the distributor switchyard is located on top of the hill east of the dam. These two switchyards were completed in 1954 as part of the project to install the single generator. The main switchyard adjacent to the powerhouse has two 69-kilovolt bays and one transformer structure and measures eighty feet wide by 156 feet long. The main switchyard is enclosed by a chain link fence and has a gravel surface. (Photo 20 & 21).

7. Distributor Switchyard, 1954 (Cst)

The distributor switchyard located at the top of the hill has four, sixty-nine-kilovolt bays and two transformer structures. The distributor switchyard measures eighty feet wide by 156 feet long. It is enclosed behind a chain link fence and has a gravel surface.

8. Distributor Switchyard Building, ca. 1980 (NCB)

Located at the northeast corner of the distributor switchyard, is a small equipment building. This building measures 20 feet in length by 15 feet in width. The building has a poured concrete foundation with a concrete and faux-stucco exterior. The building also has a gable metal roof. On the south elevation is a single-light and steel door with a cantilevered steel awning. (Photo 22 & 23).

9. Georgia State Route 325, 1942 (CSt)

The two-lane highway and bridge over Nottely Dam was constructed to carry Georgia State Route 11 (now SR 325) over the river. The highway connects the Ivylog community at State Route 129 with State Route 76. The bridge crossing the spillway is a trestle type reinforced concrete bridge. Originally, there was an operator and guard building south of the spillway in place to control the dam gates. Once the generator and the powerhouse were installed in 1954, the operator building was removed. (Photo 24 & 25).

¹⁰ Tennessee Valley Authority, "Civil and Structural Design," (Knoxville: Tennessee Valley Authority, 1952),

Union, GA County and State

10. Visitor Overlook, 1954 (CSt)

Originally there was an operator and guard building on top of the dam and south of the spillway. The guard building was originally put in place to control the spillway gates. Once the single hydroelectric generator and the powerhouse were installed the operator building was removed and a visitor overlook was added in its place. The overlook now contains a small parking area, poured concrete walkway with aluminum railing, a TVA welcome sign and a TVA metal plaque depicting the location of all TVA dams within the Tennessee Valley watershed plaque. (Photo 26).

11. Nottely Picnic Area (west), 1954 (CSi)

To the northwest of the upstream side of the dam, TVA developed a small roadside picnic area off of Georgia State Route 325. This west picnic area consists of a circular parking area with grass around the original concrete picnic tables on concrete pads. The west picnic area consists of a gravel lot with a wood fence at the reservoir overlook. (Photo 30).

12. Nottely Picnic Area (east), 1967 (CSi)

Several years after TVA opened the Nottely Project grounds for public recreation, the agency developed a second picnic area and a boat ramp to the southeast of the upstream side of the dam. The east picnic area consists of a grass and wooded lot, interspersed with original concrete picnic tables on concrete pads. Adjacent to this picnic area is a boat ramp consisting of a gravel lot which slopes down to the reservoir. Originally, the east Picnic Area included a campground; however, the campground has since been abandoned, is overgrown, and is no longer accessible to the public. (Photo 27-29).

Union, GA 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.)

- 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.
- 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

(Mark õxö in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes

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- 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.) <u>ENGINEERING</u> <u>RECREATION</u>

Nottely Hydroelectric Project Name of Property

Union, GA County and State

Period of Significance

1942-1967

Significant Dates 1942, 1954

Significant Person

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

Cultural Affiliation

N/A

Architect/Builder Tennessee Valley Authority

Statement of Significance Summary Paragraph

The Nottely Hydroelectric Project meets National Register Criteria A and C for its historical significance and engineering design at the local level as an integral part of the Tennessee Valley Authority Hydroelectric Project. The Nottely Hydroelectric Project is significant for its association to TVAøs overall river management system. The ability to control water volumes upstream from larger hydroelectric facilities on the main (Tennessee) river was key to the multipurpose system of flood control, river navigation, and power production. The tributary reservoirs vary in storage capacity from 3,800 to 1,920,000 acre-feet from 620 to 34,200 acres of surface area when at full levels. Altogether, they furnish more than 7,500,000 acre-feet of storage capacity for flood control and power generation.¹¹ The Nottely Project, with 100,000 acre-feet of storage capacity, contributes to the systemøs overall storage and management of facilities located downstream, particularly in the area of flood control for flood-prone Chattanooga. Additionally, the project created public and private recreational opportunities. Creation of the Nottely Reservoir fostered growth in Union County due to recreation, tourism, and second home development, resulting in increased tax and tourism revenues and employment opportunities in

¹¹ Tennessee Valley Authority, *Tennessee River and Reservoir System Operation and Planning Review*, (Knoxville, TN: 1990), 16.

Union, GA County and State

the area.¹² Therefore, the Nottely Hydroelectric Project is significant at the local level for Engineering and Recreation. The Nottely Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, õHistorical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979.ö

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

SIGNIFICANCE IN ENGINEERING

The Nottely Hydroelectric Project is an integral part of the overall engineering design of the TVA system. Located on the Nottely River, the Nottely damøs release provides power to the Hiwassee Hydroelectric Project, twenty-five miles downstream. The Nottely project was initially planned and constructed as a storage dam with no power generating equipment. The purpose of this storage dam was to provide stream flow regulation and additional power to the TVA system. The initial project included a combined rolled earth and rock filled dam, flashboard chute spillway, a valve house, an intake tower with steel and concrete penstock and Howell-Bunger valve and a guard and operator building on top of the dam.¹³

The Nottely project was one of a group of projects (including Ocoee No. 3, Chatuge, and Apalachia) designed and constructed in tandem. The group was constructed on an emergency basis during World War II. Due to the unified nature of their design and their connection to the Hiwassee dam, the group is referred to as the õThe Hiwassee Projects.ö Nottely and Chatuge specifically were integrated with the Hiwassee Dam to manipulate water levels downstream, operating as one unit.¹⁴ The integrated operation of the reservoirs assisted materially in reducing crests in December 1942, March 1944, and January 1946 and was credited with lowering Chattanoogaøs crest by four to six feet, sparing damages estimated at over one million dollars.¹⁵

The Nottely project required the usual amount of detailed engineering investigation and planning as all other TVA projects; however, due to the immediate need for construction, site preparation and analysis was completed as soon as the TVA board authorized the project. Surveying and mapping included basic control surveys, aerial photography of 424 square miles, land ownership reconnaissance surveys through panimetric-base plane table sheets and deed copying of 52,521 acres, marking and mapping contours of 615 miles, planning and mapping relocation of roads, rail lines, and utility lines, drainage surveys for malaria control, and numerous other adjustments and computations and the work progressed.¹⁶

¹² Ibid., 52, 63, A-54.

¹³ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," (Knoxville: Tennessee Valley Authority, 1960), 291.

¹⁴ Tennessee Valley Authority, "The Hiwassee Valley Projects," Volume 2, 1, 49.

¹⁵ Tennessee Valley Authority, "The Hiwassee Valley Projects," Volume 1 (Knoxville: Tennessee Valley Authority, 1948), 1, 9, 251-52.

¹⁶ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," 506.

Union, GA County and State

Engineering of the spillway capacity at Nottely required a greater factor of safety than at dams with concrete gravity structures. Serious damage would result from overtopping of Nottelyøs earthen dams. Therefore, Nottelyøs design was based on the maximum probable flood with an estimated discharge of 27,000 cubic feet per second. These calculations were derived from the maximum known flood at the Nottely site that occurred on September 3, 1898. To ensure the spillway of the earthen dam would allow for both an intense flood of short duration and a greater volume over several days of flooding, engineers tested two inflow hydrographs for the Nottely reservoir. One represented a rainfall of eleven inches in one day with run-off of ten inches in thirty-six hours. The other represented a run-off of fifteen inches over three days. From these studies, the design for the crest inflow at Nottely was 88,000 cubic feet per second.¹⁷

During construction of the dam, a diversion tunnel was excavated through the left abutment to divert water from the channel away from the construction site. Upon closure of the dam on January 24, 1942, a steel liner was placed in the downstream half of the tunnel and the Howell-Bunger valve with a discharge chamber was installed. An intake tower was also constructed at the entrance of the diversion tunnel, lined with a steel trashracks. The purpose of the steel and concrete tunnel, or conduit, and the Howell-Bunger valve was to control discharge from the reservoir to the Nottely River below.¹⁸ This control of discharge allowed for water to be removed from the reservoir without power generation. At the time of construction in 1942, the installation of power generating equipment was not considered economical for the project.

By 1952, the TVA deemed the installation of a single generator unit at Chatuge to be cost effective and provide a minimum continuous flow of water to the Nottely River. Construction of a powerhouse in place of the valve house, a generator turbine, and switchyard with transmission lines began on December 3, 1952.¹⁹ A semi-outdoor reinforced concrete powerhouse was constructed with an outdoor erection area for the single generator unit and sluice gate below. The powerhouse was designed with limited fenestration and an exterior of board-formed, poured concrete.

The hydraulic turbine installed was manufactured by James Leffel and Company, and the generator, by Westinghouse Electric Corporation. The turbine type is vertical type Francis which is a type of turbine used to extract energy from the turbine blades as working fluid enters the turbine under extreme pressure. It has a rated capacity of 21,000 horsepower at 124-foot net head. It has a rated speed of 180 revolutions per minute and a maximum runaway speed of 334 revolutions per minute. The generator type is enclosed with a vertical shaft cooled by forced-air circulation through six water-cooled heat exchangers. It has a rated capacity of 16,667 kVA, 15,000 kW. It has continuous output at 0.9 pf, 6,900 volts, 3-phase, 60 cycles and operates at 180 revolutions per minute.²⁰

¹⁷ Tennessee Valley Authority, "The Hiwassee Valley Projects," Volume 2, 51-52.

¹⁸ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," 506.

¹⁹ Ibid, 294.

²⁰ Ibid, 296.

Union, GA County and State

The Governor cabinet for the generator and turbine is a single cabinet-actuator type manufactured by Woodward Governor Company. The cabinet contains a governor head, sump tank, pressure tank, oil pumps, magnet generator and auxiliary controls. There are also two herringbone type gears for oil pressure. Each pump as a capacity of seventy-five gallons per minute with pressure rated at 300 pounds per square inch and driven by a twenty horsepower motor.

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 TVAøs contribution to recreational activities is noteworthy. The agencyøs hydroelectric projectsø reservoirs attract outdoor enthusiasts who enjoy fishing, boating, camping, and hiking in the environs the TVA helped create, re-forest, and conserve. The agency operates some 100 public recreation areas throughout the TVA region.

Recreational opportunities were investigated during the planning process for the Nottely Hydroelectric Project. The mountainous terrain, the surrounding Chattahoochee National Forest, hundreds of miles of accessible shoreline, and winding river course contributed to the potential for recreational development. The Nottely Reservoir shoreline consists of 661 miles, of which approximately three-quarters are public land.²¹ Recreational value was impaired, however, by the large variations in water level. The TVA focused its planning on four locations suitable for swimming. These locations were characterized as open areas with topography having a good slope and located on the main stream of the reservoir for good circulation and exchange of fresh water. Other lands were earmarked for recreational use based on accessibility from highways. Recreational plans included a small overlook point, picnic areas, boat launching ramps and fishing camps. The proposed recreation area included a forty-six-acre site located on a wooded peninsula central to the reservoir and U.S. Highway 19. This area was close to the main channel of the Nottely River, suggesting the development of a fishing camp there. Also along Highway 19 was an area of shoreline TVA acquired for potential fishing, swimming, and boating. Near the headwaters of the Nottely Reservoir were twenty-two acres suitable for the development of a small boat landing and possible recreational facilities for the residents of Blairsville, Georgia. By acquiring these land tracts, TVA contributed to the long-range planning goals for recreation on the Nottely Reservoir.²²

The TVA provided recreational opportunities at most of its hydroelectric projects. At Nottely the TVA developed picnic areas to the east and west of the dam along the shoreline. East of the dam a campground was also developed but this was discontinued in recent years. On top of the dam TVA developed an overlook and parking area which provides visitors within information on the dam and the rest of the hydroelectric system.

²¹ Tennessee Valley Authority, *Tennessee River and Reservoir System Operation and Planning Review*, 26.

²² Tennessee Valley Authority, "The Hiwassee Valley Projects," Volume 2, 573-574.

Union, GA County and State

Building on TVA¢ recreational development were private commercial ventures, including two small resorts on Highway 19. These operations included bathing beaches, lunchrooms, and private cottages. Further development was expected in the area of Horseshoe Bend.²³ Commercial development occurred slowly along Nottely¢ shores, however. Relatively isolated in the mountains, Union County¢ population did not surpass 10,000 people until the 1980s. The mountains and Nottely Reservoir then became magnets for tourists, retirees, and outdoor enthusiasts. In 1992, Union County¢ Department of Recreation established Meeks Park. The Nottley River runs through the park, which includes nature trails, swimming and picnic areas, and other outdoor amenities. The privately developed Nottely Marina was established in 1992 and offers dock slip leases, boat ramp access, and hourly to daily boat rentals. The Nottely Boat Club offers similar services, as well as boat sales and cabin rentals. As one of the fastest growing areas in the state of Georgia, Union County¢ setimated population in 2015 reached 22,267. The county has a higher than average number of second homes, attesting to its outdoor scenery and recreational opportunities, including hiking, boating, camping, fishing, hunting, wildlife viewing, swimming, picnicking, and horseback riding at numerous commercial and public locations.

HISTORIC CONTEXT

The Tennessee Valley Authority (TVA) was created under President Rooseveltøs New Deal program as part of his õFirst One Hundred Days.ö Roosevelt envisioned õa corporation clothed with the power of government, but possessed of the flexibility and initiative of a private enterprise.ö To this end, Congress passed the TVA Act on May 18, 1933.²⁴ The multi-purpose legislation sought to improve navigation and flood control of the Tennessee River, spur agricultural and industrial development in the Tennessee Valley, and provide for national defense via government facilities in the proximity of Muscle Shoals, Alabama (Sec. 1). The act authorized the TVA Corporation to acquire real estate for the construction of dams, reservoirs, power houses, transmission lines, or navigations projects at any point along the Tennessee River and its tributaries (Sec. 4i).²⁵

The Nottely Hydroelectric Project takes its name from the river it impounds, as well as an eighteenth century Cherokee village of Naduhli, which was once located along the banks of the reservoir.²⁶ These Cherokee settlements often served as trading settlements between Cherokee tribes in South Carolina and Tennessee. Local tribes in the Union County area developed a rich agricultural society raising crops of corn and beans, as well as hunting game of deer and bear. Anglo-settlement came to the area in the late-eighteenth century. The European settlers and Native Americans lived cooperatively for several years until, like many southeastern states, the Cherokee tribes were forced out of the area in the early nineteenth century. Union County was officially formed in 1832 through the state legislature and made up from sections of Cherokee

²³ Ibid.

²⁴ "History of the Tennessee Valley Authority," at website

http://www.policyalmanac.org/economic/archive/tva_history.shtml accessed August 5, 2015. ²⁵ Ibid.

²⁶ "Union County, Georgia," at website <u>http://www.rootsweb.ancestry.com/~gaunion/mm070810.htm</u> accessed August 10, 2015.

Union, GA County and State

County, North Carolina. Blairsville was established as the county seat shortly in 1835. Evidence and remnants of the former Native American inhabitants are still visible by way of several Indian mounds found in the area.

The TVA selected the site for the Nottely Dam north of Blairsville in 1940. The local citizens in the surrounding area of Union County were concerned that the project would reduce the amount of available productive farmland. Others were concerned that a loss of land taxes from the acquired property would result in a resident tax increase. Subsequently, TVA created a system for making annual tax payments to affected counties in lieu of land taxes.²⁷ TVA insisted that the annual payments would add more money to the tax base than what would have been received from land taxes.

The Nottely project was proposed as part of a collection of dams along the Tennessee River to aid in the World War II emergency efforts to generate significant amounts of electricity for aluminum production. The TVA Board of Directors authorized funding of the project in fiscal year 1941. The timing of initiating construction was based on the release and availability of the Hiwassee projectsø labor force following its anticipated completion. TVA formally approved the project on July 17, 1941 and the closure of the dam and filling of the reservoir began on January 24, 1942. Unlike other TVA projects during this period, the Nottely Hydroelectric Project was established strictly for water storage in support of other TVA projects. However, the Nottely Dam was constructed with the ability to add power generation at a later date. The initial project consisted of a combined rolled earth and rock filled dam, concrete spillway, intake tower, discharge tunnel, and valve house. Construction of power generation facilities was not considered economical at the beginning of construction in 1942. The TVA Board of Directors eventually approved the addition of a single hydroelectric generating unit at the Nottely project on September 25, 1951. Construction began on December 3, 1952, which included the addition of a powerhouse, single generating unit, and switchyard with transmission lines. The buildings were completed in 1954 and commercial operation of the power unit was initiated on January 10, 1956.²⁸

TVA requested \$51,000,000 to construct the four dams on the Hiwassee, two for power generation and two for water storage. The Nottely project was part of this group and in 1941, \$4,180,759 was used for direct construction costs, including labor, materials, equipment, construction plant, tools, warehouse charges and transportation. Indirect construction costs, including accounting, timekeeping, office supplies, and police services, amount to \$215,615. Design and engineering expenditures, which included salaries and expenses of executive engineers, technicians, and inspectors, amounted to \$231,666. These amounts plus other categorized costs brought the total project to \$5,384,627.²⁹ The additional construction of a

²⁷ Sawyer, "Northeast Georgia: A History," (Charleston, SC: Arcadia Publishing, 2001), 140.

²⁸ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," (Knoxville: Tennessee Valley Authority, 1960), 291.

²⁹ Tennessee Valley Authority, "The Hiwassee Valley Projects," (Knoxville: Tennessee Valley Authority, 1948), 614.

Union, GA County and State

powerhouse, switchyard and transmission lines in 1954 amounted to \$2,654,505. The total project costs for the Nottely Hydroelectric Project totaled \$8,039,132.³⁰

Total payroll count peaked at approximately 2,100 workers in November of 1941. Employment dropped sharply to under 500 by February of 1942. Construction at the four Hiwassee projects (Apalachia, Ocoee, Chatuge, and Nottely) peaked at the same time at 8,700 total workers.³¹

The project required relocation of ninety-one families and twenty-one miles of road from the reservoir, all of which were permanent residents of the county. Though the area was largely agricultural, just seventeen families were farm owners, twenty-two were farm tenants, and the remainder were non-farming.³² Of the 7,984 acres of land acquired for the project, 2,485 was cleared farmland. Schools, churches and mill operations were also displaced. The construction of Nottely did, however, bring much needed jobs to the area, resulting in 7,500 temporary employees.

The Nottely project required the acquisition of 7,984 acres of land. Of the 3,609 acres acquired, forty-eight percent were condemned due to defective titles while the other 52 percent were acquired by voluntary transfer. The remaining 4,375 acres were local landowners, ninety-nine percent of which were purchased by voluntary transfer and one percent was condemned.³³ The project also required the relocation of eight cemeteries with 86 graves.³⁴ TVA surveyed and mapped all cemeteries within the reservoir. Mapping used a symbol system to convey data such as location, condition, and type of marker. Individual records plats were made for affected cemeteries, as well as reinternment cemeteries.

After World War II the two planned recreational facilities were finally completed, located west of the spillway and east of the dam embankment. The west recreational area included a single picnic area. The east recreational area included two picnic areas, boat launch ramp and a campground. The campground has since been removed from the TVA property.

Since their construction, the powerhouse, intake and spillway have not been significantly altered and retain their original exterior design and detailing. The interior of the powerhouse has undergone some minimal upgrades including linoleum flooring in the control room and plumbing fixtures in the restroom.

³⁰ Tennessee Valley Authority, "Mechanical Design of Hydro Plants," (Knoxville: Tennessee Valley Authority, 1960), 291.

³¹ Tennessee Valley Authority, "The Hiwassee Valley Projects," (Knoxville: Tennessee Valley Authority, 1948), 332-33.

³² Tennessee Valley Authority, "The Hiwassee Valley Projects," Volume 2 (Knoxville: Tennessee Valley Authority, 1948), 527.

³³ Ibid. 519.

³⁴ Ibid, 552.

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Summary

The Nottely Hydroelectric Project was one of twenty-five projects constructed by the Tennessee Valley Authority (TVA) for the purpose of generating electrical power from, improving navigation of, and controlling seasonal flooding of the river system of the region. The project brought construction jobs and later electricity to the rural area. During planning and construction, TVA provided technical assistance in municipal land use planning, road relocation and improvement, and shoreline development. The Nottely Hydroelectric Project brought new opportunities to and spurred economic development in the surrounding counties. The Nottely facility is an important component in the vast TVA system of flood control and power generation.

The Nottely Hydroelectric Project retains much of its integrity from its original design of the early 1940s and later expansion in the 1950s. The dam and powerhouse have not been significantly altered and display their original design. The project continues to be an integral part of the TVA system. The Nottely Hydroelectric Project meets the registration requirements set forth in the Multiple Property Documentation Form, õHistorical Resources of the Tennessee Valley Authority Hydroelectric Project, 1933-1979ö and this MPDF contains additional contextual information concerning TVA and its hydroelectric system.

Union, GA County and State

9. Major Bibliographical References

- õEconomic Development.ö At webpage <u>http://www.tva.com/econdev/index.htm</u>. Accessed May 5, 2015.
- Ezzell, Patricia Bernard.õTennessee Valley Authority in Alabama (TVA),ö available at website <u>http://www.encyclopediaofalabama.org/article/h-2380</u>, accessed April 22, 2015.
- õHistory of the Tennessee Valley Authority.ö At website <u>http://www.policyalmanac.org/economic/archive/tva_history.shtml</u>. Accessed August 5, 2015.

Sawyer, Gordon. Northeast Georgia: A History. Charleston, SC: Arcadia Publishing, 2001

Tennessee Valley Authority Act of 1933, at website

http://www.policyalmanac.org/economic/archive/tva_history.shtml. Accessed April 16, 2015.

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

____. Design of TVA Projects Technical Report No. 24, Vol. 3, Mechanical Design of Hydro Plants. Washington, D.C.: U.S. Government Printing Office, 1960

____. The Hiwassee Valley Projects Technical Report No. 5, Vol. 2, The Apalachia, Ocoee No. 3, Nottely, and Chatuge Projects. Washington, D.C.: U.S. Government Printing Office, 1948.

_____. *Tennessee River and Reservoir System Operation and Planning Review.* Knoxville, TN, 1990.

õUnion County, Georgia.ö At website

http://www.rootsweb.ancestry.com/~gaunion/mm070810.htm. Accessed August 10, 2015.

Wheeler, W. Bruce. õTennessee Valley Authority.ö At webpage Tennessee Encyclopedia of History and Culture. Accessed May 29, 2015.

Previous documentation on file (NPS):

- _____ preliminary determination of individual listing (36 CFR 67) has been requested
- _____ previously listed in the National Register
- _____previously determined eligible by the National Register
- _____designated a National Historic Landmark
- _____ recorded by Historic American Buildings Survey #_____
- _____recorded by Historic American Engineering Record # ______
- _____ recorded by Historic American Landscape Survey # ______

Primary location of additional data:

- _____ State Historic Preservation Office
- ____ Other State agency
- <u>X</u> Federal agency
- ____ Local government
- _____ University
- ____ Other

Name of repository: <u>Tennessee Valley Authority, Knoxville, Tennessee</u>

Historic Resources Survey Number (if assigned): _____N/A_____

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10. Geographical Data

Acreage of Property <u>458</u>

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)

Datum if other than WGS84:	
1. Latitude: 34.950448	Longitude: -84.074979
2. Latitude: 34.958046	Longitude: -84.074979
3. Latitude: 34.967682	Longitude: -84.09943
4. Latitude: 34.956428	Longitude: -84.095951

Or UTM References

Datum (indicated on USGS map):

NAD 1927	or	NAD 1983
----------	----	----------

1. Zone:	Easting:	Northing:
2. Zone:	Easting:	Northing:
3. Zone:	Easting:	Northing:
4. Zone:	Easting :	Northing:

Verbal Boundary Description (Describe the boundaries of the property.)

The boundary for the Nottely Hydroelectric Project is depicted as a dashed line on the accompanying site plan map (below, in Section 11).

Boundary Justification (Explain why the boundaries were selected.)

The boundary includes all facilities necessary for the operation of the hydroelectric project and/or associated with the mission of TVA, which includes power generation, navigation, and public recreation. The boundary is drawn to include the dam, powerhouse and recreational facilities on land and the intake structure and approaches to the dam on the reservoir. A straight line boundary approximately 1,000 feet southwest from the shoreline was utilized to encompass these approaches. The boundary omits other TVA lands not directly associated with hydroelectric production.

Union, GA County and State

11. Form Prepared By

name/title: <u>Ret</u>	becca Hightowe	<u>r /Philip Th</u>	omason/A	ndra Kowalczy	vk Martens	
organization:		a Associate	<u>s</u>			
street & number:	P.O. Box	121225				
city or town: <u>Nashville</u>			TN	zip code:	37212	
e-mailthomason	@bellsouth.net			-		
telephone: <u>615-</u>						
date: <u>March 2</u>	3, 2017					

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 this map.
- Additional items: (Check with the SHPO, TPO, or FPO for any additional items.)

Nottely Hydroelectric Project Name of Property NOTTELY DAM, GA, UGSS Topo Revision 2014

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Enlarged section depicting Nottely Dam and Reservoir from 2014 Nottely Dam Quad with numerals corresponding to Latitude/Longitude coordinates in Section 10.



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Site plan of Nottely Hydroelectric Project (See 11 x17 map for larger view)



Union, GA County and State

Site Plan and National Register Boundary and Photo Key Map (See 11 x 17 map for larger view)



Union, GA County and State

Elevation and Sections

Intake, Dam and Powerhouse Section





SECTION - POWERHOUSE

Nottely Hydroelectric Project Name of Property Union, GA County and State



Nottely Spillway outlet plan and section

Nottely Intake plan and section



Howell-Bunger Valve- Intake (used at Nottely and Chatuge)

Section 11- page 28

Nottely Hydroelectric Project

Name of Property



FIGURE 124.—Howell-Bunger valve at Nottely.

SECTION A - A

SECTION B-B

Photo Log

Name of Property: Nottely Hydroelectric Project City or Vicinity: Blairsville County: Union State: Georgia Photographer: Thomason and Associates Date Photographed: July 15, 2015

- 10f 30 General View of Nottely Dam looking northeast.
- 2 of 30 North side of Nottely Dam looking southeast.
- 3 of 30 North side of Nottely Dam looking west.
- 4 of 30 Spillway channel looking west.
- 5 of 30 Spillway looking east.
- 6 of 30 Powerhouse exterior, east elevation.
- 7 of 30 Powerhouse exterior, west elevation.
- 8 of 30 Powerhouse exterior, southwest elevation.
- 9 of 30 Powerhouse exterior, southeast elevation.
- 10 of 30 Powerhouse interior, control room.
- 11 of 30 Powerhouse interior, restroom.
- 12 of 30 Powerhouse interior, basement control area.
- 13 of 30 Powerhouse interior, generator No. 1.
- 14 of 30 Powerhouse interior, basement machine shop.
- 15 of 30 Powerhouse interior, generator No. 1 wheel pit access.
- 16 of 30 Powerhouse Storage Building, exterior southwest elevation.
- 17 of 30 ó Main Switchyard looking east.
- 18 of 30 Intake and steel footbridge looking west.
- 19 of 30 Intake looking southeast.
- 20 of 30 ó Main Switchyard looking west.
- 21 of 30 Transmission Lines looking northeast.
- 22 of 30 Distributor Switchyard Building looking northeast.

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- 23 of 30 Distributor Switchyard looking northeast.
- 24 of 30 Georgia State Route 325 looking west.
- 25 of 30 Georgia State Route 325 Bridge over spillway looking northwest.
- 26 of 30 Visitor Overlook looking south.
- 27 of 30 Picnic Area No. 1 looking southeast.
- 28 of 30 Picnic Area No. 2 looking southeast.
- 29 of 30 Boat Ramp looking southeast.
- 30 of 30 Picnic Area No. 3 looking west.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Nottely Hydroelectric Project Name of Property

Union, GA County and State

Site plan of Nottely Hydroelectric Project



Nottely Hydroelectric Project Name of Property



































































UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

Requested Action:	Nomination								
Property Name:	Nottely Hydroelectric Project								
Multiple Name:	Tennessee Valley Authority Hydroelectric System, 1933-1979 MPS								
State & County:	GEORGIA, Union								
Date Rece 6/30/20	ived: Date o 17 7	of Pending List: 7/27/2017	Date of 16th Day: D 8/11/2017	Date of 45th Day: Date of Weekly List: 8/14/2017					
Reference number:	MP100001455								
Nominator:	State								
Reason For Review	:								
Appea	1	PDI	L	Text/Data Issue					
SHPC	Request	Lan	dscape	Photo					
Waive	г	Nat	ional	Map/Boundary					
Resub	mission	Mol	oile Resource	Period					
X Other			3	Less than 50 years					
X_Accept	Return	n Re	eject8/11/	2017 Date					
Abstract/Summary Comments:	Meets the regis	tration requireme	nts of the MPS						
Recommendation/ Criteria	Accept / A&C								
Reviewer Jim Ga	abbert		Discipline	Historian					
Telephone (202)3	54-2275		Date						
DOCUMENTATION	I: see attache	d comments : No	see attached SL	R : No					

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



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, Seil More

Philip Thomason Principal

cc. Pat Ezell, Senior Program Manager, TVA

Enc/



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

August 9, 2017

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

Dear Mr. Loether,

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:

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Please contact me if any additional information is needed.

Sincerely,

Patricia Bernard Ezzell Federal Preservation Officer Communications

Enclosures