Form No. 10-300 (Rev. 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

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SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: Wilson Dam

AND/OR COMMON: Wilson Dam

2 LOCATION

STREET & NUMBER: Tennessee River on State Route 133

__NOT FOR PUBLICATION

CITY, TOWN: Florence — X VICINITY OF

CONGRESSIONAL DISTRICT: 5th

STATE	CODE	COUNTY	CODE
Alabama	01	Colbert	033
		Lauderdale	077

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
__DISTRICT	X PUBLIC	X OCCUPIED	__AGRICULTURE	__MUSEUM
__BUILDING(S)	__PRIVATE	__UNOCCUPIED	__COMMERCIAL	__PARK
X STRUCTURE	__BOTH	__WORK IN PROGRESS	__EDUCATIONAL	__PRIVATE RESIDENCE
__SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	__ENTERTAINMENT	__RELIGIOUS
__OBJECT	__IN PROCESS	X YES: RESTRICTED	__GOVERNMENT	__SCIENTIFIC
	__BEING CONSIDERED	__YES: UNRESTRICTED	X INDUSTRIAL	X TRANSPORTATION
		__NO	__MILITARY	__OTHER:

4 OWNER OF PROPERTY

NAME: Tennessee Valley Authority

STREET & NUMBER: 301 West Cumberland Avenue

CITY, TOWN: Knoxville — __ VICINITY OF

STATE: Tennessee

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Tennessee Valley Authority

STREET & NUMBER: 301 West Cumberland Avenue

CITY, TOWN: Knoxville

STATE: Tennessee

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: None

DATE

__FEDERAL __STATE __COUNTY __LOCAL

DEPOSITORY FOR SURVEY RECORDS

CITY, TOWN

STATE

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
XX EXCELLENT	__DETERIORATED	__UNALTERED	XX ORIGINAL SITE
__GOOD	__RUINS	XX ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Wilson Dam spans the Tennessee River between Florence (north) and Muscle Shoals (south), Alabama. It stands at an elevation of 508 feet and 259.4 miles above the junction of the Tennessee with the Ohio River at Paducah, Kentucky. Wilson Dam Highway (State Route 133) crosses the Tennessee on a 20-foot roadway along the top of the dam. Impoundment of the Tennessee above Wilson Dam (east) has created Wilson Lake, with a maximum width of 1.6 miles and a main shoreline of 154 miles. Below Wilson (west) lies Pickwick Lake, impounded by Pickwick Dam, at mile 207 on the Tennessee. To the southwest stands the National Fertilizer Development Center, an outgrowth of one of the two nitrate plants constructed under the same project as Wilson Dam. Both the dam and the research center are located within the boundary of the Tennessee Valley Authority's Muscle Shoals Reservation.

Wilson Dam was erected by the Army Corps of Engineers in 1918-25 and turned over to the TVA when that agency was established in 1933. Wilson is a concrete gravity dam on a blue limestone rock foundation. The total length of the structure is 4,535 feet, the height 137 feet, and the maximum width at the base (including the apron) is 160 feet. The head--the water depth on the upper side of the dam (east)--is 97.6 feet. There were originally 58 spillway gates in the face of the dam, each capable of discharging 10,000 cubic feet of water per second.

The dam was constructed with sufficient space for 18 hydraulic turbines and generating units, but only 8 were installed by the Corps of Engineers; the additional 10 units were installed by TVA between 1940 and 1950, giving Wilson a production capacity of 436,000 kilowatts. Generating operations are controlled from the powerhouse, set at the end of the dam on the south bank of the river. Built of reinforced concrete and structural steel, it is 1,200 feet long, 71 feet wide, and 134 feet high. Switch yards (not included in the landmark boundary) are located to the east and west of the powerhouse. Support equipment for the generating facilities includes a 30-ton gantry and lifting beam with two 5-ton auxiliary cranes, mounted on the dam, and two 150-ton overhead traveling cranes at the powerhouse.

Originally all river traffic moved through a double-chamber navigation lock at the northern end of the dam. The upper chamber measures 60 by 292 feet, the lower 60 by 300 feet. Gates for both chambers operate electrically. Their combined lift is 90 feet with an average lockage time of 60 minutes. A 148-foot lift bridge at the eastern end of the upper chamber linked the roadway across the dam with the north river bank.

While a substantial portion of the original Wilson Dam structure remains intact, alterations have been made to improve the efficiency of the facility.

(Continued)

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__14DD-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__15DD-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__16D0-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__17D0-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
__180D-1899	X COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	X TRANSPORTATION	
X 1900-	__COMMUNICATIONS	X INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1925, 1933 BUILDER/ARCHITECT Army Corps of Engineers

STATEMENT OF SIGNIFICANCE

The creation of the Tennessee Valley Authority, an independent, government-owned corporation, marked the first attempt in the United States to conserve and develop natural resources on a regional scale. The initial unit in TVA's extensive water control system was Wilson Dam, a 4,535-foot concrete structure spanning the Tennessee River between Florence and Muscle Shoals, Alabama. Constructed by the Army Corps of Engineers in 1918-25, Wilson Dam was turned over to TVA when that agency was created in 1933. Today Wilson is one of 33 major TVA dams that provide flood control, regulate a 650-mile navigation channel, and annually produce over 100 billion kilowatt-hours of electricity for the 7-state Tennessee Valley region.

Much of the original Wilson Dam structure remains intact, although alterations have been made to increase the efficiency of the facility. Modernization and enlargement of generating equipment has resulted in a production capacity of 629,840 kilowatts, the largest capacity of any TVA dam. The old double-chamber navigation lock at the northern end of the dam has been rebuilt and now accommodates smaller craft. A second lock has been constructed just south of the first to handle major traffic; when completed in 1959, it was the largest single-chamber lock in the world. Visitors are admitted to the Wilson Dam facilities from 9 to 5 daily.

HISTORICAL BACKGROUND

Although interest in developing the water power resources of the Muscle Shoals of the Tennessee River appeared very early in the twentieth century, the first effective step in that development was not taken until World War I. The National Defense Act of 1916 provided for the construction of a gigantic hydroelectric dam and two nitrate plants for the manufacture of war supplies at Muscle Shoals. Actual construction of Wilson Dam and the nitrate plants did not start until late in 1918, and the war was over before the project could be completed (1925).

In the years following World War I, electric energy assumed the importance of a major natural resource and the conservation question became urgent. President Wilson created the Federal Power Commission in 1920, but it provided little effective regulation. Senator George W. Norris of Nebraska led

(Continued)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

(See Continuation Sheet)

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY approximately 20 acres

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	16	442650	3851550
B	16	442930	3849940
C	16	442320	3851400
D			

VERBAL BOUNDARY DESCRIPTION

The boundaries of the national historic landmark designation for the Tennessee Valley Authority's Wilson Dam, spanning the Tennessee River between Florence and Muscle Shoals, Alabama, follow the foundation lines of that structure, including the power house (south) and the old and new locks (north). Specific lines are shown in black on the accompanying maintenance plan for the Muscle Shoals Reservation, supplied by the Tennessee Valley Authority.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE Polly M. Rettig, Historian, Landmark Review Project; original form prepared by Horace J. Sheely, Jr., Historian, 11/14/66

ORGANIZATION: Historic Sites Survey, National Park Service
DATE: February 1976

STREET & NUMBER: 1100 L Street NW.
TELEPHONE: 202-523-5464

CITY OR TOWN: Washington
STATE: D.C. 20240

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

Landmark Designated: Nov. 13, 1960 date

Boundary Certified: George F. Emery

DATE Dec. 15, 1977 date

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION — DATE 12/30/76

ATTEST: — DATE

KEEPER OF THE NATIONAL REGISTER

(NATIONAL HISTORIC LANDMARKS)

(NATIONAL HISTORIC LANDMARKS)

Perhaps the most significant of these was the construction of a new lock which, when completed in 1959, was the largest single-chamber lock in the world. The chamber, located on the river-side of the original lock, measures 110 by 600 feet and has a lift-type upper and mitre-type lower gate. When filled the chamber contains 54 million gallons of water. The new structure has a maximum lift of 100 feet, filling and emptying time of 12 minutes, and an average lockage time of 45 minutes. While the new lock was being constructed, the lower chamber of the original was deepened 10 feet; that structure is now reserved for small craft and auxiliary use.

The old lift bridge has been superceded by a high level span, also completed in 1959, which carries Wilson Dam Highway over both locks with a 57-foot clearance and joins the roadway on the dam at spillway gate No. 30. In 1959-61 three additional generating units were installed on an outdoor station constructed on the west face of the dam at the northern end of the existing generating facilities, increasing the production capacity of the dam to 598,000 kilowatts. In 1965-68 the 8 original generating units were modernized and encased in air housings to allow more efficient cooling and to contain carbon dioxide in the event of fire within the units. With that project, the production capacity of Wilson Dam rose to 629,840 kilowatts, the highest level of any facility in the TVA system.

a group in Congress who pressed for more decisive action by the Federal Government. Their efforts centered on their demand that the nitrate works and hydroelectric station at Muscle Shoals be operated under government ownership. To them, Muscle Shoals seemed to offer an ideal opportunity for inexpensive power. Post-war administrations, however, were determined to eliminate government from competition with private business. Two bills providing for government operation of Muscle Shoals which were offered by the progressives were killed by vetoes. Congress was finally persuaded to offer the whole property for sale. The only bidder was Henry Ford, whose terms involved so heavy a loss to the government that they could not be accepted. A very small amount of power was leased to the Alabama Power Company for distribution to the surrounding territory, but for the most part the potential of the Muscle Shoals facilities remained unrealized until the advent of the New Deal.

The demand for the conservation of hydroelectric power, and its use in the interest of the people as a whole had been thoroughly debated by the time of Franklin Roosevelt's first term. Roosevelt wished to go further than the regulation of water power provided for by the Federal Power Commission, and to experiment with actual ownership and operation by the government. The Tennessee Valley was singled out for the first great project. This region, containing portions of seven different states--Tennessee, Kentucky, Alabama, Mississippi, Virginia, North Carolina, and Georgia--and embracing within its boundaries some forty thousand square miles, seemed to offer an ideal testing ground for the various New Deal theories on social and economic planning. A high proportion of its population were of the underprivileged classes whose status inexpensive power was expected to benefit; and it possessed vast natural resources, most of which were either inadequately exploited or were being allowed to degenerate. Since the government had already spent huge sums upon the Muscle Shoals development, it was believed that here, if anywhere, results might be speedily obtained.

In May, 1933, Congress authorized the President to appoint a board of three directors, known as the Tennessee Valley Authority, into whose hands control of the vast new project was to be placed. The TVA was authorized to construct dams for the improvement of navigation and the control of floods; to develop new forms of fertilizer and to promote their use; to build and operate hydroelectric plants and to distribute the power which they generated; and to take such other steps as it might see fit to promote the agricultural and industrial development of the region involved.

(Continued)

TVA was quickly organized and, with Wilson Dam as a starting point, was soon able to supply inexpensive electric power to a limited area. As a government-owned industry operating in direct competition with private business, TVA met with determined opposition. In February, 1936, the Supreme Court upheld the sale of power from Wilson Dam, and three years later it refused to approve an injunction sought by private companies to prevent TVA from distributing power in competition with them. Neither decision ruled finally on the constitutionality of TVA activities as a whole, but the friendly support of the Court seemed assured. By 1940 electricity was being generated at four TVA dams for residential and commercial use; by 1944 the TVA had an installed capacity of 2 million kilowatts and was stressing electrification of rural areas and development of new uses for electric energy.

The impact of the TVA system, now including 33 major dams and numerous subsidiary facilities, has been tremendous. The Authority's power system--hydro and steam--produces over 100 billion kilowatt-hours of electricity each year, which is distributed by municipalities and rural cooperatives to over 2 1/2 million consumers throughout the Tennessee Valley. One of the 1918 nitrate plants has become a national fertilizer development center, with research ranging from greenhouse studies to strip mine reclamation. The dams have created a series of slack-water lakes, providing a year-round navigation channel with a minimum depth of 9 feet from Paducah, Kentucky, to Knoxville, Tennessee, a distance of 650 miles. In 1973 that waterway carried 29 million tons of freight, most of it interregional shipments to and from ports throughout the 21-state system of waterways connecting with the Tennessee River. The system's storage reservoirs have extended flood control beyond the Tennessee and its tributaries to portions of the Ohio and Mississippi Rivers.

Despite its comparative age, Wilson Dam remains a vital TVA unit. Modernization and expansion of its equipment has given Wilson 21 generating units with a production capacity of 629,840 kilowatts, the largest of any TVA dam. Operators in the Wilson control room monitor and balance power levels throughout the TVA system. A shipping bottleneck at Wilson due to increasing traffic (65 times greater than in 1938) was eliminated by the construction in 1956-59 of a 110 by 600-foot lock with maximum lift of 100 feet, then the largest single-chamber lock in the world. Visitors are admitted to the Wilson Dam facilities daily from 9 to 5. An information center is located at the power house and observation areas are maintained on both banks of the river and at the lockmaster's control building.

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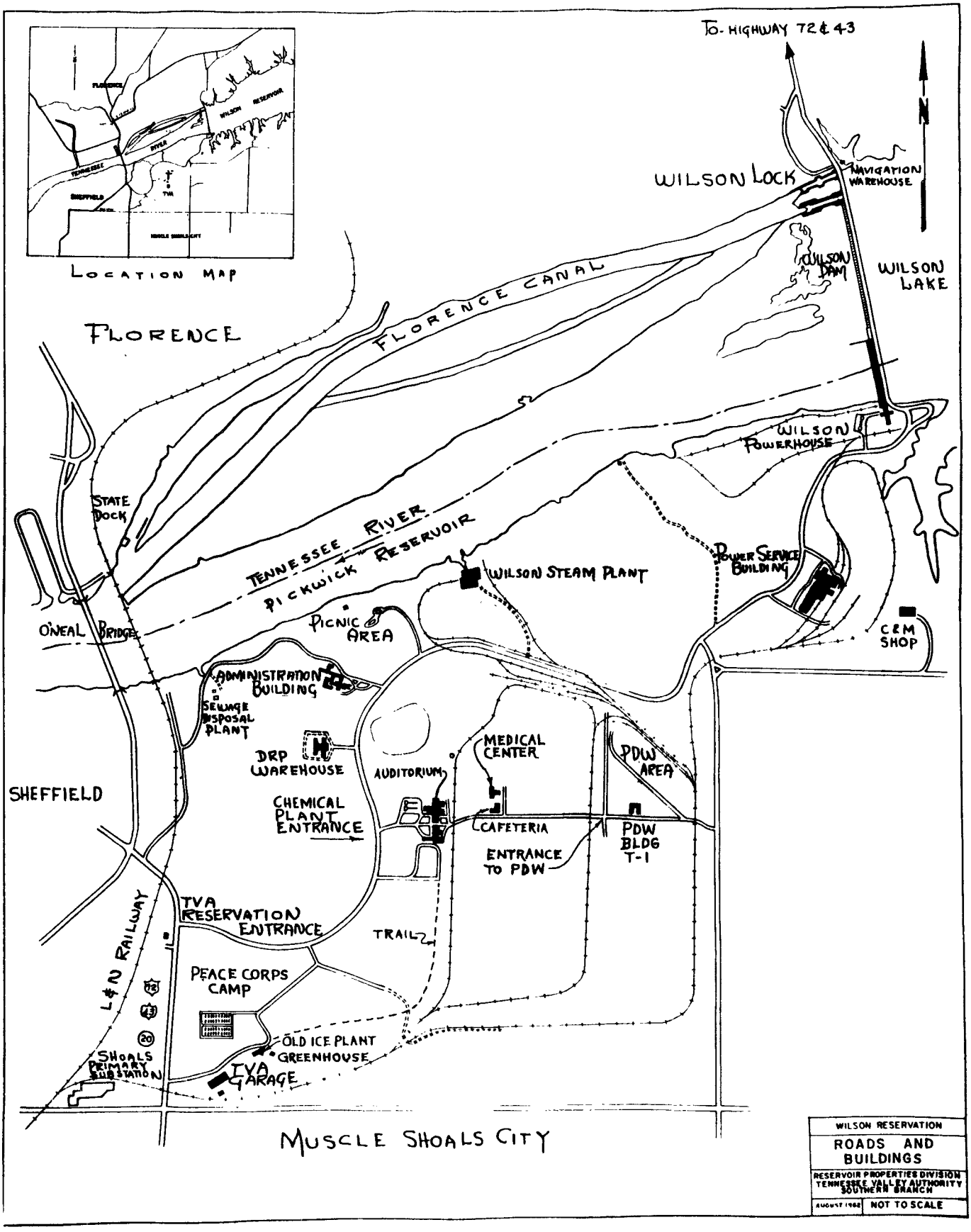
TO HIGHWAY 72 & 43
N
WILSON LOCK
NAVIGATION WAREHOUSE
WILSON DAM
WILSON LAKE
FLORENCE CANAL
FLORENCE
WILSON POWERHOUSE
STATE DOCK
TENNESSEE RIVER
PICKWICK RESERVOIR
WILSON STEAM PLANT
POWER SERVICE BUILDING
O'NEAL BRIDGE
PICNIC AREA
C&M SHOP
ADMINISTRATION BUILDING
SEWAGE DISPOSAL PLANT
DRP WAREHOUSE
AUDITORIUM
MEDICAL CENTER
PDW AREA
SHEFFIELD
CHEMICAL PLANT ENTRANCE
CAFETERIA
PDW BLDG T-1
ENTRANCE TO PDW
TVA RESERVATION ENTRANCE
TRAIL
L & N RAILWAY
PEACE CORPS CAMP
OLD ICE PLANT
GREENHOUSE
SHOALS PRIMARY SUBSTATION
TVA GARAGE
MUSCLE SHOALS CITY
LOCATION MAP
WILSON RESERVATION
ROADS AND BUILDINGS
RESERVOIR PROPERTIES DIVISION
TENNESSEE VALLEY AUTHORITY
SOUTHERN BRANCH
AUGUST 1968
NOT TO SCALE