

TENNESSEE VALLEY AUTHORITY  
DIVISION OF WATER CONTROL PLANNING

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PAST AND PROBABLE FLOODS  
DUCK RIVER IN VICINITY OF  
CENTERVILLE TENNESSEE

REPORT NO. 0-5471

KNOXVILLE TENNESSEE

Tennessee Valley Authority  
Division of Water Control Planning  
Hydraulic Data Branch

FLOOD HISTORY OF DUCK RIVER  
IN VICINITY OF CENTERVILLE, TENNESSEE  
TO MAY 1, 1957

This report covers investigations that have been made on Duck River from Huddleston Bridge, 7 miles below Centerville, Tennessee, to Swan Creek, 5 miles above Centerville.

Records of flood stage and discharge on Duck River have been maintained by the U. S. Geological Survey from March 1919 through June 30, 1955, at a gaging station approximately 0.4 mile downstream from Tennessee Highway 100 bridge at Centerville. To expand these records, field investigations have been made to locate high water marks of past floods, newspaper files have been searched, and local residents have been interviewed. From these investigations the knowledge of important floods at Centerville has been extended back to 1814. Information on the earlier floods is necessarily much less complete than for floods of the past 35 years covering the period since the stream gage was established.

SUMMARY

1. The highest flood known at Centerville and vicinity was that of February 14, 1948. This flood at its crest exceeded bankfull stage by about 16 feet.

2. The second highest known flood at Centerville was that of March 30, 1902, which was 4 to 5 feet lower than the 1948 flood. At the time of its occurrence the 1902 flood was described in newspaper accounts as the highest ever known at Centerville.

3. The third highest known flood at Centerville was on March 22, 1955, when the flood crested only 0.9 foot lower than the 1902 flood.

4. Floods in April 1892, April 1920, and January 1946, all approximately 4 feet under the 1902 crest and 8 feet under the 1948 crest, were at the upper level of floods that occur fairly frequently on Duck River.

5. Bankfull stage of 22 feet at the U. S. Geological Survey stream gage has been exceeded by thirty-seven flood crests during the 38 years since records began. One of these floods occurred in the first half of May. The other 36 floods occurred in the period December through April with the greatest frequency in January.

6. Overflow of the river bottom lands in the immediate vicinity of Centerville ranges up to 2,000 feet wide for a flood as high as in February 1948. Water 15 or more feet deep covered much of this bottom land in 1948.

7. The greater part of Centerville is substantially higher than the level of the 1948 flood. However, flooding of the city water-works pumping station begins at a stage of 26 feet, nearly 12 feet under the 1948 crest, and the resulting loss of water supply causes considerable damage to local industry. Flooding of a few buildings in the Indian Creek valley and near Tennessee Highway 50 bridge occurs at stages above 31 or 32 feet on the gage.

#### DUCK RIVER BASIN

##### Settlement

Centerville is the only urban development of any size along the lower 100 miles of Duck River. Its population in 1950 was 1,532.

Centerville was located in 1822 as the second county seat of Hickman County, the first being Vernon on Piney River. The county was formed in December 1807 and was organized in 1819. Centerville is situated almost exactly in the center of the county and derives its name from that fact.

The city is principally an agricultural center, although there are several small industries. The 50-mile-long Centerville Branch of the