

United States Department of the Interior
National Park Service

For NPS use only

National Register of Historic Places
Inventory—Nomination Form

received

date entered

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

1. Name

historic The Dan River Navigation System in North Carolina

and/or common

2. Location

street & number See individual Property Forms

X not for publication

city, town _____ vicinity of _____

state _____ code _____ county _____ code _____

3. Classification

Thematic Nomination

Category	Ownership	Status	Present Use	
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input checked="" type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input type="checkbox"/> religious
<input type="checkbox"/> object	n/a <input type="checkbox"/> in process	<input type="checkbox"/> yes: restricted	<input type="checkbox"/> government	<input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial	<input type="checkbox"/> transportation
		<input type="checkbox"/> no	<input type="checkbox"/> military	<input checked="" type="checkbox"/> other: Recreation

4. Owner of Property

name State Property Office, North Carolina Department of Administration

street & number 116 West Jones Street

city, town Raleigh _____ vicinity of _____ state North Carolina

5. Location of Legal Description

courthouse, registry of deeds, etc. State Property Office, North Carolina Department of Administration

street & number 116 West Jones Street

city, town Raleigh _____ state North Carolina 27611

6. Representation in Existing Surveys

The Dan River Navigation Structures
title in Rockingham County, N.C. has this property been determined eligible? yes no

date 1981 _____ federal state _____ county _____ local

depository for survey records Archaeology Branch, Department of Cultural Resources

city, town Raleigh _____ state North Carolina

7. Description

Condition		Check one	Check one
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input checked="" type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input checked="" type="checkbox"/> good	<input checked="" type="checkbox"/> ruins	<input type="checkbox"/> altered	<input type="checkbox"/> moved date _____
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		

Describe the present and original (if known) physical appearance

Reliable transportation systems were a major problem in eighteenth and nineteenth century North Carolina. The geography and hydrology of the state made it almost impossible to transport goods and people between east and west. Rivers which lead to seaports in other states and the isolation from sea trade caused by the Outer Banks made it extremely difficult to foster trade within the state. Numerous attempts at "internal improvements", of varying degrees of success were made. Most involving river navigation in the Piedmont were complete failures. However, the remains of those attempts represent an important aspect of the history of North Carolina--engineering attempts to alter the natural environment for the profit of commerce. The Dan River Navigation System is a series of well-preserved remains which highlight one such attempt.

The lack of navigable rivers severely limited internal trade, and diverted crops and manufactured goods to other states. In the late 18th and early 19th centuries the stagnation of trade within the state was blamed for a number of social ills, including widespread poverty and massive emigration. A growing awareness of the weakness of transportation and its effects led to the creation of land and water transportation routes such as plank roads, canals and alterations to existing rivers such as the Dan. Records of projected improvements (many never completed) and their accompanying controversies, bitterly contested by sectional and party interests, have given historians insights into the nature of North Carolina's antebellum society (Morgan 1911; Starling 1939; Hinsaw 1948; Rice 1954; Jeffrey 1978).

Originating in Virginia, the Dan River flows south into Stokes County, North Carolina. It then cuts northeast and returns to Virginia by way of Rockingham County. Turning to the southeast again, the river dips into northern Caswell County before bending back into Virginia and joining the Roanoke River (now Kerr Reservoir). This union affords the Dan a route to the Albemarle Sound and ultimately the coast of North Carolina. Like most of the rivers in the Piedmont, the Dan tends to be narrow and fast-moving with a number of falls and rapids. It is not naturally suited to navigation. However, it does have one advantage as far as North Carolina is concerned--it eventually leads to a North Carolina port.

The navigation structures on the upper Dan River are found in a 46 mile stretch located between the Virginia-North Carolina border and Harriston's Falls in Stokes County. There are only two low dams in North Carolina: one at the Dan River Steam Station near Eden, and the other at a water plant intake near Madison. These two dams represent the only modern intrusion in the river bed. There are modern bridges across the river and a few industries located near the river.

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Although it normally flows within its banks, the river does periodically flood. These episodes scour the banks and valley floor, and deposit sand within the river bed. Varying in width between 100 and 200 feet, the river is shallow with a sandy bottom. There has not been a major variance, in its channel since 1879, and there have only been two major topographic changes. In the fifth mile below Madison (1879 survey), the Three Islands have completely disappeared and in the seventh mile Mulberry Island, a prominent landmark, is no longer visible. At Galloway's Island, in the fourteenth mile, the left channel is now dry except at high water.

The Dan River remains a remarkably natural stream and may be navigated by canoes and small boats for its entire length in North Carolina. The river above Danbury, in Stokes County, has excellent whitewater recreational potential for the Upper Piedmont. In Rockingham County the navigation system offers an interesting historic canoe trail (Butler 1981).

The types of structures which make up the Dan River Navigation System include: wing dams, sluices, and hauling walls. Although the design of each type varies greatly, all are rather unimpressive in appearance, being constructed of materials from the river bed, and vicinity. In fact, it is only at extreme low water, and with close inspection, that most may be distinguished from natural features. Wing dams are usually visible as low piles of stone extending from the river bank across the flow of the stream forming a V-shaped structure. Channel openings of the dams range from 10 to 20 feet in width. They are not readily distinguishable from fish dams, and in fact a single structure may have served as both a navigation aid and a fish dam. Sluices may be as complex as parallel stone walls built using material garnered from the river bed, or as simple as a channel blasted in a rock ledge. Both are present within the Dan River Navigation System. Hauling walls, stone walls parallelling and often forming one side of a sluice, were used by boatmen to pull their vessels upstream.

Unless the water is extremely low, these rock structures may appear to be a natural part of a rapid. However, if the structure is in reasonable repair, a close inspection will distinguish manmade from natural features. Most navigation structure sites on the Dan will appear as complex of natural ledges, scattered boulders, and man-made structures in various states of preservation.

Survey Methodology

In 1974 William E. Trout, then vice-president of the American Canal Society, wrote to Richard P. Gravely, Jr., a respected amateur archaeologist of Martinsburg, Virginia, regarding his National Register nomination of an aboriginal fish dam on the Smith River. Dr. Trout, long interested in Virginia River navigation, had researched the Smith's River Navigation Company and speculated that the fish dam might have been incorporated into the navigation system. Mr. Gravely informed Dr. Lindley S. Butler (Rockingham Community College, Wentworth, North Carolina) of the contact, and sent a copy of the Corps of Engineers 1879 survey of the Dan River from Madison to Danville (Abert 1879). It was this brief, and rather convoluted sequence of events which gave impetus to the Dan River Survey Project.

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Although there was a surviving tradition of Bateau traffic in the river communities, knowledge of the navigation structures had been lost prior to initiation of the survey. In the fall of 1974 the late Edward A. Sutton of Madison, North Carolina, undertook a project in Dr. Butler's continuing education class in which he transcribed the 1879 survey and conducted limited field work on the river in search of extant structures. Continuing this work, Dr. Butler began examining the river in 1978. Utilizing the 1879 survey, supplemented by Isaac Briggs' survey of 1823, he began to record extant structures in Rockingham County. Survey efforts continued through the summer and fall of that year. Numerous canoe trips were taken down the river. Plentiful rainfall, and the accompanying high water hindered the survey in 1979, and it was not until the following year that work could continue. The onset of the 1980 drought lowered the level of the river to a point where work could proceed. In the fall of 1980 the river reached its lowest level in several years, and the survey was completed.

Because the survey was conducted over an extended period, and involved numerous trips down the river, personnel varied throughout the project. At various times, Dr. Butler directed a variety of students from his continuing education class in local history, interested local citizens, and Thomas Hargrove and John Clauser, of the Archaeology Branch of the North Carolina Department of Cultural Resources, in the effort. Since all remains were visible at low water, and artifact recovery was not essential to the understanding of the structures under investigation, no subsurface testing was conducted. Aside from the obvious difficulty of attempting an excavation in the middle of a river, the type of structure, and its use, would not lend itself to the deposition of meaningful artifact information.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> humanitarian
<input checked="" type="checkbox"/> 1800-1899	<input checked="" type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> theater
<input type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates 1823-1890 **Builder/Architect** N/A

Statement of Significance (in one paragraph)

GENERAL SIGNIFICANCE

The history of North Carolina may only be understood with an awareness of conditions imposed by geography: its isolation from the outside world caused by its coastal barrier islands, blocking easy access to the open sea, and its internal barriers such as the lack of easily navigable rivers. North Carolinians have responded to these conditions with a number of "internal improvement" projects to overcome these difficulties. Of those attempts, including plank roads, canals, and river alterations, the Dan River Navigation System is one of the best preserved examples of the "internal improvement" projects. The attempt to overcome naturally occurring impediments to commerce and transportation represents an important movement in the history of the state.

Although historical research has already examined some of the political aspects of the "internal improvements" of the 19th century, the remains of the Dan River Navigation System offer an opportunity unique in North Carolina to combine archival and archaeological research in the study of a 19th century transportation system's inception, construction, growth, decline, and role in the area's cultural geography and civil engineering history.

SPECIFIC CRITERIA

The Dan River Navigation System fulfills the following criteria of significance:

- A. It is associated with events that have made a significant contribution to the broad patterns of the history of North Carolina. The internal improvement campaigns and the subsequent developments in 19th century transportation represent the beginnings of state involvement in engineering solutions to natural barriers to transportation.
- C. It embodies distinctive characteristics of construction and represents a significant and distinguishable entity whose components may lack individual distinction. The civil engineering techniques of adaptation of river beds with the construction of stone and timber dams, sluices and hauling walls are well represented. Taken as individual structures they would be of little import, but taken as a whole they represent an important transportation system.

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D. It is likely to yield information important to the history of North Carolina. Specific research questions include:

1. The study of 19th century civil engineering practices.
2. The effects of developed transportation networks on settlement patterns.
3. The effects of dependable transportation systems on local economics.
4. The effect of an existing transportation system on the development of alternate transportation networks.

HISTORY OF THE ROANOKE NAVIGATION COMPANY

The Roanoke River and its major tributaries, the Staunton and the Dan, drain an immense area in North Carolina and Virginia. In the antebellum period the rich valley soils supported large plantations with the result that the region was considered potentially one of the richest in the Mid-Atlantic states. However, reliable transportation was a problem complicated by the fact that a state border divided the region. But, eventually, united development would take place.

An early effort to provide an outlet for the Roanoke Valley resulted in the chartering of the Dismal Swamp Canal Company. State Senator James Gallaway, a political leader and merchant of Rockingham County, sponsored the bill. Rockingham County was one of the few locations in the state where company stock was sold. Although the canal was not complete until 1814, portions were in use as early as 1796.

North Carolina lagged in internal improvements until after the war of 1812. Archibald D. Murphey of Hillsboro, chairman of the state Senate committee on internal improvements, compiled and published detailed reports on inland navigation and the need for improved transportation. Stimulated by Murphey's efforts, interest was renewed in developing transportation networks for the Roanoke drainage. In 1815 the North Carolina and Virginia legislatures rechartered the Roanoke Navigation Company, galvanizing planning for, and the eventual construction of a navigation system on the Roanoke, Dan and Staunton (Trout 1978; Rice 1954; Weaver 1903).

The major obstacle to commerce on the Roanoke River, and therefore the company's first effort, was the falls at Weldon. A canal and series of locks around the falls opened a large stretch of the river to navigation. By 1823 the canal was complete to a bateau basin at Weldon. Following a survey by company engineer Isaac Briggs, series of sluices, wing dams, and locks were constructed on the upper Roanoke, the Staunton, and the Dan (Briggs 1823). By 1826 the Dan was open to Leaksville, a distance of 152 miles from the canal at Weldon. The town of Madison was reached within another two years.

BATEAU AND STEAM NAVIGATION

A bateau is a double-ended, shallow draft, flat-bottomed craft approximately 60 feet long and 8 feet on the beam. These boats were poled by several boatmen, usually slaves in the antebellum period and free blacks in the latter part of the century. Long sweeps on both bow and stern were used to steer the craft. The great advantage of these craft

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was their ability to navigate in shallow winding rivers and streams. The vessels could carry up to 12,000 pounds of cargo or 24 hogshead of tobacco. The voyages downstream originally terminated at Weldon, but by 1856 the Richmond and Danville Railroad (chartered in 1847) was opened to Danville which then became the terminus for the Dan River traffic. The cargos downriver usually consisted of bulk agricultural products: tobacco, flour, and grains. The 1851 upriver trip by boat owned by G.Y. Nichols included nails, molasses, boxes, barrels, baskets, sugar, coffee, rice, and sundries.

Steam excursion boats would occasionally venture out on the upper Dan River in the ante-bellum period. By 1852 the Lilly of the Dan was operated between Danville and Madison. The voyage upstream took two days, while the return downstream took only one. In 1855 the Dan River Steam Navigation Company was chartered for commercial operation of tow boats. Current research has not produced evidence concerning the success of this operation. By 1874 James Turner Morehead, an industrialist and developer of Leaksville, had secured navigation rights to the river and put a commercial tow boat in operation. Although it can not be determined exactly how long the Morehead boat line operated, there are memories of the steamboat and its whistle in the late nineteenth century, and ample evidence of bateau navigation as late as 1890.

A survey of the Dan River from Clarksville, Virginia to Danbury was authorized by the Federal Government in 1878. An engineer, S.T. Abert, conducted the survey, and submitted detailed reports in 1879 and 1880. On the strength of these reports, a \$10,000 appropriation was passed for improvements on the stretch of the river between Danville and Madison.

The coming of the railroad brought an end to navigation on the Dan. The Danville, Mocksville, and Southwestern was completed to Leaksville in December 1883. A branch of the Cape Fear and Yadkin Valley Railroad was opened to Madison in 1889, and the Roanoke and Southern linked the Mayo Valley to Winston-Salem in 1891. Although commercial navigation did not totally cease with the coming of the railroads, the majority of the traffic appears to have been relegated to boating parties for excursions and church picnics. Technology finally brought what nature had not provided--reliable transportation routes.

9. Major Bibliographical References

Abert, Sylvanus Thayer

1897 Survey of the Dan River Between Danbury, North Carolina, and Danville, Virginia. U.S. Engineers Office, Washington, D.C.

10. Geographical Data

Acreage of nominated property _____

Quadrangle name _____

Quadrangle scale _____

UTM References See individual property forms

A

--	--	--	--	--	--	--	--	--	--

Zone Easting Northing

B

--	--	--	--	--	--	--	--	--	--

Zone Easting Northing

C

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D

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E

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F

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G

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H

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Verbal boundary description and justification

See individual property forms

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 John W. Clauser, Jr.

organization N.C. Department of Cultural Resources
Archaeology Branch

date December 15, 1983

street & number 109 East Jones Street

telephone (919)733-7342

city or town Raleigh

state North Carolina

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.

State Historic Preservation Officer signature *William S. Pugh*

title _____ date January 31, 1984

For NPS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest:

date

Chief of Registration

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Butler, Lindley S.

- 1981 The Dan River Navigation Structures in Rockingham County, North Carolina
Ms on file, Archaeology Branch, North Carolina Division of Archives and
History, Raleigh.

Carter, Robert W., Jr. (ed)

- 1980 Leaksville of "Ye Olde Times" by Daniel E. Field. Journal of Rockingham
County History and Genealogy 5: 1-41

Glass, Brent D.

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Historic American Engineering Record, North Carolina Division of Archives
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- 1978 Internal Improvements and Political Parties in Antebellum North Carolina,
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10 (3): 122-154.

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1975a The American Canal Guide, Part 2: The South-North Carolina to Florida.
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1975b Historic Sites in Stream Beds. American Canals 7.

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