UNITED STATES DEPARTMENT OF THE INTERIOR

FINAL
ENVIRONMENTAL STATEMENT

Proposed

SOUTH FORK NEW RIVER
NATIONAL WILD AND SCENIC RIVER
NORTH CAROLINA

Prepared by
BUREAU OF OUTDOOR RECREATION, U.S. DEPARTMENT OF THE INTERIOR

MARCH 1976

John Crutcher
Director

SUMMARY

Department of the Interior, Bureau of Outdoor Recreation

1. Type of action: (X) Administrative ( ) Legislative

2. Brief description of action: The Governor of the State of North Carolina has requested that a segment of the New River and its tributary, South Fork, be declared a component of the National Wild and Scenic Rivers System by the Secretary of the Interior under the provisions of Section 2(a)(ii) of the Wild and Scenic Rivers Act, Public Law 90-542, as amended. The stream segments are located within Ashe and Alleghany Counties in northwestern North Carolina. The segments which qualify for designation under the "scenic" classification of P.L. 90-542, are in the North Carolina Natural and Scenic River System, and would be protected and managed without cost to the Federal Government.

3. Summary of environmental impact and adverse effects: Inclusion in the National System of Wild and Scenic Rivers would result in the further protection of existing scenic, recreational, archeological and fish and wildlife values of the river. The present agricultural land use pattern would be preserved. No significant adverse effects on ecological systems are anticipated. A major impact would be felt in the prevention of water resource development. Other economic impacts would be minor.

4. Alternatives considered: Four Alternatives are discussed: I) No Action, II) Designation of Less Than Proposed Area, III) Designation of New River in North Carolina, Virginia, and West Virginia, Without Reservoirs, and IV) Construction of Blue Ridge Project and Other River Segments.

5. Comments have been requested from the following:

Federal
- Advisory Council on Historic Preservation
- Appalachian Regional Commission
- Water Resources Council
- Dept. of Agriculture
- Dept. of Commerce
- Dept. of Defense
- Dept. of Housing & Urban Development
- Dept. of Health, Education & Welfare
- Dept. of the Interior (See Section IX for complete list)
- Dept. of Transportation
- Environmental Protection Agency
- Federal Power Commission
- Federal Energy Administration
- Energy Research and Development Administration

State
- North Carolina Dept. of Agriculture
- Dept. of Nat. & Economic Resources
- Dept. of Transportation
- Dept. of Justice
- Dept. of Cultural Resources
- State Clearinghouse
- Council of Governments, Region D
- West Virginia-Gov. Office
- Virginia-Gov. Office

Private
- Amer. Cons. Assn.
- Am. Forestry Assn.
- Soc. of Am. Foresters
- Am. Rivers Cons. Council
- Izaak Walton League
- Sierra Club
- NC Wildlife Federation
- Carolina Bird Club
- Cons. Coun. of NC
- NC Assn. S&WCD
- Appalachian Power Co.

Other
- Ohio River Basir Commission

6. Statement made available to CEQ and Public:

Draft--November 28, 1975
Final-- MAR 12 1976

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I. DESCRIPTION OF THE PROPOSED ACTION

Proposal

This statement concerns an application by the Governor of the State of North Carolina to have a segment of the New River and a segment of its tributary stream, South Fork, declared a component of the National Wild and Scenic Rivers System by the Secretary of the Interior under the provisions of Section 2(a)(ii) of the Wild and Scenic Rivers Act, Public Law 90-542, as amended. The stream segments under consideration (see conceptual plan map, page 2), extend upstream from the North Carolina--Virginia State line about 4.5 miles along the course of the New River to the confluence of the North Fork and the South Fork and thence up the South Fork for a distance of about 22 miles to the point of entry of the tributary stream, Dog Creek. The area will be referred to throughout this statement as South Fork New River.

The stream segments under consideration are located entirely within Ashe and Alleghany Counties in the northwestern part of the State.

On June 14, 1974, the Federal Power Commission issued a license to the Appalachian Power Company for the construction of a pumped-storage hydroelectric power facility in Virginia known as the Blue Ridge Project. The effective date of the license was January 2, 1975.

The upper reservoir portion of this project would inundate the entire 26.5-mile contiguous sections of the New River and South Fork New River in North Carolina covered by this proposal.

By Resolution Number 170, Session Laws of North Carolina 1973 General Assembly, 2nd Session 1974, the State of North Carolina enacted legislation designating the Main Stem of the New River in North Carolina as a State scenic river area, and designated the South Fork of the New River for study as a State scenic river.[1/] Pursuant to this act, the Governor of North Carolina, on December 12, 1974, formally applied to the Secretary of the Interior to designate the aforementioned section of the New River as a "scenic river area" under the Federal Wild and Scenic Rivers Act.

On May 22, 1975, the General Assembly of North Carolina amended the original act designating the main stem of the New River as a State scenic river by adding 22 miles of the South Fork of the New River, for a total of 26.5 contiguous miles of river.

As a result of this act by the General Assembly, the Governor, on July 11, 1975, wrote to the Secretary of the Interior amending

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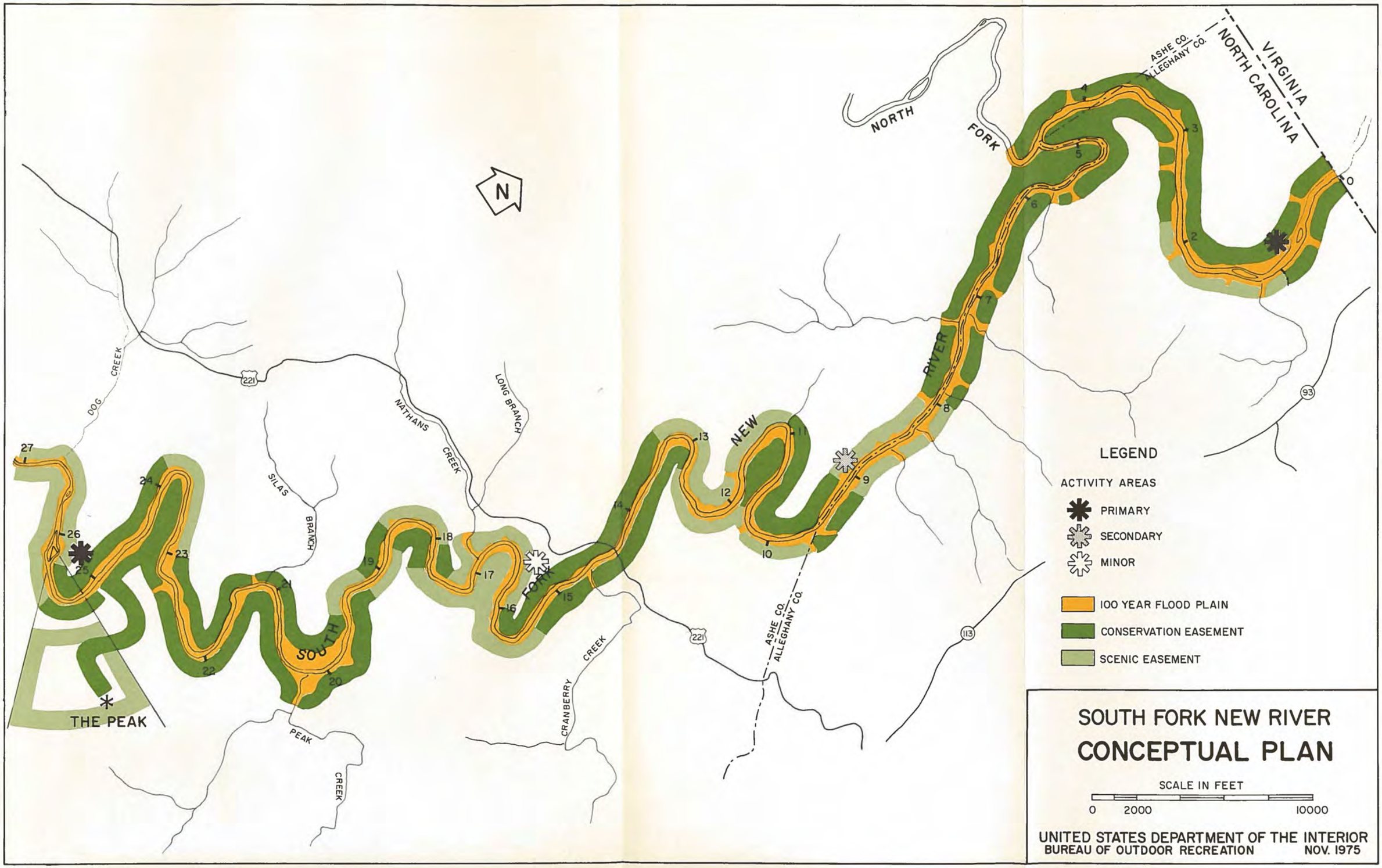
1/ Scenic areas, as defined in the North Carolina Natural and Scenic Rivers System, are: "Those rivers or segmentsof rivers that are largely free of impoundments, with the lands within the boundaries largely primitive and largely undeveloped, but accessible in places by roads." (N.C.G.S. 113A-34)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NORTH FORK
NEW RIVER
SOUTH FORK
VIRGINIA
NORTH CAROLINA
ASHE CO.
ALLEGHANY CO.
DOG CREEK
NATHANS CREEK
LONG BRANCH
SILAS BRANCH
CRANBERRY CREEK
PEAK CREEK
THE PEAK
221
93
113
LEGEND
ACTIVITY AREAS
PRIMARY
SECONDARY
MINOR
100 YEAR FLOOD PLAIN
CONSERVATION EASEMENT
SCENIC EASEMENT
SOUTH FORK NEW RIVER
CONCEPTUAL PLAN
SCALE IN FEET
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UNITED STATES DEPARTMENT OF THE INTERIOR
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his original Wild and Scenic River application by including the entire 26.5 miles of contiguous river, designated as a State scenic river, under that application.

The State of North Carolina petitioned the United States Court of Appeals for the District of Columbia for a stay of execution of the license which had been granted to Appalachian Power Company for the Blue Ridge Project. This stay was granted by the court on January 31, 1975. Arguments for and against the construction of the Blue Ridge Project were heard by the court on October 23, 1975.

Purpose

The scenic designation of the New River segments described in this statement and the application to have these streams included in the National Wild and Scenic Rivers System are designed to protect the natural and scenic values of the free-flowing river while providing the opportunity and necessary facilities for an appropriate level of public use and enjoyment of those streams.

The State has prepared a plan for management and development which is designed to prevent degradation of those natural and scenic qualities by incompatible development and use.

The river area will provide quality floating, hiking, picnicking, fishing, sightseeing, educational and research opportunities in wildlife, botany, history and archeology and other related areas of interest.

The management plan is designed to control access to avoid over-development and overuse, limit motorized travel to suitably designated roads away from the stream corridors, and to assure that present compatible farm pasture and other uses are allowed to continue substantially as they now exist.

The proposal will help meet the natural resource preservation and recreation needs of the State as identified in the North Carolina Natural and Scenic Rivers System Act and of the region as identified in the Nationwide Outdoor Recreation Plan.

Proposal Area

The New River in North Carolina consists of the North Fork, South Fork and 4.5 miles of the main stem from the confluence of the North and South Forks to the point where the river crosses the State line into Virginia. These streams are located in the Appalachian Mountains in the northwestern corner of the State.

The South Fork rises in Watauga County near Boone, North Carolina, and flows northward about 85 miles before it meets the North Fork. The proposed river consists only of the lower 22 miles of the South Fork plus 4.5 miles of the main stem. All of the proposed stream segments are located in Ashe and Alleghany Counties.

The river is about 90 miles northeast of Asheville and about 60 miles northwest of Winston Salem, North Carolina, (see location map, page 6). Principal highways are U.S. 221 and U.S. 21. The Blue Ridge Parkway

can be reached about 10 miles of the east of the river. A short distance north of the State line, in Virginia, is the Mount Rogers National Recreation Area.

Criteria

To be eligible for inclusion in the National Wild and Scenic River System, a river must be essentially free flowing, must be long enough to provide a meaningful recreation experience (generally 25 miles), must have a sufficient volume of water to permit full enjoyment of water-related activities during the recreation season, must have water quality high enough to support the propagation of fish and wildlife, and must possess at least one of the following characteristics:

Outstandingly remarkable:

1. Scenic
2. Recreational
3. Geologic
4. Fish and Wildlife
5. Historic
6. Cultural, or other similar values

In the case of the South Fork New River, it meets the above criteria and has more than one outstandingly remarkable resource value. Geological points of interest include the presence of ancient lava flows and billion-year-old metamorphic rocks and the fact that the New River is part of the oldest river system in North America. (These points and others are covered in greater detail in the sections on hydrology, page 67, and geology, page 88).

The archeology of the South Fork area has not been fully explored, but preliminary investigations have indicated that a variety of cultures have inhabited the upper New River Valley during the past several thousand years. (See pages 63-65 for more details.) The designation of the South Fork of the New River would make it possible for these resources to be completely studied. In addition, the proposed area has significantly valuable fish and wildlife resources, including many State rare and/or endangered species (see pages 119-132) and high recreation and scenic values.

Classification

The State, based upon the classification criteria for the North Carolina Natural and Scenic Rivers System, determined that the proposed stream segments "clearly qualified for designation as a scenic river area in the State System . . . ." 1/

The present prevailing land use in the identified segments consist of active pasture and cultivated lands. In addition, there is a wildlife management area in the Cranberry Creek area (see Wildlife Resources map, page 120). There are many rapids in the riverway and approximately 10 outstanding rock outcrops, of which the two most spectacular are located on the main stem of the river near

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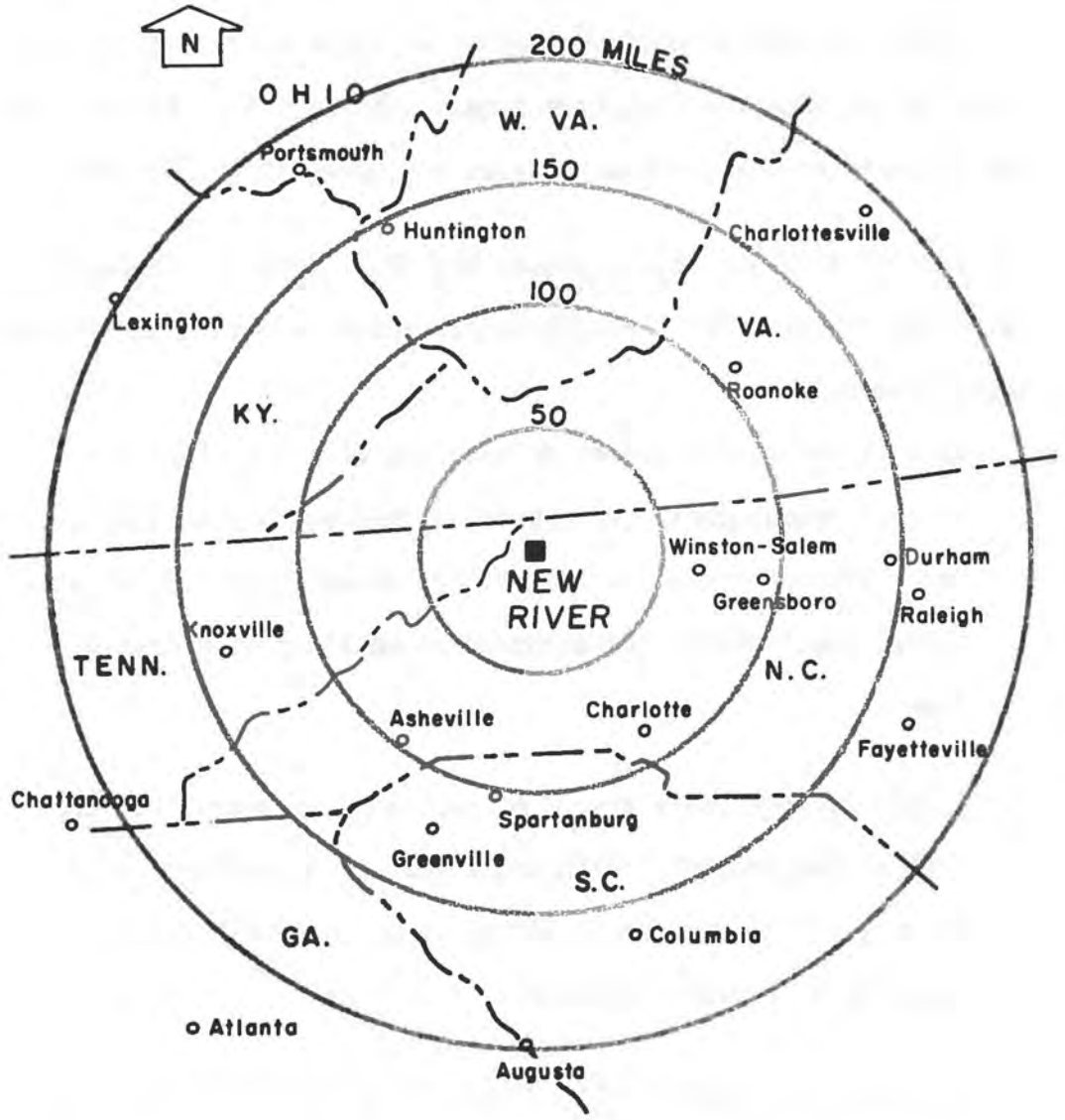
1/ Revised Management Plan South Fork New River and Main Stem New River, North Carolina, June 1975, prepared by North Carolina Department of Natural and Economic Resources.



LOCATION MAP
SOUTH FORK NEW RIVER

SCALE IN MILES
0 50 100

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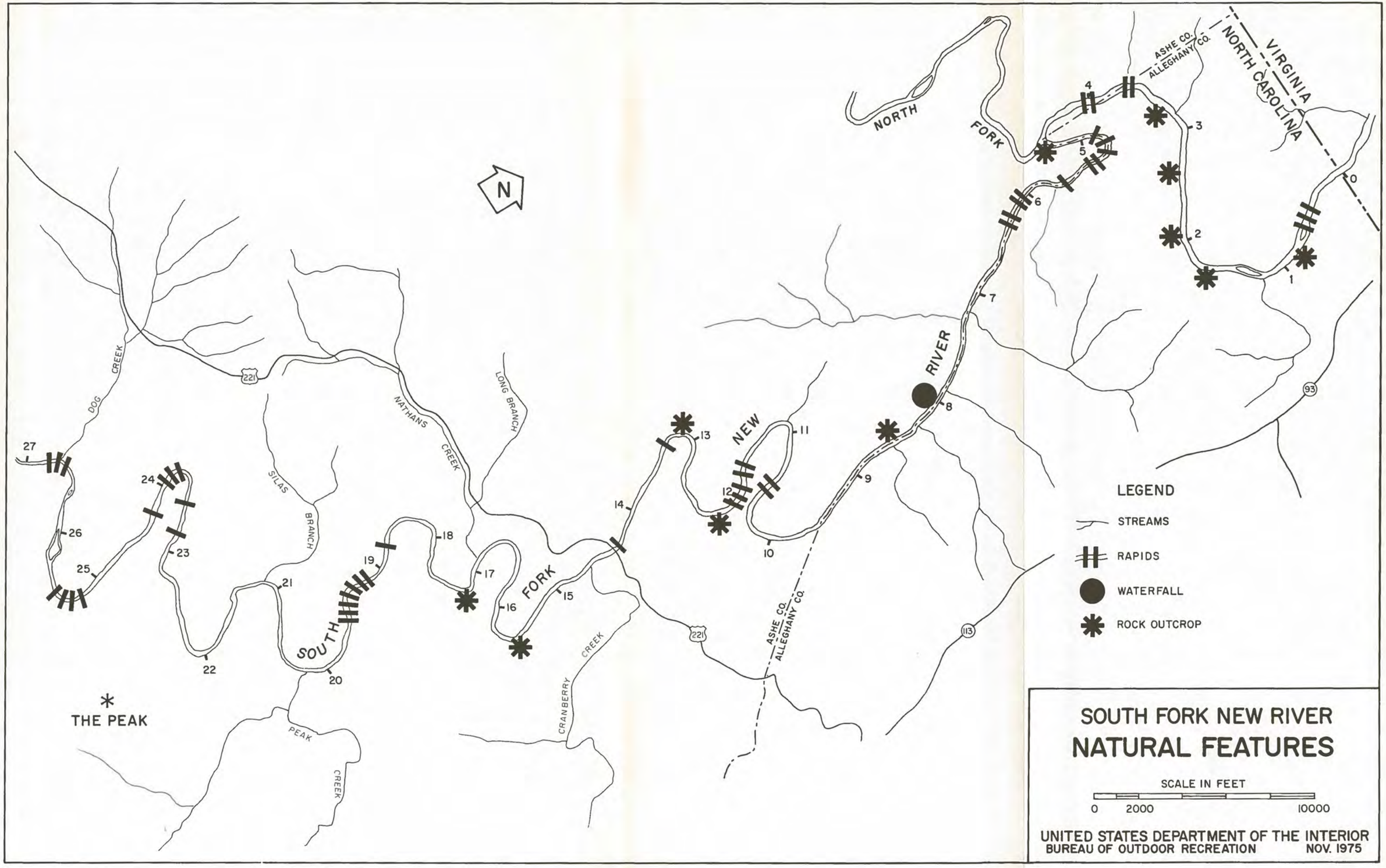
The Virginia line (see natural features map, page 8). There are five highway bridges over the river, of which the U.S. 221 crossing near Scottville is the only major crossing; one other is a State road, two are county roads and one is an unpaved road with a low water ford/bridge crossing (see access map, page 9). River miles are numbered on these and other maps beginning at the Virginia line.

The Federal Wild and Scenic Rivers Act (P.L. 90-542 as amended) specifies criteria for classifying protected rivers in the following three categories:

1. Wild rivers--Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.

2. Scenic rivers--Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

3. Recreational rivers--Those rivers or sections of rivers that are readily accessible by road or railroad that may have some development along their shorelines and that may have undergone some impoundment or diversion in the past.


N
NORTH FORK
RIVER
NEW
SOUTH FORK
DOG CREEK
NATHANS CREEK
LONG BRANCH
SILAS BRANCH
CRANBERRY CREEK
PEAK CREEK
ASHE CO.
ALLEGHANY CO.
VIRGINIA
NORTH CAROLINA
221
113
93
THE PEAK
LEGEND
STREAMS
RAPIDS
WATERFALL
ROCK OUTCROP
SOUTH FORK NEW RIVER
NATURAL FEATURES
SCALE IN FEET
0 2000 10000
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N

16

221

NORTH FORK

RIVER

NEW

SOUTH FORK

ASHE CO.
ALLEGHANY CO.

NORTH C

A

93

113

221

THE PEAK

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

LEGEND

- HARD SURFACED ROAD
- STATE MAINTAINED SECONDARY ROAD
- PRIVATE ROAD AND TRAIL
- STATE MAINTAINED BRIDGE
- FORD

SOUTH FORK NEW RIVER
ACCESS

SCALE IN FEET

0 2000 10000

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SOUTH FORK NEW RIVER ACCESS

SCALE IN FEET

0 2000 10000

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The presence of farm structures, parallel roads, bridges, and clearing for farms and pastures along much of the South Fork New River disqualify it from consideration as "wild" river area. However, such streams can meet the "scenic" and "recreational" classifications.

Administration and Management

Protection of the natural resource values of the proposed river area and the development and control of facilities and use levels will be undertaken by the State of North Carolina with the cooperation and assistance of local governmental entities.

The enabling act[1/] sets forth certain conditions which must be adhered to should the project be implemented. These are:

1. The Department of Natural and Economic Resources shall prepare a management plan[2/] which shall recognize and provide for the protection of the existing scenic and pastoral features of the river.

2. The plan shall specifically provide for continued use of the lands adjacent to the river for normal agricultural activities, including but not limited to, cultivation of crops, raising of cattle, growing of trees and other practices necessary to such agricultural pursuits.

1/ Article 3, Section GS113A-35.1 of the North Carolina Natural and Scenic Rivers System, as amended (1975).

2/ The master plan will be prepared when implementation is authorized and prior to the initiation of development activity (see Chapter 1, Section C. Implementation, Item 3, page 20).

3. Acquisition of land and interests in land is limited to not more than 400 acres in fee simple and up to 1,500 acres in easements. Easements may not abridge existing water rights.
4. Inclusion of the river in the national system shall be at no cost to the Federal Government. (Money allocated to the State through the Land and Water Conservation Fund is not considered to be in violation of the "at no cost to Federal Government" requirement of Section 2.(a) of Public Law 90-542, Wild and Scenic Rivers Act, as amended through Public Law 93-621.)

A. Management

Within the framework of these parameters the plan formulated by the North Carolina Department of Natural and Economic Resources contains the following features, among others, for the management and development of the river:

1. The resource is capable of providing the following amounts of recreation activities without repetition:
   -- canoeing - 2 days
   -- backpacking - 3 days
   -- bicycling - 1 day
   -- horseback riding - 1 day
   -- fishing (smallmouth bass)
2. Recreation facility development (see conceptual plan map, page 2, for location) will consist of the following:
   -- two primary activity areas of 75-150 acres per area
   -- one secondary activity area of 25-75 acres
   -- one minor activity area of 25 acres

Total acreage for these activity areas is to range from 200-400 acres. The necessary land is to be acquired by the State in fee simple, recognizing the legislative constraint that such areas are not to be located in places that are now undeveloped and possess wilderness characteristics. Some land needed for recreation use in the lower part of the South Fork has already been offered by a landowner as a gift to the State and other gifts of land are possible.

Primary activity areas are to be located near the beginning point at Dog Creek and at a point 2 miles south of the Virginia line.

The sites are located in protruding ridge/bluff situations at river meanders having good vehicular access from main roads (access map, page 9). Site selection for secondary areas is to follow the same general criteria as for primary areas with the exception that vehicular access is to play a lesser role. The minor activity areas are to be at more isolated locations (proposed facilities map, page 2) and will serve primarily as rest stops for river and trail users.

"The Peak," (see natural features map, page 8) at 3,874 feet, is the highest elevation along the 26.5 miles of proposed scenic river. It will be linked to the river corridor by a trail.

3. The plan recognizes the fact that private enterprise can play a major role in providing certain kinds of public use facilities along the river.

4. The corridor is to be protected against any changes in land use and development that would be contrary to the criteria for the natural and scenic river system. Flood prone areas and areas of particular natural beauty are to be highest priority for preservation. Protection will be achieved through fee simple acquisition, flood plain zoning, restrictive easements, and through cooperative ageements with landowners.

B. Land Control

In order to comply with legislative requirements, a combination of several land control methods will be applied and will include fee simple acquisition of land, gifts of land or easements, purchased easements, and cooperative agreements. Determination of the most desirable control methods will be reached on an individual basis for each parcel of land as a result of negotiations between landowners and representatives of the State Property Acquisition agency and with the Attorney General's office as follows:

1. Zoning

The most effective means of zoning in North Carolina is through the State's Floodway Regulation (Part 6 of G.S. 134-215)

This effectively limits the uses allowed within a 100-year flood plain and, when combined with permit procedures for allowing specific uses within these boundaries, provides a very useful means of regulation.[1/] Local restrictions on uses of flood plains will be examined first to determine the degree of protection that they confer on the river segment under consideration. Other protective methods are to be employed as necessary after the potential usefulness of flood plain restrictions is ascertained.

2. Cooperative Agreements

Under this method, both parties agree to certain restrictions which will be beneficial to both. Ownership of the land remains in the private individual. This method is unstable and changeable and will, therefore, be of limited usefulness.

3. Lease or Rental

Leasing of land, because it is for a specified time and has fixed payments for the use and possession of the property, is more authoritative and beneficial than renting for the purposes of control. However, either one of these forms of regulation of land might be used for river system management, but the decision to use one or another must be made on a case-by-case basis.

1/ Ashe County is now in the process of implementing such legislation. See Appendix 2 of the State's Revised Management Plan, supra.

4. Fee Simple Acquisition

The most definitive form of management from both governmental and private viewpoints is fee simple ownership of property. This can be accomplished through outright purchase or through donation to the State, with or without a reversion clause or other restrictions.

Purchase by the State, preferably in fee simple, will be used to acquire land on which facilities are to be placed. The State prefers to work on a willing seller-willing buyer basis but will use its power of eminent domain when all other strategies fail.

5. Easements

When no donations are to be made, and when circumstances do not require or allow fee simple acquisition of land, the State will negotiate easements, either affirmative or negative, by gift, purchase or condemnation.

Applying conservation easements on the New River would include consideration of both manmade and natural developments. Manmade structures and their accompanying qualities pose one of the greatest problems in a scenic area. The density, size, location, architectural style and purpose of these structures must be evaluated and a determination made as to whether or not they can be allowed, and if so, where and in what numbers. The effect of support utilities,

such as power, water, solid waste disposal and communication, will also be determined. Any removal of soil, rocks and minerals will be evaluated and prevented if possible. Changes in natural features and in the nature of the use of the land will be restricted. In addition, easements must be consistent with the intent of the General Assembly that agriculture be perpetuated on lands adjacent to the river and that existing uses of water from the river shall not be abridged. Each of these items must be identified and considered on a case-by-case basis, so as to tailor the easement to fit the situation.

C. Implementation

1. Application of Land Control Measures

Land forming the river basin has been classified as flood plain, valley walls and bluffs, outcrops or ridge tops (see land use map, page 17 and natural features map, page 8).

Each of these land forms will support certain activities or facilities, and therefore, different combinations of land control methods will be needed in order to afford optimum or maximum protection for the land, the activity and the natural experience.

N

DOG CREEK

DOG CREEK MILL SITE

NATHANS CREEK

LONG BRANCH

SILAS BRANCH

SOUTH FORK NEW RIVER

NORTH FORK NEW RIVER

CRANBERRY CREEK

PEAK CREEK

* THE PEAK

221

113

93

ASHE CO.
ALLEGHANY CO.

VIRGINIA
NORTH CAROLINA

ASHE CO.
ALLEGHANY CO.

LEGEND

- FORESTED STEEP SLOPES
- ACTIVE PASTURE
- OLD PASTURE
- CULTIVATED LAND
- PRIVATE CAMPGROUND
- SECOND HOMES

SOUTH FORK NEW RIVER
EXISTING LAND USE

SCALE IN FEET

0 2000 10000

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In the flood plains along the river, control will be achieved by use of floodway regulations as authorized in the General Statutes of North Carolina. These regulations limit development in the flood plain and prohibit development in the designated floodway. The second method of management to be used in the flood plain is conservation easements. Fishing easements would permit linear movement along the river. Easements will contain scenic restrictions but will have to permit continued exercise of agricultural and water rights. The third method of control in the flood plain is fee simple acquisition. Such acquisition will be used only in areas where it is absolutely necessary, such as the designated activity areas. The activities which will necessitate acquisition include picnic areas, parking facilities and camping sites.

The sections characterized by valley wall and slopes can be considered as moderate slope and severe slope sections.[1/]

The moderate slopes are much more suited to development than either the flood plains or the steeper slopes. Therefore, most of the more intense development activities will have to be located on these moderate slopes. Fee simple acquisition, or leased land in some instances, will be needed to provide adequate control for areas where activities, such as an interpretive center, tent and trailer camping, and parking are to be located..

1/ The North Carolina Division of State Parks uses the following definitions for slopes: slight slope - 0-7 percent; moderate slope - 8-12 percent; severe slope - over 12 percent.

The roads needed for access to these areas, if access is not already provided by public roads, would normally be built on a simple right-of-way or easement. However, depending on the intensity and location of the uses, a simple access easement may suffice. Scenic qualities of the surrounding area will also require protection through scenic or visual easements. These problems will not be as acute in the areas where the land is characterized by steeper slopes. Due to the higher development costs of building on these slopes, the land is largely left undeveloped. The steep slopes are useful for hiking trails, backpacking trails and horseback trails. Along these routes, fee simple acquisition usually will not be needed. Scenic easements with appropriate clauses allowing for trail development and scenic protection will provide the needed control mechanisms.

The third land form to be considered includes the bluffs, rock outcrops and ridge tops. These areas are usually very close to the river and are extremely steep. Where the rock outcrops are visually spectacular and need protection, fee simple acquisition will be the best method to provide that protection. Where this is infeasible, conservation easements on the area visible from the river will be adequate.

In some cases, it will be necessary to extend the scenic easement coverage above the rock outcrop itself, possibly up to the ridgetop beyond the actual bluff. The objectives will be to protect the scenic quality of as much land as possible.

The general locations of major facilities and types of land use controls proposed at various places along the river are portrayed in the conceptual plan map on page 2.

2. Availability of Funds

The North Carolina Department of Natural and Economic Resources has requested $1 million for each year of the 1975-77 biennium for use in land acquisition for public recreation facilities. It will be used for fee simple acquisition or for purchase of easements and to match any Federal funds available through the Land and Water Conservation Fund. In addition, the Department has requested $5 million for construction of facilities at State-operated public recreation sites during the 1975-77 biennium.

3. Master Plan and Environmental Impact Statement

Prior to the initiation of development activity, the Department will prepare a detailed master plan. An environmental impact statement will be prepared by the Department for the proposed master plan and the facilities it entails.

4. Supervisory staff

As soon as land acquisition and planning have proceeded to the point where it is deemed necessary, the Department will employ the necessary personnel to provide onsite management of acquired lands and, ultimately, facilities.

5. Private Enterprise

As indicated, substantial opportunities exist for private entrepeneurs to develop and manage support facilities. During master plan development the Department will make an effort to include private enterprise when the opportunity occurs and when such activity is clearly consistent with management goals for the river.

Interrelationships With Other Projects

Statewide Comprehensive Outdoor Recreation Plan (SCORP)

The New River and South Fork New River proposal is consistent with the goals expressed in the 1973 North Carolina SCORP to preserve and protect streams that possess natural, scenic, historic, and cultural qualities.

National Park Service (Blue Ridge Parkway)

The streams under consideration flow in a northeasterly direction roughly parallel to the Blue Ridge Parkway and about 10 miles to the west. Estimates of travel increase due to designation of the river as a part of the national system amounts to approximately

14,200 automobiles per year on all roads. Some of this increased traffic will undoubtedly occur on the parkway, but it is not likely that the impact on the parkway will be significant.

State and Federal Departments of Transportation

Inquiry and search of available sources of information have not revealed a highway project in the area that would conflict in any way with the scenic river project. Anticipated increases in traffic attributable to the river is expected to amount to approximately 14,200 vehicles annually and not constitute a problem on existing highways. The management and development plan of the State of North Carolina includes construction of access routes to the river and its facilities which will tie in to existing highways.

Corps of Engineers, Huntington District

Kanawha River Comprehensive River Basin Study - June 1971
This study was the product of the Kanawha River Coordinating Committee composed of representatives of Federal, State, and local agencies and chaired by the District Engineer. It was formed to direct investigations and to produce a plan for immediate action and guidelines for future water resource conservation. The recommended plan of this study includes the Blue Ridge Project.

Federal Power Commission

See Chapter 1, page 1, for the present status of Appalachian Power Company's license to build the Blue Ridge project. The Federal Power Commission prepared its final Environmental Impact Statement on the Modified Blue Ridge Project, No. 2317, North Carolina/Virginia in June 1973.

Appalachian Power Company

See above. The company prepared the applicant's Environmental Statement for the Blue Ridge Project, Project No. 2317; January 25, 1971.

U.S. Forest Service

Although the South Fork New River project area does not come within the authorized boundary of a national forest, it is within 10-25 miles of three forests--the Jefferson National Forest (Mt. Rogers National Recreation Area), the Cherokee National Forest, and the Pisgah National Forest. These forests provide recreation opportunities and forest practices that would complement, rather than conflict with the scenic river proposal.

Ashe County

The county is currently considering a zoning ordinance that would include floodway regulation and land use. The proposed ordinance, as presently envisioned, would generally favor preservation of the natural and scenic qualitites of the river.

New River Gorge Study - May 1975, U.S. Department of the Interior/ Bureau of Outdoor Recreation

The Northeast Region of the Bureau of Outdoor Recreation has completed a study and environmental impact statement in response to the request by the United States Congress contained in the Interior Appropriations Bill that the Department of the Interior assess the recreation and environmental values of the New River Gorge in West Virginia.

That study concluded that the New River Gorge, West Virginia, should be added to the National Wild and Scenic Rivers System. The South Fork New River proposal would not conflict with the New River Gorge proposal.

New River Valley - Resource Conservation and Development - Project Plan - July 1970, USDA/SCS

This plan seeks to improve a wide range of conditions in the New River valley including Ashe and Alleghany Counties. Projects would include flood control, water quality improvement, and improvement of fish and wildlife resources.

II. DESCRIPTION OF THE ENVIRONMENT

The Regional Setting

Location

The project area is completely within two counties (Alleghany and Ashe) in the mountainous section of northwestern North Carolina. The headwaters of the South Fork of the New River are located in Watauga County (adjacent to the southwest border of Ashe County) in the vicinity of the town of Boone (see map, page 47).

The river flows generally northeastward through the Blue Ridge Mountains across Ashe County. The South Fork and North Fork of the New River join to form the New River about 4.5 river miles from the North Carolina-Virginia State line. The portion of the South Fork and main stem of the New River proposed for inclusion in the National Wild and Scenic River System is the 26.5 mile segment from Dog Creek (see Conceptual Plan Map, page 2) to the Virginia State line.

Climate

North Carolina has a diversity of climate ranging 503 miles from the low coastal plain on the east, through the gently rolling hills of the piedmont, to the high mountains of the west. It is in the northern portion of this mountain division that the South Fork of

the New River is situated. Mount Mitchell, 65 miles southwest of the river, is the highest point east of the Mississippi River at 6,684 feet and from here the elevations range downward to about 1,000 feet above mean sea level in the lowest valleys. In the mountain division there are more than 40 peaks higher than 6,000 feet and about 80 others over 5,000 feet high. The average temperature varies more than 20 degrees from the lower coast to the highest mountain elevations. Altitude also has an important effect on precipitation with both the wetest and the driest parts of Southeastern United States occurring within 50 miles of each other in these mountains.

In winter the greater part of North Carolina is partially protected by the mountain ranges from the frequent outbreaks of cold which move southeastward across the Central States. Such outbreaks often spread southward all the way to the Gulf of Mexico without attaining the strength and depth to cross the Appalachian Range. When cold waves do break across they are usually modified by the crossing and the descent on the eastern slopes.

Mean temperatures in the New River area range from a minimum of 26 degrees to a maximum of 46 degrees in January and from 59 degrees to 80 degrees in July. Mean annual precipitation is amost 55 inches and varies from a low of 3.83 inches in October to a high of 6.34 inches in July. The temperature drops to 0 degrees once or twice during an

average winter in the mountain areas and the lowest temperature of record is -29 degrees recorded January 30, 1966, at Mount Mitchell.

In spring, the storm systems that bring cold weather southward reach North Carolina less forcefully than in winter, and temperatures begin to modify. Day to day variations in temperature are less, and warm weather is more likely to occur in conjunction with fair weather.

Occasional mild invasions of air from the north continue to occur during the summer, but their effect on temperatures is slight and of short duration. The average mid-July maximum is only 67 degrees atop Mount Mitchell, while in other areas in the mountains the figure is 75 degrees.

In autumn, the downward trend of temperatures is more rapid than the rise of temperatures in the spring. The dropoff is most rapid in October and continues almost as fast in November.

There is no distinct wet and dry season in the mountains. There is some seasonal variation in average precipitation. The greatest rainfall occurs in summer and comes mainly from thunderstorms and convective showers. Intense rainstorms occur in the precipitous mountain terrain. Streams here rise quickly to flood and almost as quickly subside when rain ends. Autumn is the driest period. Winter precipitation usually occurs with southerly through

easterly winds. Average winter snowfall is about 9 inches over the southern mountains ranging to an average of nearly 50 inches a year on some of the mountain peaks and upper slopes. The average annual freeze-free period of "growing season" is about 130 days in the highest mountain areas.

The importance of the mountains of North Carolina as a vacation area is well established. Because of their mild summer temperatures, the mountains provide a welcome escape from the heat of lower elevations of both this and other States. Midsummer afternoon temperatures average below 80 degrees at elevations of 3,000 feet or higher. Nights are crisp and cool, but seldom too cold for camping. Mountains, streams, and forests provide a wide variety of recreational opportunities that, matched by an envigorating climate, attracts ever increasing numbers of vacationers.

The following figures from "Climate of North Carolina"[1/] show the temperature and precipitation normals in the immediate area of South Fork, New River.

1/ Climatography of the United States No. 60-31
U.S. Department of Commerce/Environmental Science Services Administration, Environmental Data Service/Silver Springs, Maryland, Revised June 1970

Temperatures (^{o}F) - Normals at Boone, N.C.

Jan.	Feb.	March	April	May	June
35.1	35.8	40.8	50.2	58.8	66.2

July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
68.9	68.2	62.4	52.9	42.3	36.1	51.5

Precipitation (inches) Normals at Boone, N.C.

Jan.	Feb.	March	April	May	June
4.06	4.04	5.10	4.65	4.51	4.39

July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
6.34	5.41	4.38	3.83	4.02	4.07	54.80

Population

The major population centers within a 200-mile radius of the South Fork New River are shown on the Project Location Map, page 5. The total 1970 population of the two counties through which the study segment of the river traverses was 27,705. Over the last 10 years Ashe County has experienced a slight decline in population while Alleghany County has increased slightly in population. For the two-county area there has been a net increase in population of 203 persons (less than 1 percent) from 1960 to 1970. Projected population for the two-county area in the year 1980 is 29,800 which represents growth for both of these counties. The combined 1970 population of the three principal towns within the South Fork New River study area (Sparta, Jefferson, and West Jefferson) was 3,136.

Population of Principal Towns

City	1960	1970	Percent Change 1960-1970
Sparta	1,047	1,304	24.5
Jefferson	814	943	6.4
West Jefferson	1,000	889	-11.1
Total	2,861	3,136	09.6

County Population Data

County	1960	1970	Percent Change 1960-1970	Projected 1980 Population
Alleghany	7,734	8,134	5.2	8,600
Ashe	19,768	19,571	-1.0	21,200
Total	27,502	27,705	1.0	29,800

Population and Housing Characteristics
Ashe and Alleghany Counties

	1970 Population	1970 Housing Units			
County	Total	(1) Total	Occupied	(2) Pers. Per. Unit	(3) Median Value
Alleghany	8134	3413	2677	3.01	$11,000
Ashe	19571	7018	6039	3.24	11,600
TOTAL	27705	10431	8716	3.13	$11,300
REGION D	139364	47022	41992	3.74	$11,009
North Carolina	5082059	1641222	1509564	3.24	$12,800

(1)All year-round (includes seasonal and migratory).
(2)Population in housing units per occupied units.
(3)Owner Occupied.

SOURCES: General Population Characteristics, PC (1)-B35
General Housing Characteristics, HC (1)-A35
Detailed Housing Characteristics, HC (1)-B35

References

U.S. Department of Commerce, Bureau of the Census, Number of Inhabitants, North Carolina, 1970 Census of Population, PC(1) - A35 N.C., page 35-20.

Environmental Protection Agency, Population by County, Historic (1940-1970) and Projected (1980-2020) Region IV, Atlanta, Georgia, July 1972, Table VI, page 1 of 6.

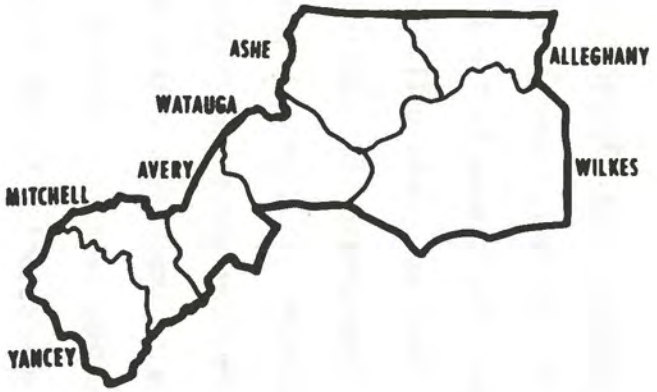
Economy

The Region. Ashe and Alleghany Counties are part of North Carolina Planning Region D (Alleghany, Ashe, Avery, Mitchell, Watauga, Wilkes, and Yancey - see Region D, Council of Governments Map, page 33) located in the northwestern portion of the State. Virginia lies to the north and Tennessee to the west. The topographical elevation is well over 3,000 feet above sea level. Region D is basically rural with a few cities, none of which exceed 10,000 persons. Boone is the largest city with a population in 1970 of 8,754, but it should be noted that college students are a significant portion of this city's residents.

It should be noted that the nonfarm element dominates the rural population. There is daily commuting to centers within the region (mainly Wilkes County, North Carolina) and to areas in Virginia (mainly to Grayson County, Virginia) for employment. There is also commuting to other places in North Carolina, such as Elkin, Winston Salem, Lenoir and Morgantown, primarily for employment within the textile and furniture industries.

Agriculture is important but is declining in terms of both its absolute and relative employment levels. In 1971, agriculture employment in Region D accounted for 6,230 persons, or 12.3 percent of all employment. Gross farm income, in 1971, was

REGION D COUNCIL OF GOVERNMENTS



over $80 million. Although livestock and livestock products dominate, the region is also a large producer of broilers and eggs. In addition there is some cattle production with field crops being of lesser importance. The rugged nature of the country precludes agricultural production based on large flat fields.

Manufacturing employed 16,700 persons in 1971, one-third of all employment. In 1962, manufacturing had the same employment as agriculture. The manufacturing sector is closely tied to agriculture. Feed and grain mills produce large quantities of feeds and concentrates for poultry and cattle farms. The largest manufacturer is a poultry processor in Wilkes County. Lumber and furniture operations based on regional timber supplies are also important. Other major manufacturing industries include textiles, apparel, and electrical assembly. Much of the manufacturing sector is labor intensive, low-capital, and subject to intense competition. As a result, wages are low. In the second quarter of 1972, weekly wages ranged from $112.61 in Wilkes to $87.56 in Alleghany. The State average was $125.69.

The growth in manufacturing, however, has been above average. In 1971, the region held 2.31 percent of the State's manufacturing, compared to 2.04 percent in 1963. Continued growth is expected,

but it will continue to be concentrated in industries which have less need for skilled workers and which pay less than average wages.

One of the brightest parts of the economic base of Region D is services. There are several colleges in the region. Appalachian State University (ASU) at Boone has several thousand students, and is a major part of the economic base of Watauga County. Lees-McRae is a private junior college at Banner Elk in Avery County. Wilkes Community College, Mayland Technical Institute, and Tri-County Technical Institute serve people from throughout the region. These schools put many millions of dollars into the economy and draw students from a wide area. ASU is, of course, a far larger institution than the others.

In addition to the impact of educational services, the region is a large supplier of recreational services. The mild temperatures of the higher elevations attract large summer crowds. The region boasts a wide assortment of recreation facilities, including outdoor pageants, amusement parks, railways, etc. These places not only offer direct employment, but also create a strong demand by tourists for lodging and dining services. Unfortunately, the demand is seasonal, leading to problems of high unemployment in the off-season.

The development of snow-skiing facilities at several places in the region is reducing this problem and has added much to the economic base.

The high recreation potential of the region has contributed to the recent development of second-home communities. These developments have helped stabilize the population. Construction has been one of the fastest growing parts of the economy going from an employment of 680 persons in 1962 to 1,890 persons in 1971.

Project Area Counties. The per capita incomes for Ashe and Alleghany Counties are $2,456 and $2,282, respectively (see Table II-2, page 37). Table II-2 indicates that 13.0 percent of the 8,716 households have an income less than the poverty level of $3,000 per household. Based on 1970 employment data, Table II-3 indicates a relatively low unemployment rate of 4.5 percent. Nearly 37 percent of the two-county population is employed. Unemployment generally declined from 1970 through mid-1974 and then rose rapidly in late 1974 reflecting a national economic downturn.[1/] Unemployment is expected, however, to have declined in 1975 as it has nationally. Of the total 1970 employment, 36 percent were employed in manufacturing, 21 percent in nonmanufacturing, 10 percent in government, 21 percent in agriculture and 12 percent in other nonagriculture.

1/ Region D Council of Governments, Ashe and Alleghany County data.

Table II - 1

Population and Income--Ashe and Alleghany Counties

	Population				Income
County	1960	1970	Percent Change	Projected 1980 Population	Per Capita Income (1970)
Alleghany	7734	8134	5.2	8,600	$2,282
Ashe	19768	19571	-1.0	21,200	2,456
TOTAL	27502	27702	1.0	29,800	$2,369 (average)
Region D	130223	139364	7.0	153,500	2,400
North Carolina	4556155	5082059	11.5	5645341	$3,207

SOURCES: 1970 Census of Population, U.S. Department of Commerce, Bureau of the Census and North Carolina Department of Motor Vehicles

Table II - 2

Special Economic Characteristics--Ashe and Alleghany Counties

County	Total Households	Lower Income Households*	Population Per Households	Lower Income Persons (estimate)
Alleghany	2677	381	3.01	1147
Ashe	6039	761	3.24	2466
TOTAL	8516	1142 (13%)	3.12	3563
Region D	43127	7296 (17%)	3.74	27287
State	1292466	188700 (14.6%)	5.30	992946

*Households with income less than poverty level (approximately $3,000 per household).

SOURCE: Using information from General Social and Economic Characteristics, PC(1)-C35, and Detailed Housing Characteristics, HC(1)-B35, U.S. Department of Commerce, Bureau of the Census, 1970.

Table II - 3
Work Force and Employment--Ashe and Alleghany Counties

County	1970 Annual Average				1970 Population	Percent of Population		1960	
	Civilian Work Force	Unemployment No.	Unemployment %	Total Employment		Work Force	Employed	Total Employment	Percent of Population Employed
Alleghany	3,650	110	3.0	3,540	8,134	44.9	43.5	2,858	37.0
Ashe	7,050	370	5.2	6,680	19,571	36.0	34.1	6,185	31.3
TOTAL	10,700	480	4.5	10,220	27,705	38.6	36.9	9,043	32.9
Region D	53,000	2,602	4.9	50,394	139,364	38.0	36.2	N/A	N/A
State	2,054,838	69,864	3.4	1,984,402	5,082,059	40.4	39.1	N/A	N/A

SOURCE: Bureau of Employment Security Research, Employment Security Commission of North Carolina (1) and U.S. Department of Commerce, Bureau of the Census. (2)

(1) Total employment - on a place of work basis
(2) Total employment - on a place of residence basis

Table II - 4

Employment Characteristics--Ashe and Alleghany Counties

County	Manufacturing	Non-Manufacturing	Government	Agricultural	Other Non-Agricultural	Total	Entering Work Force Number	Entering Work Force No.	Entering Work Force Percent
Alleghany	1,350	780	350	640	420	3,540	115	51	44.3
Ashe	2,330	1,330	680	1,550	790	6,680	279	177	63.4
Total	3,680	2,110	1,030	2,190	1,210	10,220	394	238	57.8

SOURCE: Bureau of Employment Security Research,
Employment Security Commission of North Carolina

Table II - 5

Employment by Category--Ashe and Alleghany Counties

County	Percent Manufacturing	Percent Non-Manufacturing	Percent Agriculture
Alleghany	38	22	18
Ashe	35	20	23
Average	36.5	21.0	20.5

Manufacturing includes:

Lumber and wood products
Apparel and similar finished products
Furniture and fixtures
Rubber and plastic products
Miscellaneous products

Non-manufacturing includes:

Construction	Finance
Transportation	Insurance
Communications	Real Estate
Public Utilities	Services
Trade	Other Non-manufacturing

The majority of the employed persons in Ashe and Alleghany Counties are blue-collar workers with many traveling outside the two-county area to work each day. Only 3.5 percent of the population are college graduates. In 1970, 13.2 percent of the Alleghany County work force were in managerial positions, 10.2 percent were clerical, and 13.9 percent were craftsman and foreman. In Ashe County 11.4 percent were managers, 10.5 percent were clerical and sales, and 15 percent were craftsman and foreman.

Land Tax Base. Table II-6 gives a summary of information for the current (1975) tax assessments within Ashe and Alleghany Counties. North Carolina tax assessments are based upon 100 percent of the estimated market value with the rate of tax per $100 of value determined by each county.

Table II-6

1975 Estimated Property Value in Ashe and Alleghany Counties

Land Type	Ashe	Alleghany
Raw Land (Minimum	$175.00/acre	$200/acres
Homesties	$1,000-$2,500/acre	$500-$2,000/acre
Rural Farm[1/] (Tillable & Woodlands)	$300-$800/acre	$400-$1,000 acre
1975 Land Tax Value[2/]	$211 million	$118.9 million

1/ Example of Commercial farm woodlands is the growing of Christmas trees valued at up to $1,000/acre

2/ Source: Tax Supervisors, Ashe and Alleghany Counties

The property tax rate in Alleghany County is 35 cents per $100 of assessed value per year. Ashe County is 42 cents per $100 of assessed value per year. One exception occurs on farm land with a tobacco allotment. Tobacco allotment lands are taxed on the basis of $1 per pound of tobacco produced in Ashe County; however, tobacco lands are not taxed in Alleghany County. Although the current county tax rates are subject to minor annual change, actual land value assessments have increased in recent years, dramatically so in Ashe County.

Table II - 7

Summary of Significant Socio-Economic Characteristics
Ashe and Alleghany Counties

	1970 Planning Area Population						1970 Work Force			
County	Number	Percent Rural	Percent Non-white	Lower Income Persons	Percent Age 65 & Over	Projected 1980 Population	Number Employed	Percent Mfg. + Non-mfg*	1970 Percent Unemployment	1969 Income Per Capita
Alleghany	8,134	100	2.9	14.1	14.0	8,600	3,540	60 (18)	3	$2,067
Ashe	19,571	100	1.0	12.6	12.1	21,200	6,680	55 (23)	5	$1,818
Total	27,705	100	1.7	12.9	13.0	29,800	10,220	57.5(20.5)	4	$1,942
Region D	139,364	91.3	2.6	19.6	10.2	153,500	50,394	N/A	4.9	$2,400
State	5,082,059	55.0	24.2	19.5	8.1	5,645,341	1,984,402	N/A	3.4	$3,207

*Percent Agriculture in Parenthesis

SOURCES: See Tables II-1 through II-6.

References

Alleghany County Planning Board, "Overall Economic Development Plan, Alleghany County, North Carolina, Sparta, North Carolina.

Ashe County Planning Board, "Overall Economic Development Plan," Ashe County, North Carolina, West Jefferson, North Carolina.

William F. Freeman Associates, in conjunction with Office of State Planning, Department of Administration, State of North Carolina, "Water Resource Management - Multi-County Regional Water Supply Systems Plan and Multi-County Regional Sewage Disposal Systems Plan, for Region D Council of Governments," 1974.

State of North Carolina, Department of Administration and Appalachian Regional Commission, "Areawide Transportation Improvement Program in the ten North Carolina Counties of Alleghany, Ashe, Avery, Daire, Forsyth, Stokes, Surry, Watauga, Wilkes, and Yadkin," Washington, D.C., ARC Contract No. 71-59, January 1973.

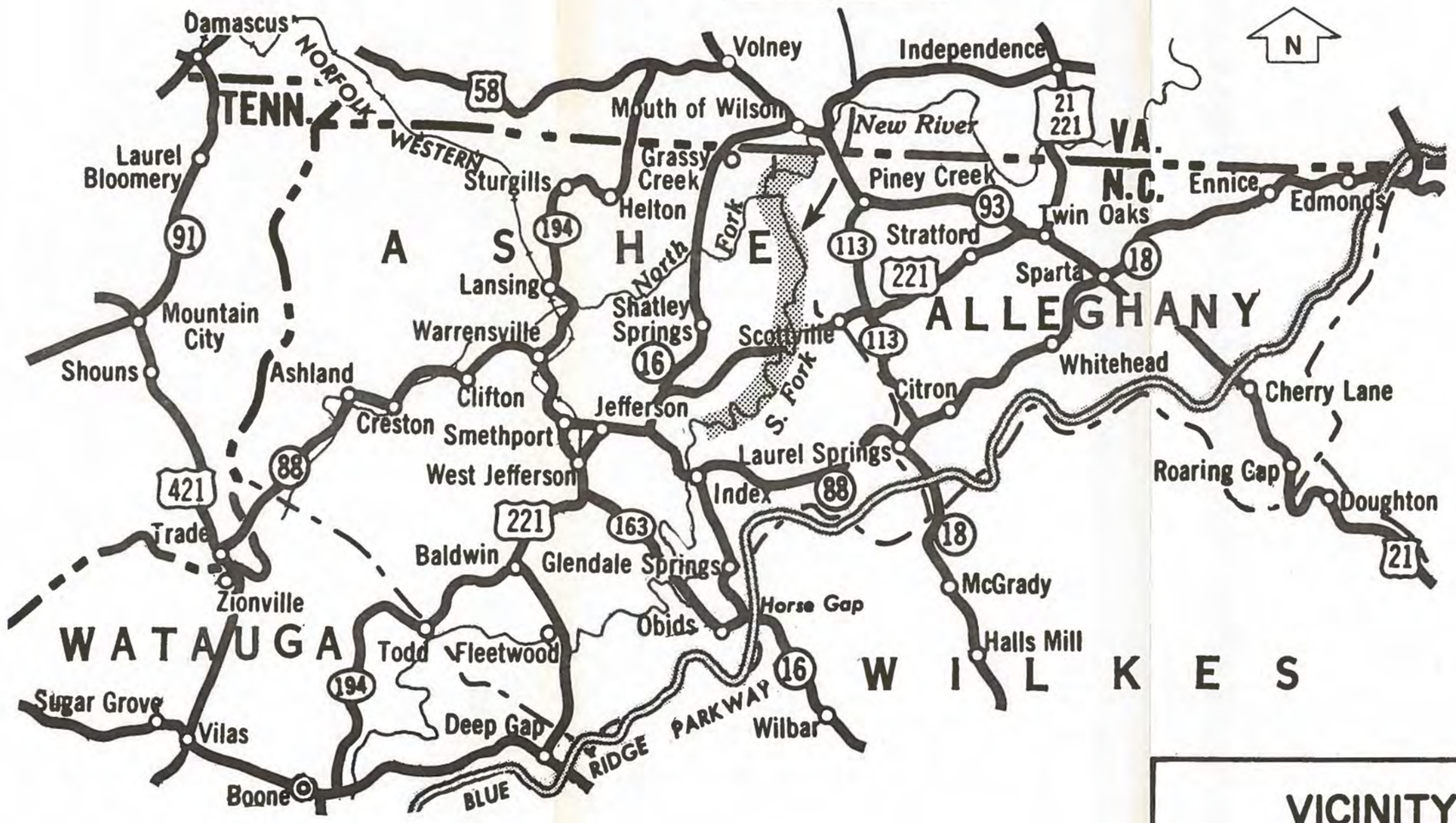
Transportation

U.S. Highway 221 crosses the South Fork of the New River within the study area (see page 47). Three secondary roads also cross the river in Ashe and Alleghany Counties. A bridge replacement is planned for one of these, SR 1595, by the North Carolina Department of Transportation and Highway Safety. The major noncommercial route into the region is the Blue Ridge Parkway which passes east-west approximately 10 miles south of Mount Jefferson State Park.

Interstate 77, running north-south, passes about 50 miles east of the project near Elkin, North Carolina. Interestate 40, an east-west highway, passes about 90 miles south of the project near Hickory, North Carolina. The major road network for Ashe and Alleghany Counties is shown in the Transportation Routes Map on page 47.

Figure II-1 - U.S. Highway 221 crosses the New River within the study area.

PROPOSED
SCENIC RIVER



VICINITY MAP
SOUTH FORK NEW RIVER

SCALE IN MILES

5 0 5

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION NOV. 1975

One major railroad, the Norfolk and Western, passes through West Jefferson, North Carolina, approximately 5 miles west of the river. No major airports are within the study area.

The average daily traffic count on U.S. Highway 221 taken from a point east of the river and a point to the west is 575 vehicles. Annually the traffic rate would, therefore, be approximately 210,000 vehicles.

The estimated ultimate recreation visitor days are approximately 50,000. With an average of 3.5 persons/vehicle, the estimated maximum number of recreation visitors will increase the area traffic load by 14,200 vehicles per year. U.S. Highway 221 is the only major road crossing the river in the proposal area and two of the three county roads crossing the river are reached from U.S. 221. Assuming all visitors gain river access by traveling on U.S. 221 at some point, the entire increase of 14,200 vehicles can reasonably be expected to travel U.S. 221. This would represent only a 7 percent increase in the total annual traffic use of U.S. 221 due to project implementation.

References

William F. Freeman Associates, in conjunction with Office of State Planning, Department of Administration, State of North Carolina, "Water Resource Management - Multi-County Regional Water Supply Systems Plan and Multi-County Regional Sewage Disposal Systems Plan, for Region D Council of Governments," 1974.

State of North Carolina, Department of Administration, and Appalachian Regional Commission, "Areawide Transportation Improvement Program in the ten North Carolina Counties of Alleghany, Ashe, Avery, Daire, Forsyth, Stokes, Surry, Watauga, Wilkes, and Yadkin," Washington, D.C., ARC Contract No. 71-59, January 1973.

1975 Official North Carolina Highway Map.

Department of Transportation and Highway Safety, Division of Highways, Planning and Research Branch, Raleigh, North Carolina, "1974 Average Daily Traffic," Alleghany County, North Carolina.

Department of Transportation and Highway Safety, Division of Highways, Planning and Research Branch, Raleigh, North Carolina.

Environmental Intrusions

There are no pipelines, gaslines, overhead transmission lines, or similar utility intrusions crossing the river in the segment proposed for National Wild and Scenic River status.

Recreation Resources

The New River Valley area is located in a highly scenic mountain area and offers excellent opportunities for outdoor recreation.

For example, there are five State parks within 100 miles of the South Fork New River proposal area which provide a variety of recreational experiences for residents of and visitors to the mountainous northwest corner of North Carolina. In 1974, the total visitation for Mt. Jefferson (Ashe County), Stone Mountain (Alleghany and Wilkes County), Pilot Mountain (78 road miles east of Jefferson in Surry County), Hanging Rock (88 road miles east of Jefferson in Stokes County), and Mt. Mitchell (91 road miles southwest of Jefferson in Yancey County) State parks was approximately 700,000.

The Blue Ridge Parkway (see Transportation Routes Map, page 47), which passes through Ashe and Alleghany Counties, is a major scenic route operated by the National Park Service. In 1972, approximately 13 million visitors traveled on the parkway seeking

the pleasures afforded by the various scenic overlooks, hiking trails, and campsites, and the more structured recreation areas such as Moses H. Cone Memorial Park (Watauga County near the town of Blowing Rock), E. B. Jeffress Park (Ashe County approximately 12 miles due south of Jefferson), and Doughton Park (Alleghany County approximately 8 miles southwest of Sparta). Visitation figures for the parkway and its campgrounds are as shown in the following tables:

Table II-8

Vehicle Counts-Blue Ridge Parkway Bluffs District
(N.C./Va. State Line to Grandfather Mtn.)

1973--705,589 vehicles

1974--655,061

1975*--579,884

Using the National park Service estimate of 3.3 people per vehicle, the total visitation becomes:

1973--2,328,444 people

1974--2,161,702

1975*--1,913,618

*Through September 1975

Table II-9

Campground Usage (Estimated)--Bluffs District

	Concessionaire Lodging	NPS Camping Areas
1973	10,753	57,122
1974	11,590	46,213
1975*	10,633	40,710

In addition, the Appalachian Trail, a 2000-mile-long foot trail extending from Maine to Georgia, passes through the Jefferson National Forest in Grayson County, Virginia immediately north of Alleghany and Ashe Counties. This section of the trail is within 30 miles of the center of the project area. The Appalachian Trail also offers hiking and wilderness camping, and its trails carry the visitor into the Mount Rogers National Recreation Area that embraces a part of Grayson County, Virginia. Planned to help meet the growing demand for outdoor recreation, the Mount Rogers National Recreation Area in the Jefferson National Forest was authorized by Congress on May 31, 1966.

The Soil Conservation Service, U.S. Department of Agriculture, has prepared reports for each of North Carolina's 100 counties which evaluate the potential for developing various types of recreation facilities. The evaluation was made by county appraisal committees familiar with local resources. The procedure which was used in

*Through September 1975

determining these potentials can be found in the following document available from the Soil Conservation Service in Raleigh, North Carolina: An Appraisal of North Carolina's Potential for Outdoor Recreation Development, September 1975.

Among those activities rated as having high potential for development in Alleghany and Ashe Counties are vacation cabins; canoeing; cold water fishing; hunting, natural, scenic, and historic areas; and vacation farms.

The Soil Conservation Service reports measure primarily the capacity of the natural resources and the transportation system for developing particular recreation activities or types of facilities. To gain a better understanding of the link between natural and manmade systems and the recreational wants and needs of people, it was necessary to calculate recreation demand.

The following procedure was used to calculate total activity days for each of the five activities in the following tables. (Tables II-9, II-10, and II-11.)

1. The North Carolina Statewide Comprehensive Outdoor Recreation Plan (SCORP) was the source of a table listing total annual adult activity days for each of the five activities considered here for the years 1971, 1976, and 1986.

2. Adult activity days were multiplied by a factor (1.7) to obtain total activity days for all North Carolina residents. This factor was also obtained from the SCORP and represents the ratio of total residents per household to adult residents per household.

3. Total annual visitor activity days for the years 1971, 1976, and 1986 were obtained from the SCORP.

4. The total statewide population for the 4 years under consideration was obtained from the SCORP.

5. Total annual activity days figures for each activity were divided by total State population to obtain per capita participation rates for each activity.

6. In order to distribute visitor activity days among the five activities, the percentage of the total number of recreation activity days made up by each individual activity was calculated.

7. Total resident activity days and total visitor activity days were then added for each activity to give total statewide recreation demand.

8. Using county population projections from the Environmental Protection Agency, the populations of Alleghany and

Ashe Counties were then expressed as percentages of the total statewide population for each of the 3 years (1971, 1976, 1986). These percentages were used to allocate the demand among the study area counties.

The following tables are the results of the calculations described above.

Table II-9

Per Capita Participation Rates by Activity

(Activity days per person per year)

	1971	1976	1986
Fishing	1.94	2.12	2.50
Canoeing	0.26	0.28	0.32
Hiking	0.14	0.18	0.26
Picnicking	3.02	3.11	3.29
Camping	0.95	1.11	1.46

Table II-10

Total Estimated Annual Activity Days - by County

Alleghany

	1971	1976	1986
Fishing	16,226	17,848	25,231
Canoeing	2,195	2,343	3,223
Hiking	1,185	1,523	2,669
Picnicking	25,267	26,205	33,238
Camping	7,943	9,334	14,756

Table II-11

Ashe

	1971	1976	1986
Fishing	39,551	45,215	58,346
Canoeing	5,352	5,936	7,453
Hiking	2,888	3,859	6,172
Picniking	61,589	66,389	76,863
Camping	19,361	23,647	34,122

References

North Carolina Statewide Comprehensive Outdoor Recreation Plan (SCORP), 1973.

USDA, Soil Conservation Service, New River Valley Resource Conservation and Development Project Plan, July 1974.

U.S. Environmental Protection Agency, Population by County--Hitoric (1940-1970) and Projected (1980-2020), Region IV, Atlanta, July 1972.

The River Setting

History

Recovered projectile points that date back several thousand years indicate that the New River was a major migration route and represents successive levels of Indian development from Paleo-Indian times to the arrival of the white man in the 15th and 16th centuries.

The Creeks, the Shawnees and the Cherokees visited the River in pre-colonial times, although they did not remain in the area for extended periods. However, in Ashe County a large Indian town was occupied on a long-term basis. Nonetheless, the natives of northwestern North Carolina and southwestern Virginia were only transients in the valley of the South Fork New River. There is much evidence that many tribes used this area for food gathering activities, when hunting parties for turkey, bear, and deer were sent into the area to procure food for the tribe located elsewhere. It is not known why the valley was not considered more attractive to the aborigines, but perhaps it was due to the fact that settlement in this region would put them closer to more aggressive tribes located to the north.

Bishop Augustus Gottleib Spangenberg, a Moravian clergyman, was perhaps the first white man to undertake extensive exploration and surveying of this area. In the mid-late 18th century he was assigned the task of exploring and surveying the region for the Moravians of Piedmont North Carolina. He entered the environs of the South Fork New River near Blowing Rock and found his route very difficult due to the extremely steep slopes.

The river then, as it does now, provided gaps in the mountains and flat flood plains for ease in traveling in the Blue Ridge where steep slopes and deep valleys are commonplace.

The first settlers in the South Fork New River Valley probably arrived in the late 1760's or early 1770's. Tributary creeks of the river were used as homesteads. In Ashe County, Helton Creek, Horse Creek, and Grassy Creek were some of the earliest settlement sites. In what is now Watauga County, Howard Creek, and Meat Camp Creek there were sites of early pioneering efforts near the New River. The Three Forks Baptist Church area was also an important settlement. The site of the church is marked and is very close to the southernmost reaches of the study region for this project. The river and its tributaries provided water for domestic and livestock use, transport, fish, game (hunting and trapping), and land on which to grow crops in the fertile flood plain alluvium.

Game was plentiful and easy to acquire according to Bishop Spangenberg's journal. Buffaloes were present in large numbers as were deer, bear, turkeys, grouse, squirrels and rabbits.

Although the river aided the early settlers in providing their families with the essentials of life and transportation, it also hampered development. During the 19th century, steep mountain slopes and the river were barriers to the extension of good roads

in the region of the South fork New River. Bridges which were both expensive and difficult to construct were needed to cross the river. This condition led to isolation of the area and Ashe, Alleghany, and Watauga Counties became known as the "Lost Provinces." Even in this century, transportation has been hampered by the topography of the region. The river provided raw materials required for the early industries of the mountain region in the 19th century. Grist mills were established on the tributary streams of the New River and some still survive today.

Figure II-2 - The old mill at Dog Creek provides a link to the history of the river.

Water powered carding machines were constructed to process the wool from the sheep which grazed on the verdant slopes. Ore Knob Mine in Ashe County relied on tributary streams in processing mine ore. The New River aided the early industrial growth of the region by providing water and power for the residents.

The influence of the South Fork New River on the residents has evolved from one of total dependence for transportation, raw materials, food sources, domestic and livestock water and trapping to a less critical dependence today. Although some of the residents still count on the river in much the same way

Sorgum Syrup Making

Figure II-3 - Traditional skills have been proudly preserved by citizens of the New River Valley.

as their ancestors did, most people now turn to the river as a primary source of recreation. The New River provides recreation to the inhabitants of the region in the form of fishing, hunting, picnicking and just plain relaxation.

The residents of Ashe and Alleghany Counties still take great pride in their ancestral ways and continue to preserve many facets of their old culture.

Dulcimer Playing

Figure II-3 - Continued

Unfortunately, due to the lack of opportunities for the younger generation, many have moved to other locations upon completion of their high school education.

Archeology

There have been four preliminary reconnaissance archeological surveys (two by Holland, one by Ayers and one by Purrington) made of the New River since 1964. The surveys included the acreage to be impounded by the proposed Blue Ridge Project (Federal Power Commission License No. 2317) in Ashe and Alleghany Counties, North Carolina; and Grayson County, Virginia.

The first survey was conducted in 1964 and located 11 archeological sites in Virginia and two in North Carolina. The second survey was conducted in 1965 and located 20 sites of which 13 were previously unknown. The majority of the sites identified by the second survey were in Virginia. A third survey was conducted in 1969 and located 16 archeological sites in North Carolina and 26 in Virginia. On August 29, 1974, a fourth survey of the area for archeological sites from Jefferson, North Carolina, to Mouth of Wilson, Virginia, was accomplished.

This fourth field inspection revealed several different types of potential site locations such as many broad bottomlands in the area with natural levees that would generally provide for prehistoric habitation above the flood plain. Several rock

overhangs which may have served as shelters for transient or seasonal occupation in prehistoric times were observed near the river. This indicates there may be more rock shelters in the immediate area and up the tributaries. Another type of potential site in the immediate area, which is unusual in its abundance, is the low ridge or knoll, some 40 to 60 feet above the flood plain. Past experience in similar terrain in eastern Kentucky indicates that some of the sites in a mountain environment can be found on such landforms.

No absolute or exhaustive work has been done in the study area, but there is indirect evidence that it would be highly productive in archeological resources. Both Clifford Evans and C. G. Holland of the Smithsonian Institution have reported large and highly productive sites in the Virginia portion of the New River Valley. Moreover, 25 sites have been located in a very short field-work period in the drainage of the South Fork of the New River in Watauga County. The data from Watauga County indicates that the upper New River has a history of several thousand years; that a variety of cultures and time periods are represented at different sites; and that several different types of habitats were exploited by prehistoric Indians.

In addition, the New River Valley was an important center of activity in early historic times. The remains of several structures

and farmsteads of apparently early vintage were observed during the fourth survey, which also indicate the potential location of historical and archeological sites within the study area.

References

Letter dated October 9, 1975

Patrick H. Garrow

Archeologist

State of North Carolina

Burton L. Purrington

Assistant Professor of Anthropology

Appalachian State University

Boone, North Carolina

Report of a Preliminary Archeological Survey on the Upper New River, Watauga, Ashe, and Alleghany Counties, North Carolina.

No date.

Hydrology

History of the River. The New River is most inappropriately named because it is actually part of the oldest river system in North America. The discovery of this fact was made by several geologists working independently in various geological regions through which the ancient stream once flowed and its descendant now flows. Millions of years ago the New River was part of a great prehistoric river which its discoverer named the Teays, after the valley which it cut. Tributaries of the Teays included streams which eventually became the Ohio, Missouri, and Mississippi Rivers. Eventually, several ice ages and the glaciers they brought with them severely modified the landscape and changed the courses of many of these ancient rivers. The headwaters of the Teays, however, still are located in the Blue Ridge province of North Carolina in which is now the town of Blowing Rock. It is now called the South Fork New River.

Hydrologic Features. The entire drainage area for the South Fork New River is in the Blue Ridge province. The Blue Ridge forms the eastern continental divide in most of North Carolina and Virginia. Streams to the east of the divide flow into the Atlantic Ocean and streams to the west flow into the Gulf of Mexico. Channel slope, though locally variable, averages a

fairly constant 7.2 feet per mile from Boone, North Carolina, to the Virginia boundary. Rock ledges extending across the channel are common but no significant waterfalls are present.

Precipitation on the basin averages about 52 inches per year. Average annual snowfall is about 20 inches. The 52 inches of precipitation amounts to 294 million gallons per year for the entire basin area of 325 square miles. Evaporation and use by plants amounts to 143 billion gallons per year and 151 billion gallons per year are discharged by the South Fork New River.

Streamflow Characteristics. The South Fork New River, like many mountain streams, is characterized by rapid increases in flow in response to rainfall. Rates of rise of one foot per hour are common following periods of intense rainfall. The U.S. Geological Survey operates a gaging station 600 feet upstream from the bridge on State Highways 16 and 88 (see Water Quality Map, page 69). This station is approximately 3.5 miles upstream from the southern terminus of the proposed scenic river at Dog Creek. Lowest daily flow recorded at the gage during 49 years of record (1925-1974) is 65 cubic feet per second. The maximum peak discharge was 52,800 cubic feet per second during the 1940 flood (recurrence interval greater than 100 years). River stage was approximately 20 feet above median stage at the peak of the 1940 flood.

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE, RALEIGH, NORTH CAROLINA

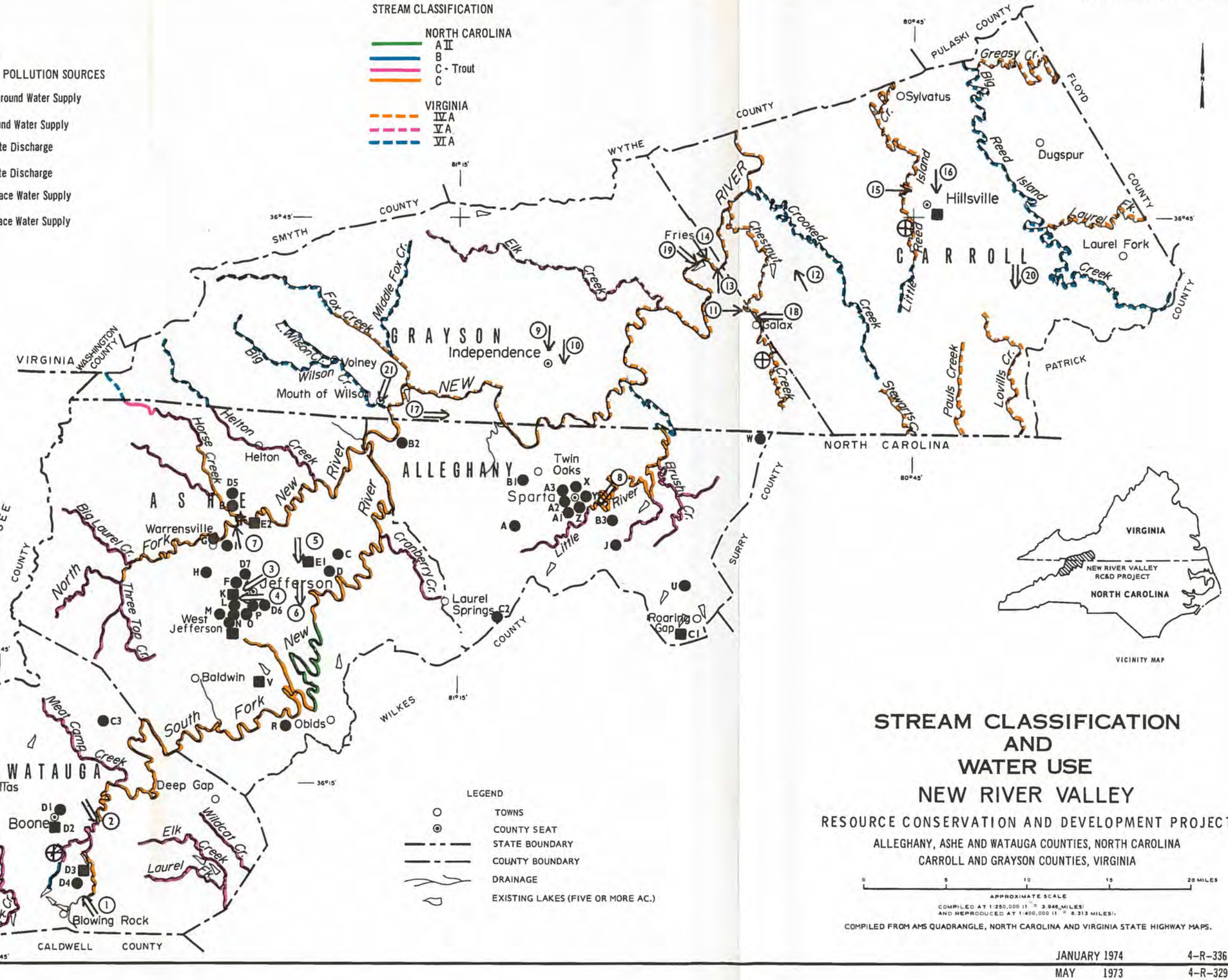
STREAM CLASSIFICATION

NORTH CAROLINA
- A II
- B
- C - Trout
- C

VIRGINIA
- IV A
- V A
- VI A

WATER SUPPLIES AND MAJOR POLLUTION SOURCES

- B ● Municipal or Ground Water Supply
- C1 ■ Industrial Ground Water Supply
- (11) → Municipal Waste Discharge
- (18) ⇒ Industrial Waste Discharge
- ⊕ Municipal Surface Water Supply
- ⫩ Industrial Surface Water Supply



LEGEND
- TOWNS
- COUNTY SEAT
- STATE BOUNDARY
- COUNTY BOUNDARY
- DRAINAGE
- EXISTING LAKES (FIVE OR MORE AC.)

VICINITY MAP

STREAM CLASSIFICATION AND WATER USE
NEW RIVER VALLEY
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ALLEGHANY, ASHE AND WATAUGA COUNTIES, NORTH CAROLINA
CARROLL AND GRAYSON COUNTIES, VIRGINIA

0 5 10 15 20 MILES

APPROXIMATE SCALE

COMPILED AT 1:250,000 (1" = 3.946 MILES) AND REPRODUCED AT 1:400,000 (1" = 6.313 MILES).

COMPILED FROM AMS QUADRANGLE, NORTH CAROLINA AND VIRGINIA STATE HIGHWAY MAPS.

JANUARY 1974 4-R-33610
MAY 1973 4-R-32948

USDA-SCS-FORT WORTH, TEX. 1974

A statistical analysis of the data for the 1963-73 period shows that average flow is 416 cubic feet per second, the 50-year flood (peak discharge expected to be equalled or exceeded once every 50 years on the average) is almost 31,000 cubic feet per second, and the minimum 1-day flow having a recurrence interval of 20 years is 86 cubic feet per second.

The mean, maximum, and minimum monthly flows for the year beginning October 1973 and ending September 1974 are listed below.

Table II-12

1974 New River South Fork Stream Flow
(Figures in Cubic Feet Per Second)

	Oct.	Nov.	Dec.	Jan.
Mean	316	336	686	648
Max	733	879	2,720	1,180
Min	239	236	325	461
	Feb.	**Mar.**	**Apr.**	**May**
Mean	659	572	868	538
Max	1,580	975	3,430	1,180
Min	469	433	436	417
	Jun.	**Jul.**	**Aug.**	**Sept.**
Mean	698	541	606	623
Max	2,090	1,090	1,630	2,070
Min	399	391	355	344

Winter and early spring, and also June, are the months with the highest flows while the fall months are considerably lower. The difference between the flows during the wet and dry months is due to seasonal distribution of rainfall.

Ground Water Characteristics. Ground water in the drainage basin of the New River and South Fork New River occurs in irregularly spaced fractures and joints in the bedrock, in the pores of the saprolite and in the river basin alluvium. Ground water is the source for all water supplies in the basin. Most of these needs are supplied by drilled wells. Springs supply a few of the domestic and small public supplies. However, in recent years the use of springs has decreased. Wells range in depths from less than 50 feet to 400 feet and average about 125 feet. Public supply wells average about 150 feet in depth. The yields of wells in the area range from a few hundred gpd (gallons per day) to more than 200,000 gpd. The average yield of public supply wells is 57,500 gpd. Draws with large catchment basins, especially where a profusion of quartz is found, afford the best sites for well locations.

An untapped source of ground water is in the riverbed alluvium where large amounts of good quality water could be developed from collector type wells.

Ground water quality in the basin is excellent. The dissolved solids range from 30 mg/l (milligrams per liter) to 80 mg/l and the water is soft to moderately soft ranging from less than 15 mg/l of hardness to no more than 45 mg/l.

Present ground water withdrawal is minimal[1/] in the 26.5-mile segment that is proposed for the National Wild and Scenic River System. Sufficient yields of good quality ground water can be developed for camping and recreation needs.

Water Quality

The North Carolina Office of Water and Air Resources has placed the entire 26.5-mile section of the river covered by the proposal under the category Class "C" waters. The best uses for Class "C" waters were determined by the State to be fishing, boating, wading, and any other use except for bathing or domestic water supply resources. (The North Carolina criteria for defining Class "C" waters are found at the end of this section.)

It is important to note however that these stream classifications are based on the opinions of local people as to the best potential uses for the particular stream. These opinions were solicited at a series of public hearings and do not reflect actual measurements of physical water quality characteristics. In fact,

1/ Interoffice memorandum, North Carolina Department of Natural and Economic Resources, Dan McDonald to Bob Buckner, Subject: South Fork New River Study, September 12, 1974.

water quality in a given stream may exceed, and often does exceed, the criteria for the particular classification. Water quality data indicate that 7.9 percent of the stream segments in subbasin 01 of the New River basin, drained by the South Fork, are degraded to some degree. Water quality classifications of the subbasin are given below. (Source: Draft Water Quality Management Plan, New River Basin, North Carolina Department of Natural and Economic Resources Division of Environmental Management.)

Class	Intended Use	% of Segments
A-I-TW	Water Supply	0.5
A-I	Water Supply	0.5
A-II-TW	Water Supply	5.5
A-II	Water Supply	2.5
B-TW	Recreation	0.5
B	Recreation	0.5
C-TW	Propogation of Fish and Wildlife	58.0
C	Propogation of Fish and Wildlife	32.0

Water quality in the New River and the South Fork of the New River is affected primarily by municipal and industrial discharges. At the present time there are no direct effluent discharges to the river; however, several tributary streams do receive waste water from municipal and industrial sources. The following table summarizes all municipal and industrial discharges to tributaries of the South and North Forks and the main stem of the New River (Source: USDA, Soil Conservation Service, New River Valley Resource Conservation and Development Project Plan, Table XIII, pp. 47-48, July 1974).

Table II - 13

Municipal and Industrial Waste Discharges

County or City	Community or Industry	1970 Estimated Population Served	Average Daily Flow (M.G.D.)	Degree of Treatment	Discharges to
Watauga	Blowing Rock (1) Winter	175	0.009	Secondary with Cl_2	Middle Fork to South Fork New River
	Summer	2,000	0.200	Secondary with Cl_2	Middle Fork to South Fork New River
	Boone (2)	7,200	0.485	Secondary with Cl_2	Middle Fork to South Fork New River
Ashe	Hanes Corp. (Domestic Sewage only) (3)	427	0.010	Secondary without Cl_2	Naked Creek to South Fork New River
	Jefferson (4)	903	0.095	Secondary with Cl_2	Naked Creek to South Fork New River
	Greensboro Mfg. Co. (Domestic Sewage only) (5)	300	0.008	Secondary with Cl_2	Dog Creek to South Fork
	West Jefferson (6)	950	0.170	Secondary without Cl_2	Little Buffalo Creek to North Fork New River
	Sprague Electric Co. Lansing,N.C. (7)	930	0.304	Secondary without Cl_2	North Fork New River

Table II - 13
(Continued)

County or City	Community or Industry	1970 Estimated Population Served	Average Daily Flow (M.G.D.)	Degree of Treatment	Discharges to
Alleghany	Sparta Pipes (8)	200	0.003	---	Unnamed Trib. to Little River to New River
	Sparta (8)	1,300	0.130	---	Little River to New River

( ) denotes location on Stream Classification and Water Use Map, p.

Although there are nine separate sources of effluent which discharge into tributaries of the New River or its South Fork in many instances, there are great distances between the source and segment of the river covered by the proposal. For example, the town of Blowing Rock discharges its waste water into the Middle Fork, a tributary of the South Fork, approximately 72.4 miles upstream from the South Fork's confluence with Dog Creek (the beginning point of the proposal). The town of Boone, North Carolina, in Watauga County, also discharges to Middle Fork some 63.3 miles upstream from Dog Creek. The town of West Jefferson, in Ashe County, releases its treated waste water to Buffalo Creek, a tributary of the North Fork New River. From the confluence of Buffalo Creek with the North Fork the effluent is mixed and diluted for a total of 21.8 miles to the junction with the South Fork. The Sprague Electric Company of Ashe County also discharges to the North Fork approximately 20.0 miles upstream from the junction with the South Fork. These two sources of waste water affect only the lower 4.5 miles of the proposed river area. These great river mileages help dilute and dissipate the treated waste water before it reaches the proposed river corridor.

In Alleghany County, the town of Sparta and the Sparta Pipes Company discharge a total of 0.133 MGD (million gallons per day) to the Little River, a tributary of the main stem of the New. The Little River enters the New River far downstream of the proposal area, however, so that these sources have no effect on water quality.

The remaining three sources of waste water, Hanes Corporation, Greensboro Manufacturing Company, and the Town of Jefferson, all discharge secondarily treated waste water within a relatively few miles of the river proposal area. Hanes Corporation and the Town of Jefferson both discharge to Naked Creek, 2.3 miles upstream and 4.0 miles west of the South Fork. Greensboro Manufacturing discharges directly to Dog Creek, 1.1 miles west of the South Fork.

Measurements of water quality in the South Fork New River and its major tributaries were made in 1974 in connection with a study of the potential of the river as a trout fishery.

Chemical determinations were restricted to dissolve oxygen, free carbon dioxide, pH, and total alkalinity.

Water temperature in the South Fork New River watershed ranged from 60°F. in the higher elevation trout streams to 73°F. in

in the main stem New River before it enters in Virginia for the last time. The average temperature for the entire watershed was 65.2°F. In spite of the presence of waste water discharges overall water quality has not been adversely affected. Dissolved oxygen concentrations found throughout the watershed attest to its high water quality. Concentrations ranged from 9 ppm to 10 ppm with an average of 9.3 ppm. Free carbon dioxide concentrations were low in all streams, ranging from 5 ppm to 10 ppm with an average of 7.2 ppm. Streams throughout the watershed had an average pH of 7.2 The pH range was from 6.8 to 7.8 (wide range pH determinations were used which gives a slightly larger spread.) The total alkalinity concentrations throughout the sample area ranged from 14 ppm to 28 ppm with an average of 19.8 ppm for all sample stations.

The following are the specific standards for Class "C" waters.

Items	Specifications
a. Floating solids; settleable solids; sludge deposits.	Only such amounts attributable to sewage industrial wastes or other wastes as will not, after reasonable opportunity for dilution and mixture of same with the receiving waters, make the waters unsafe or unsuitable for fish and wildlife, or impair the waters for any other best usage established for this class.
b. pH.	Shall be normal for the waters in the area, which generally shall range between 6.0 and 8.5, except that swamp waters may have a low of 4.3.

c.	Dissolved oxygen.	Not less than 6.0 mg/l for natural trout waters; 5.0 mg/l for put-and-take trout waters; not less than a daily average of 5.0 mg/l with a minimum of not less than 4.0 mg/l for nontrout waters, except that swamp waters may have lower values if caused by natural conditions.
d.	Toxic wastes; oils; deleterious substances; colored or other wastes.	Only such amounts whether alone or in combination with other substances or wastes as will not render the waters injurious to fish and wildlife or adversely affect the palatability of same, or impair the waters for any other best usage established for this class.
e.	Organisms of coliform group.	Fecal coliforms not to exceed a log mean of 1,000/100 ml (MPN or MF count) based upon at least five consecutive samples examined during any 30-day period, nor exceed 2,000/100 ml in more than 20 percent of the samples examined during such period. (Not applicable during or immediately following periods of rainfall.)
f.	Temperature.	Not to exceed 5°F. above the natural water temperature, and in no case to exceed 84°F. for mountain and upper piedmont waters and 90°F. for lower piedmont and coastal plain waters. The temperature of natural trout waters shall not be significantly increased due to the discharge of heated liquids and shall not exceed 68°F.; however, the temperature of put-and-take trout waters may be increased by as much as 3°F. but the minimum may not exceed 70°F.

Nonpoint sources or pollution are considered to be of less importance than point sources in water quality problems, but do contribute to water pollution in Subbasin 01 of the New River basin in North Carolina. The following discussion and tables dealing with non-point sources have been taken from the N.C. D.N.E.R. Division of Environmental Management's Water Quality Management Plan, section NEW01-W11-1.

Agricultural runoff, both from fertilizers and from the feedlots within the area, is believed to contribute a significant volume of man made pollutants to the surface waters from diffuse (or nonpoint) sources. According to the Environmental Protection Agency, as specified in "projected Agricultural Runoff Pollution in the Southeast," these estimates are:

PROJECTED POLLUTION LOADING (LBS/DAY) FOR SELECTED PARAMETERS

	BEEF	DAIRY	SWINE	POULTRY	FERTILIZER	TOTAL
#	14,774	2,200	905	634,948		
BOD_5	443	418	135	318		1,318
TOC	1,477	505	141	444		2,569
N	118	75	9	127	3	331
PO_4	43	60	5	19	5	132

Land use, by acres, has been estimated for this subbasin, as follows:[1/]

TOTAL	FEDERAL	URBAN	WATER	CROPLAND	PASTURE	FOREST	OTHER
214,426	5,071	7,863	892	33,454	47,507	114,887	4,752

1/ From North Carolina Land Use Data, Leon Danielson, NCSU

Recent studies have demonstrated that sediment is the primary carrier of such pollutants as pesticides, phosphates, and many forms of animal waste. No sediment data is available for this subbasin, but some estimates of pounds of pesticides used in this subbasin per year have been made by R. L. Robertson of NCSU. These are:

CROP	ESTIMATED ACREAGE	ESTIMATED LBS PESTICIDE USED
Corn	480	Lasso - 48 Attaaine - 96
Tobacco	864	Diazinon - 48 Sevin - 240
Vegetables, Home Gardens, Lawn		Sevin - 1,440 Chlordane - 240
Nursery and Christmas Trees		Casaron - 240 Meta-Systrox-R - 240
Pastures		2,4-D - 480

The woods products industry is well developed in this subbasin. Some silting results from both the harvesting, and from the unwise location of roads made into the woods by the harvesting equipment.

The following is a list of mines in this subbasin: We have no records that this mine, because of its location, creates silt or acid drainage.

New River Crushed Stone - Bamboo Road Quarry - Crushed stone.

The town of Boone is located in this subbasin. No problems with respect to water quality attributed to Urban Runoff have been reported or identified.

References

Region D Council of Governments, State of North Carolina, Water Resources Management-Water Supply Systems Plan and Sewage Disposal Systems Plan, 1974.

Janssen, Raymond E., "The Teays River, Ancient Precursor of the East," The Scientific Monthly, December 1953.

North Carolina Department of Natural and Economic Resources, Interoffice Memorandum, Dan McDonald to Bob Buckner, Subject: South Fork New River Study, September 12, 1974.

North Carolina Department of Natural and Economic Resources, Division of Environmental Management, Water Quality Management Plan, New River Basin; (draft copy) November 1975.

USDA, Soil Conservation Service, New River Valley Resource Conservation and Development Project Plan, July 1974.

Air Quality

Air pollution levels in the area of Ashe and Alleghany Counties are generally lower than other counties in this part of the State. According to the report "Air Pollution Emission Inventory,"[1/] the principal sources of pollution are transportation and industrial processes, with some pollution resulting from inadequate disposal of solid wastes. Pollution in Ashe County is concentrated primarily in the Jefferson-West Jefferson area where people and industry have concentrated. Alleghany County is generally more rural and has a relatively small population and industrial concentration and much lower air pollution levels. However, neither county can be considered to have an air pollution problem at this time.

The following figures provided by the North Carolina Office of Air and Water Resources represent samplings taken at stations nearest to the South Fork, New River.

[1/] Source: North Carolina Office of Water and Air Resources, 1970

Table II -14

Air Pollution Emissions
Annual Mean - 1974
(micrograms/cubic meter)

Sampling Station	Ambient Particulates (geometric means)	Sulphur Dioxides (arithmetic means)	Nitrogen Dioxides (arithmetic means
State Standard	60	80	100
Boone (Watauga Co.)	40	5	10
Mt. Airy (Surry Co.)	59	12	24
Wilksboro (Wilkes County	43	5	10
N. Wilkesboro (Wilkes county)	35	NA	NA
W. Jefferson (Ashe County)	76[1]/	NA	NA
	62[2]/	NA	NA

1/ 1973 incomplete year
2/ 1972 whole year

Although the above samples were taken at distances varying from 5 to 45 miles from the river it should be borne in mind that they were taken at sampling stations in or near urbanized communities. The quality of the air in the immediate river area can be expected to be superior to that indicated by these figures. Nevertheless, the samples do indicate emission levels that are well within the standards set by the State and the Federal Government.

A study of "Critical Environmental Areas of North Carolina"[2/] identifies the northwestern corner of the State, the immediate area of the river, as having the highest[3/] potential for air inversions. These conditions, when they occur, tend to aggravate the effects of normal emission levels.

Navigation and Riparian Rights

No determination of navigability of the stream segments under consideration has been made by the courts of the State of North Carolina or by an agency of the United States.

The main stem of the New River has been declared navigable by the Corps of Engineers only up to Mouth of Wilson, a community on the New River about 1 mile north of the State line in Virginia. The South Fork and the New River in North Carolina are not designated as navigable streams by the Federal Government.

The question of navigability has significance in North Carolina law for two reasons. First, all lands lying under navigable waters are not subject to entry and grant and, except in rare and unusual circumstances, cannot be privately owned (G.S. 146-3, G.S. 146-64 (4) and (7)). Though the statutes and cases which support this proposition do not preclude it from applying to mountain streams or

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2/ State Planning Report 146.10; North Carolina Department of Administration, Office of State Planning, June 1972.

3/ 4 on a scale of 4: 1-Rare, 2-Slight, 3-Moderate, 4-High

rivers, all the North Carolina cases which have dealt with this proposition have involved coastal waters. The history of the case law concerning title to submerged lands shows a definite trend toward the liberalization of the definition of navigable waters. State v. Glen, 52 N.C. 321 (1859) contemplated navigation by ocean going vessels but the more recent cases of Swan Island Club v. White, 114 F. Supp. 95, cited with approval in Taylor v. West Virginia Pulp & Paper Co., 262 N.C. 452 (1964) applied a more liberal test and held that a water body that was navigable by fishing skiffs and duck boats was navigable even though at certain times the area was virtually dry.

Second, all navigable waters are impressed with a navigation easement in the public. The determination of what constitutes navigable waters for purposes of determing whether the public has navigation rights is not well defined in North Carolina statutes or cases. It is clear that there may be rights of navigation in the public regardless of the ownership of the land lying under the water (State v. Narrows Island Club, 109 N.C. 477 (1888)). Cases dealing with the impairment of the public right of navigation have tended to apply increasingly liberal tests of navigability, although the tests have become somewhat confused when dealing with questions of land ownership. The current test in North Carolina as to what constitutes navigable waters for purposes of determining public rights of navigation is that waters are navigable if the waters in their ordinary

state "have capacity and suitability for the usual purposes of navigation by vessels or boats such as are employed in the ordinary course of water commerce, trade, and travel." (Aycock infra at 18). The capacity of the water for navigation and not its actual use for navigation is the determining factor (Taylor v. West Virginia Pulp & Paper Co., 262 N.C. 452 (1964)).

North Carolina has no cases dealing with the issue of public navigation rights on mountain rivers, but the trend in the North Carolina opinions and the opinions of other jurisdictions is to find rivers such as the New River to be navigable (see Swan Island Club v. White, supra. and Southern Idaho Fish and Game Association v. Picabo Livestock, No. 11269, Idaho Supreme Court, July 22, 1974).

North Carolina law relating to navigability, as it relates to land ownership questions and rights of navigation questions, is not clear. North Carolina law relating to riparian rights is more fully developed although some of the statements regarding reasonable use in Dunlop v. Carolina Power and Light Company, 212 N.C. 814 are certainly questionable and may be subject to successful challenge.

The rights of a riparian owner are tied to the ownership of land and are acquired as a part of the title, not as an easement or incidental rights. Riparian owners have no ownership in the water that flows in a stream but they do have certain rights to its use.

The rule recognized by the North Carolina Supreme Court is that a riparian owner is entitled to the use of water flowing through or by his land in its natural channel, "undiminished in quantity and unimpaired in quality, except as may be occasioned by the reasonable use of the water by other like proprietors" (Smith v. Town of Morganton, 187 N.C. 801 (1924)).

The riparian rights, of themselves, are not changed by a stream's navigability or non-navigability but navigability does give an element of public right to the State and the Federal Governments which qualify and limit the existing rights of the riparian owners. A person who owns land along a watercourse does not per se own any part of the bed. The State has title to lands beneath navigable waters (except in the cases where title has been conveyed by the State, mostly in the coastal areas, to private owners). A riparian owner, however, does own the bank and those navigating the watercourse have no right to land on or use the bank without the owners permission. The riparian owner has right of access to the navigable water flowing through or by his land.

References

Aycock, William B., article on riparian rights, North Carolina Law Review, 46 N.C.L. Rev. 1.

Earnhardt, Thomas W., Article on navigability, North Carolina Law Review, 49 N.C.L. Rev. 888 to 920.

Raney, William A. Jr., Associate Attorney General, State of North Carolina; letter dated October 17, 1975, Raleigh.

Geology (see Geologic Map, page 89)

Topography. The South Fork of the New River lies within the Blue Ridge province of the Appalachian Mountain System. This portion of the Blue Ridge province is a plateau-like area between 3,000' and 4,000' above sea level characterized by gently sloping land with locally steep-sided valleys. The meandering course of the South Fork of the New River indicates that the river once flowed in a shallower gradient and that there were fewer stretches of "white water." The intrenched meanders indicate that the river was rejuvenated at some point in its geologic history. This rejuvenation or uplift caused the stream to start downcutting more vigorously and produced steep-sided valley walls and rapids. (See Topographic Map, page 90.)

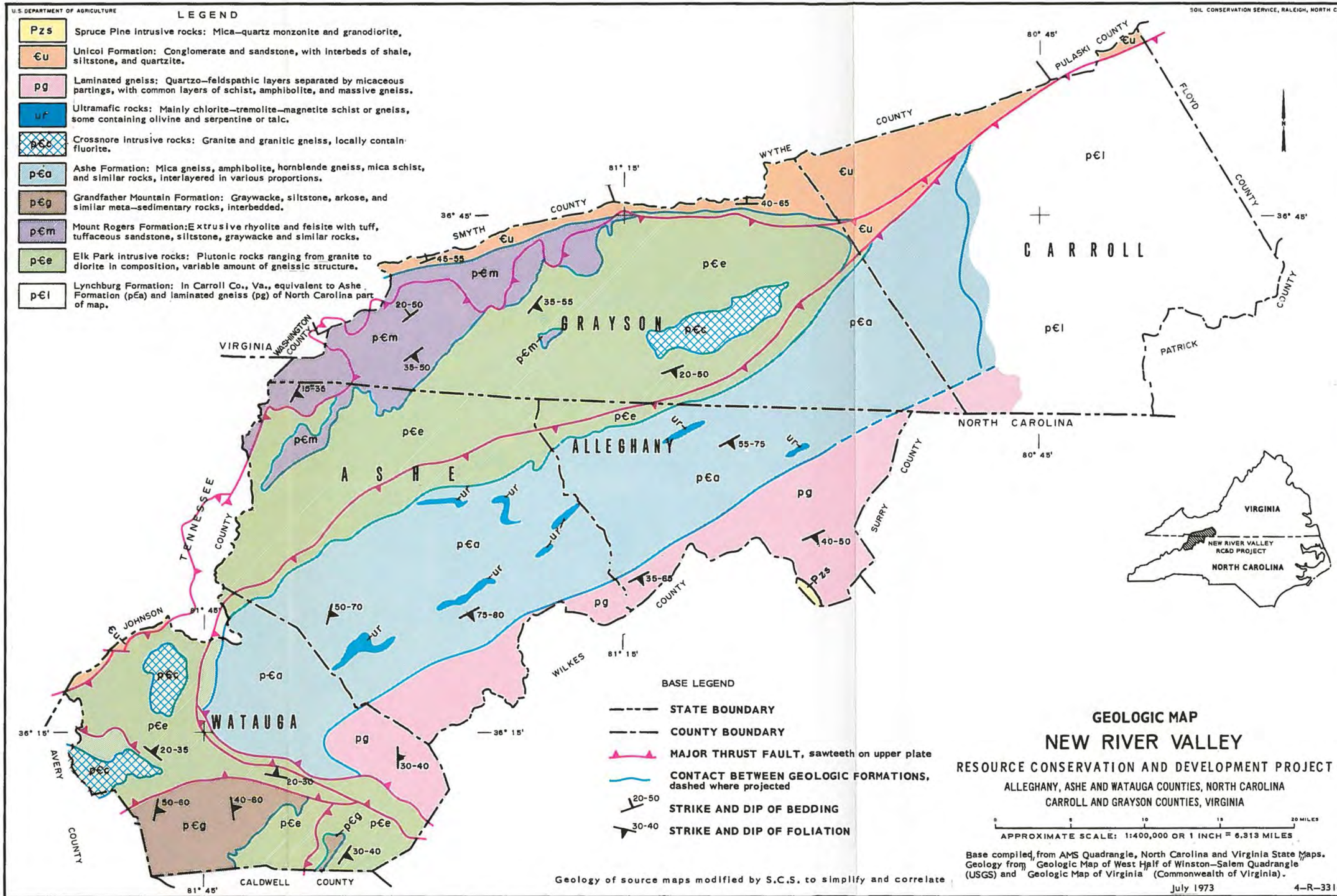
Figure II-4 - Many of the riverside slopes are steep and stretches of white water are present.

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE, RALEIGH, NORTH CAROLINA

LEGEND

- **Pzs** — Spruce Pine intrusive rocks: Mica–quartz monzonite and granodiorite.
- **€u** — Unicoi Formation: Conglomerate and sandstone, with interbeds of shale, siltstone, and quartzite.
- **pg** — Laminated gneiss: Quartzo–feldspathic layers separated by micaceous partings, with common layers of schist, amphibolite, and massive gneiss.
- **ur** — Ultramafic rocks: Mainly chlorite–tremolite–magnetite schist or gneiss, some containing olivine and serpentine or talc.
- **p€c** — Crossnore intrusive rocks: Granite and granitic gneiss, locally contain fluorite.
- **p€a** — Ashe Formation: Mica gneiss, amphibolite, hornblende gneiss, mica schist, and similar rocks, interlayered in various proportions.
- **p€g** — Grandfather Mountain Formation: Graywacke, siltstone, arkose, and similar meta–sedimentary rocks, interbedded.
- **p€m** — Mount Rogers Formation: Extrusive rhyolite and felsite with tuff, tuffaceous sandstone, siltstone, graywacke and similar rocks.
- **p€e** — Elk Park intrusive rocks: Plutonic rocks ranging from granite to diorite in composition, variable amount of gneissic structure.
- **p€l** — Lynchburg Formation: In Carroll Co., Va., equivalent to Ashe Formation (p€a) and laminated gneiss (pg) of North Carolina part of map.



BASE LEGEND

- STATE BOUNDARY
- COUNTY BOUNDARY
- MAJOR THRUST FAULT, sawteeth on upper plate
- CONTACT BETWEEN GEOLOGIC FORMATIONS, dashed where projected
- 20-50 — STRIKE AND DIP OF BEDDING
- 30-40 — STRIKE AND DIP OF FOLIATION

Geology of source maps modified by S.C.S. to simplify and correlate

GEOLOGIC MAP
NEW RIVER VALLEY
RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ALLEGHANY, ASHE AND WATAUGA COUNTIES, NORTH CAROLINA
CARROLL AND GRAYSON COUNTIES, VIRGINIA

0 5 10 15 20 MILES

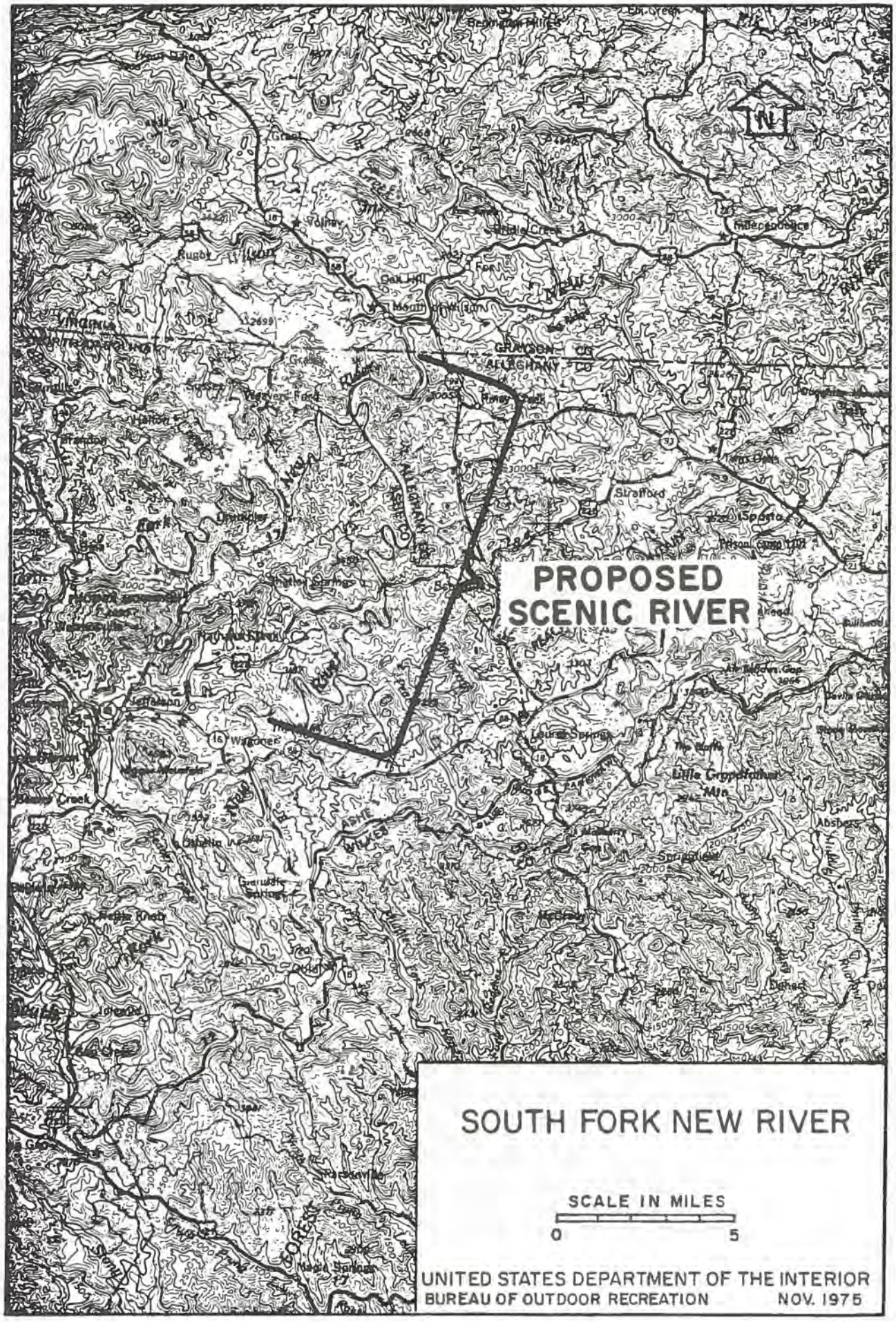
APPROXIMATE SCALE: 1:400,000 OR 1 INCH = 6.313 MILES

Base compiled from AMS Quadrangle, North Carolina and Virginia State Maps. Geology from Geologic Map of West Half of Winston–Salem Quadrangle (USGS) and Geologic Map of Virginia (Commonwealth of Virginia).

July 1973 4–R–33140

May 1973 4-R-32,948

USDA-SCS-FORT WORTH, TEX. 1973


PROPOSED
SCENIC RIVER
SOUTH FORK NEW RIVER
SCALE IN MILES
0
5
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION
NOV. 1975

As the stream downcut, rapids formed above the more resistant rocks. The trend (the compass direction of a line of rocks; also referred to as the "strike") of these rocks can be determined by observing the angle at which the rapids cross the stream bed.

Bedrock geology. The South Fork of the New River flows through some of the oldest rocks in the United States. Radiometric dating methods have placed the age of some of these rocks near 1.1 billion years old. In addition to their extreme age, all of these rocks are quite complex for they have all undergone metamorphosis two or three times in the past. The first metamorphism a prograde stage of Barrovian-type, occurred at about 450 million years ago and the second, a retrograde stage of Barrovian-type, occurred about 250 million years ago. The process of metamorphism changes the original character of the rocks and thus complicates their interpretation and understanding. All of the rocks in the vicinity of the South Fork of the New River are metamorphic except for any post-Paleozoic intrusives that may be found.

The oldest Pre-Cambrian rocks outcropping along the South Fork are those exposed from a point located along the South Fork at coordinates[1/] 1,017,000N., 1,314,400E., to the North Carolina/

1/ These coordinates refer to the North Carolina Coordinate System. The base point for this system is located at the intersection of 33°45' N. Latitude and 79°00' W. Longitude near Conway, South Carolina. This point is assigned the values 2,000,000 feet east and 0 feet north. The coordinate location of any point in North Carolina may be expressed in terms of distance in feet from this base point. Reference coordinates are shown along the margins of U.S. Geological Survey 7.5 minute quadrangle maps.

Figure II-5 - Outcroppings of metamorphic rock are of both scenic and geologic interest.

Virginia State line. (See U.S. Geological 7.5 minute quadrangle map - Mouth of Wilson, North Carolina/Virginia - may be obtained from U.S. Geological Survey, Topographic Map Division, 1200 South Eads Street, Arlington, Vriginia 22202). They belong to the Cranberry Gneiss of the Elk Park Plutonic Group. Two phases of the Cranberry Gneiss are mapped along the South Fork.

The most abundant phase consists of equigranular quartz monzonite, quartz monzonite flaser gneiss, and quartz monzonite gneiss. The

other phase is a coarse-grained augen or porphyritic gneiss having a monzonite composition with very large subhedral to euhedral grains of potash feldspar surrounded by a finer-grained matrix. In places the augen or porphyritic gneiss contains significant amounts of blue quartz and green epidote so as to be comparable with "Unakite," a rock type that is sought by rockhounds throughout Western North Carolina and Northeastern Tennessee. The majority of the Cranberry Gneiss is igneous in origin with minor amounts of original sedimentary materials. Nonconformably overlying the Elk Park Plutonic Group is the Ashe Formation (Rankin, 1970). (See Geologic Map, page 88.) The Ashe Formation is a fine-grained, thinly layered sulfidic, biotite - muscovite - gneiss interlayered with varying amounts of mica, schist and amphibolite. In the vicinity of Jefferson, North Carolina, the Ashe Formation becomes increasingly more amphibolitic. Rankin (1970) suggested that many of these amphibolites were originally ancient lava flows. The type section of the Ashe Formation is along the South Fork of the New River. It extends north from the junction of Obids Creek with the South Fork (Glendale Springs 7½ minute Quadrangle) to a point on the river located by the following North Carolina coordinates: 1,017,000N., 1,314,400E. (Mouth of Wilson, North Carolina/Virginia 7½ minute Quadrangle). The Ashe Formation is Pre-Cambrian in age and has been dated radiometrically at approximately 800 million years.

The Crossnore Plutonic-Volcanic Group intruded the older Cranberry Gneiss and either intruded or formed simultaneously with part of the Ashe Formation. The Crossnore Plutonic-Volcanic Group is exposed near the head of the South Fork at Boone, North Carolina. The mafic rocks are now greenstones, amphibolites, and metagabbro dikes and sills, whereas the felsic rocks are alkalic granites and granitic gneisses.

Intrusive into the lower Ashe Formation in this area are several large altered ultramafic bodies. They are composed mainly of chlorite-tremolite-magnetite schist or gneiss, some containing relict olivine and either talc or serpentine.

Conformably overlying the Ashe Formation is the Alligator Back Formation (Rankin, 1973). The Alligator Back Formation is a finely foliated gneiss composed of fine-grained quartzofeldspathic laminae a few millimeters thick separated by thick micaceous partings. Thicker schist and amphibolite layers are common. The Alligator Back Formation is Late Pre-Cambrian to Early Paleozic in age (Rankin, et al. 1972). Muscovite-granitic pegmatite dikes and sills intrude the Alligator Back Formation and all older rocks.

Structural Features. Thrust faults, with multiple mile displacements are characteristic structural features of the South Appalachians. The South Fork of the New River cuts the Fries thrust fault northeast of Boone at North Carolina coordinates

911,900N., 1,220,600E., and at the confluence of the South and North Forks of the New River. Movement along this fault in the vicinity of the South Fork shoved Cranberry, Ashe, Alligator Back, and other related rocks northwestward over the top of other Cranberry rocks. Another major thrust fault, the Linville Falls fault, just south of the study area, has been mapped. Appalachian thrust faults are old and inactive and present little chance of movement.

The South Fork flows across the western limb of the Ararat Synclinorium. This synclinorium is the result of a large downfold in the earth's crust during a period of mountain building. This fold along with thrust faulting and topography controls the outcrop pattern of the rocks along the South Fork of the New River.

Mineral Resources. The only active mineral production within the one mile study limits of the South Fork of the New River is the Bamboo Road quarry operated by the New River Crushed Stone Company. The company is crushing a biotite to biotite-hornblende gneiss that Rankin, et al., (1972), mapped within the Crossnore Plutonic-Volcanic Group. The crushed stone from this quarry is being used primarily in road and driveway construction. This deposit and those discussed in the following paragraphs are listed in Tabel II-15 according to their economic significance.

Although no other mining is going on today, several minerals have previously been extracted from the rocks along the South Fork. Copper is the most notable commodity mined and the most desirable for future exploration. The South Fork of the New River cuts across one of the major copper bearing sulfide belts in the United States. This belt extends from Maine to Alabama. The third largest copper mine in this belt, the Ore Knob Mine, is located less than 2 miles from the southeast bank of the South Fork. This deposit has produced about 35,000 tons of copper, 9,400 ounces of gold, and 145,000 ounces of silver during its intermittent history. This deposit has been abandoned several times only to be reopened when new exploration techniques located additional ore. Most recently, in October of 1972, five businessmen from West Jefferson, North Carolina, purchased the mine, the accompanying 692 acres, and the mineral rights to an additional 2,900 acres.

Two other known copper deposits lie within 1 mile of the South Fork. The first is the Gap Creek (Copper Knob) deposit which has produced both copper and gold. This mine carries the highest gold values of all the copper mines in the Appalachian copper belt. The second is an intriguing occurrence of native copper known as either the Church prospect or the Lichtenstein prospect.

At this deposit native copper occurs in amphibolite layers. This prospect was worked in the early 1800's and is situated approximately 50 feet above the narrow flood plains in the southeast

bank of the river. R.C. Hale and R.H. Carpenter (1968) report that other native copper deposits exist along the strike and they further suggest that copper mineralization in this area may be more widespread in the Late Pre-Cambrian volcanic rocks than previously realized.

Northeastward from the aforementioned deposits, copper-bearing sulfides are found along the strike for several miles into Virginia where they are known as the Great Gossan Lead. The Great Gossan Lead extends for some 20 miles along the strike in Virginia and represents the longest massive sulfide deposit in the Eastern United States.

As reported by Kinkel, et al. (1968) in U.S. Geological Survey Professional Paper 580, "Mineral Resources of the Appalachian Region," page 385, the potential for finding exploitable deposits of copper, pyrite, and pyrrhotite, particularly of the massive sulfide type, in this part of the State is excellent.

It addition to its occurrence with the copper deposits, gold has been mined from gravel deposits in Howards Creek north of Boone, North Carolina (Bryson, 1936).

Three small mica mines are located within the 1 mile limits of the South Fork study area, even though numerous mines are present in the Jefferson-Boone district located a few miles west of the South Fork. (Lesure, 1968). Little Prospect No. 1 had the

most extensive workings and the largest production of the three. It produced somewhere between 500 lbs. and 10,000 lbs. of sheet mica and was mined during both World Wars. Little Prospect No. 2 had a similar history, but only small production, with less than 500 lbs. being produced. The H.E. Brookshire Prospect east of Jefferson had very minor production, less than 500 lbs. in the 1930's. As long as sheet mica can be supplied more economically from foreign countries, there is little chance of mica mines in this area becoming important again.

Other previous mining activity in the area was for crushed stone or sand and gravel. There was only minor production from any one quarry or pit. The majority of the material was used for road material first by the county and later by the State Highway Commission.

Mineral commodities mined a few miles beyond the limits of the natural and scenic river area in addition to all of the commodities previously mentioned include: (1) talc, (2) crystal quartz, (3) magnetite, and (4) manganese. None of these are being mined currently.

Points of Geologic Interest

(1) The type section for the Ashe Formation is defined as those exposures along the South Fork of the New River between the prominent curve concave to the northwest at the mouth of Obids Creek (North Carolina Coordinates

942,600N., 1,291,400E) and a point located by North Carolina Coordinates 1,017,000N., 1,314,400E. The southern end of the section is on the Glendale Springs 7.5 minute quadrangle and the northern end is on the Mouth of Wilson, N.C. - Virginia 7.5 quadrangle. This portion of the South Fork will serve as the reference point for the Ashe Formation in all future mapping and scientific investigations of these ancient rocks.

(2) The rapids along the South Fork of the New River are a result of differential erosion of the underlying rocks. The rocks more resistent to erosion protrude out into the river causing the rapids.

(3) The presence of ancient lava flows and other volcanics that now appear as amphibolite ledges and cliffs along the South Fork of the New River are some of the most scenic and unique geologic features.

(4) The presence of 1.1 billion year old (Pre-Cambrian) metamorphic rocks places these among some of the oldest rocks in the U.S.

(5) The meandering nature of the South Fork of the New River is unusual for a stream with a moderate gradient in a mountainous area. It is this meandering that causes the South Fork to travel approximately 90 miles, when the straight line distance is only about 30 miles. This

meandering nature results from a time in the geologic past when the South Fork was flowing much more gently.

Table II - 15

Mineral Commodities Located Within 1 Mile of the Banks of the South Fork of the New River

Status	Mine Name	North Carolina Coordinates	Commodity Mined	Potential
Active	Bamboo Road Quarry	907,800N.,1,222,600E.	Crushed stone	Good
Inactive	Ore Knob	972,400N.,1,312,600E.	Copper, gold, silver	Good
Inactive	Ore Knob	973,300N.,1,314,300E.	Copper, gold, silver	Good
Inactive	Gap Creek (Copper Knob)	928,600N.,1,263,700E	Copper, gold, silver	Good
Inactive	Church Prospect	1,001,900N.,1,312,700E	Native copper	Fair
Inactive	Howards Creek	919,200N.,1,209,500E	Gold	Fair
Inactive	Index Quarry	973,800N.,1,291,000E.	Crushed stone	Fair
Inactive	Scottsville Quarry	1,007,700N.,1,324,700E.	Crushed stone	Fair
Inactive	Little Prospect #1 & #2	978,800N.,1,289,300E.	Muscovite mica	Poor
Inactive	H. E. Brookshire Prospect	913,500N.,1,219,400E.	Muscovite mica	Poor
Inactive	Todd Gravel Pitt	942,600N.,1,232,300E	Sand and gravel	Poor

References

Bryson, H.J., 1936, Gold Deposits in North Carolina: North Carolina Division of Mineral Resources, Bull. 38, p. 157.

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Kinkel, A.R., Feitler, S.A., and Hobbs, R.G., 1968, Copper and Sulfer, in Mineral Resources of the Appalachian Region: U.S. Geological Survey Prof. Paper 580, p. 377-385.

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Rankin, D.W., Espenshade, G.H., and Neuman, R.B., 1972, Geologic Map of the west half of the Winston-Salem quadrangle, North Carolina, Virginia, Tennessee: U.S. Geological Survey Misc. Geological Inventory Map I-709-A.

Rankin, D.W., Espenshade, G.H., and Shaw, K.W., 1973, Stratigraphy and Structure of the Metamorphic Belt in Northwestern North Carolina and Southwestern Virginia: A Study from the Blue Ridge across the Brevard Fault Zone to the Sauratown Mountains Anticlinorium: Cooper Volume, American Journal of Science, Volume 273-A, p. 1-40.

Soils. The soils (see Soils Map, p. 104) of the New River Valley area (includes Alleghany, Ashe, and Watuaga Counties, North Carolina and Carroll and Grayson Counties, Virginia) are either residual or alluvial depending on their origin.

Most of the soils are residual as they result from the disintegration of the local rock material and occur as a blanket directly over the parent rock on the mountain slopes. For these soils, thickness is generally less than 6 feet; however, soft, decomposed rock may extend to a depth of 50 feet. The residual soils are derived primarily from some type of gneiss or schist.

The alluvial or transported soils, however, are laid down by water or gravity and are related to the soil material from which they washed. These soils are located in the flood plains, draws, or benches of the area and contain less clay than the residual soils.

Figure II-6 - The soils of the flood plain are generally suited to row crops such as corn or tobacco.

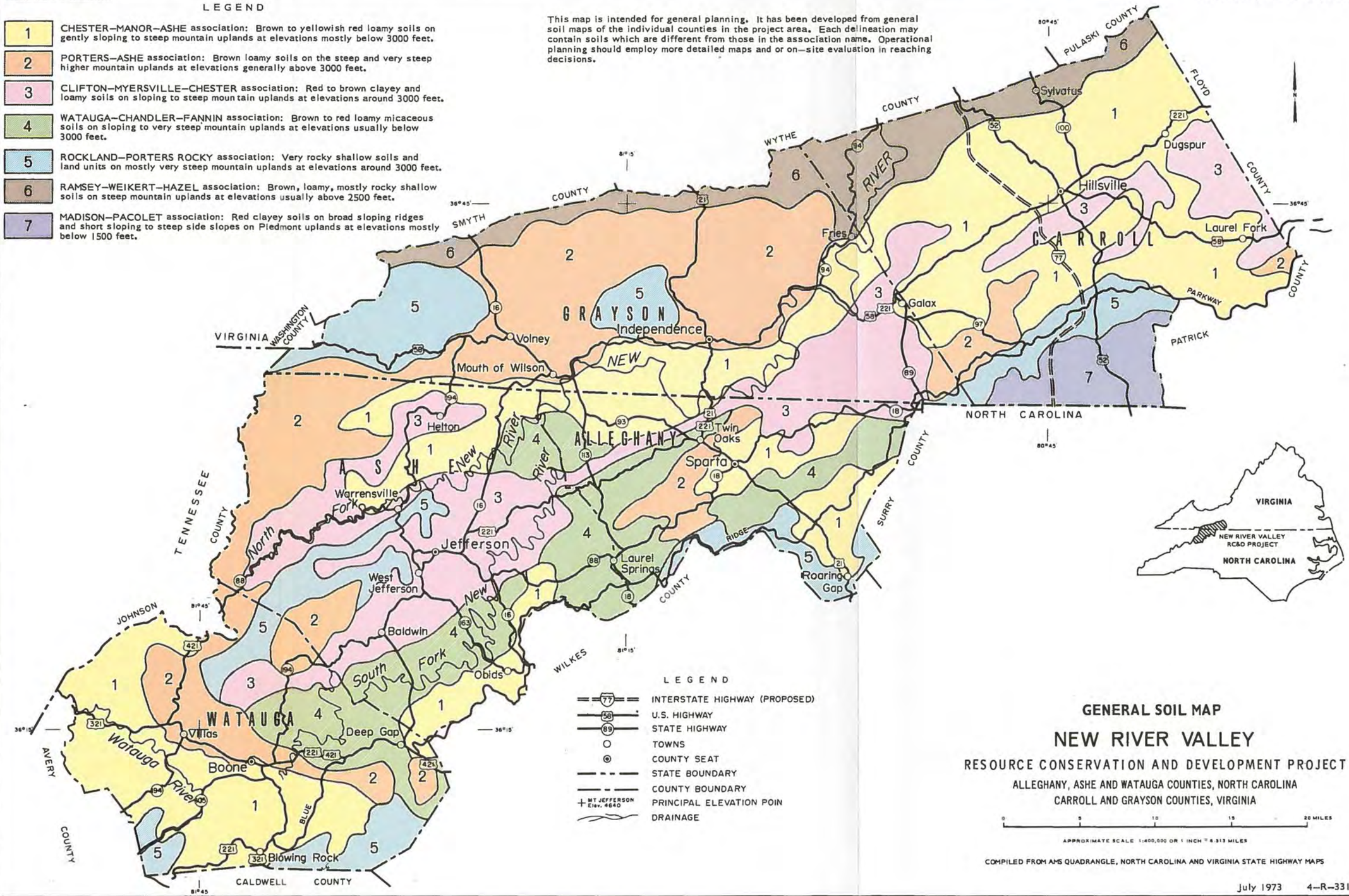
U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE, RALEIGH, NORTH CAROLINA

LEGEND

1. CHESTER–MANOR–ASHE association: Brown to yellowish red loamy soils on gently sloping to steep mountain uplands at elevations mostly below 3000 feet.
2. PORTERS–ASHE association: Brown loamy soils on the steep and very steep higher mountain uplands at elevations generally above 3000 feet.
3. CLIFTON–MYERSVILLE–CHESTER association: Red to brown clayey and loamy soils on sloping to steep mountain uplands at elevations around 3000 feet.
4. WATAUGA–CHANDLER–FANNIN association: Brown to red loamy micaceous soils on sloping to very steep mountain uplands at elevations usually below 3000 feet.
5. ROCKLAND–PORTERS ROCKY association: Very rocky shallow soils and land units on mostly very steep mountain uplands at elevations around 3000 feet.
6. RAMSEY–WEIKERT–HAZEL association: Brown, loamy, mostly rocky shallow soils on steep mountain uplands at elevations usually above 2500 feet.
7. MADISON–PACOLET association: Red clayey soils on broad sloping ridges and short sloping to steep side slopes on Piedmont uplands at elevations mostly below 1500 feet.

This map is intended for general planning. It has been developed from general soil maps of the individual counties in the project area. Each delineation may contain soils which are different from those in the association name. Operational planning should employ more detailed maps and or on–site evaluation in reaching decisions.



LEGEND

- INTERSTATE HIGHWAY (PROPOSED)
- U.S. HIGHWAY
- STATE HIGHWAY
- TOWNS
- COUNTY SEAT
- STATE BOUNDARY
- COUNTY BOUNDARY
- MT JEFFERSON Elev. 4640 — PRINCIPAL ELEVATION POIN
- DRAINAGE

GENERAL SOIL MAP

NEW RIVER VALLEY

RESOURCE CONSERVATION AND DEVELOPMENT PROJECT

ALLEGHANY, ASHE AND WATAUGA COUNTIES, NORTH CAROLINA
CARROLL AND GRAYSON COUNTIES, VIRGINIA

0 5 10 15 20 MILES

APPROXIMATE SCALE 1:400,000 OR 1 INCH = 6.313 MILES

COMPILED FROM AMS QUADRANGLE, NORTH CAROLINA AND VIRGINIA STATE HIGHWAY MAPS

July 1973 4–R–33138

May 1973 4-R-32,948

Many of the stream deposits are sources of sand and gravel but are relatively small and have not been highly developed. These soils may be grouped into soil associations for general interpretation purposes. A soil association consists of areas on which the soils occur together in a characteristic and repeating pattern. An association consists of one or more major soils and at least one minor soil which may be similar or may differ greatly. The soil association, and the topography on which it occurs, form a distinctive landscape.

The following is a description of the five major soil associations found in the five-county New River Valley area. Of these five, Chester-Manor-Ashe, Clifton-Myersville-Chester, and Watauga-Chandler-Fannin are the most commonly found soils within a band a few miles wide on either side of the river.

Chester-Manor-Ashe Association. (Brown to yellowish-red loamy soils on gently sloping to steep mountain uplands at elevations mostly below 3,000 feet.) This association is located throughout the project in five large bands, the largest of which is a northeast-southwest band that runs along the northern part of Alleghany and Ashe counties. The association is characterized by fairly broad ridgetops, sloping to steep side slopes, and fairly wide flood plains.

Of the major soils, Chester soils make up about 45 percent of the association and are well drained, upland soils with loam or

fine sandy loam surfaces over friable, brown to red clay loam to sandy clay loam subsoils. A large percent of these soils are cleared and used for pasture, row crops, or non-agricultural purposes.

This association's soils, with the exception of those in steeper areas, are well suited to agriculture, housing, and industrial pursuits. The chief limitations in using the major soils of this association are steep slopes and, in some places their shallow depth over rock. The soils of the flood plains have severe limitations for most nonfarm uses but are generally suited to pasture or row crops.

Porters-Ashe Association. (Brown loamy soils on steep and very steep higher mountain uplands at elevation of generally above 3,000 feet.) This association is located on the higher mountains of the area and is characterized by very narrow ridgetops and long steep and very steep side slopes with very narrow flood plains.

Of the major soils, Porters makes up about 50 percent of the association and are well-drained, upland soils with dark-colored loam surfaces and friable brown loam to clay loam subsoils. Well suited for almost any use, the Porters soils are limited only by steep slopes and inaccessibility.

This association is mostly wooded with areas of pasture on the ridgetops and upper side slopes. Until recently there were few

roads and houses in this association, but many summer homes have recently been constructed. Major limiting factors in using soils of this association are steep slopes and shallow coverage of rock.

Clifton-Myersville-Chester Association. (Red to brown clayey and loamy soils on sloping to steep mountain uplands at elevations around 3,000 feet.) With its largest areas located around Jefferson and West Jefferson, North Carolina, and southwest of Galax, Virginia, the association is characterized by fairly broad ridgetops and rolling steep side slopes.

Of the major soils, Clifton soils comprise about 35 percent of the association. They are well-drained upland soils with loam surfaces over red to brown clayey subsoils and many stony areas. Located primarily in Virginia and making up about 20 percent of the association, the Myersville soils are well drained upland soils with loam surfaces over friable silty clay loam subsoils. The Chester soils make up about 15 percent of the association and are described in the Chester-Manor-Ashe Association.

About one-half of this association is cleared and used for pasture, row crops, or nonagricultre uses. Except on areas with steep slopes, these soils are particularly suited for yellow poplars. The major limiting factors for nonagricultural uses are clayey subsoils, steep slopes, and stoniness in some areas.

Except for some steep slopes, this area is well suited to pasture or row crops and also suited to nonagricultural uses such as dwellings, roads, and industry.

Figure II-7 - Loamy upland soils are well suited to pasture except in steeper areas.

Watauga-Chandler-Fannin Association. (Brown to red loamy micaceous soils on sloping to very steep mountain uplands at elevations usually below 3,000 feet.) This association is located mostly in one fairly narrow band beginning in the eastern part

of Ashe and Alleghany counties. The area, characterized by narrow ridgetops and fairly short steep side slopes, has relatively narrow flood plains.

Of the major soils, Watauga soils make up about 40 percent of the association and have loam surfaces over friable brown micaceous loam to clay loam subsoils. They are located mostly on the ridgetops and milder side slopes. Comprising about 25 percent of the association, the Chandler soils are located primarily on the steep side slopes and have loam surfaces of friable micaceous loam subsoils. These soils are fairly thin and lie over deeply weathered mica schist. The Fannin soils making up about 10 percent of the association and located mostly on the broader areas of the ridgetops, are well-drained upland soils with silt loam surfaces over friable micaceous clay loam subsoils. About one-half of this association is cleared and used for pasture or row crops and except for the steep areas of the Chandler soils, this association is well suited for pasture, row crops, and nonagriclutural uses such as dwellings, streams, and industry.

Rockland-Ports-Rocky Association. (Very rocky shallow soils on mostly very steep mountain uplands at elevations around 3,000 feet.) This association is characterized by mostly very steep, long side slopes and very narrow ridgetops with stones, boulders, and rock outcrops covering much of the association. The rockland soil condition makes up about 35 percent of the association and consists of mostly rock outcrops, boulders and stones

covering up to 50 percent of the surface with the soil between having a dark-colored surface and fairly shallow soil. The rocky Porters soils are similar, having a dark-colored surface and fairly shallow soil. The rocky Porters soils are similar except they have fewer stones, boulders, and rock outcrops.

References

Soil Conservation Service, U.S. Department of Agriculture, New River Valley Resource Conservation and Development Project Plan, July 1974.

Vegetation

Vascular vegetation within the study area is quite varied due to the contrast in sites, which range from a flood plain to ridges. Forest cover is primarily second growth and is of the Oak-Hickory, Cove Hardwood and Southern Bottomland Hardwood types.

The Oak-Hickory Hardwood type is located on the southside of the ridgeline and includes white and yellow pine, hemlock, oak, hickory, maple, elm and eastern redcedar. The side drainage forest cover of the river contains the Cove Hardwood type consisting of beech, black gum, yellow poplar, yellow birch, black locust, maple, oak, hickory and ash. The Southern Bottomland Hardwood type is found adjacent to alluvial soils and includes beech, maple, willows, sycamore, ash, oak and hickory (see table on Forest Types and Associated Species, page 114).

Understory woody growth for the aforementioned types includes mountain laurel, rhododendron, huckleberry, alder, hydrangea, grapevine, dogwood, sourwood, sassafras and silverbell.

Due to land use practices over the past 100-200 years (land clearing, grazing, wildfires) the value of timber within the study area is negligible. The most productive sites are utilized for farming while forest cover is mainly on marginal sites (see commercial forestland tables).

Contact with various State personnel revealed that studies to determine the existence of endangered or rare species of vascular flora in the project area have been made, but not finalized. Species of endangered or rare flora have been located in Alleghany, Ashe and Watuaga Counties. Therefore, it is probable that they may be in existence within the proposed project area (see Table II-21 on page 117).

Figure II-8 - The vegetation of the South Fork New River includes many wildflowers such as the jewel weed shown here.

Table II - 16

Forest Types

Southern Bottomland Hardwood		Cove Hardwood	Oak-Hickory Hardwood
Primary Species	Beech	Beech	Redcedar
	Maple	Blackgum	White and Yellow Pine
	Willow	Yellow Poplar	Hemlock
	Sycamore	Yellow Birch	Oak
		Black Locust	Hickory
Secondary Species	Ash	Sweetgum	Maple
	Oak	Maple	Elm
	Hickory	Oak	
		Hickory	
		Ashe	
		Hemlock	
		Pine	

Table II - 17

Commercial Forestland by Forest Type and County

Forest Type	--Acres-- Alleghany	Ashe
All type groups	66,089	148,970
White Pine-Hemlock	17	12,123
Virginia Pine	4,404	8,050
Spruce-Fir	-	-
Oak-Pine	-	-
Oak-Hickory	52,858	92,573
Chestnut Oak	-	4,025
Maple-Beech-Birch	8,810	24,150

SOURCE: Southeastern Forest Experiment Station - Forest Resource Bulletins SE-5 and SE-8

Table II - 18

Commercial Forestland by Stand Size, Class, and County

County	All Stands	Sawtimber Stands	Poletimber Stands	Sapling Seedlings	Nonstocked Stands
Alleghany	66,089	39,644	13,213	13,215	17
Ashe	148,970	84,522	40,250	24,148	50
Total	215,059	124,166	53,463	37,363	67

SOURCE: Southeastern Forest Experiment Station - Forest Resource Bulletins SE-5 and SE-8

Table II - 19

Volume of Growing Stock by Species Group

County	All Species	----Thousand Cubic Feet---- Pine	Other Softwood	Soft Hardwood	Hard Hardwood
Alleghany	53,372	2,245	1,670	14,335	35,122
Ashe	140,679	7,734	10,539	31,567	90,839
Total	194,051	9,979	12,209	45,092	125,961

Table II - 20

Volume of Sawtimber by Species Group

County	All Species	----Thousand Board Feet---- Pine	Other Softwood	Soft Hardwood	Hard Hardwood
Alleghany	165,878	3,126	5,693	43,491	113,568
Ashe	397,117	11,433	29,497	70,942	285,245
Total	562,995	14,559	35,190	114,433	398,813

SOURCE: Southwestern Forest Experiment Station - Forest Resource Bulletins SE-5 and SE-8.

RARE AND ENDANGERED VASCULAR PLANTS[1/]
OF NORTH CAROLINA
LOCATED IN VICINITY OF PROJECT AREA

SPECIES	RANGE IN NORTH CAROLINA	PREFERRED HABITAT	GENERAL COMMENTS	STATUS
Taxus conadensis	Ashe and Watauga Counties.	Low, rich woods.	At southern limit: rare.	Rare and endangered.
Carex misera	Ashe, Buncombe, Macon, Mitchell and Swain Counties (Georgia & Tennessee)	Rocky crevices and balds	Very, very rare.	Rare.
Habernaria andrewsii	Ashe and Buncombe Counties	Bogs, marshes, wet meadows and thickets.	Very rare in N.C.	Rare.
Populus grandidentata	Ashe and Haywood Counties (Va., Tenn., Ky., W. Va.)	Dry woods and rock outcrops.	Very rare in N.C. Southern Limit.	Rare and Endangered.
Hypericum buckleyi	Southern Appalachians.	Balds and rock ledges.	Mountain endemic.	Rare.
Panax quinquefolium	Mountains and Piedmont.	Rich woods.	Rare.	Rare.
Rhododendron vaseyi	Mountains of N.C.	Bogs; spruce forest.	Rare.	Rare.
Shortia galacifolia	Mountains of N.C.	Rich woods.	Rare.	Rare.
Krigia montana	Mountains.	Rocky peaks and ledges.	Southern Appalachian endemic.	Rare.

1/ Preliminary list of Endangered Plant and Animal Species in North Carolina
North Carolina Department of Natural and Economic Resources
Raleigh, North Carolina

Four floral species inhabiting the study area have been identified by the Fish and Wildlife Service as possible candidates for listing as Endangered or Threatened Flora pursuant to the Federal Endangered Species Act of 1973. These are the spreading avens, Geum radiatum; a rattlesnake root, Prenanthes roanensis; the wretched sedge, Carex misera; Carey's saxifrage, Saxifraga careyana; and the Carolina saxifrage, Saxifraga caroliniana.

References

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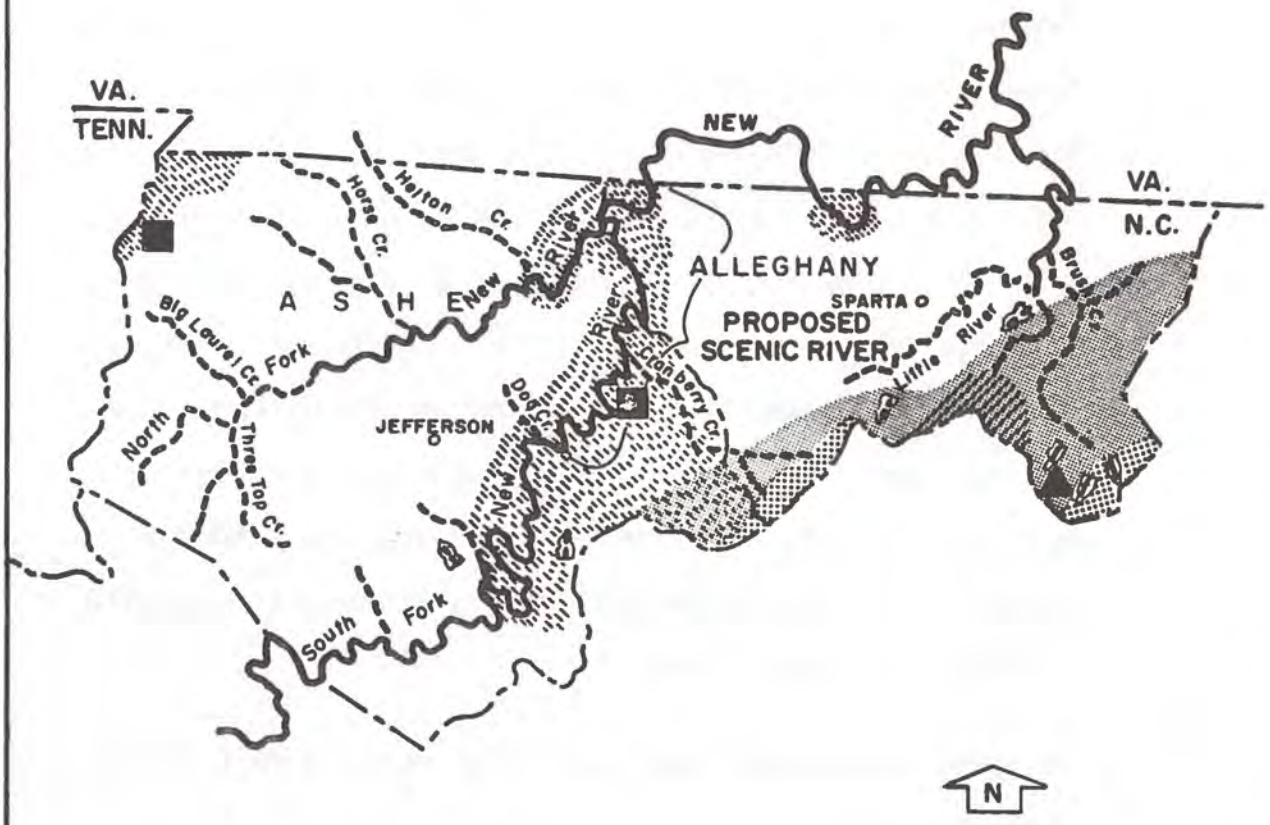
Fish and Wildlife

Wildlife. Wildlife of the South Fork New River and surrounding two-county area includes a broad and comparatively well-balanced fauna characteristic of a lightly developed agricultural area. Both big game, including white tailed deer and wild turkey, and small game species, principally rabbit and quail, live in the area. (See Principal Fish Habitat and Big Game Distribution Map, page 120). Also found in the area are furbearers, such as oppossum and raccoon; many forms of nongame wildlife, such as song and other birds; small mammals, reptiles, amphibians, and many types of fish. The area harbors 16 rare and endangered animals on the State's list including invertebrates, salamanders, reptiles, fish, and one bird.

The basin area is approximately equally divided between second growth forests and cleared lands devoted to pasture or crop production. Habitat is generally the key factor in determining distribution and abundance of wildlife species; therefore, numbers of specific populations vary greatly according to land use. Nearly all of the forest lands, 55 percent of the area, are in private ownership with little or no wildlife management. Thus, the quality of this habitat is extremely variable, and results in varying sizes of wildlife populations. Big game distribution and numbers vary considerably, with such game found primarily in areas with larger woodland tracts.



FISH HABITAT
- TROUT
- BASS

DEER POPULATION
- WELL ESTABLISHED
- MODERATE
- LIGHT

WILD TURKEY POPULATION
- LIGHT

BEAR POPULATION
- LIGHT

- LAKE
- GAME MANAGEMENT AREA
- FISH HATCHERY

PRINCIPAL FISH HABITAT AND BIG GAME DISTRIBUTION TWO COUNTY NEW RIVER AREA

SCALE IN MILES
0 5 10

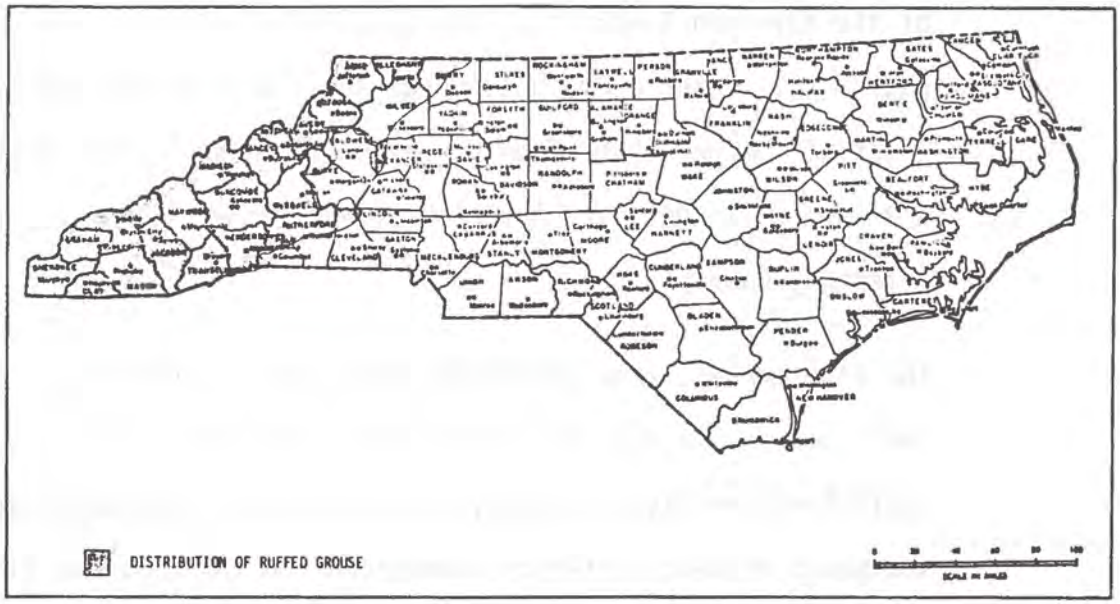
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION NOV. 1975

Whitetail deer is the principal big game animal of the forest lands and is now found throughout the two-county area in numbers generally proportional to the extent and density of the forested lands (see Fish and Wildlife Habitat Map, page 120). Light deer populations are found in most forest lands of southern Ashe County. Light to moderate deer populations are present in northern Ashe County and generally throughout Alleghany County.

The wild turkey, also considered big game, is found in small numbers in many isolated patches of forest along the South Fork New River, roughly from the NC-163 Highway bridge southeast of West Jefferson downstream to the Virginia line. (see Fish and Wildlife Habitat Map, page 120).

The black bear formerly was found throughout the area but habitat alteration over the years has now reduced the population to a relatively small number found along the ridge tops and well outside the river corridor.

Small game animals of the forest are principally the grey squirrel and the ruffed grouse. The ruffed grouse, a species of limited distribution, inhabits the forested mountains in western North Carolina, as shown on the small-scale map below.



Of the remaining 45 percent of the land not in forests, the majority is in cropland or pasture. Farms in Alleghany and Ashe Counties are primarily of the dairy or livestock type or tobacco. With the area's emphasis on dairy or beef operations, much of the land is in hay or pastures which do not provide optimum habitat for wildlife populations.

Figure II-9 - The area of the South Fork New River is approximately equally divided between forested and cleared land. Wildlife populations vary greatly with land use.

Game animals of the agricultural lands are principally the cottontail rabbit and bobwhite quail, with doves, fox, and groundhog present in smaller numbers. The South Fork New River and its larger tributaries also have a light population of waterfowl with the wood duck being the most common species.

Furbearers inhabiting the streams and adjacent areas in moderate numbers include oppossum and raccoon. There are small numbers of beaver, mink, and muskrat, but little interest is shown locally in trapping these species.

There are two public hunting areas in Ashe County--none in Alleghany County. The Carson Woods Game Land, a leased public hunting area of 1,079 acres under management by the North Carolina Wildlife Resources Commission, extends approximately 1 mile along the south bank of the South Fork New River near Liberty Hill Church and south of the U.S. Highway 221 bridge. The wildlife Resources Commission also manages cooperatively with the United States Forest Service 486 acres of the Cherokee National Forest in western Ashe County (see Big Game Distribution Map on page 120 for both locations).

According to the North Carolina Wildlife Resources Commission, there are no data on the current use of the South Fork New River by hunters. However, personnel within the Wildlife Resources Commission estimate that approximately 70 percent of all hunting in Ashe and Alleghany counties is done in the New River watershed. The same sources also estimate that the 2-mile-wide band along the South Fork New River supports the following fractions of all hunting in Ashe and Alleghany counties repsectively: small game, 30 percent; deer, 80 percent; waterfowl, 95 percent; "Varmint"[1/], 75 percent; small game, 30 percent; deer, 75 percent; waterfowl, 95 percent; "varmint," 70 percent

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1/ An animal classed as vermin and unprotected by game laws such as groundhogs or crows.

An estimate of current hunting use and future demand, statewide is available in the North Carolina Statewide Comprehensive Outdoor Recreation Plan (SCORP). These figures, which are based on license sales, can be used for an estimate of hunting use and future demand in Ashe and Alleghany Counties, if we assume that trends and use patterns are the same in these counties as for the State as a whole.

As measured by license revenues, resident hunting has increased by 20 percent from the 1956-1957 season to the 1969-1970 season, while nonresident hunting has increased 13 percent. The average for both groups has risen 19 percent. Hunting by residents is increasing by approximately 1.4 percent a year, while that by nonresidents is increasing at 1 percent per year. In summary, hunting is increasing much more slowly than fishing and boating which have upward trends of approximately 4 percent annually and 7 percent respectively.

Statewide, hunting is expected to increase (over 1971 levels) 3 percent by 1976 and 15 percent by 1986. At the same time, population is projected to increase approximately 7 percent by 1976 and 21 percent by 1986.

Using county population projections from the Environmental Protection Agency, the populations of Alleghany and Ashe Counties were expressed as percentages of the total statewide population

for each of the 3 years 1971, 1976, and 1986. These percentages were used to allocate the following proportion of the total statewide hunting demand as expressed in the SCORP, to the two study area counties.

Adult Hunting Activity Days

	1971	1976	1986
Ashe County	12,445	12,108	12,570
Alleghany County	5,240	4,045	5,436

Many forms of nongame wildlife species including song birds, small mammals, reptiles and amphibia are common to the proposed area. Although no thorough sampling of nongame species has been made, the animals in Table II-22, on page 128 have been observed in preliminary field study by the North Carolina Department of Natural and Economic Resources.

A number of terrestrial species from the two-county South Fork New River area are listed as rare or endangered by the Endangered Species Committee of the Department of Natural and Economic Resources in a "Preliminary List" issued in June 1973. They include the long-tailed salamander (Eurycae longicauda longicauda), ravine salamander (Plethodon richmondi), bog turtle (Clemmys muhlenbergi) the invertebrate (Dixioria dactylifera) and the golden eagle (Aquilla chrsyaetos). None of these animals is on the United States "List of Endangered Fauna" published by the Fish and Wildlife Service in May 1974. In addition, six small mammals on the State list are classed as either rare or

peripheral in the general area of western North Carolina and might occur in the South Fork New River corridor. No sightings have been reported, however (see chart on page 129 for details of range and habitat). One of these small mammals, the Indiana bat, Myotis sodalis, is on the United States list referred to above.

Table II-22

NONGAME ANIMALS AND BIRDS OBSERVED IN THE SOUTH FORK NEW RIVER CORRIDOR

Birds

American Goldfinch

Belted Kingfisher

Blackburnian Warbler

Blue Jay

Cardinal

Carolina Chickadee

Carolina Wren

Corn Flicker

Downy Woodpecker

Field Sparrow

Green Warbler

Birds, continued

Indigo Bunting

Killdeer

Louisiana Waterthrush

Red-bellied Woodpecker

Rose breasted Grosbeak

Rufous-sided Towhee

Slate-colored Junco

Song Sparrow

Tufted Titmouse

Turkey Vulture

Small Mammals

Chipmunk

Woodchuck

Rare and Endangered Fauna of South Fork New River Area [1/]

SPECIES	RANGE IN N.C.	PREFERRED HABITAT	GENERAL COMMENTS	PROJECTS INVOLVED	STATUS
			INVERTEBRATES		
Brachypanorpa carolinensis (Bks.) Mecoptera-scorpion fly	Ashe, Buncombe and Yancey Counties	Grassy areas at high elevations	Endemic to western N.C.		Rare
Dixioria dactylifera	Known only from type locality, Ashe County, Creston vicinity		Endemic		Endangered
Spirodon dilatata (Aquatic snail)	Known N.C. only from New River System, Ashe and Alleghany Counties	Boulders and cobbles, fast water	Endemic to New river System, Va., N.C., and W. Va.	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
			FISH		
Notropis scabriceps New River shiner	New River System above Falls of Kanawha		Common endemic	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Phenacobius teretulus Kanawha minnow	New River System	Larger streams, clear bottoms	Uncommon endemic	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Nocomis platyrhynchus Bigmouth Chub	New River System	Pools and riffles, larger streams, clear bottoms	Common endemic	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered

[1/] Taken from "Preliminary List of Endangered Plant and Animal Species in North Carolina," compiled by Endangered Species Committee of Department of Natural and Economic Resources, N.C., June 1973

SPECIES	RANGE IN N.C.	PREFERRED HABITAT	GENERAL COMMENTS	PROJECTS INVOLVED	STATUS
Parexoglossum laurae Tongue-tied minnow	New River System	Pools, moderate to larger streams, clear bottoms	Uncommon	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Pimephales notatus Bluntnose minnow	New River System	Pools, good tolerance of turbidity. Moderate foliage streams	Common in New River, introduced as bait elsewhere	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Etheostoma Kanawha Kanawha darter	New River System	Riffles, moderate foliage streams	Common endemic	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Percina maculata Blackside darter	New River System	Pools of moderate and larger streams	Common	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Percina oxyrhyncha Sharpnose darter	New River System	Riffles, larger streams	Rare endemic, rare throughout New System	Blue Ridge Dam, Site 78 Dam	Peripheral-Endangered in N.C.
Pylodictis olivaris Flathead catfish	New River System and Tennessee drainage. (Not reported Watauga, Pigeon)	Riffles, clear bottoms, larger streams		Blue Ridge Dam, Site 78 Dam	Peripheral-Rare in N.
		AMPHIBIANS			
Eurycea longicauda longicauda Long-tailed salamander	Alleghany, Watauga Counties New and Watauga River Systems			"Collection"	Peripheral-Rare in N.C.
Plethodon richmondi Ravine salamander	Alleghany, Ashe, and Avery Counties			"Collection"	Peripheral Undetermined in N.C.
		REPTILES			
Clemmys muhlenbergi Bog turtle	Alleghany, Ashe, Avery, Buncombe, Clay, Davidson, Forsyth, Iredell, Macon, Mecklenburg and Transylvania Counties	Specialized habitat Low-wet meadows and bogs	Population density low, habitat damage may extirpate species		Peripheral-Rare in N.C.

SPECIES	RANGE IN N.C.	PREFERRED HABITAT	GENERAL COMMENTS	PROJECTS INVOLVED	STATUS
		BIRDS			
Aquila chrysaetos Golden Eagle	Occasional visitor in mountains	Open country, mountains	Small N.E. Appalachian popn. declined greatly		Rare
		MAMMALS			
Myotis austroriparius mumfordi (Rice) Southeastern Myotis	Western N.C.		N.C. range periphery		Rare
Myotis sodalis (Miller and Allen) Indiana Bat	Western N.C.		N.C. range periphery		Rare
Mustela nivalis allegheniensis (Rhoades) Least Weasel	Western N.C.		N.C. southeastern end range		Rare
Microtus chrotorrhinus carolinensis (Komarek) Rock Vole	Western N.C.	Mountain balds, meadows			Undetermined
Sorex cinereus cinereus (Kerr) Masked Shrew	Western N.C.	Highlands plateau			Peripheral-Undetermined in N.C.
Sorex palustris punctulatus (Hooper) Water Shrew	Western N.C.	Wet bogs			Peripheral-Rare in N.C.

Fish

A wide variety of game and nongame fish, both warm and cold water types, including nine fish on the State's rare and/or endangered list, and an endangered aquatic snail are found in the South Fork New River study area. Overall, the sport fishery of the New River basin in Western North Carolina is trout in the tributaries and upper reaches of the North Fork New River and Little River and smallmouth bass in New River and the lower reaches of North Fork New River, South Fork New River and Little River (see Principal Fish Habitat Map on page 120). Studies indicate that good smallmouth bass habitat exists from Clifton on the North Fork New River and from U.S. Highway 421 crossing near Boone on the South Fork New River downstream to that portion of the main stem of the New River in North Carolina. A 1963 "Cool-Water Stream Studies" report dealing primarily with smallmouth bass is available from the Commission. A Commission creel census of 1970-71 revealed that, numerically, smallmouth bass provided 15.4 percent of the angler's creel--an unusually high contribution considering the year-round catch rate of 1.64 fish per hour of effort.

The smaller tributaries of the major trout streams that have well protected watersheds at higher elevations are essentially spawning areas and nursery streams which help to maintain the adult populations of the larger streams. Wild young-of-the-year trout generally are abundant in these tributary streams.

The North Carolina Wildlife Resources Commission in 1963 compiled and in 1968 published a systematic survey of all the fishing waters in North Carolina. From this study, the table below of fishery types was compiled by the Soil Conservation Service for the North Carolina portion of the New River, including Ashe, Alleghany, and Watauga Counties and published in the New River Valley Resource Conservation and Development Project Plan.

Table II-23

FISHERIES BY ECOLOGICAL CLASSIFICATION
North Carolina Portion of New River Valley

Ecological Classification[1/]		Mile	Acres
Streams			
Brook Trout		395	556
Rainbow Trout		159	322
Smallmouth Bass		134	1,572
Brown Trout		69	155
Sucker		40	64
Dace-Trickle		19	13
Trout Feeder		6	3
	TOTAL	822	2,685
Reservoirs		--	173

1/ Fish species named are those favored by the habitat in waters tabulated. They are not the only species found in the waters.

Source: Fish, Frederic F. A Catalog of Inland Fishing Waters in North Carolina. Wildlife Resources Commission, 1968.

Reservoirs form a small (173-acre) portion of the fishery resources in the North Carolina portion of the New River watershed. The North Carolina Wildlife Resources Commission has a program of systematic stocking of adult trout to augment many of the trout waters in the area. A hatchery is located in Alleghany County near Roaring Gap. (See Fish and Wildlife Habitat map, page 120). Species propagated are brook, rainbow, and brown trout. The New River and tributaries in North Carolina as indicated by surveys in 1964 and 1974 is perhaps the most popular smallmouth and rock bass fishery in the State. This is a natural fishery enhanced by relatively clean water.

In July-September 1963, field studies of the streams in the New River Basin were performed. A copy of this report is available from the North Carolina Wildlife Resources Commission. It gives an overall picture of the watershed and makes fish management recommendations. The objectives of this study were: to classify the streams of the watershed on a basis of biological, chemical and physical characteristics; to measure the relative abundance of species of fish and invertebrate organisms in the more important fishing streams; and to provide a checklist of species of fish sampled in the streams of the basin.

In 1974, a new study was conducted on the South Fork and its major tributaries, to determine if water quality or species

composition had changed in the past 10 years. The basic techniques and sampling points (a total of 73) as close as possible duplicated the original stream survey in 1964 in order to compare the two sets of data. One conclusion of the study was that overall, the watershed has remained relatively stable over the past 10 years.

Electrofishing was the primary sampling method used, except for two stations where rotenone was employed. The South Fork New River provides anything but an ideal situation for fish population sampling. Electrofishing, as employed in the larger waters of the main stem, is notoriously inadequate but was preferable to the unavoidable sterilization of a considerable river reach by use of toxicants. Therefore, the fishery data reported should be considered as qualitative at best and not necessarily complete for even the species present. Further problems exist regarding what might also have been there but was either unaffected or escaped collection. Bottom samples of fish food organisms were taken with a surber sampler.

Chemical determinations were restricted to dissolved oxygen, free carbon dioxide, p^H, total alkalinity according to methods outlined in the Tenth Edition, "Standard Methods for Examination of Water, Sewage, and Industrial Waste." The physical features measured were temperature, width and length. The turbidity and general stream condition was also noted.

Water temperature in the South Fork New River watershed ranged from 60°F in the higher elevation trout streams to 73°F. in the main stem New River before it enters in Virginia for the last time. The average temperatures for the entire watershed was 65.2°F. Dissolved oxygen concentrations found throughout the watershed attest to its high water quality. Concentrations ranged from 9ppm to 10ppm with an average of 9.3ppm. Free carbon dioxide concentrations were low in all streams, ranging from 5ppm to 10ppm with an average of 7.2ppm. Streams throughout the watershed had an average of 7.2ppm. The p^H range was from 6.8 to 7.8 (wide range p^H determinations were used which gives a slightly larger spread). The total alkalinity concentrations throughout the sample area ranged from 14ppm to 28ppm with an average of 19.8ppm for all sample stations.

The streams of this watershed produced relatively high number of invertebrate organisms, due primarily to clean water with little siltation. The following groups of invertebrates, in order of decreasing abundance, were found in bottom samples: Ephemeroptera, Plecoptera, Diptera, Trichoptera, Gastropoda, Coleoptera, Pelecypoda, Hydracarina, Annelida and Decapoda. Number of organisms at individual stations ranged from 10 per square foot to 143 per square foot with the average for all sample stations being 55.08 per square foot.

Fish population sampling in the streams of this section of the New River Watershed produced 34 species of fishes, representing six families. The total samples included: two species of Salmonidae (trout); 17 species of Cyprinidae (minnows); two species of Catostomidae (suckers); six species of Centrarachidae (sunfishes); six species of Percidae (perches); and one species of Cottidae (sculpins), (see checklist of Fish Species in Appendix on page 238).

Although not recovered during sampling, the following fishes are present in the watershed and have been recovered during previous sampling: rainbow trout, flathead catfish and carp.

The most widely distributed family of fishes was Cyprindae (minnows), with at least one species being recovered at each sample station. The stone roller was the most frequently encountered, occurring in 85 percent of the samples. The blacknose dace occurred in 77 percent of the samples, as did the bluehead chub.

The northern hog sucker of the family Catostomidae (suckers) was also very widely distributed, occurring in 85 percent of the samples.

The family Percidae, represented by six species, occurred widely throughout the watershed. The fantail darter was the most frequently encountered, being recovered in 62 percent of the samples. The

sharpnose darter was confined to the main stem of the South Fork and was recovered at two stations.

The Centrarchidae (sunfishes), although represented by six species, only represent two species that contribute significantly to the fishery. The smallmouth bass and rock bass are perhaps the most sought after species in the watershed. This section of the New River system is some of the best smallmouth bass water in the State. Included in the list of minnows and perches recovered are seven species which are currently on the State's endangered species list. (See chart on page 129).

The rare or endangered aquatic species reported by the State from the South Fork New River include the aquatic snail Spirodon dilatata, the New River shiner Notropis scabriceps, the Kanawha minnow Phenacobius teretulus, the bigmouth chub, Nocomis platyrhynchus, the tongue-tied minnow Parexoglossum, the bluntnose minnow Pimephales notatus, the Kanawha darter Etheostoma kanawhae, the blackside darter Percina maculata, the sharpnose darter, Percina oxyrhycha, and the flathead catfish Pylodicitis olivaris. These species occur other places in the upper watershed also, but do not occur in any other watershed of North Carolina, nor do they occur in the lower part of the New River watershed in West Virginia, as they are isolated by falls.

Several fish and shellfish species inhabiting the study area may be candidates for listing as Endangered or Threatened in accordance with the Endangered Species Act of 1973. They are the New River crayfish, Cambarus chasmodactylus; the dilatate diamond-shaped snail, Spirodon dilatata; the New River shiner, Notropis scabriceps; the bigmouth chub, Nocomis platyrhynchus, the Kanawha minnow, Phenacobius teretulus; the Kanawha darter, Etheostoma kanawhae; and the finescale saddled darter, Etheostoma osburni.

The most significant detrimental factors now influencing the fishery of the South Fork are sedimentation from dirt and gravel roads and poor agricultural and forestry practices. Also contributing is widespread practice of dumping trash and garbage into the streams. Development in the upper reaches of the South Fork near the resort town of Boone have created local sediment problems; however, the 26.5-mile segment under consideration for scenic river status, approximately 60 miles downstream from Boone, has not been directly affected at this time. Thermal pollution is also a constant risk in an agricultural or other developed area where trees and shrubs have been removed from streambanks.

According to the N.C. Wildlife Resources Commission, no data is available on the amount of present use of the South Fork New River by fishermen. However, they describe the current fishing pressure as relatively light in spite of the fact that the study area of

South Fork New River contains the finest smallmouth bass and rock bass riverine habitat to be found in the State. They anticipate that fishing activity will increase in the future and at a faster rate than the State population. A calculation of estimated recreation demand for Ashe and Alleghany Counties 1971-1986 (see discussion under Recreation Resources, page 53, for details of methodology) shows total activity days of fishing to be 55,777 in 1971; 63,063 in 1976; and 83,577 in 1986. These figures are for fishing demand in the entire two county area, not just the South Fork New River, but they illustrate the trend of increased demand that will be felt in the river corridor.

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Land Use

The two counties which contain the New River proposal area (Ashe and Alleghany, North Carolina) are mountainous, and distincly rural. Of the total 1970 population in these two counties only 11 percent lived in the three small urban areas (Sparta in Alleghany County and Jefferson and West Jefferson in Ashe County).

The following table gives acreages and percentages of major land use categories (see Land Use Map, p. 17) in the two counties and clearly demonstrates the rural nature of the two counties containing the proposed river corridor.

Table II-24

Major Land Uses[1/]
New River Valley by County
(Thousands of Acres)

Land Use	Alleghany County, N.C.	Percent of Total	Ashe County, N.C.	Percent of Total
Federal Noncrop	4.9	3.3	1.7	0.6
Urban and Built-up	4.5	3.1	10.0	3.7
Small Water	0.5	0.3	1.2	0.4
Cropland	30.0	20.4	50.0	18.3
Pastureland	37.2	25.3	59.0	21.6
Private and Commercial Forests	67.4	45.8	145.4	53.2
Other	2.7[2/]	1.8	6.0[2/]	2.2
Total Land Area	147.2	100%	273.3	100%

1/ This table indicates the major land uses in the project area. Overlapping uses such as forestland also used for pasture are not reflected.

2/ Adjustments were made in these figures to correct for losses from totals due to rounding to thousands of acres.

Sources: Virginia Conservation Needs Inventory 1967
North Carolina Conservation Needs Inventory, December 1971

Forestry

Forests cover 212,800 acres or 51 percent of the total area of Ashe and Alleghany Counties. In the New River Valley public ownership accounts for 4.7 percent of the total forested land. However, in Ashe and Alleghany Counties only one-tenth of one percent of the total forested land is under Federal, State, county, or municipal stewardship.

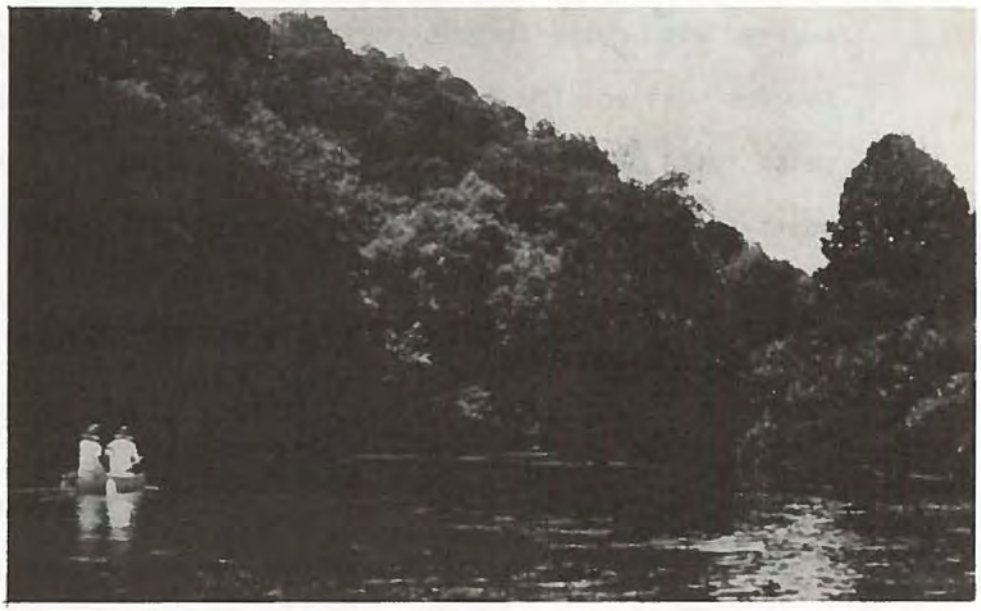

Figure II-10- Most of the original forestland has been cleared one or more times; however, the second growth forests of the river corridor are still highly scenic.

Throughout the New River Valley six out of every ten acres of private forest land are owned by farmers, 3½ acres are owned by other private individuals, and ½ acres is owned by the forest industries. Percentage wise, the totals are: public, 2.5 percent; private farmer, 59.9 percent; miscellaneous private individuals, 34.5 percent; and forest industry, 3.1 percent.

Acres by Forest Type--Site Quality and Stand Size

All of the land within the New River Valley area was originally covered with dense forests containing a large variety of species well adapted to each site. The highly productive moist soils of the coves, lower slopes, and valleys supported moist-site hardwoods, hemlock, and white pine. Many of the same species, together with short leaf pine, Virginia pine, and others well adapted to less fertile, drier soils, cover the upper slopes and mountain tops, while chestnut oak, scarlet oak, shortleaf pine, and pitch pine were dominant on the dry, shallow soils on south slopes. The American Chestnut, once a major species in the forest stands of the project area, is extinct. The chestnut blight which attacked this valuable commercial species continues to kill those seedlings which occasionally sprout from old stumps and seed scattered throughout forests of the eastern United States.

Over the years, most of the original forest land has been cleared one or more times for other uses, and today 78 percent of the forest cover is on the mountain tops and upper slopes and 12 percent on the rolling uplands.

A relatively small part of the present forest (17 percent or 114,470 acres) is on sites of above-average site quality; that is, on soils capable of growing 120 cubic feet or more of timber per acre per year, and these areas are in private ownership. The bulk of the forest sites (490,000 acres), primarily those on the mountain tops and upper slopes, is below average in productivity including 170,000 acres of submarginal forest land that cannot grow as much as 50 cubic feet per acre per year.

Related to the forest picture is the amount of precipitation. Mean annual rainfall over the five counties decreases from southwest to northeast, ranging from a high of about 56 inches on the south boundary of Watauga County to a low of 40 inches on the north boundary of Carroll County, Virginia.

Hardwood forests presently cover over 80 percent (538,000 acres) of the commercial forest land. The oak hickory type occupies 453,000 acres and predominates in every county. The other hardwood types are chestnut oak (17,089 acres) and maple-beech-birch (67,582 acres).

Softwood species cover approximately 10 percent (70,427 acres). The white pine-hemlock type occupies 39,319 acres, Virginia pine 26,950 acres, and spruce-fir 4,158 acres. The spruce-fir type is in Watauga County only.

The remaining 10 percent (60,857 acres) is covered by a mixed pine and hardwood (oak-pine type) forest.

Although over half of the total land area of Alleghany and Ashe Counties is forested, commercial forestry has not been important. The reasons for this situation are: (1) the depletion of forest resources through fire, insect attack, disease, etc., occurs more rapidly than new growth; (2) unmarketable trees constitute a large percentage of the total resource; (3) forest soils are less productive than those currently used for cropland or pasture; (4) forest landowners have not been educated concerning the potential value of a managed forest resource; (5) livestock grazing has retarded regeneration and development of many desirable hardwood species; (6) technical forestry knowledge is lacking in the area; and (7) there is a shortage of specialized equipment and trained labor.

Agriculture

The proposed project area of the South Fork New River encompasses parts of Ashe and Alleghany Counties, North Carolina. These counties are predominantly rural with approximately 63 percent of the total land area in farms, according to the 1969 Census of Agriculture. However, there appears to be a shift occuring

in land use away from agricultural uses. This trend can be seen when figures from the 1969 agricultural census are compared with those from 1964. For example, in 1964, there were 3826 farms in the two counties as compared with 3203 farms in 1969, a decline of 16 percent. At the same time, the average size of farms increased by 3 percent from 80.7 to 82.9 acres. However, total acreage in farms decreased by 14 percent. The tables which follow further illustrate the trends in agricultural land use in Alleghany and Ashe Counties.

* Table II-25
Alleghany County
Farms, Land in Farms, and Land Use: 1969 and 1964

	1969	1964
All Farms. . . . . number	897	1,101
Land in farms. . . . . acres	94,122	109,185
Average size of farm . acres	104.9	99.2
Approximate land area . acres	144,000	147,205
Proportion in farms. . percent	65.4	74.1
Value of land and buildings. dollars	23,776,829	(NA)
Average per farm. . . . . dollars	26,507	14,681
Average per acre. . . . . dollars	252.61	152.17
Land in Farms According to Use		
Total Corpland . . . . . farms	851	1,039
acres	40,128	27,805
Harvested cropland . . . farms	731	1,016
	12,626	16,237
Number of farms by acres harvested		
1 to 9 acres.	372	471
10 to 19 acres.	195	274
20 to 29 acres.	84	140
30 to 49 acres.	75	72
50 to 99 acres.	41	50
100 to 199 acres.	8	9
200 to 499 acres.	1	-
500 to 999 acres.	-	-
1,000 acres and over.	-	-

*Source: 1969 Census of Agriculture

Table II-26

Ashe County
Farms, Land in Farms, and Land Use: 1969 and 1964

		1969	1964
All Farms	number	2,306	2,725
Land in farms	acres	171,599	199,565
Acreage size of farm	acres	74.4	73.2
Approximate land area	acres	272,640	273,285
Proportion in farms	percent	62.9	73.0
Value of land and buildings	dollars	47,986,965	(NA)
Average per farm	dollars	20,809	12,067
Average per acre	dollars	279.64	169.63
Land in Farms According to Use			
Total cropland	farms	2,189	2,648
	acres	73,731	48,725
Harvested cropland	farms	1,849	2,571
	acres	14,680	24,078
Number of farms by acres harvested:			
1 to 9 acres		1,376	1,747
10 to 19 acres		271	529
20 to 29 acres		115	164
30 to 49 acres		61	96
50 to 99 acres		22	30
100 to 199 acres		3	4
200 to 499 acres		1	1
500 to 999 acres		-	-
1,000 acres and over		-	-

*Source: 1969 Census of Agriculture

Land-Use Trends

Changes in land use in the New River Valley area have been gradual, normally shifting from agricultural to nonagricultural uses. This change has brought about a rapid increase in farmland values, causing financial difficulties for present farm owners, as well as for possible new operators. Greater farmland values come from increased value of land for nonfarm uses. All these factors make it difficult to maintain an orderly development of natural resources for

agricultural purposes, and a better solution is needed to preserve land for agricultural uses. The land best suited for agriculture is as a general rule also the land most attractive for industries, schools, highways, and residences, and these conflicting needs create the problem.

There has been a general decline in acres of land devoted to crop cultivation. (See tables II-25 and 11-26.) Some of the acreage has gone to permanent pasture and hay crops, while some of the land previously used for pasture and hay, especially on the steeper slopes, has been converted to forest cover, either by natural process or through tree planting.

Land use for commercial, industrial, residential, or other urban-type development has increased in the past 7 years.

Recreation has been and will continue to be an asset to project area inhabitants. Outdoor recreation is continually increasing throughout the entire area, and more ski resorts are being developed.

Land-Use Problems

From existing information it is evident that many land uses compete for a relatively small amount of the available land. Some of the major competitors are agriculture, industry, urban development, transportation, residences, and recreation. Therefore, wise and careful planning efforts will be required if land available is to be best allocated to meet the area's economic and social needs.

Planning and establishment of ordinances and control measures can be legally approved and enacted, yet not be fully accepted by the people prior to seeking county and State approval of new plans. Therefore, it is vital to obtain local agreement.

It is difficult to control the building of residences, shopping centers, trailer courts, businesses, industry, and other types of urban expansion without housing ordinances, zoning and other control programs, and establishment of such controls has been a slow and tedious process because many of the area's people are very much opposed to additional legal restrictions.

Status of Land-Use Planning

Land-use planning has been undertaken by a few of the municipalities within the five-county New River Valley area, but implementation of these plans has not been fully successful. Most of the counties within the valley have considered land-use plans, but due to citizen opposition none have yet been adopted. Although there has been limited success with the adoption of land use controls in Ashe and Alleghany Counties, there have been some achievements in this area. Sparta, the largest town in Alleghany County, is enforcing the State building code. Alleghany's Board of Commissioners has stated publicly that it will adopt a flood plain ordinance to control the section of the New River flowing through Alleghany County. Ashe County is enforcing a countywide building code and monitoring development in designated flood potential areas throughout the county to comply

with HUD's Flood Insurance Program. A countywide zoning ordinance for Ashe County has been prepared and is being studied by the County Commissioners. If a countywide zoning ordinance is not adopted, the Commissioners intend to adopt a flood plain ordinance to protect the New River.

In summary, farmland is being diverted to nonfarm uses at a rapid rate. At the same time, farmland values are accelerating rapidly, reflecting nonfarm uses and improved incomes. Many of the benefits of agricultural programs and research have been capitalized into land values. These higher values yield a cash flow to farm owners when they liquidate their holdings, but to tenant farmers and new farmers coming into the business, higher land values mean higher cost, making it more difficult for succeeding generations to enter farming.

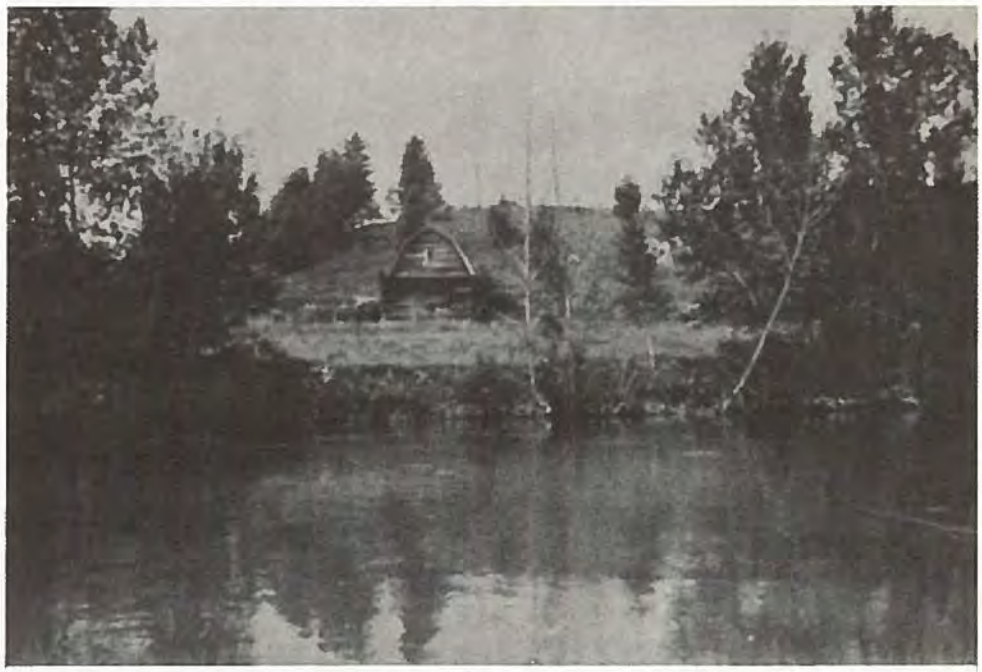

Figure II-11 - Farmland values are accelerating rapidly, reflecting nonfarm uses and improved incomes.

References

U.S. Department of Agriculture, Soil Conservation Service, New River Valley Resource Conservation and Development Project Plan, July 1974.

U.S. Department of Commerce, Bureau of Census, Census of Agriculture, 1969, State of North Carolina.

Probable Future Environment Without the Proposal

Without the designation of the river corridor as a Wild and Scenic River, the existing resources and land uses would generally remain the same.[1/]

Unless some presently unexpected growth occurs in an existing industry or a new industry establishes itself in the area, the population trends are not likely to change significantly.

Agriculture would still be important to the local economy but is expected to decline in terms of its absolute and relative employment levels. The general trend of an increase in the average acreage per farm but a decrease in the total farm acreage is expected to continue. This shift from agriculture to nonagricultural uses is expected to result in higher land values for remaining farm owners thus creating more pressures to sell farms to developers or second home owners, particularly for those farms nearer to the river corridor.

The high recreation potential of the region has contributed to recent development of second-home communities and this trend is likely to continue, particularly for recreationists seeking hunting and fishing opportunities near the New River. Hunting has been increasing although more slowly than fishing and boating. It is expected that hunting will continue to increase but at a slower rate than the

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1/ The proposed Blue Ridge Project discussed in the DEIS is now addressed in alternative IV.

population. On the other hand, participation in fishing is expected to grow faster than the population. In summary, it has been the high recreation potential of the region that has contributed most to the recent development of second homes stabilizing the area's population. It is estimated that the recreation industry will continue to maintain this trend resulting in less farm acreage and larger farms during the next 5 to 10 years.

(Pages 154-158 deleted)

III. ENVIRONMENTAL IMPACT OF THE PROPOSED ACTION

The following table briefly summarizes the impacts associated with the proposal. Impacts are described as either minor, moderate, or major, depending on the degree of change (either beneficial or adverse) from the existing situation.

SUMMARY OF IMPACTS EXPECTED TO RESULT FROM SCENIC RIVER DESIGNATION ON THE SOUTH FORK NEW RIVER

RESOURCES AFFECTED	IMPACT
Minerals	Minor
Soils	Minor
Water	Minor
Air	Minor
Scenic Quality	Moderate
Vegetation	Moderate
Fish and Wildlife	Moderate
Land Use (Forestry, Agriculture)	Minor
Population	Minor
Archeology and History	Moderate
Transportation	Minor
Economy	Major
Recreation	Major

Impact on Mineral Resources

Active mineral extraction taking place within the 1-mile corridor of the South Fork New River consists of the Bamboo Road quarry operated by the New River Crushed Stone Company. The product of this quarry is a biotite (black micaceous mineral) to biotite-hornblende gneiss used primarily in road and driveway construction. Although no other mining is going on today, the third largest copper mine in a copper bearing sulfide belt, extending from Maine to Alabama, is located less than 2 miles from the southeast bank of the South Fork. Several valuable minerals, including copper, gold, and silver, have been mined here during the intermittent history of the mine (known as the Ore Knob Mine). Quantities were relatively small, however, with the deposit producing 35,000 tons of copper, only 0.29 tons of gold, and only 4.53 tons of silver over the years.

Two other known copper deposits lie within 1 mile of the South Fork though neither is being actively exploited. In addition, three small mica mines are located within 1 mile of the South Fork. These mines operated primarily during the two World Wars and produced very small quantities of the sheet mica. North Carolina geologists have determined that as long as mica continues to be supplied more economically from foreign countries, there is little chance that any of these three mines will become important again. Sand and gravel have also been mined within 1 mile of the river but only minor production was ever achieved from any one quarry or pit.

Since the only active mining operation is outside the 1-mile river study limit, designation of the New River as part of the National Wild and Scenic Rivers System would have no impact on existing mineral resources extraction. Future mining operations within one-quarter mile of the river on either side could be limited by Section 9 of the Wild and Scenic Rivers Act (Public Law 90-542 amended by Public Law 93-621). Specific restrictions imposed by this Act are:

(i) All prospecting, mining operations, and other activities on mining claims within the authorized boundaries of any component of the system, which have not been completed prior to official designation of that component, are subject to regulation by the Secretary of the Interior or the Secretary of Agriculture where national forest lands are involved.

(ii) Issuance of a patent or permit to mining claims affecting lands within the system shall convey mineral and reasonable surface rights only and operations must be consistent with the Secretary's regulations.

(iii) Subject to valid existing rights the minerals in Federal lands within one-quarter mile of the bank of any wild river component of the system are withdrawn from all forms of appropriation.

Considering the meager mineral production of mines within 1 mile of the river in the past, the current low level of mining activity, and

the limited potential for additional commercial mineral extraction, the impact of the proposal on mineral resources is determined to be negligible.

Impact on Soils

Except for the small percentage of alluvial soils adjacent to the stream, most of the soils of the river corridor are generally located on moderate to steep slopes and narrow ridgetops where the soils have moderate to severe erosion hazards. The soil/interpretation chart on page 157shows that for the three major soil associations which exist in the proposed river corridor the following limitations with regard to development exist. For soil association 1 (see Soils Map, page 104), Chester-Manor-Ashe, which covers 28 percent of the entire New River Valley area (the four-county Soil Conservation Service conservation and development project area) but only approximately 10 percent of the proposed river corridor, limitations on septic tank installation are moderate to severe, depending on slope, and limitations on campsites and picnic areas are slight to severe depending on slope. Soil association 3, Clifton-Myersville-Chester, occupies 18 percent of the valley area but approximately 60 percent of the proposed river corridor. Development on soils of this association should be restricted by limitations on septic tank installation ranging from moderate to severe, depending on slope and permeability and limitations on campsites and picnic areas ranging from moderate to severe depending on slope. Soil association 4, Watauga-Chandler-Fannin, covers 15 percent of the SCS

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
RALEIGH, NORTH CAROLINA

SOIL INTERPRETATION CHART
NEW RIVER VALLEY RC&D AREA

SOIL ASSOCIATIONS	Soil Series	Percent of Association	MAJOR LIMITATIONS AND DOMINANT LIMITING FACTORS FOR							SUITABILITY for	
			Dwellings with		Recreation						
			Basements	Septic Tank Filter Fields	Camp Sites	Picnic Areas	Intensive Play Areas	Light 1/ Industries	Roads & 2/ Streets	General Agriculture	Woods
Chester-Manor-Ashe (1)	Chester	45	Mod: 2-15% sl. Sev: 15%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Slight: 2-8% sl. Mod: 8-15% sl. Sev: 15%+ sl.	Slight 2-8% sl. Mod: 8-15% sl. Sev: 15%+ sl.	Sev: Slopes	Mod: 2-8% sl. Sev: 8%+ sl.	Mod: 2-8% sl. Sev: 8%+ sl.	Good	Good
	Manor	20	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Poor	Fair
28% of Area	Ashe	15									
Porters-Ashe	Porters	50	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes	Sev: Slopes	Sev: Slopes	Sev: Slopes	Sev. Slopes	Poor	Fair
20% of Area	Ashe	20									
Clifton-Myersville-Chester (3)	Clifton	35	Mod: 2-15% sl. Sev: 15%+ sl. Unified Soil Group	Mod: 2-15% sl. Sev: 15%+ sl. Permeability	Mod: 2-15% sl. Sev: 15%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Sev: Slopes	Mod: 2-8% sl. Sev: 15%+ sl. Unified Soil Group	Mod: 2-15% sl. Sev: 15%+ sl. Unified Soil Group	Good	Good
	Myersville	20									
18% of Area	Chester	15									
Watauga-Chandler-Fannin (4)	Watauga	40	Mod: 2-15% sl. Sev: 15%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Sev: Slopes	Mod: 2-8% sl. Sev: 8%+ sl.	Mod: 2-15% sl. Sev: 15%+ sl.	Fair	Good
	Fannin	10									
	Chandler	25	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Sev: Slopes & Rocks	Poor	Fair
15% of Area											
Rockland-Rocky Porters	Rockland	35	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Poor	Poor
8% of Area	Rocky Porters	20									
Ramsey-Weikert-Hazel	Ramsey	35	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Sev: Rocks & Slopes	Poor	Fair
7% of Area	Weikert	35									
	Hazel	10									
Madison-Pacolet	Madison	45	Mod: 2-15% sl. Sev: 15%+sl. Bearing Strength	Mod: 2-15% sl. Sev: 15%+sl. Permeability	Slight: 2-8% sl. Mod: 8-15% sl. Sev: 15%+ sl.	Slight: 2-8% sl. Mod: 8-15% sl. Sev: 15%+ sl.	Mod:2-8% sl Sev: 8%+ sl	Mod:2-8% sl Sev: 8%+ sl	Sev: Traffic Supporting Capacity	Good	Good
	Pacolet	30									
4% of Area											

Abbreviations
sl - slopes
Mod - moderate
Sev - severe

( ) Numbers in parentheses correspond to soil association numbers on Soils map.

1/ Structures whose footings are in subsoil

2/ Refers to roads and streets that have subsoil for base

project area but approximately 30 percent of the proposed river corridor. Limitations range from moderate to severe for septic tank installation and from moderate to severe for campsites and picnic areas.

As a result of the 20 to 500-foot wide scenic easement to be purchased along each side of the river, future activities, such as intensive agriculture or timber cutting, would be precluded by the proposal. Thus, potential soil compaction and erosion associated with these activities would be reduced on between 1,000 and 1,500 acres.

The principal impact on soils would be increased compaction due to increased foot traffic in the four proposed recreation areas. These recreation areas will consist of a maximum of 400 acres and will be located to minimize impacts associated with steep slopes or unsuitable soils. There will be a minor amount of soil compaction, however, on the hiking trails, campsites, and picnic areas within the recreation activity sites. As a result, runoff and siltation will increase, but the overall impact should be minimal.

Impact on Water Quality

The New River and its South Fork are virtually untouched by water resource developments of any type. It has not been channelized, dammed, or developed for irrigation or water supply purposes. Neither has it been excessively abused as a convenient dumping ground for municipal or industrial wastes. The river is not

entirely free of effluent discharges, however. Each of the three urban areas in Alleghany and Ashe Counties discharges on the order of 100,000 gallons per day of treated wastewater to tributaries of the New River and the South Fork New River. All three municipalities provide secondary treatment for a combined 1970 population of approximately 3,100 people. The Sparta wastewater treatment plant discharges to the Little River which is a tributary of the main stem of the New River. However, the confluence of the Little River and the New River is downstream from the proposed scenic river corridor and, therefore, has no impact on water quality in the proposal area. The West Jefferson plant discharges to Buffalo Creek which is a tributary of the North Fork New River. This effluent travels approximately 25 miles along Buffalo Creek and the North Fork, with the degree of dilution depending on the variations in stream flow, before it enters the proposal area at the confluence of the North and South Forks of the New River. Only 4.5 miles of the river in the proposal area are affected by the effluent from West Jefferson.

The Jefferson plant discharges its treated wastewater to a tributary of the South Fork called Naked Creek. Naked Creek enters the South Fork 2.3 miles upstream from Dog Creek which is the beginning point for the proposal area. All other municipal and industrial sources have a combined discharge of 1.016 million* gallons per day of secondary treatment wastewater to various tributaries of the North

*Table XIII pp. 47-48, New River Valley Resource Conservation and Development Project Plan, Soil Conservation Service, USDA, July 1974.

and South Forks of the New River.

In addition to municipal and industrial waste, some moderate amount of pollution reaches the river due to agricultural runoff and livestock. (see photo)

The entire 26.5-mile stretch of the river under study has been rated Class "C" by the Division of Environmental Management of the North Carolina Department of Natural and Economic Resources. Fishing, boating, wading, and any other use, except for bathing or domestic purposes, are considered the most appropriate uses for water under this classification. Since stream classifications are based on goals and values of local people rather than actual measurements of physical characteristics of the river, water quality may, in many instances, exceed the values for the particular stream's classification.

In the case of the South Fork New River, water quality is in fact better than that required for waters used for water-body contact recreation, Class "B." The water quality criteria applicable to Class "C" streams are essentially the same as those applicable to Class "B" streams, except for fecal coliform. For Class "B" waters, North Carolina Water Quality Standards specify that for the period of May through September, fecal coliforms shall not exceed a log mean of 200/100 ml based on at least five consecutive samples examined during any 30-day period and shall not exceed 400/100 ml in more than 20 percent of the samples examined during such period. (Not applicable during or immediately following periods of rainfall.)

The quality of the water is further protected by Regulation No. 1 of the North Carolina Water Quality Standards which establishes a nondegradation policy for waters whose existing quality is better than the established standards, providing that the State has approval authority over new discharges of effluent and provided that the necessary degree of waste treatment is physically and economically feasible.

In addition, no impacts on regional ground water resources are anticipated as a result of the proposed action.

Implementation of the proposal will partially consist of the construction of four recreation areas (400 acres) with a number of self-contained interpretive trails and interconnecting backpacking and bicycle trails. The construction phase will result in a temporary increase in runoff, erosion, and siltation associated with a corresponding temporary decrease in water quality. Increased recreational use of the trails and the four activity sites will also result in increased soil compaction, erosion, and siltation of the river. This impact will be seasonal (primarily the three summer months) due to the rather cold winters in the region. In addition, a minor impact on water quality will occur as a result of improper disposal of human waste and from litter. At the picnic areas and campsites solid waste disposal and sanitary facilities will be needed to control pollution, particularly near the main stream.

A 20 to 500-foot wide scenic easement to be acquired on each side of the river proposal area will prevent any changes in land use which could increase erosion and adversely affect water quality. This easement would have a slight impact on improving water quality.

Overall, the impacts of the proposal on water quality are considered minor.

Impact on Air Quality

Existing air pollution levels in the two-county area are generally lower than they are in many other counties in this part of the State.

This is due in large measure to the lower levels of industrial activity, lower population levels, and a lack of heavy concentrations of motor traffic. This is more true of Alleghany County, which is generally more rural in character, than it is for Ashe County.

Although on occasions of peak recreation use, the emmissions due to increased motor traffic would also increase, the increases would be slight since the estimated average yearly traffic increase would only be 7 percent. In view of the fact that the increased traffic due to use of the river would not be in the area where existing emmissions are highest (i.e., in population centers and on major highways), they are more likely to be well dispersed and therefore of very small influence on the overall air quality.

Air pollution due to other causes associated with the river projects, such as campfires and the incineration of litter, etc., are likely to be highly localized and easily controllable by management regulations. They are not expected to have a significant impact on the overall air quality of the two-county area.

The overall impact on air quality as a result of scenic river designation is expected to be insignificant.

Impact on Scenic Quality

The South Fork of the New River lies within the Blue Ridge province of the Appalachian Mountain System. Surrounding topographic relief

is characterized by gently sloping land with locally steep-sided valleys. As such, views to ridges are impressive but overall scenic impressions tend to focus on wild land features and the varied vegetation immediately adjacent to the river.

Implementation of the proposal would preserve scenery by regulating development and alteration of the existing natural setting. Increased public recreation use could cause a deterioration of scenic quality through greater littering and environmental vandalism. This would occur with or without scenic river designation but would be more strictly controlled with implementation of the proposal.

To the extent that the proposal will retain the existing scenic qualities of the immediate environment, the impact of the proposal

is considered to be moderate. To the extent land-use regulations are enforced over private lands, the effect of the proposal with the implementation of flood plain regulations is also considered to be moderate. The overall impact of the scenic river proposal on scenic quality is expected to be moderate.

Impact on Vegetation

The banks of the South Fork of the New River within the study area are 60 percent in forest cover and contain species of the oak-hickory, cove hardwood and southern bottomland hardwood types. The oak-hickory hardwood type is located on the mid and upper slopes while the cove hardwood type is mainly on the lower slopes of the river drainage. The southern bottomland hardwood type is found on the alluvial soils immediately adjacent to the stream.

Due to land-use practices over the past 100-200 years (land clearing, grazing, wildfires), the value of timber within the study area is negligible. The most productive sites are utilized for farming while forest cover is mainly on marginal sites (see commercial forest land tables on page 143).

Vegetation within the study area is diversified due to the topography ranging from a broad flood plain to narrow valleys with a subsequent change in sites from wet to dry. A preliminary State study of the proposed project area has not definitely revealed any rare or endangered flora; however, such species may be present. (See the discussion on pages 113 and 117.) The nearest identified location of existing rare or endangered flora is in the Long Hope Creek

area, approximately 10-15 miles northwest of Jefferson, North Carolina, which is not within the project boundary.

Development of the total 400 acres to be acquired in fee simple for two primary areas, one secondary area, and one minor access area would result in a minimal removal of vegetation. This is due to the type of development and the fact that most of the 400 acres is already cleared. The Dog Creek area (150 acres) contains an old abandoned mill and house with adjacent open land. The northern most access area (150 acres)--North Carolina/Virginia line--is in a pasture. The secondary access area (75 acres), located at mile 9, is mainly open. The minor forested access area (25 acres) will be used only for primitive camping with no facilities except for potable water and a sanitation facility (see development chart on page 166). Vegetation that is damaged during construction would be replaced by natural or artificial means. The impact of facility development on the vegetation of the 400 acres would be moderate.

The 1,500 acres to be acquired for easement will be utilized for a corridor a minimum of 20 feet and up to 500 or more feet wide on each side of the stream plus some slopes extending farther from the stream. Vegetation disturbance within the scenic corridor would be minimal since no development is planned.

The annual use of the study area by visitors (50,000 ultimate) will result in increased littering, threat of wildfire, and other damage

to vegetation. The inclusion of the study area into the National Wild and Scenic Rivers System will help preserve the vegetation from possible future adverse impact from development of the river corridor. The overall impact of the proposal on project vegetation is anticipated to be moderate.

Development

Site	River Mile	Acreage	Facilities
A Primary*	0	150	Gravel parking and camp area, basic exhibit center, sanitation facility
B Primary*	26.5	150	Same as above
Secondary	9	75	Gravel parking and camping, sanitary facility
Minor	16	25	Access by river or hiking only. Primitive camping, potable water, sanitation facility

* The two primary sites will each have a 1-mile trail and a one-half-mile loop trail for hiking and horseback riding.

Impact on Fish and Wildlife

Wildlife

Wildlife of the South Fork New River includes a broad and comparatively well-balanced fauna. Both big game, including white-tailed deer and wild turkey, and small game species, including grey squirrel, ruffed grouse, rabbit, quail, dove, and wood duck, live in the area. (See Principal Fish Habitat and Big Game Distribution Map on page 120). Also found in the river corridor study area are furbearers--opossum,

raccoon, beaver--many forms of nongame wildlife, such as song and other birds, small mammals, reptiles, amphibians, and many types of fish including an excellent smallmouth bass fishery. The area harbors 16 animals on the State rare and endangered list including salamanders, reptiles, invertebrates, fish and one bird. Four species may be considered for the United States "List of Endangered Fauna."

As mentioned in the impact section on vegetation, the river corridor study area is approximately equally divided between second growth forests and cleared lands devoted to pasture or crop production. Such habitat is the key factor in determining distribution and abundance of wildlife species.

The light deer populations presently found in the river corridor will not be significantly affected, as the easement corridor (1,000 to 1,500 acres) proposed for either side of the river would not significantly enhance the quality of their existing habitat nor are they intolerant of increased human presence. The areas which are proposed for recreation development are now mostly open land, whereas deer seek forest cover. Therefore, the impact on the deer population would be insignificant.

Turkey, on the other hand, are much less tolerant of humans and increased recreation use of the woodlands along the river would certainly not enhance and will probably disturb their breeding and rest activities, especially as recreation use approaches the carrying capacity of the area. As with deer, the preservation of the easement

strip would not contribute significantly to the protection of existing habitat nor would recreation development remove any turkey habitat. The impact on turkey would be moderate.

Small forest game animals, grey squirrel and ruffed grouse would not be significantly affected. The light waterfowl population on the river, mostly wood ducks, would be slightly affected as recreation use increases, in that there would be more disturbances of their feeding and resting by people. Since wood ducks nest exclusively near water, preservation of the easement strip on both banks would benefit the population by assuring suitable nesting areas as long as recreation use is not so high as to interfere with normal breeding habits. Overall, the impact on small forest game and waterfowl would be slight.

Impact on game animals of the open pasture and agricultural lands such as rabbit, quail, doves, fox, and groundhog would be minimal, except in the approximately 400 acres of presently open land which would be affected by the development of camping facilities, restrooms, short loop hiking trails, etc. Preservation of the easement strip would not significantly improve their existing habitat. The impact on these animals would be slight.

Furbearers in the river corridor--opossum, raccoon, beaver, mink, and muskrat--would be affected by the proposed project in that they would have important river and riverbank habitat protected. Except

for mink, these animals are also rather tolerant of human presence. The impact on furbearers would be moderate.

Impact on nongame small mammals, amphibians, reptiles, and birds would be slight except for loss of habitat in part of the 400 acres to be developed for recreation use. The total impact on these animals would be insignificant.

There would be significant protection afforded the habitat of the rare "long tailed" salamander in that this segment of the river system would be protected from impoundment and/or channel alteration.

Increased use of the South Fork New River by canoeists, hikers, campers, and other general recreation users may increase conflicts of public safety between recreationists and hunters using the same area. Based on current hunting uses and the importance of the river corridor to local hunters, as estimated by the personnel of the Wildlife Resources Commission, a moderate impact can be expected on the counties' big game, waterfowl, and "varmit" hunting, with a slight impact on small game hunting. The fact that most hunting occurs during the fall and winter months when other recreation uses decline will help minimize the conflict.

Fish

A wide variety of game fish, both cold water types such as trout, and warmer water types such as smallmouth bass, and nongame fish such as darters and minnows are found in the South Fork New River. (See Principal Fish Habitat map on page 120.)

The sport fishery of the basin is trout in the tributaries and upper reaches of the North Fork New River and Little River and smallmouth bass in New River and the lower reaches of North Fork New River, South Fork New River and Little River. The North Carolina Wildlife Resources Commission has a program of systematic stocking of adult trout to augment many of the trout waters in the area. New River contains the finest smallmouth and rock bass riverine habitat to be found in the State.

Fish population sampling in 1974 in the streams of this section of the New River Watershed produced 34 species of fish, representing six families. The total samples included: two species of Salmonidae (trout); 17 species of Cyprinidae (minnows); two species of Catostomidae (suckers); six species of Centrarachidae (sunfishes); six species of Percidae (perches); and one specie of Cottidae (sculpines). (See checklist of Fish Species on page 238 .) Although not recovered during sampling, the following fish are present in the watershed and have been recovered during previous sampling: rainbow trout, flathead catfish and carp.

Included in the list of minnows and perches recovered are seven species which are currently on the State's endangered species list. The rare or endangered aquatic species reported by the State from the South Fork New River include the aquatic snail Spirodon dilatata,* the New River shiner Notropis scabriceps,* the Kanawha minnow

Phenacobius teretulus,* the bigmouth chub Nocomis platyrhynchus,* the tongue-tied minnow Parexoglossum laurae, the bluntnose minnow Pimephales notatus, the Kanawha darter Etheostoma kanawhae,* the the blackside darter Percina maculata, the sharpnose darter Percina oxyrhyncha and the flathead catfish Pylodictis olivaris. These species occur other places in the watershed also but do not occur in any other watershed of North Carolina. The species starred plus the New River crayfish, Cambarus chasmodactylus and the finescale saddled darter, Etheostoma osburni may be candidates for Federal listing as endangered or threatened.

The proposal will have a significant impact on fishery resources by protecting the stream segment from future impoundment or channel alteration. The significance of the protection afforded the smallmouth bass is heightened by the fact that the South Fork New River is considered by the Wildlife Resources Commission to be the best smallmouth bass river in the State. The segment of the New River above U.S. 221 in Alleghany County, which would be protected by the proposal, contains a very significant population of the rare flathead catfish. The fish is abundant enough in this segment to support a fishery.

Protection of the habitat of the State-listed or Federal candidate rare and/or endangered aquatic species would be significant.

The proposal would have a slight impact on the prevention of thermal changes that could arise in the future from more stripping of trees from the streambanks. Changes in current streambank uses would be prevented by the 20 to 500 foot wide easements to be acquired on each side.

Designation of this segment as a national scenic river would increase public interest and result in accelerated use. According to the Wildlife Resources Commission, current smallmouth fishing pressure is light, primarily because the quality of the fishery is not widely known. The impact of increased visitation and fishing pressure would be moderate.

Environmental quality with respect to fishery resources is directly related to habitat and to fishing pressure. In the case of the South Fork New River, the chief threats to good fish habitat, other than impoundment, are point sources of domestic or industrial pollution, eroding roadbanks, poor agricultural practices, the dumping of trash and garbage in streams, and, in headwaters area, second home development. The proposed project would have an insignificant impact on these practices, as it would control use only on a 20 to 500 foot wide strip along each side of the river, approximately 1,000 to 1,500 acres, and on an additional 400 acres proposed for recreation facility development. The proposal will have a moderate impact on future

water quality by preventing intensive development or similar land-use changes in the corridor controlled by easements.

Since the proposed action would keep present land uses in the river corridor the same, except for four planned public recreation areas, there would be minimal change in wildlife or fish habitat anticipated and, therefore, few impacts on fish and wildlife. Overall, the impact of the proposal on wildlife and fishery resources would be moderate.

Impact on Land Use

From the confluence of Dog Creek with the South Fork New River to the point where the main stem of the New crosses the North Carolina/ Virginia State line there are two principal land uses along the river corridor. These are forest and pastureland (see Land Use map on page 17). There is also one second home development near the Ashe/ Alleghany County line and a private campground about one-half mile upstream from the confluence of the North and South Fork New River.

As mentioned previously, the proposal calls for the creation of two primary activity areas of 75-150 acres each, one secondary activity area of 25-75 acres, and one minor activity area of 25 acres. Total acreage for these activities thus ranges from 200-400 acres. The necessary land will be acquired by the State in fee simple. Therefore, a maximum of 400 acres will be converted from its present use of forest or pastureland to recreation use. These 400 acres represent 4.7 percent of the total land area in a one-quarter mile strip on each side of the 26.5-mile length of river. The proportion of land

removed from the total inventory of cropland, pastureland, and forest land for Ashe and Alleghany Counties is approximately one-tenth of one percent. No people will have to be relocated as a result of the acquisitions, therefore, residential land uses will be unaffected.

A scenic easement corridor on each side of the river (up to a maximum of 1,500 acres) will be acquired to protect aesthetic values and to provide access where necessary. This strip will continue to be used as it is now; therefore, there will be no change in land use. Overall, the impact on land use is minimal.

Impact on Forestry

Forested land covers approximately 51 percent of the total land area of Ashe and Alleghany Counties. Of the forest cover approximately 78 percent is on the mountain tops and upper slopes and 12 percent is on the rolling uplands. A relatively small percentage (17 percent) of the forest cover exists on soils capable of producing commercial quantities of timber each year and most (94 percent) of these areas are in the 50-foot easement which would prohibit commercial forestry in that corridor. However, since there are essentially no commercial forest lands in that corridor now, the impact of a restriction on timber cutting would be insignificant.

Impact on Agriculture

In recent years, there has been a steady decline in the amount of land devoted to agriculture in Alleghany and Ashe Counties (see Tables II 25

and II-26, page 146). The area is still predominately rural with 63 percent of the total land area in farms. In the river corridor nearly 100 percent of the land is privately owned farmland (primarily pasture and forested slopes).

The proposed acquisition will remove a maximum of 400 acres of cropland and pastureland from the total agricultural inventory (principally tobacco and hay) in the two counties. This amount represents only 0.23 percent of the total. The easement corridor will limit future agricultural use of a very small portion of the corridor but will have no effect on existing land use or land values.

In summary, land-use changes will occur on a maximum of 400 acres as a result of this proposal. There will be essentially no impact on commercial forestry and only minimal effects on agriculture. The overall impact on these local uses is expected to be insignificant.

Impact on Population

Ashe and Alleghany Counties have not had a significant population growth over the last 10 years (less than 1 percent--see Table page 30). This trend is below the State growth of 11.5 percent for the same period. The two-county population is projected to increase from 27,705 in 1970 to 29,800 in 1980 for an increase of less than 1 percent. However, the State population projected increase from 1970 to 1980 is 12 percent.

The scenic river proposal is not expected to affect the permanent population of the two-county area. The major portion of recreation

users on the river are expected to originate from outside the immediate two-county area. Shoreline support facilities and river access planned by the State should accommodate the majority of the nonresident users within the proposed project boundaries. Local day-use recreation (fishing mainly) is expected to experience no change. The introduction of up to 50,000 annual recreation visitors into the area will be considered an adverse impact by some local residents. Impact upon population as a result of the proposal's implementation is expected to be insignificant.

Impact on Archeology and History

There are four known archeological surveys made of the New River since 1964. Three of the surveys were concerned with the Blue Ridge Project, Federal Power Commission License No. 2317, and were not complete surveys since they covered only a fraction of the 36,000 acres to be inundated. The surveys were accomplished prior to implementation of the National Historic Preservation Act of 1966 and Executive Order No. 11593 of 1971, Protection and Enhancement of the Cultural Environment.

Executive Order No. 11593 extends the purposes and policies of NEPA, the National Historic Preservation Act, the Historic Sites Act, and the Antiquities Act, by asserting that the Federal Government shall provide leadership in preserving, restoring, and maintaining the historic and cultural environment of the Nation. It directs Federal agencies to assure the preservation of cultural resources in Federal

ownership, and institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, and archeological significance.

Federal agencies have been ordered to nominate to the National Register all properties under their control or jurisdiction that meet the criteria for nomination; directs them to exercise caution to assure that cultural resources under their control are not inadvertently damaged, destroyed, or transferred before the completion of surveys to locate and identify properties worthy of nomination to the National Register; directs agencies to provide for recording of National Register properties that will be unavoidably altered or destroyed as a result of Federal action; directs agencies to undertake other measures to ensure the preservation of cultural resources under their control. Section 2 (a) reads:

> "no later than July 1, 1973, with the advice of the Secretary of the Interior, and in cooperation with the liaison officer for historic preservation for the State or territory involved, locate, inventory, and nominate to the Secretary of the Interior all sites, buildings, districts, and objects under their jurisdiction or control that appear to qualify for listing on the National Register of Historic Places."

During the summer of 1974, State personnel conducted a preliminary field inspection of the South Fork and located 25 archeological sites in Watauga County. Previous surveys located 12 sites in Ashe County and six sites in Alleghany County. The latter 18 sites were classified as being campsites, village sites and rock shelters. No mechanism for

locating burial sites in the flood plain was used, however, State personnel believe they could be located. Due to the possibility of vandalism of the aforementioned sites, the State considers the location of the sites as classified.

As the surveys were not extensive and were accomplished within a limited time frame, the results cannot be judged as final nor do they constitute an adequate assessment of archeological resources under present statutes. At present, State personnel have not been able to determine if any of the archeological sites are of national significance.

Also, there have been no extensive studies made in the proposed project area for historical properties and none are listed in the "National Register of Historic Places" or "Volume II Inventory 1974, Department of Cultural Resources, Division of Archives and History" (North Carolina).

Contact with the State Historic Preservation Officer revealed that if the study area is included in the National Wild and Scenic Rivers System, the State would conduct a surface structure inventory, which will comply with Section 2 (a) of Executive Order 11593. Regarding protective measures, it was determined that Chapter 70 of State Law, Indian Antiquities Act, Section 70-3 and 70-4, concerns Preservation of Relics on Public Lands and Destruction or Sell of Relics on Public Lands, respectively, and violation of such is a misdemeanor. Also, General Statutes 121-12-22-23 provide protection for submerged artifacts.

Inclusion of the study area in the National Wild and Scenic Rivers System would result in no appreciable adverse change in land use of the 400 acres to be developed nor of the 1500-acre easement. It would also result in additional archeological and architectual survey work with a determination of national significance eligibility and more extensive protection, thereby, safeguarding the area for public and scientific use. The overall impact on archeological and historical values is expected to be moderate.

Impact on Transportation

Access is currently afforded to the proposed 26.5-mile segment of the New River South Fork by U.S. Highway 221 and three county roads which cross the river. County roads which run adjacent to, but not across the river, provide additional access at various points. Major transportation routes within the region include the Blue Ridge Parkway approximately 10 miles south, Interstate 77 approximately 50 miles east and Interstate 40 approximately 90 miles south. (See map on page 47).

The wild and scenic river proposal would not require any road relocations or new road construction; however, increased maintenance or minor upgrading of existing roads to accommodate increased traffic would be required. The greatest increase in use would be on U.S. Highway 221, at the midpoint of the proposed wild and scenic river segment. Assuming that all visitors will travel on U.S. 221 at some time, the entire increase in traffic of 14,200 vehicles represents a

7 percent increase in the total annual traffic volume on U.S. 221. This impact is considered minor. A slight additional impact in increased maintenance would occur on existing county roads (two are unpaved) expected to receive a smaller increase in use.

In summary, the overall impact of the wild and scenic river proposal on the existing transportation system is expected to be minor.

Impact on Economy

Ashe and Alleghany Counties have a 1969 per capita income of approximately $1,942. The greatest percent of the employed residents are employed in manufacturing (36 percent), followed by 21 percent in nonmanufacturing and 21 percent in agriculture. The 1970 unemployment rate was a relatively low 4.5 percent. Many of these employed in manufacturing travel daily outside the two-county area to work.

Employment and Per Capita Income

Although minor, income generated by the expected recreation users will have a positive impact upon the local economy. It should be noted that an adequate number of camping facilities to accommodate the majority of river users are proposed to be developed by the State or private sector. Creation of new employment opportunities and a proportionate increase in the per capita income of Ashe and Alleghany Counties, as a result of project implementation, would be insignificant.

Agriculture, Industrial and Manufacturing

Due to the small number of acres planned for acquisition (400 acres) for implementation of the wild and scenic river proposal, the impact on agriculture, industrial, and manufacturing uses will be insignificant. The removal of approximately 400 acres from the county tax base is also insignificant.

Recreation and Tourism (See also discussion under Impact on Recreation)

The proposed scenic river designation of the South Fork New River is expected to draw as many as 50,000 annual visitors. Most of these visitors will be accommodated on lands developed by the State to support the proposal. Tourist in the region visiting the project area will consist mostly of sightseers driving through the river corridor. The actual expenditures made by visitors for purchase of normal goods and services directly related to recreation needs will be minor. Due to the moderate number of visitors expected as a result of designation, the overall impact on the recreation and tourism economy of Region D would be insignificant. The impact on the local (two-county area) recreation and tourism economy will be minor.

Water Resource Development

Implementation of the wild and scenic river proposal will preclude municipal and industrial water resource development on the South Fork New River. Construction of the proposed Modified Blue Ridge Project, No. 2317-North Carolina/Virginia by the Appalachian Power

Company, and currently licensed by the Federal Power Commission, would be foregone. Therefore, the wild and scenic river proposal, if implemented, would have a major impact on potential water resource development.

In summary, the proposed scenic river would have a minor effect on all areas of the economy except the water resource development potential of the South Fork New River. However, the magnitude of the impact on potential water resource development is so great that the overall economic impact is expected to be major.

Impact on Recreation

The proposed wild and scenic river has good potential for providing a quality outdoor recreation experience. Within 100 miles of South Fork New River study area, there are presently eight national forests, one national park, one national recreation area, one national scenic trail, 16 large reservoirs, and numerous State and local park, recreation, and forest areas.

In addition, numerous private recreation opportunities exist in this highly scenic mountainous portion of North Carolina. Some of the more important private areas are Beech Mountain, Land of Oz, Seven Devils, Horn in the West, Tweetsie Railroad and Frontier Village.

There is presently very little hard data in the way of visitor counts for recreation use in the proposal area. However, an estimate of the number of annual visitors which can be expected to use the South Fork

New River upon implementation of the scenic river proposal was derived by comparison with historical data on five similar river resources.

Canoe and Raft Use - Mileage at Five Similar Resources

River	Average Annual Use (Private & Public)	Years	Miles Used
Hiawassee	4,300	'69-74	10
Nantahala	2,500	'72-74	8
Chattooga	8,000	'70-74	30
Alapaha	3,500	'74	83
Little Miami (Ohio)	4,300	'72-74	167
	22,600		208

Average annual use on the five rivers compared is approximately 4,500 visitors per year for canoeing and rafting.

The Appalachian Outfitters, a commercial firm offering float trips, has taken 2,500 people on a New River Trip from 1973-75 for an average annual use of over 800 floaters per year. (See photo).

Based on the average annual use of five similar water based resources, plus the present river use by the private outfitter approximately 5,000 visitors per year could be expected to float the South Fork New River during the initial year following designation, acquisition, and support development.

The expected increase in visitation, as estimated by a comparison with similar river resources, is shown on the following table.

River	Years of Visitation Records	Total Increase in Use	Average Annual Increase %
Hiwassee	6	1,450%	241%
Nantahala	3	274%	91%
Chattooga	5	350%	70%
Little Miami (Ohio)	3	270%	90%

The average annual increase of the four similar rivers over a period of visitation varying from 3 to 6 years is approximately 123 percent.

Discussions with both managers and users of the Nantahala and Chattooga Rivers lead to an evaluation that any further increase in annual use on either river will result in a proportional loss in user satisfaction due to crowded conditions. By comparing the average annual use per river mile of these two rivers with the total mileage of the South Fork New River being considered for designation, indicates that use in excess of 16,000[1/] visitors per year would constitute overcrowding.

1/ 600 annual visitors per mile x 26.5 miles = 15,900

(See table below.)

River	Greatest Annual Use Recorded	River Miles	Average Annual Use Per Mile
Chattooga	19,000	30	630
Nantahala	3,800	8	475
Total	22,800	38	600

Based on an initial river visitation of 5,000 visitors per year and an average annual visitor increase of 123 percent per year, the South Fork New River should reach a saturation point approximately 7 years following designation, acquisition, and support facility development.

Projected South Fork New River Use Up to Saturation

1st Year[1/]	2nd Year[2/]	3rd Year	4th Year	5th Year	6th Year	7th Year*
5,000	6,100	7,500	9,200	11,300	13,900	17,000

In order to estimate the total number of visitor days expected on the South Fork New River an estimate must be made of camping, hiking, swimming, and fishing use in addition to river use. At John Bryan State Park support facilities are offered for the Little Miami River (Ohio) user. Camping, hiking, picnicking and a nature program experienced an annual visitation of 186,000 visitor days in 1974. Compared with the 1974 river use of 3,348 visitor days, approximately 55 people were visitors

1/ Estimated visitation during the first year of use as a component of the National Wild and Scenic Rivers System

2/ Projected increase in visitation of 123 percent per year.

* Saturation.

at the land based facilities for every one person using the river. Naturally facility development and management would determine the proportion of shoreline use per river visitor. On the Chattooga River visitor days on the river (canoeing and rafting) exceed the land based visitation (hiking, camping and picnicking) by a ratio of approximately 1:4. (Four river users per one land recreation user).

The State's proposed plan calls for the construction of four recreation activity areas by the State in the river corridor study area. These four recreation activity centers will total approximately 400 acres and would offer hiking and horseback riding trails, campsites, picnic tables, shelter areas and sanitary facilities. The carrying capacity of these areas is estimated in the table on page 195.

Of the annual activity occasions given in the table on page 195 (116,500 occasions) it is probably realistic to assume a ratio of 1 annual visitor day per 2.5 annual activity occasions. Therefore, the maximum shoreline recreation visitation would be approximately 46,600 annual visitor days. In addition, approximately 80 percent of the previously mentioned maximum annual river users (16,000) would also be shoreline activity participants. Therefore, by adding 20 percent of the maximum annual river use (0.20 x 16,000) an approximation of total maximum annual project attendance would be 50,000 (46,600 + 0.20 x 16,000).

Increased recreation use could cause environmental damage, both to designated sites and throughout the river corridor due to overuse, vandalism, litter, undesirable noise and trespass. These potential

impacts on the environment are discussed separately in the appropriate sections on water quality, vegetation, fish and wildlife, land use, etc.

The proposal has a direct impact on future recreation use to the extent that use will be more closely regulated and limited when the carrying capacity is reached. This impact is significant in that personal freedom to engage in recreation or the type of recreation to be pursued would be controlled.

Overall the impact of the proposal on recreation use of the New River is considered to be of major importance, particularly for the enhancement and expanded enjoyment of river related recreation activity.

Carrying Capacity of Land Based Recreation Facilities
South Fork New River

Activity	No. of Units	Annual Activity Occasions/Unit	Total Occasions
Hiking, interpretative	4.5 mi.[1]	7,200[5]	32,400
Swimming in river	3.0 mi.[2]	150[6]	450
Tent Camping	135 sites[3]	540[7]	72,900
Bank Fishing	10.0 mi.[4]	1,080[8]	10,800
		Total	116,550

1/ State of North Carolina plan.

2/ ½-mile radii of riverbank from two primary and one secondary support areas.

3/ State of North Carolina plan.

4/ ½-mile on either side of river (up and down river) at five road crossings.

5/ Interpretative Hiking - 1 mile or less (1) 1 mile of trail; (2) four persons per party; (3) daily turnover rate of 10; (4) average length of season 180 days; and (5) (4 x 10 x 180 = 7,200 occasions per trail mile/year).

6/ Swimming in scenic rivers (1) 0.5 persons/mile of river; (2) daily turnover rate of 2; (3) average length of season 150 days; and (4) 0.5 x 2.150 = 150 occasions/river mile/year.

7/ Tent camping (1) one tent/site; (2) three persons/site; (3) daily turnover rate of 1; (4) average length of season 180 days; and (5) 3 x 1 x 180 = 540 occasion/site/year.

8/ Bank fishing (1) three fishermen/mile of river; (2) daily turnover rate of 3; (3) average length of season 120 days; and (4) 3 x 3 x 120 = 1,080 bank fishermen/mile/year.

Total Annual Visitation Expected on the South Fork New River

Year	Raft and Canoe Use	Land Based Users**	Total Visitation
1st Year	5,000	10,000	15,000
2nd Year	6,100	12,200	18,300
3rd Year	7,500	15,000	22,500
4th Year	9,200	18,400	27,600
5th Year	11,300	22,600	33,900
6th Year	13,900	27,800	41,700
7th Year	17,000	33,000	50,000*

* Saturation

** Note that previously stated 80 percent of river users will also use land based facilities

NOTE: A ratio of river users to land based users is expected to be approximately 1:2.0.

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Impacts Outside the Two-County Proposal Area

The designation of the proposed 26.5 miles of the South Fork New River as a National Wild and Scenic River would have impacts outside the two-county area in which the proposed scenic river stretch lies. Impacts would be felt downstream in Virginia and West Virginia and upstream in North Carolina. The primary impact would be the preclusion of construction of the Blue Ridge Project as planned and licensed. The impacts of this preclusion would be greatest in Grayson County, Virginia, where part of the proposed upper reservoir and the proposed lower reservoir would otherwise be built.

Wild and scenic river designation would result in the loss of approximately 1,500 temporary jobs associated with construction of the Blue Ridge Project. About half of these jobs would otherwise be filled locally, mostly in Virginia. The total construction payroll foregone is estimated to be $80 million.

The impacts of increased need for new housing, schooling, fire and police protection, health facilities, recreation, entertainment, and transportation would also not be felt.

Long-term economic impacts foregone are difficult to predict and quantify. According to the FPC's FEIS on the project, long-term impacts would be felt on the local economy by a stimulus to resort development in Galax and Independence, Virginia, and Sparta, North Carolina. Industrial development is also cited as an impact of the project. However, recent studies such as that by Charles B. Garrison,

"A Case Study of the Local Economic Impact of Reservoir Recreation" in the winter, 1974, issue of Journal of Leisure Research point out that in the case of rural and small town areas where many goods and services are imported, the impacts of a reservoir in terms of the contribution of recreation expenditures to the local economy may be negligible.

Impacts of the Blue Ridge Project in increasing land values adjacent to the reservoir would be foregone. According to testimony in the FPC hearings, that increase could be as great as 600 percent. This impact would be felt in Grayson County where the reservoirs would have been constructed.

Approximately 1,646 residents of Grayson County, Virginia, would not have to be moved. The expenses and hardships of moving as well as the disruption to local culture with the inundation of churches, roads, and one small town would be avoided.

The loss of 1,800 megawats of generating capacity for power to the seven-State area to be served by the Blue Ridge Project would be an impact that might be reflected in less reliability in the system. Hydroelectric plants, according to the Appalachian Power Company, are out of service less often than fossil fuel fired plants.

It seems likely that without the Blue Ridge Project, some alternative power source would be developed. The impact of building an alternative power source on consumption of energy resources would be approximately as follows.

According to the FPC FEIS, an alternative coal fired plant would burn an additional 1,070,000 tons of coal per year than the Blue Ridge Project. An oil fired plant would burn an additional 4,300,000 barrels of oil per year.

If adequate supplies to meet energy needs are not forthcoming, as a result of foregoing the Blue Ridge Project, then it is possible that energy conservation programs and/or modified pricing structures to reduce demand during peak hours would have to be developed.

Not building the project would remove the need for the following amounts of construction material: 3,100,000 cubic yards of earth, 3,400,000 cubic yards of rock and 11,700,000 cubic yards of earth and rock fill. Not moving these materials would mean income foregone to the producers and energy saved. The material would be obtained as close as possible to the site. Not moving it would reduce impact on local water quality and scenic values.

Wild and scenic river designation would remove the necessity for construction in Virginia of 31 miles of single transmission line and 4 miles of double circuit lines to connect with the American Electric Power System. The major impact of not building these lines would be to preserve existing scenery along the route. One of the routes would pass close to Old Shot Tower Historical Site on the New River in Virginia below the lower reservoir.

Not constructing the Blue Ridge Project would also remove the necessity for relocation of about 47 miles of primary and 38 miles of secondary roads in Grayson County, Virginia. Impacts of increased erosion and disruption to vegetation and wildlife which would otherwise be felt would be avoided. The upgrading of roads to newer standards which would occur with relocation would be foregone.

By preventing impoundment, the wild and scenic river proposal would prevent flood control downstream currently planned as part of the Blue Ridge Project. Flood control storage of 160,000-acre feet would be foregone. Benefits of flood control, estimated to reduce the flood of record (1940) by 72 percent and reduce damages from an estimated $2.4 million (1968 cost levels) to $700,000.

Present land uses on 27,900 acres of the New River Valley in Grayson County, Virginia, which would otherwise be inundated will continue present trends. The exact percentages of farm, forest, and residential land which would be prevented from being inundated is not known.

Wild and scenic river designation would result in the loss of potential water-based recreational activities associated with large impoundments such as powerboating and boat marinas. The FPC FEIS estimates visitor days foregone to be 6,230,000 annually, while the Southeast Region of the Bureau of Outdoor Recreation estimates 4,905,000 annually. These losses would affect Grayson County as well as the area of the scenic river proposal.

Not building the Blue Ridge Project would result in the loss of the following recreation areas in Virginia: two overlooks, two bank fishing areas, and eight public access areas to be provided by the Appalachian Power Company, and the potential for a 3,900-acre State park for which the company would provide land for the State of Virginia.

If the Blue Ridge Project is not constructed, recreation uses and potentials of the New River in Virginia would remain as described in the section on alternatives, with existing flow regimes, scenic qualities, and recreation potentials suitable in two Virginia stretches for State designation as scenic rivers.

The impacts foregone farther downstream in the New River Gorge would be the guaranteed summer weekly average of 2,500 cfs of flow below Bluestone Dam in the proposed National Wild and Scenic River area which would otherwise be provided by the Blue Ridge Project.

By preventing inundation of lands, the wild and scenic river designation would preserve historic and archeological sites in Grayson County, Virginia, found in preliminary surveys which would otherwise be lost; thus allowing the orderly and systematic survey and possible preservation of historic and archeological resources of a large area not yet thoroughly surveyed.

Designation to Wild and Scenic River status will conserve cool water riverine fisheries in Grayson County, Virginia, and prevent changes in the wildlife and aquatic habitat which would result from impoundment and also

prevent the changed water regime which would result (in Virginia and West Virginia) from the Blue Ridge Project.

The loss of fishing opportunities which otherwise would be available on the Virginia portion of the 26,000-acre upper reservoir and the entire 11,000-acre lower reservoir will be felt outside the two-county project area, particularly in Grayson County, Virginia. The possibility of having a cold-water trout fishery below the lower reservoir in Virginia as a result of water releases would also be foregone.

IV. MITIGATING MEASURES INCLUDED IN THE PROPOSED ACTION

Soils

To avoid compaction, erosion, and resultant siltation of the river, recreational facilities will not be placed on steep slopes or in areas where environmental quality would be degraded through the projected level of recreational use. Recreation developments will be designed so as to minimize soil loss during construction, and erosion problems associated with recreational use of the activity areas.

Water Quality

Sanitary facilities will be provided at all public use areas to minimize the impact of increased human waste in the river corridor. Treatment of these wastes will be done in accord with regulations of the Division of Environmental Management of the Department of Natural and Economic Resources. If soils are not suitable for septic tank fields, then chemical vault toilets will be provided. Efforts taken to minimize soil loss during construction will also mitigate the impacts of increased siltation on water quality.

Fish and Wildlife

The location of the proposed recreation areas on lands that are now mostly old fields and pasture will minimize the impact of increased

recreation use on significant wildlife species such as wild turkey and deer. The designation of special recreation use areas will be utilized to minimize conflicts between users such as between hunters and general recreationists. For example, hunting would not be allowed within designated camping areas, and the use of hiking trails and boating on certain sections of the river may have to be restricted during the hunting season.

Vegetation

Development of camping facilities, trails, and parking areas on the 400 acres of recreation lands will be carried out with minimum impact on vegetation. To the extent practical, all these facilities will be located on sites already disturbed by pasture or crops rather than in undisturbed areas.

Archeology and History

Upon acquisition of the 400 acres proposed for recreation development and the 1,000-1,500 acres to be controlled by easement, the State will perform a thorough survey to identify and protect any archeological or historic resources. This survey will meet the requirements of Section 2(a) of Executive Order 11593.

Any sites identified on the 400 acres to be developed will be protected from adverse impact during construction of facilities. Sites located on the 1,000-1,500 acres of easement lands will not be threatened by recreation facility development, as no facilities

are planned for these areas. Any historic sites identified during the survey that meet the criteria for nomination will be nominated for the "National Register of Historic Places."

Litter

Careful management and provision of trash cans at all recreation areas will help minimize the impact of unsightly litter. All recreation areas will be accessible to service vehicles for solid waste pickup. This regular maintenance and patrol will also help minimize the threat of vandalism and wildfire.

V. UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

During the construction period a minimal amount of vegetation would be damaged or destroyed on a portion of the 400 acres to be developed. Use of these developed sites would also result in minor increases in soil compaction, erosion, and damage to the vegetation with a resultant slight adverse effect on the aesthetics of the areas. A slight loss in wildlife habitat would also occur and there would be slightly increased incidence of overall disturbance to wildlife in resting, breeding, feeding patterns. These adverse impacts can be mitigated only partially.

Slight adverse impacts on water quality would be felt from increased recreation use as a result of increased uncontrolled human waste, from temporary increases in siltation from construction of recreation facilities, and from minor loss of vegetation at access areas and on trails. These impacts cannot be completely mitigated.

The expected increase in nonlocal visitation, which would be considered an adverse impact by some members of the local population, although very minor, cannot be avoided if the proposal is implemented. Increased trespass and conflicts between the public and local landowners would be expected to occur, with increased

incidence of minor crop damage and other property damage. Increased litter, vandalism, and threat of wildfire would also be unavoidable, though these impacts would be mitigated.

Conflicts between user groups such as between hunters and/or fishermen and other recreationists would be unavoidable and would increase as recreation use increases in spite of mitigating measures.

The loss of tax income on the 400 acres to be purchased in fee simple (.1 percent of total area of the two counties) would be an unavoidable adverse impact.

The increased use of existing highways due to increased recreation use cannot be avoided and would result in slightly increased maintenance costs and an increase in local air pollution.

Future construction of new highways across the protected corridor or major changes in existing routes which would have an adverse impact upon the scenic characteristics of the river would be discouraged. Major future highway improvement proposals, therefore, may involve less convenient and more expensive routing or design. Cultural resources could be adversely impacted during the construction period and/or with increased recreation usage. It is expected that these impacts would be mitigated by the State in the master planning phase by implementing Section 2(A) of Executive Order 11593. (See also Chapter VIII - Advisory Council on Historic Preservation, Part 800.)

VI. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The short-term use of the 400 acres proposed for recreation facility development will be lost to commercial agriculture, forestry, and commercial or residential development. Tax income on the 400 acres proposed for development will also be lost in the short term. Recreation facility development will cause local, limited increases in siltation and will require the clearing of vegetation for parking and camping facilities.

Use of the river for water resource development will also be foregone in the short term.

On the 1,000-1,500 acres to be controlled through scenic and conservation easements, present agricultural activities will be continued; however, in the short term, the possibility of intensive development on these areas will be foregone.

However, the resource base will remain and all of these uses and their benefits could be obtained in the future if the needs of society make this action desirable.

Implementation of the proposal, including the State's field survey analysis, will protect the significant archeological values of the area over the long term and enhance

the opportunities of the public and scholars to use these resources. Protection of the natural, pastoral character of the river and its associated scenic, aesthetic, and environmental qualities would enhance the value of adjoining land over the long term. Outdoor recreation opportunities and uses would also be enhanced over the long term.

The protection of 1,000-1,500 acres of the river corridor from intensive development, especially on steep slopes, will enhance water quality and the productivity of fishery resources in the long term.

In summary, the proposal presents a trade off between short-term and long-term uses that involves a short term loss of 400 acres to agriculture, forestry, and intensive development and a loss of tax income on these acres plus the loss of 1,000-1,500 acres for intensive development and loss of the use of the river for water resource development. Gains, over the long term, would be felt in protection of significant archeological, scenic, aesthetic, and recreation values and increased water quality.

VII. ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Designation as a National Wild and Scenic River is a commitment to maintain the natural environment of the river corridor. However, it is possible for this Federal designation to be removed, in this case, by the Secretary of the Interior, should it be in the national interest to do so at some future time. The potential of the river for water resources development will remain.

The commitment of the 400 acres to recreation development and the commitments to retain the 1,000-1,500-acre corridor in present land uses are also reversible commitments.

The proposed action involves no significant physical changes to the existing environment, and no irreversible and irretrievable commitments of resources, including cultural resources.

VIII. ALTERNATIVES TO THE PROPOSED ACTION

There are four alternatives which are discussed. These are:

I. No Action

II. Designation of Less Than the Proposed Area

III. Designation of New River in North Carolina, Virginia, and West Virginia - excluding Claytor and Bluestone Reservoirs.

IV. Construction of Blue Ridge Project and Designation of Remaining Free-Flowing Segments.

Alternative I. No Action

With no Wild and Scenic River designation and no Blue Ridge Project, it is assumed that there would be no management plan; no acquisition of lands for recreational developments; and no recognition or protection of scenic and pastoral features other than the State's Floodway Regulation which limits uses within a 100-year flood plain. Ashe County is currently implementing legislation for permit procedures to use with the Floodway Regulation.

Impact on Recreation

Without designation and construction of supporting recreation facilities, it is estimated that the number of hikers, picnickers, campers and floaters would increase slightly over the next several years. For other primary recreation associated activities such as hunting, fishing, and boating, the annual increases in level of participation are expected to be 3 percent, 7 percent, and 4 percent, respectively, per year for the next 10 years. Thus the impacts on increased use for hikers, picnickers, campers, boaters and floaters will be moderate and the impacts on hunters and fishermen will be minimal.

Impacts on Vegetation and Soils

Under this alternative the vegetation and soil resources on up to 1500 acres of land would not be subject to the protection of scenic easements or subject to recreation development on another approximate 200-400 acres. Further, except for the protection afforded by the

potential implementation of the State's Floodway Regulation which limits uses within a 100-year flood plain, the soil and forest vegetation resources would be subject to local regulations for nonagricultural developments. Local zoning laws to implement the State's Floodway Regulations are under consideration only in Ashe County.

For nonagricultural developments such as summer or second homes primarily in the river corridor, impacts on the soils are expected to be moderate unless the State Floodway Regulation and other local zoning laws are strictly enforced.

For agricultural and forest lands the impacts on vegetation and soils are expected to be essentially same as if the scenic river proposal were implemented.

Impacts on Historical and Archeological Resources

Preliminary surveys indicate that there are no historical properties proposed or listed in the National Register of Historic Places. Archeological surveys made in association with the Blue Ridge Project and other surveys made by State archeological personnel indicate that the area has potential for archeological importance.

With the no action alternative these archeological finds would not be protected by Executive Order 11593. However, they would be subject to Chapter 70 of the North Carolina Statutes, Indian

Antiquities Act, Section 70-3 and 70-4 concerning Preservation of Relics on Public Land and Destruction or Sale of Relics on Public Lands, respectively. Violation of either of these statutes is a misdemeanor. Also, General Statutes 121-12-22-23 provide protection for submerged artifacts.

Overall, the impact of this alternative on the protection of historical values would be the same as with the scenic river proposal. On the other hand, this alternative would provide less protection for potential archeological resources than would the scenic river designation.

Impact on Water Quality

Under the no-action alternative, State water quality standards (see pages 78 and 79) would continue to apply. It is anticipated that measures to protect water quality will be enforced and that the present quality will be maintained or improved.

Impact on Wildlife

The impact of the no-action alternative on wildlife would be directly related to the expected reduced recreational use of the river and the areas adjacent to it. Disturbance of wildlife breeding and feeding areas would be somewhat less with the no-action alternative than it would be with the scenic river designation. The specific level of impact would depend on the particular species. Deer populations, for

example, would not be significantly affected either way. On the other hand, turkey, which are less tolerant of human presence, would be less adversely affected by the no-action alternative than by the scenic river. The impact on small game animals, such as grey squirrel, rabbit, fox, and groundhog, would be minimal in either case. Waterfowl, such as wood ducks, would benefit by the no-action alternative due to lighter disturbance of their habitat.' Furbearers, on the other hand, such as opossum, racoon, and beaver, would suffer under no-action because of the lack of protection afforded their river and riverbank habitat. The use impact on wildlife populations would be less than with the scenic river proposal.

The no-action alternative would offer significantly less protection from the threat of future impoundment and/or channel alteration to the habitat of 10 aquatic species listed by the State as rare or endangered (see list in Section II) and 7 aquatic species which may be candidates for Federal listing as endangered or threatened (see list in Section II). Overall, the impact of no formal protection for these species would be moderate.

Impact on Scenery

Without designation of the area as a wild and scenic river, the scenic qualities of the 1,500 acres will not be protected. This impact is estimated to be moderate, unless the State's Floodway

Regulations and other local zoning laws are strictly enforced and provide alternative protection.

Other Impacts

Changes in agriculture, local economy, and other uses such as minerals and forestry are not expected to be significantly different than during the past decade. Thus, the impact of this no-action alternative is estimated to be minimal.

Alternative II - Designation of Less Than the Proposed Area

Under this alternative approximately 3.5 miles of the New River and approximately 22 miles of the South Fork New River (total of 25.5 miles) would be designated a component of the National System under a "scenic designation." (See map on page 2.) Access and facilities would be the same as those of the proposal. Designation of less than this would not be feasible because the criteria for inclusion in the National Wild and Scenic River System require a minimum of 25 miles of free-flowing river.

Impacts associated with this alternative would be essentially the same as those associated with the proposal.

Alternative III. Designation of New River in North Carolina, and West Virginia - Excluding Claytor and Bluestone Reservoir

The following alternative treats the entire main stem New River plus the North and South Forks as potential State and/or National Wild and Scenic Rivers. The overall watershed is described, then various river segments are discussed separately in greater detail, their suitability for scenic river status is analyzed, and the impacts of possible designation are assessed. The river is divided for purposes of discussion into four reaches described below. The impacts of designating qualified portions as scenic rivers are described after the discussion of each reach. (See map on page 221.)

General Description

The headwaters of the New River start in North Carolina and flow northeast as:

Reach I - North and South Forks, 55 and 85 miles respectively, to their confluence at river mile 253; then

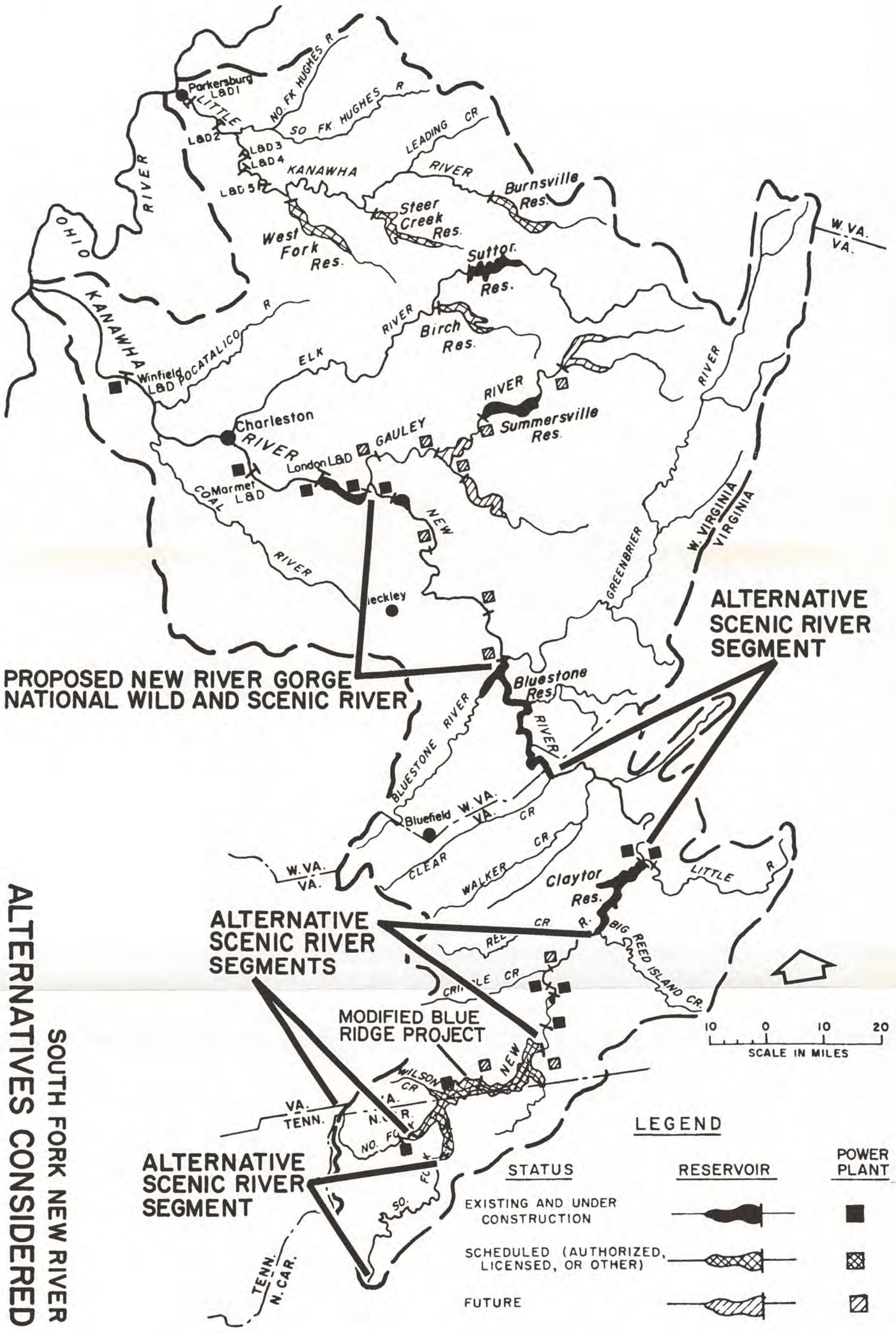
Reach II - From river mile 253 the river flows northeast 84 miles to Hiwassee, Virginia (headwaters of Claytor Reservoir) at river mile 169; then

Reach III - From river mile at 151 (Claytor Dam), the river flows northwest 56 miles to Glenlyn, Virginia (headwaters of Bluestone Reservoir) at river mile 95; then

Reach IV - From river mile 64 just below Bluestone Dam, at the confluence with the Greenbrier River in West Virginia,

ALTERNATIVES CONSIDERED

SOUTH FORK NEW RIVER



the river continues to flow northwest 64 miles to Gauley Bridge, West Virginia.

Generally, the river's channel is narrow and has numerous falls and rapids. It flows through deep, narrow valleys and past steep bluffs that rise to sheer heights above the river's edge.

Major impoundments which occur on the New River below North Carolina are Claytor Lake in Virginia and Bluestone and Hawks Nest Reservoirs in West Virginia. (See map on page 221.) Several small impoundments located in Virginia between the North Carolina border and Claytor Lake are Stuart, Buck, Byllesby, and Fries.

The New River offers significant land form contrasts, patterns, and distribution. Within the confines of this landscape, the communities are generally dispersed along transportation networks and blend well with their rural surroundings. Present land-use trends along the New River do not preclude streamside recreational development, and the river's water quality, together with its relatively well-sustained summer flow, offer opportunities for diversified recreational activities.

The economy of the area is based largely on agriculture and associated enterprises. Nearly 12 percent of the land is cropped and 25 percent pastured. There is a greater percentage, as well as a greater total acreage, of land suitable for cultivation in the Upper New River subbasin

than in any other subbasin in the Kanawha Basin. More than 57 percent of the subbasin is forested, and the lumber and wood products industries provide work for 35 percent of the people employed in the manufacture of durable goods. The recreational and tourist business is increasing steadily in this area of scenic beauty. The probability of coal and gas producing beds in the Virginia reach of the New is slight. No activities to extract such minerals have occurred to date.

Principal forest game in the New River Valley is deer, bear, grouse, squirrel and raccoon. On open land, rabbit hunting is generally good, while the quail population is low.

The main stem of the New River offers smallmouth bass, channel and flathead catfish, white bass, redbreast sunfish, and walleye. The best walleye fishing in Virginia is found in the New River. The river above Bluestone reservoir provides excellent fishing for bass, walleye, catfish, and panfish and is a popular float fishing stream. Lower portions of the tributaries generally offer smallmouth bass and catfish, while the upper reaches provide trout.

Major recreation areas in the New River Basin are Jefferson National Forest, 182,700 acres, including Mount Rogers National Recreation Area in Virginia, Claytor Lake State Park (427 acres) and Grayson State Park (5,000 acres) in Virginia, and Bluestone (1,346 acres) and Pipestem State Parks (4,027 acres) in West Virginia.

The water of the New River is generally suitable for primary water contact recreation, although the data indicates the pH values may at times exceed the criteria due to natural alkalinity attributable to limestone outcroppings in the drainage area.

Several portions of the river in Virginia have been studied by the State for possible State scenic river designation, and several tributaries have also been recommended for protection, according to the Kanawha River Basin study.

Reach I - North and South Forks

For convenience, the two forks of the river are described and considered separately below.

North Fork--The North Carolina Environmental Management Division in their draft "Water Quality Management Plan - New River Basin" describes the North Fork New River as follows:

> This area lies entirely within the Mountain Region of the State and encompasses 256 square miles in Ashe and Watauga Counties. The principal stream of this subbasin is the North Fork New River from its source to the New River. The major tributaries are Big Laurel Creek, Horse Creek, and Helton Creek. The North Fork is entirely contained within Ashe County for its total 55 miles. It is a continuous flowing stream and is subject to flooding. Water temperatures range from cool to cold in this water quality Class "C" stream. The terrain consists of low and high mountains. Elevations range between 2,800 feet to

about 5,200 feet above mean sea level. The economy is agriculturally based, with hay for livestock raising and tobacco the main crops produced. The principal population centers include Warrensville, Lansing, and West Jefferson. Farmlands and woodlands cover most of the area. The most important industry in this area is tourism. There is a little textile manufacturing but in general the area is not industrialized. Trout fishing is a common recreation activity.

Swimming is not indicated by the water quality Class "C," which is below body-contact standards. However, actual water quality probably is above the classification which is based on intended future uses as well as present water quality. Recreation potential for other activities exists--picnicking, sightseeing, hiking, etc.--and capacity would depend on the amount of land set aside for such pursuits. Potential for water-based activities such as canoeing and rafting would be marginal, depending on flow volumes which would vary greatly with rainfall in this small subbasin.

The North Fork has not been formally evaluated for its potential as either a State or National Scenic River; however, in the absence of any known factors which prove it unqualified, the possibility of this stretch as a scenic river must remain open.

Impacts

Inclusion of the entire 55 miles of the North Fork New River into the National Wild and Scenic River System would result in the protection

of the segment's natural resources, particularly the trout fishery. In addition, the recreation use of the river would be increased, although it is limited by low flow during certain periods of the year.

The existing land use would remain substantially unaltered, thus this impact would be insignificant. A minor impact would be expected on the economy of Warrensville, Lansing and West Jefferson due to a stimulation from increased expenditures by recreation users. However, without large amounts of lands being acquired for accommodation of recreationists, the economic impact would be insignificant.

River designation would result in an adverse impact upon proposed water resource development plans for improved flood control, water supply, and waste-water discharge.1/

Overall, the beneficial impacts of designation would be insignificant to minor; however, the adverse impacts on future water resource development, foregone by designation, would be moderate to major depending upon the future water resource needs of the area.

South Fork New River--The North Carolina Environmental Management Division in their draft "Water Quality Management Plan - New River Basin" describes the South Fork New River as follows.

1/ "New River Basin Framework Alternatives," Review Draft, State of North Carolina, DNER, Division of Resource Planning and Evaluation, February 1976.

This subbasin lies entirely in the Mountain Region of the State and encompasses 346 square miles in Alleghany, Ashe, and Watauga Counties.

The principal stream in this subbasin is the New River from its confluence with the North and South Forks New River to the first point at which it crosses the North Carolina-Virginia State Line into Virginia. The major tributary of the New River is the South Fork New River.

The South Fork New River is approximately 85 miles in length, contained entirely in Ashe and Watauga Counties. The lower 22 miles have already been discussed as part of the scenic river proposal.

The upper portion of the stream in Ashe County is continuously flowing and subject to flooding. Water temperatures range from cool to cold with a water quality classification of "C." Trout fishing is common.

The State of North Carolina has identified possible impoundment sites on the South Fork in Ashe County and at Dog Creek, Nathans Creek, Peak Creek, and Obids Creek as part of a recent study.[1/] These are all tributaries to the South Fork.

1/ "New River Basin Framework Alternatives," Review Draft, State of North Carolina, DNER, Division of Resource Planning and Evaluation, February 1976.

The historic, geologic, and scenic qualities surrounding the South Fork in Ashe County are significant as described in Section II, The River Setting, in this FEIS.

In Watauga County, there are approximately 26 miles more of the South Fork. On this stretch of the stream moderate siltation occurs in addition to some industrial pollution near Boone. The water quality classification in Watauga County is "C." Land use on the lower 18 miles is primarily agricultural with residential and commercial land uses existing on the upper 9 miles. There are existing waste-water treatment plants at Boone and Blowing Rock and a proposed waste-water outfall from Blowing Rock in the South Fork downstream 4 or 5 miles past Boone. There is a proposed waste-water treatment plant near Sands. At present, urban runoff does not create a significant adverse effect.

There is also a proposed water main which would follow the river from Blowing Rock to a point 4 to 5 miles below Boone with a pump station taking river water at the lower end and pumping through two existing treatment plants. One treatment plant is 2 miles below Boone and the other at Blowing Rock.

The 22-mile portion of the South Fork New River discussed in the proposal is considered to be superior in scenic quality to the remaining 63 miles upstream (37 miles in Ashe County and 26 miles in Watauga County). The upper 63 miles is more disturbed by farming and clearing near the riverbank in addition to commercial and

residential properties in the Boone/Blowing Rock Area. Additional mileage of the South Fork may qualify for either State or National scenic river designation; however, implementation of the proposed water resource development plans by State or county governments would greatly jeopardize potential for either.

The topography consists of low mountains and a few high mountains. Elevations range from about 2,000 feet to over 5,000 feet above mean sea level, but are generally in the 3,000- to 4,000-foot range.

Farmlands and woodlands cover most of the area. Boone, Todd, and Jefferson are the three principal population centers in this area.

The economy is agriculturally based. Hay and burley tobacco are the main crops raised. There is also some livestock production. Several textile and canning companies produce goods in the area. The tourist trade is important, especially around Boone and Blowing Rock.

Impacts

The impacts of designating this subreach as a scenic river are essentially the same as the impacts of the proposal plus additional protection for scenic, historical, archeological, and other cultural features in the additional 64 miles of river corridor. However, lower flow on the upper stream would not enable a directly proportional increase in recreational use.

The existing land use would remain substantially unaltered along this additional mileage as it would on the 22-mile river proposal.

Impacts on water use would be limited primarily to the proposed water resource development plans by the State and county governments which would be foregone if increased mileage were designated. Depending upon the necessity for using the South Fork as a drinking water source or for waste-water discharge by the populated areas of Boone and Blowing Rock, this impact could be either moderate to major.

Reach II - Confluence of North and South Forks to Hiwassee, Virginia (Headwaters of Claytor Reservoir)

This reach of 84 miles has existing impoundments at Stuart, Buck, Byllesby and Fries. All of these reservoirs are small run-of-the river power projects and have little effect in changing streamflow.

Perhaps the best description of the New River in this reach has been written by W. F. Burmeister in "Appalachian Waters" from which the following description is heavily drawn.

> Below the confluence of the North and South Forks, the New River has numerous excellent rapids. The river flows through deep gaps and past high, steep hills. It has excellent white water and also much unspoiled scenery of great beauty.
>
> About 4½ miles downstream of the junction of the two forks, the river enters Virginia and loops liberally through a

rugged terrain. Sheer, 400- to 500-foot bluffs enclose the swift river, and interesting rapids run over a rocky bed. Along the northern horizon, the high peaks of Buck and Point Lookout Mountains form an impressive skyline. About 3-3/10 miles downstream of the North Carolina-Virginia State Line, past Mouth of Wilson, Virginia, lies Stuart Dam. Below the dam, the river course continues to loop along the State line and finally turns north, meandering dramatically through impressive ravines.

In this area (upstream of Highway 58), rugged shores occur intermittently, and this steeper land is usually wooded. There is little in the way of development within view of the river other than farmland and scattered farm houses, and no significant settlements or villages. This is true even where U.S. 58 parallels the river; this road affords some fine views of the stream. The scenery is pleasant throughout and is enhanced by distant mountain views.

West of Galax and 6¼ miles downstream is Fries Dam. Below the dam, heavy white water drops furiously for 3/4-mile. The next 3½ miles are swift and terminate in an additional 2 miles of very heavy white water, dropping tumultously over a 45-foot gradient. This impressive stretch is funneled through a trough, lined by 400-foot bluffs.

Below the white water, the river flows swiftly toward Byllesby Dam. Three miles downstream, directly beyond Buck, the river

is divided by an island; the two channels thus formed are blocked by dams. Below the dams is a very impressive section, in the heart of a gap, lined by a 740-foot precipice rising directly above the eastern shore and a 1,125-foot slope terracing picturesquely above the western shore. It offers heavy white water.

The attractive course passes Ivanhoe, Austinville, and Jackson Ferry. The section from Austinville to Route 100 is more accessible by road.

Route U.S. 52 runs parallel to it for about a mile, crossing the river at Jackson's Ferry. Downstream a mile below the bridge and below the Old Shot Tower Historical Site are fine rapids at Foster's Falls. On the right bank is a ghost town and the remains of an old iron foundry. Below the falls, the river makes a sharp bend between sheer rock cliffs. Although the immediate shores are nowhere stupendous, they are rugged. Rapids are primarily located in turns and provide exciting runs past rocky spurs. About 2½ miles east of Bakers Island, interesting rapids rush around a promontory. The river passes Lone Ash, Carter Island, Barren Springs rapid and then gradually approaches the backwater of Claytor Lake, directly beyond Allisonia.

Although the river throughout this reach is relatively inaccessible, a number of areas within the flood plains are suitable for recreation

development and could provide access. The adjoining land is lightly settled, and steep wooded hills are close by with a few cultivated fields in the narrow bottom land.. This area could be developed to advantage for river-oriented recreation use. Several islands also occur which would be of interest to recreationists. Twenty-three islands have been identified as having recreation potential.

Optimum recreation flows in this reach vary from 1,600 to 2,300 c.f.s. and occur 23 percent of the time. This reach of the New River is presently used for a variety of activities, including fishing, boating, picnicking, swimming, and canoeing. Considering its high quality recreation values, scenery, and the unspoiled character of most of its length, it must be considered a potential candidate for the National Wild and Scenic River System. Portions of this reach and two of its tributaries have been identified by the Virginia Commission of Outdoor Recreation as "worthy of preservation" in Virginia's Scenic Rivers System. These sections are Route 58 to Fries in Grayson County and Austinville to Route 100 in Wythe County.

In addition, the river between Fries and Austinville has a number of impressive fast water stretches. The Double Shoal rapids about 3 miles below Fries are "the best on the river," according to studies by the National Park Service performed in conjunction with the Kanawha River Basin Study.

Tributaries which provide outstanding scenic and/or recreational resources are Big Reed Island Creek, Wolf Creek (offering excellent

white water canoeing), Cripple Creek, and Little Stony Creek (offering trout fishing).

The need for public acquisition (fee simple) to provide access to this reach would be small and dispersed throughout the length. Not more than 675 acres are thought to be necessary, including 275 acres involved in the acquisition of islands. In order to protect the scenic and natural values of the river corridor and to accommodate the need for trails, easements (either scenic or public use) would be desirable, on approximately 50,000 additional acres, including the flood plain (approximately 25,000 acres) and some adjacent slopes. Given this proposed level of acquisition and appropriate recreational development of these lands, the resource could accommodate an estimated 500,000 users per year.

Impacts

The most significant impact of designating this reach as a State and/or National Wild and Scenic River would be to preclude the construction of the Blue Ridge Project. The impacts of constructing that project are discussed in Alternative 4. The impacts of not constructing it are discussed in "Impacts Outside the Two-County Area" under the Impacts of the Proposal.

In addition, there would be the loss of agricultural porduction on 675 acres acquired in fee simple for recreation areas. Taxes on these lands which would be lost to the counties are estimated to be a maximum of $220,000 annually. There would appear to be no

losses from mineral extraction foregone, as none is taking place now nor is any potential for such known to exist.

Further impacts of the proposal would be increased protection of the existing valuable scenic and recreation potentials, fisheries, and wildlife habitat, described above and in the general description of the New River which prefaced the discussion of Reach I. The proposed action would significantly increase recreation opportunities and ease of access for the recreation activities cited above as presently existing. The number of recreation users would be expected to increase with a slight increase in attendant problems of littering and vandalism.

The State of Virginia has not acted to include this stretch in their scenic river system, and supports the proposed Blue Ridge Project. Therefore, State action to make this stretch a scenic river is unlikely to occur. Federal designation through an Act of Congress authorizing a formal study and development of a proposed plan would normally require several years. By that time, construction is likely to have begun on the proposed Blue Ridge Project.

Reach III - Claytor Dam Downstream to Glenlyn, Virginia (Headwaters of Bluestone Reservoir)

According to the Virginia Commission of Outdoor Recreation, this 56-mile reach is scenic and largely undeveloped. The flood plains of the river are used frequently for row crops or pasture and do not detract from the spectacular scenery.

The river has a 20-foot gradient with numerous rapids, looping widely through the steep-sided valley. During the spring when flood-flows are moderated by the operation of Claytor Dam, the river offers excellent, and in places outstanding, canoeing. The following description of the river is taken from W. F. Burmeister's "Appalachian Waters."

> Below Claytor Dam, past Radford and the U.S. Military Reservation, the river loops freely around the long spurs of attractive hills. At Parrott, the 350-yard wide river begins a spectacular break through a series of ridges. Through Gap and Walker Mountains and then Spruce Run and Buckey Mountains the water flows at the base of impressive gaps to Eggleston. The initial 3½ miles are particularly thrilling white water. Of this distance, the 1-3/5-mile, from McCoy to Big Falls, having a 20-foot gradient, terminates in an enormous rapid with huge standing waves.
>
> Beyond the narrows, river bends twist within a trough, past Pembroke, Klotz, Norcross, Pearisburg, and reaches the cove of Bluff City. Below North Pearisburg, the river drops over a rapid, heads toward 700-foot Turnhole Knob, turns sharply to the southwest, passes the town of Narrows, loops around a promontory and flows north into the confining gap between Peters and East River Mountains, known as the Narrows. Along the left shore 1,709-foot slopes tower above the course while 1,822-foot slopes terrace impressively above the opposite shore.

About 2½ miles north of the Narrows, the straight course once again begins a series of meanders. Dramatic bluffs and formidable cliffs rise precipitously above the great river. At an elevation of 1,520 feet, the high point of the flood control pool of Bluestone Reservoir is felt here. However, the backwater reaches this far upstream only during floods. During late May and early June, this water storage level is not applicable and the swift river continues in an immense loop around a promontory, 500- to 800-foot bluffs rising above the eastern shore. Past Wylie Falls, a short, steep drop over eroded ledges, and Wylie Island, the river enters a picturesque gorge, enclosed by 600-foot walls. The river then bends around a mountain spur of Crumps Bottom and approaches the backwater of Bluestone Reservoir in the vicinity of Indian Creek junction.

Optimum recreation flows in this reach of the New River are between 2,800 c.f.s. and 3,300 c.f.s., which under unregulated conditions, occurred approximately 23 percent of the time. Average annual flow in this reach is approximately 2,400 c.f.s.

Regulation from Claytor produces flows below the dam ranging from 0 c.f.s. to 6,500 c.f.s. During a 24-hour period in October 1969, zero streamflow occurred below the dam for 8 hours. Flows which approximated satisfactory recreation volumes occurred between 9-10 a.m., 2-3 p.m., and 6-10 p.m. At this rate, it is reasonable

to assume that satisfactory recreation flows would be available to the public for only 4 hours--those hours dispersed throughout the day.

The riverbed has some dampening effect on fluctuating flows. However, an examination of flows at Radford, which is about midway in the reach, shows that there is no improvement in flow. To the contrary, flows range between 2,500 and 3,500 at ½-hour intervals for a total of only 2 hours out of the 24.

Although this reach could, with appropriate development and access, be used for recreational purposes, it is not considered to be an acceptable candidate for the National Wild and Scenic Rivers System because of the infrequency and short duration of satisfactory recreation flows.

The report by the Virginia Commission of Outdoor Recreation on Virginia's Scenic Rivers does not name this segment as worthy of preservation, although other segments of the New River in Virginia are named. It is concluded, therefore, that this reach of river is unsuitable for either State or Federal designation as a wild or scenic river.

Impacts

As this segment has not been found to qualify for either system, it is not considered a reasonable alternative for designation. Therefore, no discussion of impacts is in order.

Reach IV - Bluestone Dam to Mouth of New River at Gauley Bridge, West Virginia

A study of the New River Gorge in West Virginia was conducted in response to a congressional request as a 1975 fiscal year Department of the Interior budget item. The thrust of the study was to: (1) assess physical capability of the Gorge area; (2) evaluate with National criteria to determine if National designation is appropriate; and (3) to recommend a plan recognizing the recreational, environmental, historical, cultural, and economic values of the Gorge.

The Bureau of Outdoor Recreation found that the New River Gorge qualifies for inclusion in the National Wild and Scenic Rivers System and that it meets the criteria for designation as a Scenic and Recreational River area. The plan recommends that the New River Gorge be designated a component of the National Wild and Scenic Rivers System under overall management of the National Park Service. An environmental impact statement on the proposed plan was prepared and made available to the Council on Environmental Quality and the public on September 26, 1975 (DES-75-54).

The plan recommends that a 66-mile segment of the New River in West Virginia, from Bluestone Dam near the town of Hinton to the town of Gauley Bridge, together with 50,000 acres of land comprising the New River Gorge, be designated by the Congress as a component of the National Wild and Scenic Rivers System; that 44 miles of free-flowing stream be designated as a "Scenic River" area, and that 22 miles be designated as a "Recreational River" area; that these river

areas be managed in accord with the criteria established for each classification as set forth in Section 2(b) of the Wild and Scenic Rivers Act of 1968 (Public Law 90-542), as amended). The entire designated river area would be administered by the National Park Service (NPS). A detailed management and development plan for the river corridor would be filed with the Congress within 2 years of the inclusion in the National System.

In addition, the proposal specifically recommends that:

The present visual character of the New River Gorge be conserved in a corridor from rim to rim plus a 500-foot buffer zone beyond the rim on each side.

The State of West Virginia and its political subdivisions control land usage in the corridor through local zoning authority and necessary State legislation to prohibit surface mining within the corridor. At present, Fayette County has a zoning ordinance, while Summers and Raleigh Counties do not.

Within the corridor, the State of West Virginia continue to operate its existing State parks and complete acquisition and development of its proposed State parks with up to 50 percent assistance from the Land and Water Conservation Fund and up to 30 percent supplemental funds from the Appalachian Regional Commission. This will comprise about

10,000 acres of complementary park nodes not within the National designation. Local zoning measures will encompass 49,000 acres. The National Park Service will acquire 1,000 acres. This will bring the total land under conservation control in the area to 60,000 acres.

Standards be developed to regulate manmade flow patterns in the river to protect habitat and recreational values. Allowance should be made in the legislation to establish the National river for such flow regulations. The exact magnitude of the regulations should be established by the master plan. Such standards would limit variations in flow on an hourly as well as seasonal basis, to prevent very large changes in flows over a few hours, and to help provide adequate flows during day light hours.

The existing flow regime, while not ideal, is suitable for recreational uses. Changes in this regime would therefore be limited to those found beneficial to such uses. While it is impossible to completely control floodflows, they would be managed insofar as possible to limit damage to the biological and recreational values of the river, as well as to prevent downstream damages.

A moratorium be placed on new deep mining until a detailed study can be completed by agencies such as U.S. Bureau of

Mines, National Park Service, and West Virginia Department of Natural Resources (DNR), as to impacts and feasibility of such mining. This study would:

a. Determine the extent of mineable reserves remaining in the Gorge.

b. Determine if it is feasible to obtain remaining mineable reserves by deep mining from the Plateau rather than drift mining into the Gorge walls.

c. Determine if it is necessary to mine from the Gorge, and decide on controls necessary to prevent adverse impacts while permitting economically feasible mining.

Impacts (Summary From the DES-75-54)

Inclusion in the National System of Wild and Scenic Rivers (Public Law 90-542) will have the effect of preserving existing scenic, recreational, historic, fish and wildlife, and water quality values of the river. No significant adverse effects are anticipated on ecological systems. The present land-use pattern would be stabilized with a goal of achieving optimum conservation goals. Unavoidable damage to terrain and vegetation would be limited to that caused by increased visitor use of the Gorge area and possible continuance of controlled resource utilization.

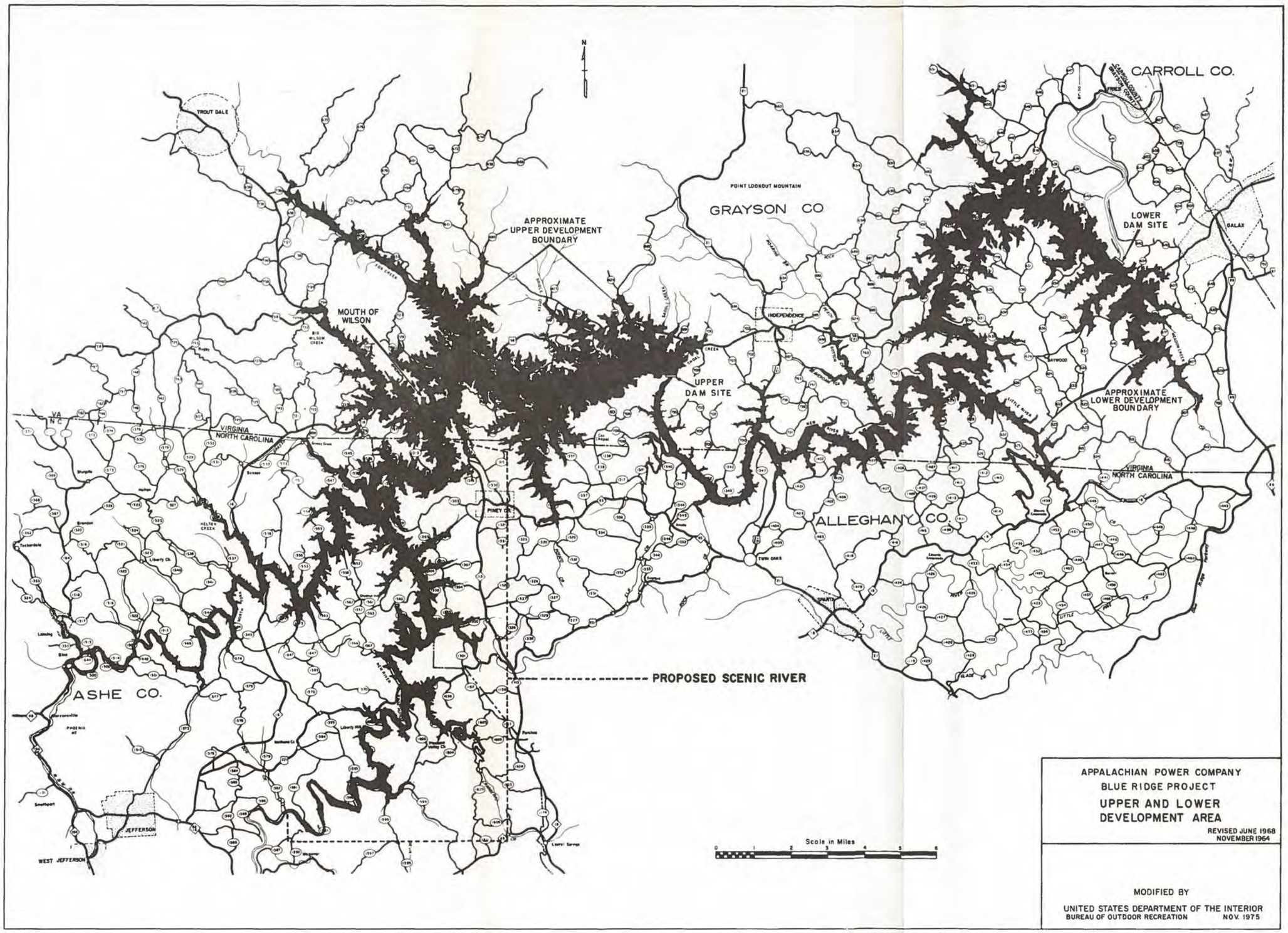
Alternative IV. Construction of Blue Ridge Project and Designation of Remaining Free-Flowing River Segments

In this alternative, the Blue Ridge Project would be constructed and the remaining free-flowing qualified segments would be designated into State and/or National wild and scenic river systems. The construction of the Blue Ridge Project, with associated impacts, is discussed first, followed by a discussion of the remaining free-flowing segments, as affected by the Blue Ridge Project.

The Blue Ridge Project

The Blue Ridge Project (F.P.C. No. 2317) was licensed by the Federal Power Commission on June 14, 1974, to be effective on January 2, 1975. Although this license is now under a court-ordered stay of execution, there is reason to assume that the Blue Ridge Project will be constructed in the future. Therefore, this section will describe the Blue Ridge Project as presented in the Federal Power Commission's Final Environmental Impact Statement of June 1973.

The Blue Ridge Project would be a combination conventional and pumped storage hydroelectric project consisting of two adjoining and integrated developments--the Upper Development and the Lower Development (see map on page 244.) The Upper Development is located principally in Grayson County, Virginia, but with significant portions of the reservoir extending into Ashe County, North Carolina and, to a lesser extent, Alleghany County, North Carolina. The Lower Development is also located in Grayson County,



APPALACHIAN POWER COMPANY
BLUE RIDGE PROJECT
UPPER AND LOWER DEVELOPMENT AREA
REVISED JUNE 1968
NOVEMBER 1964

MODIFIED BY
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF OUTDOOR RECREATION NOV. 1975

Virginia, except for minor portions of its reservoir which extend into Alleghany County, North Carolina. Transmission lines associated with the project would traverse Grayson, Carroll, and Wythe Counties, Virginia.

The Blue Ridge Project Upper Development would include a reservoir having a surface area of approximately 26,000 acres at water surface elevation 2,652 feet, containing approximately 2,010,000 acre-feet of storage. Maximum drawdown of the upper reservoir would be 10 feet, to elevation 2,642 during the period of June 1 through Labor Day of each year, and, until 1985, at other times the maximum drawdown would be 12 feet, to elevation 2,640. After 1985, the 10-foot limitation would apply at all times. Usable storage of 290,000 acre-feet would exist between elevation 2,652 and 2,640. During the peak recreation season, because of the 10-foot limitation, usable storage would be limited to 245,000 acre-feet.

The Lower Development, under normal operating conditions, would include a reservoir having a surface area of 11,000 acres at elevation 2,420 feet, containing 912,000 acre-feet of storage. The total usable storage capacity for power and low-flow augmentation would be 280,000 acre-feet between elevation 2,390 and 2,420 feet. In addition, the Lower Development could provide up to 346,000 acre-feet of storage for flood control between elevations 2,420 and 2,446 feet. The reservoir surface area at elevation 2,446 feet would be 14,400 acres and the storage capacity 1,251,000 acre-feet. Under normal operating

conditions the drawdown of the lower development would be 30 feet. Use of flood control storage space would increase this drawdown. However, this would be minimized if floods occur after evacuation of the low-augmentation storage.

The upper reservoir would raise the water level of the South Fork New River approximately 200 feet at the North Carolina/Virginia State line to about 10 feet at Dog Creek. This increase in water level would result in the flooding of approximately 5,800 acres of land in Alleghany County and 8,400 acres of land in Ashe County. These figures include land to be flooded along the North Fork New River and along the main stem downstream of the end of the proposed wild and scenic river segment in Alleghany County. However, from the map on page 244 it can be seen that the inundated lands along the South Fork New River make up a substantial portion of the total.

Each development would include a powerhouse, transmission lines, a spillway, concrete lined tunnels, and appurtenant facilities. A rockfill dam would be constructed at each development across the New River -- at the upper site the dam would be about 300 feet high and 1,700 feet long, and at the lower the dam would be about 250 feet high and 2,000 feet long.

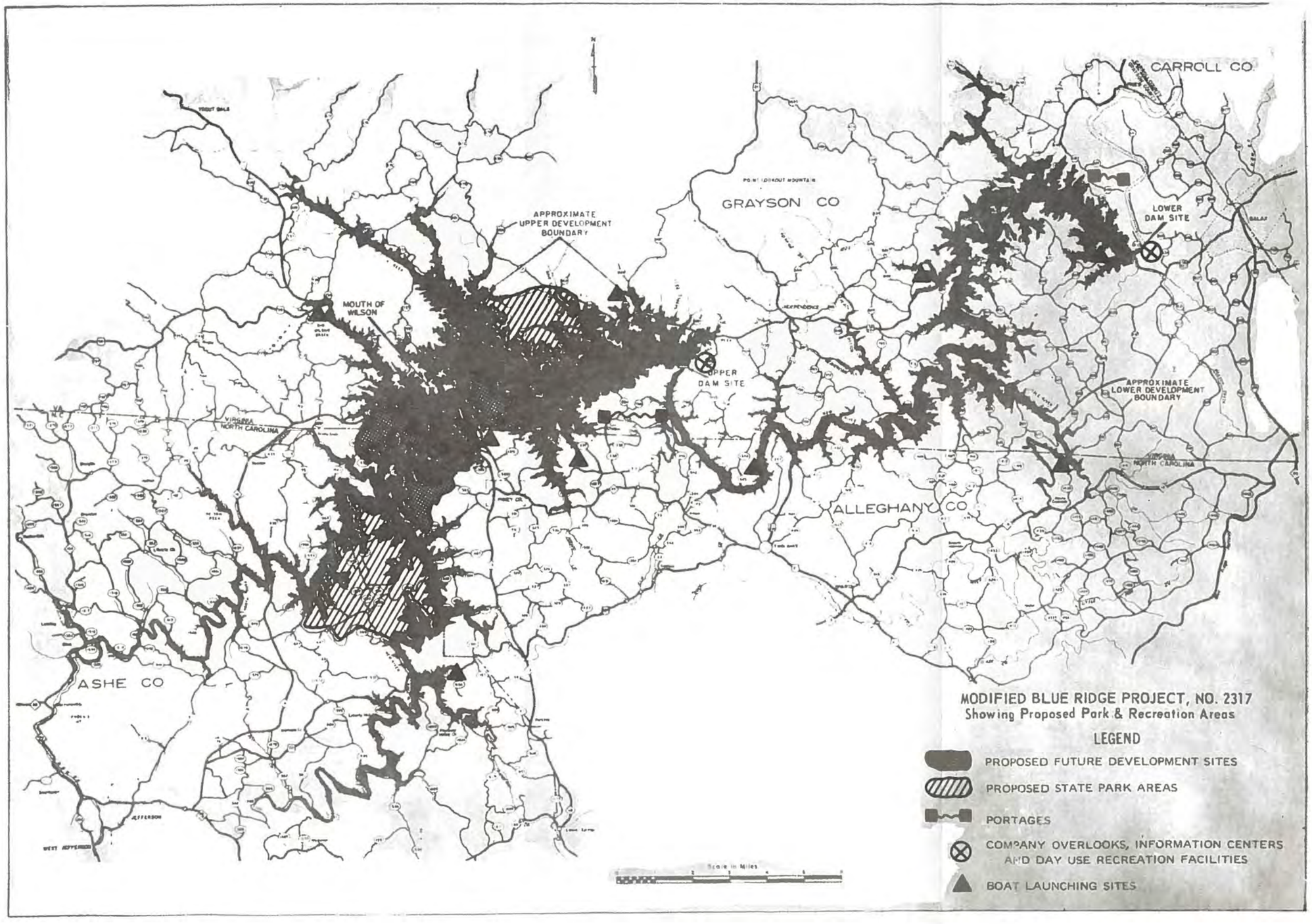
The installed generating capacity of the project would be 1,800 megawatts, consisting of eight reversible pump turbine units at the Upper Development having an installed capacity of 200 megawatts

each, and two conventional units at the Lower Development having an installed capacity of 100 megawatts each. Utilizing the river flow, power generation at the Lower Development would on the average take place four to eight hours per day, five days per week -- Monday through Friday -- and would result in the generation of about 200,000,000 kilowatt-hours per year.

During the early years of project operation, electricity would be generated at the Upper Development for approximately 12 to 15 hours per day, five days per week, Monday through Friday, resulting in a total annual energy production on the order of about 3,900,000,000 kilowatt-hours. Under normal conditions, no generation would take place at the Upper or Lower Developments on Saturday or Sunday.

During the early years, pumping would take place during off-peak periods, six to eight hours per day, Monday through Friday, and for as many additional hours on Saturday, Sunday and early Monday morning as might be necessary to reestablish the power pool in the upper reservoir.

Proposed recreation facilities include two State parks on the upper reservoir, overlook-picnic areas at the two dams, two bank fishing areas just downstream from the lower dam, 32 public access points to the reservoirs, canoe portages around the two dams and certain land adjacent to the Oak Hill Baptist School in Grayson County, Virginia, (see Recreation Map on page 248.


CARROLL CO
GRAYSON CO
ASHE CO
ALLEGHANY CO
APPROXIMATE
UPPER DEVELOPMENT
BOUNDARY
MOUTH OF
WILSON
UPPER
DAM SITE
LOWER
DAM SITE
APPROXIMATE
LOWER DEVELOPMENT
BOUNDARY
VIRGINIA
NORTH CAROLINA
Scale in Miles
MODIFIED BLUE RIDGE PROJECT, NO. 2317
Showing Proposed Park & Recreation Areas
LEGEND
PROPOSED FUTURE DEVELOPMENT SITES
PROPOSED STATE PARK AREAS
PORTAGES
COMPANY OVERLOOKS, INFORMATION CENTERS
AND DAY USE RECREATION FACILITIES
BOAT LAUNCHING SITES

An area on the north side of the upper reservoir was selected by Virginia as the best site for a Virginia State park, Its area is approximately 2,400 acres and it has a shoreline of about 25.8 miles. It would be on the main body of the reservoir 7 miles east of Mt. Rogers State Park and 10 to 12 miles to the south of Mt. Rogers National Recreation Area.

North Carolina originally proposed a park with a shoreline of about 45.5 miles and an area of 4,910 acres, but subsequently reduced the size of this proposed park by about 1,000 acres. The park site is situated between the two forks of the New River and combines accessible shoreline, open level ridge areas and steeply wooded hillsides.

Proposed recreational development in Ashe and Alleghany Counties consists of four launching ramps of up to 10 acres each, and the major State park of approximately 4,000 acres. The State park would not be an automatic byproduct of the Blue Ridge Project but would be an item to be renegotiated by the power company with the State.

Impacts

Starred portions of the following discussion are drawn from the final environmental impact statement for the Blue Ridge Project prepared by the Federal Power Commission and issued in June 1973.

Impact on Mineral Resources

Current active mineral extraction in the 1-mile-wide study corridor of the South Fork New River is limited to one crushed stone quarry. Mining of valuable minerals such as gold, silver, and copper has taken place in the corridor in the past but production has not been at a commercially important level. In its review of the Federal Power Commission's draft environmental statement, the U.S. Bureau of Mines stated "that implementation of the (Blue Ridge) project would have no significant adverse impact on the minerals industry."* In view of these facts the effects of the Blue Ridge Power Project on commercial mineral extraction are seen to be minimal.

Impact on Soils

There will be both direct and indirect effects on soils if the Blue Ridge Project is built. The direct effects would result from the impoundment. Construction of the reservoir would necessitate clearing of trees and other vegetation on the land to be flooded. This clearing would result in erosion of the topsoil. The remaining soil would be permanently covered by the waters of the reservoir.

Indirect effects would result from construction and development associated with the reservoir. This construction would include development of access points and recreational areas as well as possible future second home development. Increased compaction and erosion of soils would occur as a result of construction and use of the recreation areas and access points at various locations along the shoreline of the reservoir.

In Ashe and Alleghany Counties the proposed developments include a State park of approximately 4,000 acres, four access areas of up to 10 acres each, and all or portions of three areas for second home development.* The exact size in acres of these three areas is not known, but their relative sizes are shown on the map on page 248. Additional soil loss would occur on 1,100 acres of land in the two counties plus Grayson County, Virginia, as a result of road relocation. (See road relocation maps on page 265-266).

In summary, the impact on soils would be significant.

Impact on Water Quality

Initially the clearing, excavation, and construction associated with the Blue Ridge Project and road relocations would result in erosion and increased runoff and a corresponding increase in the silt load of the watercourse. The resulting decrease in water quality would have adverse impacts on recreation, aesthetic values, and fish and wildlife. These effects will be temporary, however, and will begin to dissipate once the construction has been completed.

The permanent effects on water quality are more difficult to determine in the absence of any conclusive data. However, the following effects are characteristic of the type of reservoir to be built as part of the Blue Ridge Project and may be expected in varying degrees in this case.

1. The reservoir will tend to fill up with sediment behind the dam. The rate at which this occurs depends on the present level of silt in the river water and upon the degree of erosion and run-off caused by construction and recreational activities adjacent to the lake. The trapping of sediment in the reservoir would have some positive effects on water quality downstream in terms of increased clarity of the water and benefits to organisms which would thrive due to more light reaching the bottom. However, these benefits might be canceled out by the reduction in the fertility of adjacent farmlands downstream due to the loss of silt deposits from seasonal flooding.

2. Water losses from evaporation occur much faster in the reservoir than they would in the river. The evaporation rate depends on the area of surface water exposed, ambient air temperatures, humidity, and wind. The most serious consequence of evaporation is that pollutants become more concentrated in the water remaining. Flood control and power generation "drawdowns" further amplify the problems caused by evaporation.

3. The presence of sediment and other man introduced nutrient materials such as untreated or partially treated sewage and other organic materials in quantities greater than that which can be readily assimilated may lead to eutrophication[1/] of the lake. The rate of eutrophication depends on the rate at which nutrients are introduced into the system and the capacity of the ecosystem for assimilating them. Because of the comparatively low loading of nutrient materials into the waters of the South Fork, which are "Class C," the likelihood of eutrophication, as defined here, is unlikely.

Other adverse impacts may result from leakage of oil and gasoline from powerboats and from improper disposal of human waste and litter by recreationists.

Overall, the impact on water quality would be moderate.

Impact on Air Quality

The character of recreation on a flat water area such as the proposed Blue Ridge reservoir would draw increased numbers of recreationists adding to the motor traffic, campfires, and trash incineration levels. The project would also add the new element of motor boats. The effects of these increases on the North Carolina part of the project will be less than will occur in the larger Virginia portion.

1/ An accumulation of organic materials which may result in the over-population of undesirable species and eventual destruction of the ecosystem.

Use of construction vehicles during the construction of the two dams and relocation of approximately 62 miles of primary roads and 54 miles of secondary roads, will cause local increases in air pollution, mainly in Virginia where the damsites are situated. * This increase will be of a temporary nature. The overall impact of the Blue Ridge Project on current air quality of Ashe and Alleghany Counties, North Carolina, is expected to be minor.

Impact on Scenery

Construction of the upper Blue Ridge Dam would impound water to between 2,640 - 2,652 feet elevations.* This flooding would inundate the entire South Fork New River segment under consideration in this study. Although a separate breakdown of acreage to be flooded is not available for the South Fork New River, the total land to be flooded in Alleghany County would be approximately 5,800 acres and in Ashe County would be 8,400 acres.* This substantial flooded area would destroy the natural river scenery, riverside farms and pastures, and replace them with a mountain lake-type environment. The effect on the scenic qualities of the South Fork New River of construction of the Blue Ridge Project would therefore be a significant alteration in the character of the scenery.

However, it should be pointed out that although the natural river scenery would be destroyed by the project, it would be replaced by lake scenery which, in its own way, would also be scenic. Since

maximum drawdown of the upper lake would only be about 10 feet during the recreation season, and since this situation would occur only 4 percent of the time, the visual impact of the drawdowns would be minimized. Approximately 96 percent of the time the average drawdown would be only 3 feet. Also, since many of the streamside slopes are quite steep, the overall impact of the drawdown on scenic quality would not inhibit recreation.

In summary, the overall impact on scenery of construction of the Blue Ridge Project would be significant.

Impact on Vegetation

The Blue Ridge Project will result in inundation of about 5,800 acres in Alleghany County and 8,400 acres in Ashe County, North Carolina.* This amounts to about 4 percent of the total area of Alleghany County and 3 percent of the total area of Ashe County. Of this, approximately 24 percent of the acreage is in cultivation, 38 percent is in fields, and 36 percent is in forest.* Vegetation on these areas will be completely flooded. Existing forestland is mainly second-growth hardwoods or in softwood plantations. Natural timber is not of the highest quality due to steep slopes, past land use, and harvesting practices. Land clearing and impoundment of the upper reservoir will remove a considerable amount of vegetative cover with a moderate impact on the area. The bottomland hardwood forest type will be significantly affected as it grows only on alluvial soils and cannot be replaced elsewhere.

Vegetation on 1,100 acres of the two counties plus Grayson County, Virginia, would be altered as a result of necessary road relocations.

North Carolina initially proposed a park to be located in Alleghany County between the two forks of the New River. Additional park acreage would consist of approximately 3,910 acres. Vegetation on this and four proposed access areas in the two counties (about 10 acres each) would be impacted by increased human use.* Overall, the impact on vegetation would be significant.

Impact on Fish and Wildlife

Wildlife

Wildlife of the South Fork New River includes both big bame, including white-tailed deer and wild turkey, and small game, including grey squirrel, ruffed grouse, rabbit, quail and dove, plus wood duck. Also found in the river corridor are furbearers--opossum, raccoon, beaver--many forms of nongame wildlife, such as song and other birds, small mammals, reptiles, amphibians, and many types of fish. The area harbors 16 animals on the State rare and endangered list including salamanders, reptiles, invertebrates, fish and one bird. None of these is on the United States "List of Endangered Fauna."

Because the proposed impoundment would alter the river along the entire 26.5-mile stretch under consideration as a National Wild and Scenic River, the impact of impoundment would affect all the species mentioned above in some degree. Data on exactly how many acres of this river corridor will be flooded are not available, but in

Alleghany County 5,800 acres (4 percent of total county area) and in Ashe County 8,400 acres (3 percent of total county area) will be flooded.* Another 4,000 acres will be devoted to recreation development, and a large, but unquantified amount to residential development.* Another 1,100 acres (including land in Grayson County, Virginia) would be affected by road relocation.*

Because the bottomland hardwood forests along a stream are a habitat generally more productive of wildlife, offering greater shelter, food sources, etc., than the upland forest types, the impact on forest species such as deer, turkey, squirrel, and waterfowl and furbearers will be proportionately greater than is indicated by the simple percent of land to be flooded. Impact on these species would be significant.

The impact on upland species and animals of open pasture like rabbit, quail, dove, fox and groundhog will be less, but upland animal populations also benefit from adjacent productive bottom lands, and these animals would be moderately affected.

The loss of nongame wildlife such as songbirds, small mammals, reptiles, etc., which are valued for wildlife photography, bird-watching, and general nature study, and are important parts of food chains, would be moderate.

Only one of the rare or endangered terrestrial animals on the State's list which occur or could occur in the two-county area is directly linked with the river corridor. That is the long-tailed salamander, which would be significantly affected by the proposed impoundment.

According to data in the SCORP, hunting activities in the two-county area in 1971 were approximately 17,700 occasions and in 1986 will be approximately 18,000. Since the majority of the hunting activity in the two counties, with the exception of small game hunting, occurs in the river corridor, there would be a significant impact on hunting.

Fish

A wide variety of game fish, both cold water types such as trout, and warmer water types such as smallmouth bass, and nongame fish such as darters and minnows are found in the South Fork New River. The river contains nine species of State-listed rare and/or endangered fish and one rare aquatic snail. Four of these plus two additional species may be considered for the Federal List of Threatened or Endangered Species.

The proposal will have a significant impact on fishery resources in the 26.5 mile stretch by impounding the river, which would completely change the thermal and flow characteristics and replace the existing cool water riverine fishery with a warm water reservoir fishery type, which the Department of Natural and Economic Resources considers less valuable. More man-days of fishing opportunity would be available on the reservoir than in the 26.5 miles of river.

The rare or endangered aquatic animals reported by the State from the South Fork New River include the aquatic snail Spirodon dilatata,** the New River shiner Notropis scabriceps,** the Kanawha minnow Phenacobius teretulus,** the bigmouth chub Nocomis platyrhynchus, the tongue-tied minnow Parexoglossum laurae, the bluntnose minnow Pimephales notatus, the Kanawha darter Etheostoma kanawhae,** the blackside darter Percina maculata, the sharpnose darter Percina oxyrhyncha and the flathead catfish Pylodictis olivaris. These species occur other places in the watershed also, but do not occur in any other watershed of North Carolina. The species double-starred plus two others, the New River crayfish, Cambarus chasmodactylus and the finescale saddled darter, Etheostoma osburni may be candidates for Federal listing as endangered or threatened.

Impoundment and resulting changes in the habitat of the rare and endangered aquatic species would be a significant impact. The stretch of the New River above U.S. 221 in Alleghany County, which would be impounded by the proposal, contains a very significant population of the rare flathead catfish. The fish is abundant enough in this stretch to support a fishery. Loss of this fishery would be a significant impact. According to the North Carolina Wildlife Resources Commission, the South Fork New River contains the finest smallmouth and rock bass riverine habitat to be found in the State. Loss of this fishery would also be a significant impact.

Overall, the impact of the Blue Ridge Project on fish and wildlife resources would be significant.

Impact on Population

Bureau of Census figures for 1970 show the population of Ashe County as 19,571 and Alleghany County as 8,134. The net increase in population of the two counties from 1960-1970 was 1 percent with Ashe County experiencing a slight population decline. The percentage of the two-county population age 65 years and older is significantly higher (13.0 percent) than the corresponding figure for the State (8.1 percent) indicating outmigration of the younger residents.

Buildings which would be destroyed by the Blue Ridge Project amount to approximately 80 dwellings in Alleghany County and 300 in Ashe County. (See photo below.) Also affected in Ashe and Alleghany Counties and in Grayson County, Virginia, are 33 trailers, 10 small industrial operations (sawmills, a woolen mill, etc.) and 23 commercial enterprises (sales and service).* Displaced residents would total 2,821 (1,646 in Grayson County).

The initial impact of the Blue Ridge Project on the two county population would be significant due to relocation of residents. After project completion and the disruption due to relocation has ceased, both counties would be expected to experience a significant population growth.[1/]

A significant impact would also be expected upon seasonal residents and tourists attracted to Ashe and Alleghany Counties due to the increased recreation opportunities afforded as a result of the Blue Ridge Project. In addition to an increased need for overnight lodging, second home development would increase.[2/]

In summary, Ashe and Alleghany Counties, would experience a major impact on population location, density, age distribution and housing.

Impact on Archeology and History

Preliminary archeological surveys reveal that the Blue Ridge Project's acquisition and subsequent inundation of approximately 14,200 acres in North Carolina, will have a significant impact on archeological sites within the licensed project area.

Precise location in this matter is limited because of the general nature of previous surveys and the fact that the State considers the location of identified sites as classified to prevent vandalism. However, one site (31AS101) has been located in North Carolina which may have significant archeological importance. This site was

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1/ Final Environmental Impact Statement, Modified Blue Ridge Project No. 2317, June 1973, pages 48 and 49.

2/ ibid.

identified by H.G. Ayers in 1965, who recommended that extensive testing be undertaken. This site would be lost by inundation of the area.

No historical structures have been identified in the river corridor in North Carolina nor are any listed in the National Register of Historic Places or Volume II Inventory 1974, Department of Cultural Resources, Division of Archives and History - North Carolina. However, it should be noted that the State has to date been unable to survey the area extensively. Therefore, there are no known impacts.

In summary, the impact on archeology would be significant and the impact on history would be minor.

Impact on Land Use

As stated previously, about 14,200 acres of land will be flooded by the upper reservoir in Ashe and Alleghany Counties.* Much of this acreage lies alongside the segment of the South Fork New River being considered for inclusion in the National Wild and Scenic River System. Of the total amount of land to be inundated in these two counties, approximately 24 percent is cultivated, 38 percent is fields, and 36 percent is woods.* The Land Use Map on page 17, shows that the situation is similar for the river corridor.

All existing land uses within the Blue Ridge Project lands adjacent to the South Fork New River would be terminated by the creation of the upper reservoir. Since a large percentage of land in the river corridor is currently devoted to crop production or pasture, inundation of these lands would force many farmers to clear additional forested land in order to retain the same amount of income producing acreage. Thus, forested acreage would be permanently lost and aesthetic values would be changed.

Powerlines will be constructed for the Blue Ridge Project, each requiring the acquisition of right-of-way lands. These powerlines will not pass through North Carolina, however, and therefore will have no impact on land use in the river corridor.* Overall the impact would be significant.

Impact on Transportation

The Appalachian Power Company estimates an expenditure of $34.9 million for the relocation of a number of bridges and approximately 62 miles of primary and 54 miles of secondary roads in Ashe and Alleghany Counties, North Carolina, and Grayson County, Virginia, as a result of the Blue Ridge Project.* Fifteen point one (15.1) miles of primary roads and 16.3 miles of secondary roads effected by relocation are in Ashe and Alleghany Counties, North Carolina.* All new roads would be constructed to the present day

standards of the respective State highway departments. Since many of the roads to be relocated are old, a net improvement of the quality of the roads near the proposed project would be expected. Road relocations proposed by Appalachian Power are shown on map pages 265, and 266. These road improvements could be expected to stimulate recreation developments and possibly new industrial sites due to improved access.[1/]

During construction of the replacement roads and bridges, about 1,100 acres of land in North Carolina and Virginia on the right-of-way would be affected.* The land would be cleared, excavation and fills would be made, and fills compacted.

As a result of road relocations and new road construction, a significant short term impact on local transportation is expected. In addition, a significant impact on wildlife, plantlife, and water quality will occur on approximately 1,100 acres in the three county area of Grayson County, Virginia, and Ashe and Alleghany Counties, North Carolina. Permanent loss of these acres from their current use for road use will have a minor impact on the counties after construction is completed. Completion of the new relocated road system is expected to have a major impact upon these counties' growth potential.

In summary, road relocation and construction resulting from the Blue Ridge Project is expected to have a major impact

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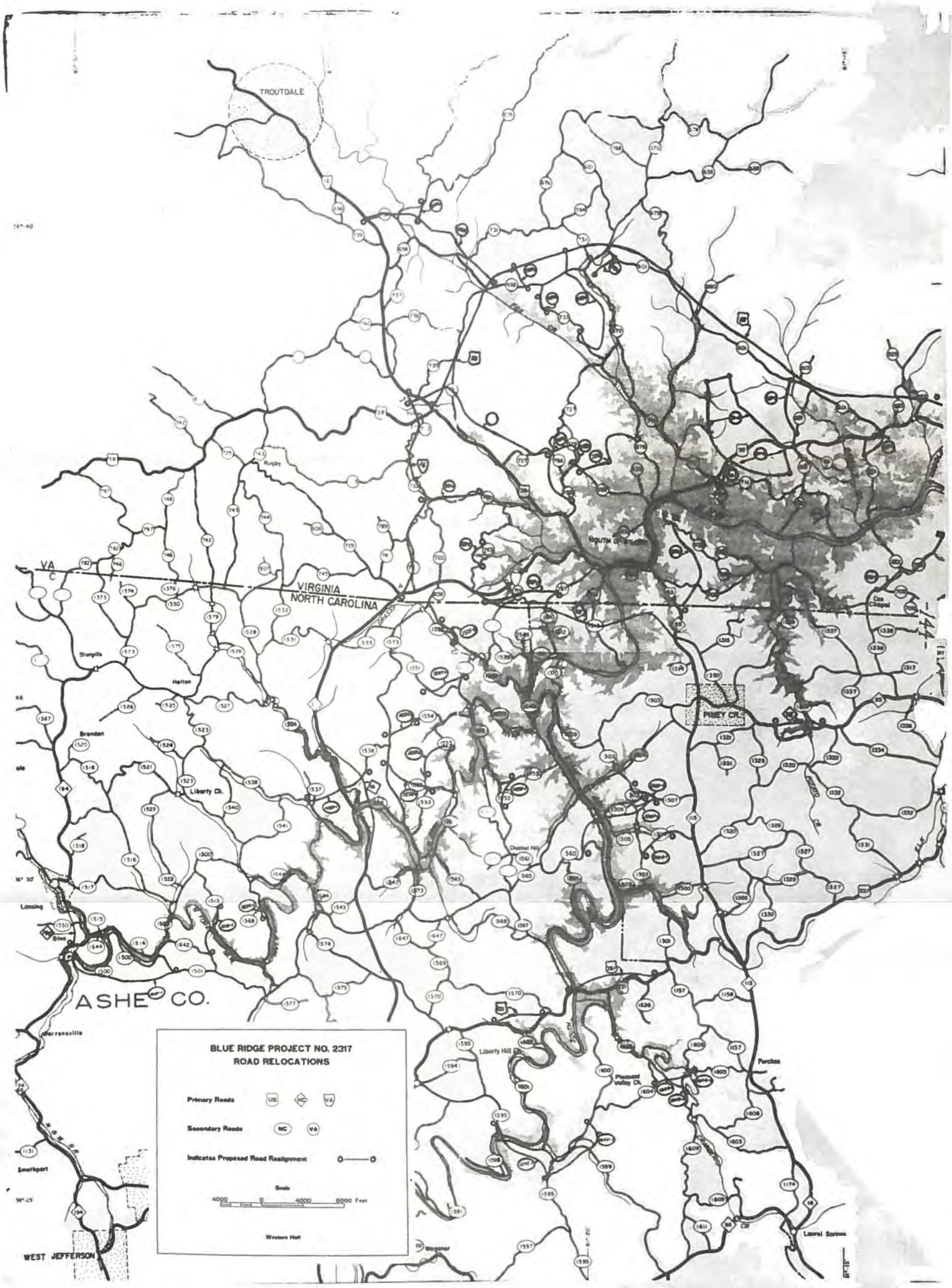
1/ Final Environmental Impact Statement, Modified Blue Ridge Project No. 2317, June 1973, pages 48 and 49.


TROUTDALE
VA
VIRGINIA
NORTH CAROLINA
Rugby
Stanyille
Helton
Brandon
Liberty Ch.
Lansing
Sharpsville
ASHE CO.
Smethport
WEST JEFFERSON
Chestnut Hill
Liberty Hill
Pleasant Valley Ch.
Perches
Laurel Springs
PINEY CR.
BLUE RIDGE PROJECT NO. 2317
ROAD RELOCATIONS
Primary Roads
Secondary Roads
Indicates Proposed Road Realignment
Scale
4000 0 4000 8000 Feet
Western Hwt

CARROLL CO.

CARROLL COUNTY
GRAYSON COUNTY

FRIES

GRAYSON CO.

GALAX

INDEPENDENCE

BAYWOOD

VIRGINIA
NORTH CAROLINA

ALLEGHANY CO.

TWIN OAKS

SPARTA

Edwards Crossroads

Blevins Crossroads

Barrett

Blue Ridge Parkway

-145-

BLUE RIDGE PROJECT NO. 2317
ROAD RELOCATIONS

Primary Roads — US NC VA

Secondary Roads — NC VA

Indicates Proposed Road Realignment — O——O

Scale

4000 0 4000 8000 Feet

Eastern Half

Sheet 2

upon transportation in Ashe and Alleghany Counties, North Carolina, as well as Grayson County, Virginia.

Impact on Economy

Bureau of Census statistics for 1970 indicate that the percentage of families with income below the poverty level is 27.8 percent for Ashe County and 26 percent for Alleghany County, North Carolina. The economy of the two-county area is based primarily on agriculture and small manufacturing. The per capita income (1970) for Ashe County was $2,456 and for Alleghany County $2,282 as compared to $3,207 for North Carolina, and $3,139 for the United States. Many residents live on farms which provide subsistence, and work part- or full-time in industry or commerce, which contributes to a good standard of living even though the per capita income is low.

The effect of taking the land needed for the Blue Ridge Project, however, would be significant: in mountain country, it is the bottomland that makes possible the utilization of the uplands for agriculture; and is basic to the problem. Much of the agriculture is beef and dairy production. The cattle graze on upland pastures during the warmer months, but the feed and pasture that makes their survival in the colder months possible, is grown in the fertile bottomlands--the very lands that would be flooded. With the flooding of the bottomlands the uplands become virtually useless for balanced cattle production.

The total farm income for Ashe and Alleghany Counties for 1973 is shown in the following table:

1973 Farm Income
(Expressed in Millions of Dollars)

	Crops	Livestock	Gov't Payments	Total
Ashe County	$4.55	$8.72	$0.20	$13.47
Alleghany Co.	2.14	5.59	0.08	7.81

Source: North Carolina Agricultural Statistics, 1974-75 Annual Report, July 1975 No. 129, North Carolina Department of Agriculture.

It is obvious that a substantial portion of this income would be lost due to the inundation of lands. The loss becomes more significant when the economic multiplier effect is taken into account. The economic multiplier reflects the "ripple effect" of the money received by the farmers for their present agricultural products; a dollar earned for string beans, for example, is spent at the local hardware store and thus becomes a dollar of income to the proprietor, who then spends it at the local gas station, where it becomes a dollar of income to its proprietor and so on. The loss of income to the farmer, therefore, is felt throughout the local economy.

On the other hand, there would be significant stimulation of the local economy (at least temporarily) by the Blue Ridge Project from the creation of 1,500 jobs during construction and from the potential for

new industrial development upon project completion.* While the impact on the per capita income and employment in Ashe and Alleghany Counties would be major initially, the sudden inflation of the demand on local government for schools, law enforcement, and other essential services, with an equally sudden deflation of this demand upon project completion, could have disruptive effects on the local economy.

The long-term economic impacts are difficult to describe and quantify. According to information in the FPC's FEIS, a stimulus to resort development would be felt as a result of the Blue Ridge Project, particularly in Galax and Independence, Virginia, and in Sparta, North Carolina. Increased industrial development is also cited as an impact of the project. However, recent studies such as that by Charles B. Garrison, "A Case Study of the Local Economic Impact of Reservoir Recreation" in the Winter, 1974 issue of Journal of Leisure Research point out that the contribution of recreation expenditures to the local economy may be negligible in rural and small town areas where many goods and services are imported. In the presence of conflicting opinions by economists as to the long-term impacts of projects like the Blue Ridge, it is not possible to accurately predict or to quantify the long-term economic impacts of this project.

The primary mineral resources of the two-county area are sand, gravel, soil and quarriable rock. The impact on mineral resources in the river

corridor which would be inundated is discussed separately under "Impact on Mineral Resources."

The impact upon the recreation economy in Ashe and Alleghany Counties is expected to be major. Appalachian Power has proposed four access areas and a major park within these counties. The largest park would be approximately 4,000 acres with 45 miles of shoreline at the confluence of the North Fork New River and South Fork New River with the Main Stem New River.*

In summary, the impact on economy resulting from the Blue Ridge Project on the future environment of Ashe and Alleghany Counties, North Carolina, would be major.

Impact on Recreation

In the event that the Wild and Scenic River project is not implemented and that the Blue Ridge Power Project is constructed, water based recreation will be dramatically altered. Present uses of the South Fork New River as a free flowing stream would be permanently lost. These recreational pursuits include fishing, canoeing, hunting, hiking, and camping. The river and the lands adjacent to it would be flooded by the upper reservoir. The character of the surrounding lands would be changed so that pursuits associated with a free flowing river would decline and in some instances be eliminated.

On the other hand the construction of the upper reservoir would create recreational opportunities of a different sort. These include power boating, sailing, slack-water canoeing, water skiing, and picnicking. It is also probable that second home development will take place in

the future.* This would create a base for the weekend-at-the-lake type of recreation.

Construction of the reservoir will result in a series of temporary fluctuations in the quality of fishing in the impounded areas. The area to be flooded adjacent to the South Fork is characterized by fertile bottomland soils and forested slopes rich in organic matter. Initially the construction of the reservoir will result in a high rate of decomposition of this organic matter, abundant nutrients, low oxygen on the bottom, but a rapid and vigorous growth of fish.[1/] However, once these nutrients are used up and the rate of productivity in the reservoir stabilizes a lower fish yield will occur.[2/] This level of fish productivity will be the equilibrium level around which the productivity will fluctuate until the reservoir fills up with sediment.

Construction of the two reservoirs would require the following commitment of land:

State	County	Acres	Percent of County
Virginia	Grayson	27,900	9.6
North Carolina	Alleghany	5,800	3.95
North Carolina	Ashe	8,400	3.07
Total		42,100	

1/ Odum, Eugene P., Fundamentals of Ecology, Third Edition, Chapter 9, page 262.

2/ ibid.

Of these lands approximately 24 percent is now cultivated, 38 percent is in fields, and 36 percent is forested. No separate breakdown is available to show what area of land in North Carolina would be in the immediate South Fork New River area.

The upper of the two lakes would provide the largest share of the recreation potential and would be developed with more facilities (see Recreation Map, page 248). In North Carolina a State park of about 4,000 acres has been proposed for the space between the North and South Forks. The park would offer a beach, two or more boat launching facilities and a marina.* As stated previously, this 4,000-acre park is not automatic and must be renegotiated with the State. Of the four boat launching or access facilities to be built on the North Carolina side of the State line, in addition to those offered by the State park, only one is to be located on the South Fork New River.* These access facilities would be about 10 acres in area and could be developed to provide for certain day-use activities, parking, and user comfort.*

Portages would be provided to facilitate transporting small boats around the two dams and special facilities would provide parking and comfort rooms for bank fishing in the tailraces below the dams.*

River flows due to operation of the power plants would reach peaks of 12,500 cfs and be as low as 350 cfs at certain other times.* Some hazard would be offered to recreationists in the river below the dam during generating periods as the water level would rise 4.1 feet.* Special precautions would have to be taken to minimize this danger to the user.

In summary, the inundation of lands by the upper reservoir would drastically change the nature of recreation potential as it exists along the South Fork New River in its natural form. Some forms of recreation would be eliminated, like floating and canoeing the natural flowing stream; fishing, wading, and swimming would be changed. Construction of the artificial lake would tend to leave lakeside areas open to certain types of development by private enterprise, such as marinas, launching ramps, and second homes. Powerboats, water skiing, and other powered recreation craft would become feasible recreation forms.

In effect then, the construction of the Blue Ridge Project would have a major impact on recreation.

Designation and Impacts of Remaining Free-Flowing River Segments as Scenic Rivers

The construction of the Blue Ridge Project would have the effect of reducing portions of the New River worthy of designation for the State or National Wild and Scenic River Systems to approximately 14 miles of the North Fork and 60 miles of the South Fork and the proposed 66-mile New River Gorge National Wild and Scenic River in West Virginia. Descriptions of the North and South Forks are given in Reach 1 of Alternative No. III. For the description of the New River Gorge in West Virginia, see Reach 4 of Alternative No. III.

With the Blue Ridge Project in place, 41 miles of the North Fork would be inundated, leaving only 14 miles of free flowing stream.

Being less than 25 miles of free-flowing stream, the North Fork would not meet Federal criteria and any other further consideration for inclusion into the National Wild and Scenic River System would be precluded. However, it could possibly qualify as a scenic river in the North Carolina Natural and Scenic River System.

Further, with the Blue Ridge Project in place, approximately 22 miles of the South Fork would be flooded in Ashe County. The remaining 37 miles in Ashe County and 26 miles in Watauga County would retain potential for either State or Federal designation.

Potential protection impacts resulting from the possible designation of approximately 14 miles of the North Fork and 53 of the South Fork in North Carolina would be approximately the same as the impacts discussed under Reach 1 of Alternative III, except for those portions (63 miles) inundated by the Blue Ridge Project. Those impacts would be similar to the impacts discussed above in the first part of this alternative.

Reach 2 of Alternative III would be so adversely affected by the proposed operation of the project as to be unworthy of inclusion in the national system.

Satisfactory recreation flows in Reach 2, range between 1,600 cfs and 2,200 cfs. Releases from the Blue Ridge Project would vary from 350 cfs minimum instantaneous to 12,500 cfs during the production of power. Satisfactory recreation flows below the project as far downstream as Claytor Lake would be virtually nonexistent.

In this reach, there are numerous "natural weirs" created by upturned strata of underlying rocks. These weirs produce extensive pools in the stream. The guaranteed minimum release of 350 cfs is sufficient to prevent stagnation of the waters impounded by the weirs, but little else. At this flow, the waters of the New River would have lost the characteristics of free-flowing waters and have taken on the lentic character of lakes. Attendant riverine scenic, recreation and fishery values would be severely reduced or destroyed.

Power releases of 12,500 cfs are roughly six times the average summer flow and three times the flow established by the Corps of Engineers as the "no damage" flood stage of the river in this reach. A flow of this magnitude would create a torrent in the river, unsafe for most boaters and canoeists and unusable for swimming, fishing or other recreation activities except possibly sightseeing.

Reach 3, as discussed in Alternative III would not qualify for designation. Optimum recreation flows in this reach of the New River are between 2,800 cfs and 3,300 cfs which under unregulated conditions occurred approximately 23 percent of the time. Average annual flow in this reach is approximately 2,400 cfs.

As was stated in Alternative III, this reach could, with appropriate development and access, be used for recreational purposes, but it is not considered to be an acceptable candidate for the National

Wild and Scenic Rivers System because of the infrequency and short duration of satisfactory recreation flows.

The report by the Virginia Commission of Outdoor Recreation on Virginia's Scenic River does not name this segment as worthy of preservation, although other segments of the New River in Virginia are named. It is concluded, therefore, that this reach of river is unsuitable for either State or Federal designation as a wild or scenic river.

With the Blue Ridge Project in place, the proposed New River Gorge National Wild and Scenic River would be affected only by the fact that sufficient water would be released from the lower reservoir of the Blue Ridge Project to make possible a guaranteed summer weekly average release of 2,500 cfs below Bluestone Dam. The suitability of the New River Gorge, Reach 4 of Alternative III, as a part of the National Wild and Scenic River System would remain as described in that report to the Congress and the Draft Environmental Impact Statement DES-75-54, summarized under Alternative III. The impacts of designation would be the same as described earlier under Alternative III.

IX. CONSULTATION AND COORDINATION

A. CONSULTATION AND COORDINATION IN REVIEW OF THE DRAFT ENVIRONMENTAL STATEMENT

Consultation and coordination with various Federal, State, local and private agencies and individuals was accomplished during the preparation of the draft environmental statement.

Specifically, the following agencies and organizations were contacted:

State of North Carolina

Department of Natural and Economic Resources

Department of Transportation and Highway Safety

Department of Justice

Department of Cultural Resources

Appalachian State University

Council of Governments - Region D

North Carolina State University

Ashe Central High School

State of Tennessee

University of Tennessee

State of Virginia

Virginia Polytechnic Institute

Federal Government

Department of the Interior

Department of Agriculture

Environmental Protection Agency

Department of Transportation

Department of the Army

Federal Power Commission

The draft environmental statement was released to the following organizations for their review and comments.

State of North Carolina

State Clearinghouse*

Department of Natural and Economic Resources*

Department of Transportation and Highway Safety*

Department of Justice*

Department of Cultural Resources*

Department of Agriculture*

State Soil and Water Conservation Commission*

Wildlife Resources Commission*

State of Virginia

Governor's Office*

State Clearinghouse

Department of Conservation and Economic Development

Federal Government

Advisory Council on Historic Preservation*

Department of Agriculture**

Department of Commerce*

Department of Defense*

Department of Housing and Urban Development*

Department of Health, Education and Welfare

Department of the Interior--

Fish and Wildlife Service*

Bureau of Indian Affairs**

Bureau of Mines**

National Park Service*

Geological Survey***

Interagency Archeological Services Division

Department of Transportation**

Energy Research and Development Administration***

Environmental Protection Agency*

Federal Power Commission*

Federal Energy Administration*

Appalachian Regional Commission

Water Resources Council

Local Agencies

Region D Council of Governments

Wake County Planning Department

Local Agencies Continued

Northwest Economic Development Commission

County Commissioners, Ashe and Alleghany Counties, N.C., and Grayson County, Virginia

Private

American Conservation Association, Incorporated

American Forestry Association

Society of American Foresters

American Rivers Conservation Council

Izaak Walton League of America

Sierra Club, State Chapter*

North Carolina Wildlife Federation

Carolina Bird Club, Incorporated**

Conservation Council of North Carolina

North Carolina Association of Soil and Water Conservation Districts

Appalachian Power Company*

ECOS

Wildlife Management Institute

Committee for the New River

The above listed agencies and organizations marked with an asterisk furnished comments; those marked with a double asterisk responded with a written "no comment"; those marked with a triple asterisk responded with a verbal "no comment." Those agencies with no asterisk did not respond.

B. SUMMARY OF CORRESPONDENCE RECEIVED FOLLOWING REVIEW OF THE DRAFT STATEMENT

A total of 40 letters were received on the draft environmental statement. This included:

Federal Agencies
State Agencies
Local Agencies
Private Agencies
Private Individuals
Other

Approximately 3,500 letters were received, mostly from private individuals, who commented on potential Federal designation of the New River. Those favoring designation of the river greatly outnumbered those favoring construction of the Blue Ridge Project. Also several petitions were received, for and against designation, which contained up to 4,000 signatures. In addition one resolution from the Grayson County Board of Supervisors, opposing the project, was received. Copies of the above mentioned letters and petitions are not included in this FEIS. A copy of the resolution, however, is included.

C. SUMMARY OF CHANGES FROM DRAFT STATEMENT

Several changes were made to the DEIS in preparing the FEIS. Chief among these was the complete revision of alternatives to the proposed action.

Three new alternatives to the proposed action have been described and their impacts assessed;

--Designating Less than the Proposed Area

--Designation of New River in North Carolina, Virginia and West Virginia; excluding Claytor and Bluestone Reservoirs

--Blue Ridge Project and designation of remaining free-flowing reaches

Additionally, the No Action Alternative has been changed to reflect no designation of the river and no Blue Ridge Project.

Also a number of other changes, mainly editorial and factual, have been made from the draft environmental statement in response to numerous suggestions offered by Federal and State agencies as well as many private organizations and individuals.

D. INDEX OF CORRESPONDENCE RECEIVED

Advisory Council on Historic Preservation

Department of the Army

Corps of Engineers, Huntington District

Department of Commerce

Department of Health, Education and Welfare

Department of Housing and Urban Development

Department of the Interior

Bureau of Indian Affairs

Bureau of Land Management

Department of the Interior (Continued)

Bureau of Mines

Fish and Wildlife Service

National Park Service

Office of Land Use and Water Planning

Environmental Protection Agency

Department of Transportation

Federal Power Commission

Ohio River Basin Commission

State of North Carolina

Office of Intergovernmental Relations (State Clearinghouse)

Department of Natural and Economic Resources

Department of Transportation and Highway Safety

Department of Cultural Resources

Department of Agriculture

Department of Justice

Soil and Water Conservation Commission

Commonwealth of Virginia

Office of the Governor

Edmund I. Adams (for Commissioners of Ashe and Alleghany Counties, North Carolina)

American Electric Power Service Corporation

Appalachian Power Company

Carolina Bird Club

National Committee for the New River

Committee for the New River

National Parks and Conservation Association

Sierra Club - Joseph LeConte Chapter

Sierra Club - Old Dominion Group

Wildlife Management Institute

Joanne L. Campbell

Jack Comart

Thomas E. Horobik

Franklin D. Hubbard

Harold E. Sellers

Dr. and Mrs. James F. Shipp

Joe Taylor

Advisory Council
On Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005

January 5, 1976

Mr. Robert M. Baker
Regional Director
Bureau of Outdoor Recreation
U. S. Department of the Interior
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

This is in response to your request of November 28, 1975, for comments on the environmental statement for the proposed declaration of 26.5 miles of the New River (North Carolina) and its tributary South Fork as a component of the National Wild and Scenic Rivers System. Pursuant to its responsibilities under Section 102 (2) (c) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has the following comments:

> The declaration of the New River as a segment of the Wild and Scenic Rivers System would allow the orderly and systematic survey and inventory of historical, archeological, and cultural resources of a large area that has not yet been adequately surveyed. The survey as you have indicated, would be in compliance with Section 2(a) of Executive Order 11593, "Protection and Enhancement of the Cultural Environment." Most importantly, this declaration, as an alternative to the proposed Blue Ridge Hydroelectric Project, would allow the preservation of potentially significant sites for research, interpretation, and enjoyment for future generations.

The Advisory Council appreciates this opportunity to comment on the Draft Environmental Impact Statement. Should you have any questions or require any additional assistance, please contact Ernest R. Holz of the Council staff (202-254-3380).

Sincerely yours,

Ernest R. Holz for

John D. McDermott
Director, Office of Compliance and Review

Response to Comments Received From Advisory Council on Historic Preservation

Comments of the Advisory Council on Historic Preservation have been acknowledged and are greatly appreciated.

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2127
HUNTINGTON, WEST VIRGINIA 25721

REPLY TO
ATTENTION OF:

ORHED-PP

28 January 1976

Mr. Robert M. Baker
Regional Director
Southeast Regional Office
Bureau of Outdoor Recreation
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

Reference is made to your letter of 28 November 1975 transmitting the Draft Environmental Impact Statement (DEIS) on the proposed South Fork New River National Wild and Scenic River in North Carolina to the Directorate of Civil Works. Your letter and DEIS subsequently were referred to this office for appropriate comments and direct reply.

Members of my staff have reviewed the DEIS with respect to the specific interest and jurisdiction of the Corps and have the following comments regarding the composition of the DEIS.

The report should address the question as to whether designation by the Secretary of the Interior as a component of the National Wild and Scenic Rivers System would be superior to the previous granting of a license by the Federal Power Commission. 1

While the Blue Ridge Project (BRP) appears to be the most likely alternative to the Wild and Scenic River designation, other alternatives should be discussed. Another alternative might be the construction of the BRP in combination with Wild and Scenic River designation of other portions of the New River and/or its North and South Forks. Alternative levels of recreational development and use, both in relation to scenic river designation and other water-land resource development, should be presented. In general, a range of alternatives which either fully or partially meets the objectives of the proposed action on a local and regional basis should be presented. A discussion of an alternative that 2

would be limited to a projection of current trends, with neither the BRP nor Wild and Scenic River Designation, should also be presented. This alternative could include the second home development mentioned on page 36. Alternate futures for the area should be described in sufficient detail to indicate their probability of occurrence. 3

The subsection titled Interrelationships With Other Projects on pages 21 thru 24 includes mention of the three National Forests in the area and the New River Gorge Study. The report should also give an account of the cumulative effects of the proposed designation in an area which contains these projects. It might also be noted that the Kanawha River Comprehensive Basin Study, mentioned on page 22, recommended development of the Blue Ridge Project. That study was the product of the Kanawha River Basin Coordinating Committee which was formed to direct investigations and to produce a plan for immediate action and guidelines for future water resource conservation. Representatives of Federal, State, and local agencies comprised the committee, which was chaired by the District Engineer, Huntington District, Corps of Engineers. 4

Statement No. 4 on page 11 should be reworded so that it shows the use of Federal funds mentioned in No. 2 on page 20. 5

The discussions of climate on pages 27 and 71 should be clarified so that they do not conflict in information presented on rainfall and runoff. 6

The Department of the Army Permit Program is administered on the New River and its tributary, South Fork. Therefore, any work or construction which may be planned along, over, or under those waterways must be approved by the Corps of Engineers. Close coordination of any construction plans with the Huntington District Office should eliminate undue delays and potential permit problems. 7

The opportunity to review the statement is appreciated.

Sincerely yours,

SCOTT B. SMITH
Colonel, Corps of Engineers
District Engineer

Copies furnished (5 cys)
General Counsel
Council on Environmental Quality
722 Jackson Place, N. W.
Washington, D. C. 20006

Response to Comments Received From
the Department of the Army, Huntington
District, Corps of Engineers

1. The final environmental impact statement sets out the effects, in terms of impacts, of several wild and scenic river alternatives, and summarizes the impacts previously described in a separate environmental impact statement for the proposed Blue Ridge Project. This information will allow decisionmakers and the public to assess the relative "superiority" of the various alternatives for a variety of goals. It would not be objective or desirable, for this document to express that type of judgment, as each alternative is superior in some respects to the others, depending on one's objectives.

2. The suggestion you make about discussing additional alternatives with different levels of recreation development and use is a good one. We have added three additional alternatives ranging in scope from the entire length of the New River as a wild and scenic river to a smaller scenic river proposal.

3. The alternative of "no action" with existing trends continued, though unlikely to occur, has been added to the final document.

4. It is unclear from your comment exactly what cumulative effects are referred to; however, we assume that you refer to the cumulative impact of these publicly owned areas on the tax

base of the affected counties. The proposal would remove 400 acres of land estimated to contribute less than $1,000 to the tax revenues of the two counties. As is discussed on page 188, this would be an insignificant impact on total tax revenues of about $1,303,000. The cumulative tax loss impact on the entire area is also insignificant compared to the many hundreds of thousands of acres in the three national forests.

The cumulative effects of the 26.5 mile proposal plus the proposed 66 mile New River Gorge National Scenic River (Draft Environmental Statement sent to CEQ, September 26, 1975) would be to protect a total of 92.5 miles out of the approximately 220 miles of the New River (impounded and free flowing).

The corrections you suggest in the description of the Kanawha basin study on page 22 have been made.

5. Clarification has been made in the FEIS text to Statement No. 4 on page 11.

6. Clarification has been made in the FEIS text to the first paragraph on page 71.

7. A copy of this letter, with special attention directed to this statement, has been sent to the State of North Carolina, Department of Natural and Economic Resources, so that the State will be aware of the need for coordination with the Huntington District.

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

January 15, 1976

Mr. Robert M. Baker
Regional Director
Bureau of Outdoor Recreation
Department of the Interior
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

The draft environmental impact statement for "Proposed South Fork New River National Wild and Scenic River in North Carolina," which accompanied your letter of November 28, 1975, has been received by the Department of Commerce for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

The third largest copper mine in a copper-bearing sulfide belt, extending from Maine to Alabama, is located less than two miles from the southeast bank of the South Fork. Several valuable minerals, including copper, gold, and silver have been mined there intermittently. Two other known deposits of copper lie within one mile of the South Fork. 1

Additionally, scenic river designation would preclude construction of an 1,800 megawatt hydro-generating complex. 2

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving four copies of the final statement.

Sincerely,

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

Response to Comments Received From
United States Department of Commerce

1. This comment was included in the Draft Environmental Impact Statement on page 96.

2. This comment was included in the Draft Environmental Impact Statement on pages 188 and 189.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION IV
50 7TH STREET N.E.
ATLANTA, GEORGIA 30323

January 12, 1976

Mr. Robert M. Baker
Regional Director
Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Subject: South Fork New River National Wild and Scenic River in NorthCarolina

Dear Mr. Baker:

We have reviewed the subject draft Environmental Impact Statement. Based upon the data contained in the draft, it is our opinion that the proposed action will have only a minor impact upon the human environment within the scope of this Department's review. The impact statement did not adequately address the human environment in sufficient detail for a proper evaluation. (e.g Available health facilities for the present population and future effects of population increase on these facilities). We would appreciate the economic, social, and environmental information being added to the final Environmental Impact Statement.

Sincerely yours,

Philip F. Sayre
Regional Environmental Officer
DHEW - Region IV

cc:
Charles Custard (Control Schedule)
Warren Muir (2)
Governor James E. Holshouser, Jr.

Response to Comments Received From
Department of Health, Education and Welfare

1. Section III, "Environmental Impact of the Proposed Action," states on page 183 under "Impact on Population" that the effect of the scenic river proposal on the permanent population of Ashe and Alleghany Counties will be insignificant. However, it should further be noted that additional emergency health facilities and services may be necessary to accommodate an expected influx of 50,000 annual recreation visitors. The increased recreation visitation is expected to be a gradually increasing trend and any projected need for additional health facilities and services could be adequately met by local city and county governments. (Please see also Section III, Environmental Impact of the Proposed Action and Section IV, Mitigating measures Included in the Proposed Action.)

REGION IV
Peachtree—Seventh Building
50 Seventh Street, N.E.
Atlanta, Georgia 30323

DEPARTMENT OF HOUSING AND URBAN DEVELOPMEN
GREENSBORO AREA OFFICE
2309 WEST CONE BOULEVARD
NORTHWEST PLAZA
GREENSBORO, NORTH CAROLINA 27408

January 14, 1976

Mr. Robert M. Baker
Regional Director
Southeast Regional Office
Bureau of Outdoor Recreation
U. S. Department of the Interior
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

Subject: Draft Environmental Impact Statement
South Fork, New River
National Wild & Scenic River in North Carolina

Thank you for the opportunity to review the subject draft.

We have no comments on the proposed action.

Sincerely,

James R. Rhodes
for R. B. Barnwell
Area Director

Response to Comments Received From
Department of Housing and Urban Development
Regional Office, Atlanta and Greensboro Area Office

We appreciate the review by the Department of Housing and Urban Development.

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : Chairman, Intradepartmental Study Group on Wild and Scenic Rivers (BOR)

DATE: JAN 30 1976

FROM : Director, Office of Trust Responsibilities, BIA

SUBJECT: Information Concerning the New River, North Carolina

This is in reply to your December 5, 1975 memorandum, file reference: D4219 - New River, transmitting the Governor of North Carolina's application for inclusion of the subject river in the National Wild and Scenic Rivers System; State correspondence; and the Revised Management Plan South Fork New River and Main Stem New River, North Carolina, dated June, 1975.

We have reviewed the aforementioned documents. At the present time we elect to respond with a no comment.

Director, Office of Trust Responsibilities

Sgd William S. King

5010-108

Response to Comments Received From
the Department of the Interior, Bureau of Indian Affairs

We appreciate the review by the Bureau of Indian Affairs.

IN REPLY REFER TO

6223 (370)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

FEB 2 19[illegible]

Mr. Robert M. Baker
Regional Director
Bureau of Outdoor Recreation,
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

We have reviewed the draft environmental statement on the proposed South Fork New River, North Carolina, National Wild and Scenic River and have no comments. Thank you for the opportunity to review the draft.

Sincerely yours,

George D. Lea

Assistant Director, Resources

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

Response to Comments Received From
Department of the Interior, Bureau of Land Management

We appreciate the review by the Bureau of Land Management.

OFFICE OF THE DIRECTOR

United States Department of the Interior

BUREAU OF MINES
2401 E STREET, NW.
WASHINGTON, D.C. 20241

February 26, 1976

Memorandum

To: Regional Director, Southeast Region, Bureau of Outdoor Recreation, Atlanta, Georgia

Through: Deputy Assistant Secretary--Energy and Minerals Rollamae R Reed MAR 2 1976

From: Director, Bureau of Mines

Subject: Draft environmental statement, Bureau of Outdoor Recreation, proposed South Fork New River National Wild and Scenic River, North Carolina

The Bureau of Mines Eastern Field Operation Center, Pittsburgh, has reviewed the draft environmental statement for the proposed South Fork New River National Wild and Scenic River, North Carolina, prepared by Bureau of Outdoor Recreation. The document refers to the proposal to classify about 26.5 miles of the New River in Ashe and Alleghany Counties, North Carolina, a component of the National Wild and Scenic River System. The State of North Carolina has classified this segment "scenic" and the statement mentions that under Federal classification the segment could either be scenic or recreational. No Federal lands are involved in this segment of the river.

Overall, the statement adequately covers the impacts of the proposal on mineral resources. Without a detailed field investigation of the area we cannot ascertain the exact impact of this proposal on mineral resources, but believe the statement is correct in classifying it as minor.

T V Falkie

Director

Comments Received From
the Department of the Interior
Bureau of Mines

We appreciate the review and comments from the Bureau of Mines.

ADDRESS ONLY THE DIRECTOR,
FISH AND WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
WASHINGTON, D.C. 20240

In Reply Refer To:
FWS/OBS/EA

FEB 20 1976

Memorandum

To: Director, Bureau of Outdoor Recreation
Deputy Associate
From: Director, Fish and Wildlife Service

Subject: New River (North Carolina) Wild and Scenic River Proposal--Comment on Interior's Draft Environmental Statement (DES 75-58), and the Governor's Application and State Management Plan.

This is in response to Secretary Kleppe's letter of November 28, 1975, to officials of concerned departments and agencies requesting comments on the subject documents.

Environmental Statement

1. Vegetation (pages 113, 171, and 213). The paragraph on page 113 discusses State studies of endangered or rare vascular floral species. The following information should be added to the paragraph or included in an additional paragraph at this point in the text: " A number of floral species inhabiting the study area may be candidates for listing as Endangered or Threatened flora pursuant to the Endangered Species Act of 1973. These are the spreading avens, Geum radiatum; a rattlesnake-root, Prenanthes roanensis; the wretched sedge, Carex misera; Carey's saxifrage, Saxifraga careyana; and the Carolina saxifrage, Saxifraga caroliniana."

Under Impact on Vegetation on page 171, we suggest revising the second sentence of the last paragraph to read in substance as follows: "A preliminary State study of the proposed project area has not definitely revealed any rare or endangered flora; however, such species may be present." This revision will make the sentence comparable in content to

the previously mentioned paragraph on page 113. Following the revised sentence (page 171), or at the end of the paragraph (pages 171-172), the additional text suggested for page 113 should also be included or referred to. 1

On page 213 (Impact on Vegetation), the paragraph should be revised to reflect the above comments concerning pages 113 and 171, as appropriate.

2. Endangered and Threatened Fauna (pages 137, 138, 178, and 216-217). In the first line of the last paragraph on page 137, the words "by the State" should be inserted after "reported". In that same paragraph, the following scientific names (genus/species) of fishes are misspelled (compare with table, page 129, et. seq.): Spirodon dilatata, teretulus, and maculata.

On page 138, the first full paragraph should be deleted and the following substitute paragraph inserted: "Several fish and shellfish species inhabiting the study area may be candidates for listing as Endangered or Threatened in accordance with the Endangered Species Act of 1973. They are the New River crayfish, Cambarus chasmodactylus; the dilatate diamond-shaped snail, Spirodon dilatata; the New River shiner, Notropis scabriceps; the bigmouth chub, Nocomis platyrhynchus, the Kanawha minnow, Phenacobius teretulus; the Kanawha darter, Etheostoma kanawhae; and the finescale saddled darter, Etheostoma osburni. 2

On page 178, first paragraph, third line, the phrase "by the State" should be inserted after "reported". In the fourth line "scabriceps" is misspelled, and in the eighth, maculata is misspelled. Also on page 178, a paragraph should be inserted after the first paragraph, as follows: "Several of the fish and shellfish inhabitants of the study area may be candidates for listing as Endangered or Threatened, pursuant to the Endangered Species Act of 1973. In addition to the aquatic snail (dilatate diamond-shaped snail), the New River shiner, the Kanawha minnow, the bigmouth chub, and the Kanawha darter mentioned in the preceding paragraph, they include the New River crayfish, Cambarus chasmodactylus; and the finescale saddled darter, Etheostoma osburni."

The last paragraph on page 178 (concluding on page 179) should contain an additional sentence as follows: "The proposal would also protect the previously-mentioned candidate species for inclusion as Endangered or Threatened on the United States list."

On pages 216 and 217 (Impact on Fish), paragraphs involving threatened/endangered species should be revised also to reflect the above comments applying to pages 137, 138, and 178, as appropriate.

3. Page 232. Substitute "U.S. Fish and Wildlife Service" for "Bureau of Sport Fisheries and Wildlife." | 3

Governor's Application and State Management Plan

We have no specific comments to make concerning these documents. However, our general reaction to them is that the Governor's proposed inclusion of the 26.5 mile segment of the New River in North Carolina in the National Wild and Scenic Rivers System, and management thereof according to the proposed State Plan, would be beneficial to fish and wildlife and plant resources and may help prevent the numerous species cited in the EIS and this memorandum from the possibility of extinction.

A copy of this memorandum has been sent to your regional office in Atlanta, Georgia.

R. J. Udall, Jr.

Response to Comments Received From
Department of the Interior
Fish and Wildlife Service

1. The suggested information on vegetation has been added to the FEIS.

2. The suggested corrections and additions have been made to the discussion of fauna.

3. This correction has been made.

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:
L7619-MQ

JAN 21 1976

Memorandum

To: Regional Director, Bureau of Outdoor Recreation, Southeast Region, Atlanta

Through: Assistant Secretary for Fish and Wildlife and Parks

From: Acting Associate Director, Park System Management

Subject: Review of draft environmental statement for proposed South Fork New River National Wild and Scenic River in North Carolina (DES 75-58)

As requested, we have reviewed the subject statement and offer the following comments.

GENERAL COMMENTS

The statement does not adequately identify cultural (historic, archeological, architectural) resources nor does it adequately assess the project's potential environmental impacts on these resources.

The final statement should contain information evidencing compliance with the Advisory Council on Historic Preservation's "Procedures for the Protection of Historic and Cultural Properties" (36 CFR 800).

SPECIFIC COMMENTS

The River Setting - Archeology - page 63. The archeological field investigation, admitted to be incomplete, has given indication that the area may be rich in cultural resources. Additional field studies should be conducted to complete the cultural resource identification and evaluation process, especially in those areas that may be submitted to adverse effect.

This section in the final statement should be supplemented by discussion of presence or absence of cultural resources, identified and evaluated for eligibility for inclusion in the National Register of Historic Places, found as a result of field examinations.

III. Environmental Impact of the Proposed Action - page 159. The statement does not evidence data or discussion adequate to determine impacts, adverse or beneficial, on known and unknown cultural resources. We believe that satisfaction of the requirements of 36 CFR 800 will provide data upon which the cultural resources of the area can be adequately discussed and considered during the planning stages.

Impact on Archeology and History - page 183. The Advisory Council's "Procedures for the Protection of Historic and Cultural Properties" (36 CFR 800) govern agency compliance with Section 106 and Executive Order 11593. 1

Comments of the State Historic Preservation Officer should appear in the final statement.

IV. Mitigating Measures Included in the Proposed Action

Archeology and History - page 200. This section should be rewritten after compliance with cultural resource procedures (36 CFR 800). Satisfaction of these procedures will provide data upon which to consider and discuss mitigating measures. Any resource found eligible for inclusion in the National Register of Historic Places is to be considered as on the register until a final determination is made. Mitigating measures would then be determined by consultation with the Advisory Council on Historic Preservation (Section 106, National Historic Preservation Act).

V. Unavoidable Adverse Environmental Impacts - page 202. This section should contain discussion on cultural resources found and evaluated during required field surveys which will be adversely affected by the proposal. Alteration or salvage of a cultural resource is an adverse effect. 2

VI. The Relationship Between Local Short-Term Uses and the Maintenance and Enhancement of Long-Term Productivity - page 204. Discussion of cultural resources in this section is not supported by data included in the statement. Unless proper identification and evaluation occurs prior to final decisions, it is possible that increased use of the area will result in destruction of cultural resources. 3

VII. Any Irreversible and Irretrievable Commitments of Resources Which Would Be Involved in the Proposed Action Should It Be Implemented - page 206. Alteration of or salvage of archeological resources is an irreversible and irretrievable action. Satisfaction of cultural resource preservation procedures will allow for adequate discussion and consideration of the resources under this section if, in fact, any such resources will be so committed. 4

VIII. Alternatives to the Proposed Action

Impact on Archeology and History - page 219. It is noted that adequate cultural resource surveys have not been conducted for this proposed project. Data is not available upon which to make professional determination of impacts upon them.

Response to Comments Received From
the Department of the Interior
National Park Service

1. The National Park Service has suggested that the Draft EIS does not adequately identify or assess the environmental impact on cultural resources. At this stage in the planning process, an initial survey has been performed to identify outstanding cultural resources and to determine the potential for uncovering additional historic, archeological, and architectural resources. A detailed survey and inventory of cultural resources will be performed by the State of North Carolina in furtherance of the objectives of Executive Order 11593 as a condition of designation of the South Fork New River as part of the National Wild and Scenic River System. This condition would be included in the official letter of designation to be signed by the Secretary of the Interior if the project is approved.

   Potential losses of cultural resources and mitigation measures will be set forth during the final implementation planning process which follows official designation.

   Please note that the Advisory Council on Historic Preservation has approved of this procedure as indicated in that body's enclosed comments on the Draft EIS signed by the Director, Office of Compliance and Review.

   The Park Service also states that the comments of the State Historic Preservation Officer should appear in the Final EIS. This has been

done, and the following quote from those comments indicates that he considers the Draft EIS to be adequate: "The Archeology Section comments that the New River draft environmental impact statement contains one of the best considerations of archeological resources that has come through this office for review in recent times."

2, 3 &4. These suggested changes have been made in the text.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

December 17, 1975

Memorandum

To: Chairman, Intradepartmental Study Group on Wild and Scenic Rivers

From: Chief, Division of Intergovernmental Coordination, Office of Land Use and Water Planning

Subject: Wild and Scenic Rivers - New River Study, North Carolina

This is in response to your request for comments on the subject study submitted by the State of North Carolina. Comments are as follows:

1. State Legislation:

There appears to be a number of major restrictions in the State legislation under which this nomination is being made. The restriction regarding the acreage which can be obtained through fee title or easement, and the general restrictions regarding public land ownership and control and the 20-foot minimum requirement for public land control on each side of the river will make it difficult to develop an effective management system.

The legislation also appears to restrict any significant change in the present land use pattern. If present agricultural use and practices are followed there is little doubt that problems noted in the study such as water quality, sedimentation, etc. will increase. Photographs in the study indicating corn being grown almost to the river bank and cattle using the river as a direct water supply may provide a pastoral scene, but also degrade the stream for its proposed use.

The stretch of stream mileage designated - 26.5 miles - raises the question of the values related to the experience of using the stream for the purposes stated. It would appear that the case for inclusion in a national system would be greatly strengthened if additional river mileage was to be included in the system. Based on the data shown in the study an average of two people per canoe would have to embark ten minutes apart (using a ten-hour-day for embarkation) over a continuous period of approximately five months to gain the 17,000 float opportunities indicated in the study report. These figures can be manipulated a number of ways to provide various answers, but the major point is that the length of designation does greatly limit the number of potential experiences.

2. Stream Hydrology:

Although not much information is provided regarding streamflow, the 1974 flow figures and 1 in 20-year data indicates that stream usage may be affected by water depths at critical times of the year. Late summer and early fall flows may be marginal for the projected use. 2

3. Management Features:

The State report does not provide sufficient detail to define the provisions of the State management program. Inclusion of a State designated river in a national system should be based on not only the attributes of that system but a clear understanding that the system will provide for the use of the opportunities anticipated in the report. 3

4. Alternative Plans:

Much information is available regarding the proposed Blue Ridge project. Although the study does provide some data and analysis for that project more information could be utilized to give decisionmakers a full understanding of the economic, social and environmental trade-offs between the Blue Ridge project and the wild and scenic river proposal. 4

Joseph A. Krivak

Response to Comments Received from U.S. Department of the Interior,
Division of Intergovernmental Coordination,
Office of Land Use and Water Planning

1. See the section on alternatives added to the FEIS for further information concerning the possibility of designating more than 26.5 miles as part of the scenic river. Estimates on recreation visitation are based on the most current historical visitation data available from similar resources and are considered to be the best information available.

2. Additional information has been added to the FEIS which clarifies this statement.

3. Recreation use estimates in the FEIS are based upon the provisions of the State management plan. Full development by the State of all items included in the management plan is assumed, and would adequately provide for the recreation opportunities projected by this FEIS.

4. See the discussion of Impacts Outside the Two County Area added to the FEIS for more detail regarding the Blue Ridge Project and impacts to be felt if it is not constructed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
1421 PEACHTREE ST., N. E.
ATLANTA, GEORGIA 30309

February 26, 1976

Mr. Robert M. Baker
Regional Director
U. S. Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

In accordance with our responsibilities under Section 309 of the Clean Air Act, as amended, and Section 102(2)(C) of the National Environmental Policy Act, the Environmental Protection Agency has reviewed the draft environmental impact statement (EIS) on the "Proposed South Fork New River, National Wild and Scenic River in North Carolina." In addition, in accordance with Section 4(c) of the Wild and Scenic Rivers Act of 1968, EPA has reviewed the application of the Governor of North Carolina for approval by the Secretary of the Interior of a proposal to include a 26.5 mile segment of the New River and its South Fork in the National Wild and Scenic Rivers System as a State administered component. Our detailed comments on both the Governor's application and on the draft EIS are enclosed.

At the outset, I wish to indicate our strong support for approval of the application to include the South Fork of the New River in the National Wild and Scenic River Systems. In this regard, I am enclosing a copy of a letter recently sent by Administrator Train to Secretary Kleppe. In this letter, Administrator Train reemphasizes EPA's long held position that the New River is a unique and valuable national resource which should be preserved for future generations. The Administrator has urged Secretary Kleppe to approve the application to include a segment of this river in the National Wild and Scenic River Systems.

EPA believes that the South Fork of the New River in North Carolina possesses unique characteristics which support its protection and inclusion in the National Wild and Scenic Rivers System. A large part of the New River's uniqueness is attributed

to its natural, high quality, free flowing and biologically productive waters. Protection and enhancement of these attributes would result from the designation of the South Fork as a component of the National Wild and Scenic River System.

The activities of Federal, State and local governments, as well as those of private entities, are, with the passing of time, providing for an increase in the supply of readily accessible, flat water expanses suitable for recreation. In turn, free flowing water resources such as the South Fork of the New River are becoming progressively more scarce and valuable. These facts give rise to our concern for preserving high quality, free flowing water and associated environments for the use of future generations. For this reason, we approach any irretrievable commitment of the New River water resources with extreme caution.

As indicated in the draft EIS, the "no-action" alternative to inclusion of the South Fork of the New River in the National Wild and Scenic River System would be construction of the Blue Ridge hydroelectric power project. On November 30, 1973, EPA provided comments (enclosed) on the Federal Power Commission's final EIS for the proposal to license the Blue Ridge Project. In those comments, we advised that construction of the Blue Ridge project would result in the adverse effect of eliminating a free flowing river reach which has high water quality and is of high value for recreation. In addition, we noted the scenic beauty and archeological significance of the nearly 40,000 acres to be inundated by the proposed project. No new information has come to our attention since the 1973 review of the Blue Ridge final EIS which would support a different conclusion regarding the environmental impacts of that project.

Our review of the Governor of North Carolina's application and of the draft EIS prepared by the Bureau of Outdoor Recreation has determined that there will be no adverse environmental impact as a result of inclusion of the 26.5 mile segment of the New River in the National Wild and Scenic River System. Nevertheless, our detailed comments identify a number of minor issues which should be addressed by the Department of the Interior in its decision making on this proposal.

In accordance with EPA procedure and as a result of our review, we have rated the proposal LO (Lack of Objection) and have categorized the draft statement category 2 (Insufficient Information).

Thank you for the opportunity to review and comment on this proposal. Should you have any questions regarding our comments we would be happy to discuss them with you.

Sincerely yours,

Jack E. Ravan
Regional Administrator

Enclosure

The Environmental Protection Agency's

Detailed Comments on

The Bureau of Outdoor Recreation's Draft Environmental Impact Statement, "South Fork New River, National Wild and Scenic River, North Carolina",

and on:

An Application of the Governor of North Carolina for Approval and Inclusion of the South Fork, New River in the National Wild and Scenic River System

General Considerations

EPA believes that the South Fork of the New River in North Carolina possesses unique characteristics which support its protection and inclusion in the National Wild and Scenic River System. A large part of the New River's uniqueness is attributed to its natural, high quality, free flowing and biologically productive waters. Protection and enhancement of these attributes would result from the designation of the South Fork as a component of the National Wild and Scenic River System.

The activities of Federal, State and local governments, as well as those of private entities, are, with the passing of time, providing for an increase in the supply of readily accessible, flat water expanses suitable for recreation. In turn, free flowing water resources such as the South Fork of the New River are becoming progressively more scarce and valuable. These facts give rise to our concern for preserving high quality, free flowing water and associated environments for the use of future generations. For this reason, we approach any irretrievable commitment of the New River water resources with extreme caution.

As indicated in the draft EIS, the "no-action" alternative to inclusion of the South Fork of the New River in the National Wild and Scenic River System would be construction of the Blue Ridge hydroelectric power project. On November 30, 1973, EPA provided comments (enclosed) on the Federal Power Commission's final EIS for the proposal to license the Blue Ridge project. In those comments, we advised that construction of the Blue Ridge project would result in the adverse effect of eliminating a free flowing river reach which has high water quality and is of high value for recreation. In

addition, we noted the scenic beauty and archeological significance of the nearly 40,000 acres to be inundated by the proposed project. No new information has come to our attention since the 1973 review of the Blue Ridge final EIS which would support a different conclusion regarding the environmental impacts of that project.

Our review of the Governor of North Carolina's application and of the draft EIS prepared by the Bureau of Outdoor Recreation has determined that there will be no adverse environmental impact as a result of inclusion of the 26.5 mile segment of the New River in the National Wild and Scenic River System. Our detailed comments, however, identify a number of minor issues which EPA believes should be addressed by the Bureau of Outdoor Recreation, the Department of Interior, and the State of North Carolina.

Water Quality Considerations

EPA has reviewed the draft Water Quality Management Plan for the New River Basin as prepared by the State of North Carolina's Department of Natural and Economic Resources. This plan was prepared as part of the State's continuing planning process as required by Section 303(e) of the Federal Water Pollution Control Act of 1972. As reported in this plan, water quality data from monitoring stations indicate that the segment of the New River proposed for Wild and Scenic River designation now has high quality waters. Also, this plan shows that sources of wastewater discharge are relatively minor in the immediate basin and should not have any effects upon the proposed uses of the New River as a Wild and Scenic River.

The draft EIS mentioned the practice of dumping trash and garbage into the river at a number of locations along the stretch proposed for designation. EPA is concerned over this activity and believes that a mechanism to control it should be pursued by the State of North Carolina. If the dumping is due to the absence of a county sanitary fill, the establishment of such a fill may be one measure to alleviate this problem.

Finally, on Page 133, the draft EIS discusses the objectives of a biological study of the New River conducted July-September 1963. The EIS does not provide the results of this study. EPA suggests that this study be made available either by the Bureau of Recreation or by the State of North Carolina.

Land Use Considerations

Four recreational activity areas along the South Fork of the New River are planned in the Governor's proposal. The draft EIS did note that solid and sanitary waste facilities will be provided at the areas, but it did not specify how this would be accomplished. This aspect of the proposal should be considered in greater detail prior to a decision on the State's application. 3

There is some question as to the extent of easement that is to be provided along the South Fork of the New River. The North Carolina State Act and the State management plans do not appear to include a specific determination for a standard 50' easement. However, in several places the draft EIS includes reference to a 50' easement as well as to the overall acreage necessary to provide for both the easement and the recreation activity areas. EPA recommends that the Bureau of Outdoor Recreation and the State of North Carolina provide clarification regarding the acreages which will be required for easement and recreation areas should the State application be approved. 4

EPA notes that the State of North Carolina has appropriated $1 million for use in land acquisition for recreation facilities and $2.5 million for the construction of facilities at State operated public recreation sites. The State should indicate the level of these appropriations that will be utilized for activities associated with the designation and the time frame in which these funds will be made available. 5

The draft EIS indicated on Page 185 that the State of North Carolina will conduct a surface structure inventory of historical sites and a survey of archeological sites in compliance with Executive Order 11593. EPA is interested in whether or not the State of North Carolina has assumed responsibility for this inventory and survey. 6

EPA agrees that the existing land use along the South Fork of the New River, namely farming and forestry practices, could be compatible with a designation of the South Fork as a Wild and Scenic River. We foresee no conflict between a designation and current farming and forestry activities; however, the draft EIS should have been more specific on some of these matters. In particular, the draft EIS seemed to ascribe water pollution in the New River to "poor agricultural practices." We recommend that such a correlation be supported with data and that mitigating or remedial actions be suggested where necessary. 7

Other Considerations

EPA believes that the draft EIS contained a fairly inclusive discussion of those environmental impacts which could be expected if the Wild and Scenic River designation was or was not made. However, we feel that some very significant impacts of the proposed designation were not emphasized adequately in the draft EIS. Among these are the impacts of the designation, both pro and con, on the future electrical power supplies, low flow augmentation and flood control aspects which would otherwise result from construction of the proposed Blue Ridge Project. EPA has addressed these issues in the context of our earlier review of the FPC's EIS on the Blue Ridge Project; nevertheless, we believe they are proper subjects for discussion in the alternatives section of the Bureau of Outdoor Recreation's EIS on the Wild and Scenic River designation proposal.

8

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 23 1976

OFFICE OF THE
ADMINISTRATOR

Dear Tom:

I am writing with regard to the proposal now before you for decision involving the inclusion of a segment of the New River in the National Wild and Scenic River System. In the next few days, the Environmental Protection Agency will be transmitting detailed comments on the draft environmental impact statement (EIS) prepared on this proposal to the Bureau of Outdoor Recreation. I would like to stress EPA's and my strong personal support for a decision on your part to preserve the New River in its current environmental condition. I urge you to approve the application to include a segment of this river in the National Wild and Scenic River System.

The upper reaches of the New River, particularly the South Fork segment proposed for Wild and Scenic River status, have excellent water quality and are of high value for recreation and other uses. In addition, the Bureau of Outdoor Recreation's draft EIS has thoroughly identified the significant biological value of this river by referencing the diversity and uniqueness of much of the aquatic biota found along the stream segment proposed for Wild and Scenic River status. I wish to reemphasize EPA's continued support for the protection of these valuable resources.

As you are no doubt aware, geological studies indicate that the New River may be the oldest river in North America and perhaps one of the two oldest in the world. There is wide agreement that the area surrounding the

reach of the New River proposed for Wild and Scenic River designation is rich in archeological values and should be carefully protected. The New River itself is clearly one of the few scenic, high quality and free-flowing streams remaining in the eastern United States, and I firmly believe that it is a national treasure deserving of full protection.

The opportunity to designate the South Fork of the New River as a component of the National Wild and Scenic River System offers a positive mechanism to preserve the environmental integrity of this unique river. A designation would guarantee the preservation and enhancement of the scenic, recreational and biological values which the New River currently possesses. I cannot advocate strongly enough EPA's recommendation to approve the application now before you for inclusion of the proposed 26.5 mile segment of the New River in the National Wild and Scenic River System.

We appreciate the opportunity to review and comment on this proposal. A copy of our more detailed comments will be forwarded to you once they are completed. If I can be of any further assistance, please let me know.

Sincerely yours,

Russell E. Train
Administrator

Honorable Thomas S. Kleppe
Secretary of the Interior
Washington, D.C. 20240

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 30 1973

OFFICE OF THE
ADMINISTRATOR

Dear Mr. Nassikas:

On April 9, 1973, EPA filed comments with the FPC on the draft environmental impact statement for the Blue Ridge Project. We found that the draft statement contained insufficient information for us to evaluate adequately the environmental effects of the project. The information needed was described in our detailed comments.

Subsequently and in accordance with Section 309 of the Clean Air Act of 1970, we have reviewed the final environmental impact statement for this project dated June, 1973. In general, we found that the final statement did not fully meet our needs for substantial additional information on environmental effects as requested in our comments. For that reason, there remain potential environmental consequences which we cannot evaluate. However, we are in a position to form some definite conclusions regarding certain specific features of the Blue Ridge Project, and we feel that these conclusions will be pertinent to the Commission's consideration of this licensing action.

In particular, we find that certain significant adverse environmental effects may result from this project, and thus we have strong reservations concerning its acceptability from an environmental standpoint. Some of the effects discussed below can be mitigated by changes in the project design and implementation. However, a basic environmental concern--the commitment of a high quality free-flowing stream to impoundment--would be an unavoidable consequence of proceeding with the proposal.

Effects of the project as proposed include possible adverse impacts on reservoir water quality resulting from inadequate regulation of shore development, the possibility of stimulation of unwise use of flood plains downstream from the project and the likelihood of stream channel erosion and adverse impacts on stream biota due to extreme fluctua-

tions in river flow caused by reservoir releases. In our opinion, however, these possible effects could be partially or completely avoided by adopting appropriate precautions prior to reservoir construction.

An unavoidable adverse effect of the project is the elimination of a free-flowing river reach which has excellent water quality and is of high value for recreation and other human uses. As the activities of EPA and of other agencies tend, with passing time, to increase the supply of readily accessible, high quality flat-water expanses suitable for recreation, the outstanding flowing water resources will become progressively more scarce and valuable. In this regard, the upper New River is even now highly valued by a numerous and diverse public, as witness the roster of intervenors in the FPC proceedings. Our concern to preserve high quality waters and their associated environments for the use of future generations encourages us to favor the continued availability of these valuable areas in their natural condition and to approach an irretrievable commitment of such resources with extreme caution. We suggest that the possibility of preserving this outstanding river reach by developing alternative generating facilities and/or an alternative pumped storage site merits serious further study.

With respect to the air quality aspects of the Blue Ridge Project, insufficient information exists in the final statement for EPA to concur with the FPC staff conclusion that the proposed action will result in less air pollution than the next most-economical alternative. Such a conclusion would have to be drawn from a much more complete analysis of alternative methods of generating the required peaking power, over both the short and long terms. The project will allow maintenance of or an increase in the utilization of existing coal fired plants, which will continue to have significant emissions even if State air implementation plans are met. An alternative of installing new generating capacity which must meet more stringent new source performance standards and utilizing an older unit for peaking capacity might well result in less air pollution and overall fuel consumption than the mode of power generation which encompasses the proposed pumped storage facility.

We are most appreciative of this opportunity to provide our views for consideration by the Presiding Administrative Law Judge. Detailed comments have been prepared for enclosure with this letter which set forth our reasoning and outline needed precautionary measures in somewhat greater detail.

Sincerely yours,

John R. Quarles, Jr.
Deputy Administrator

Enclosure

Mr. John N. Nassikas
Chairman
Federal Power Commission
Washington, D.C. 20426

EIS# F-FPC-05426-VA

DETAILED COMMENTS ON

FINAL ENVIRONMENTAL IMPACT STATEMENT

FOR

BLUE RIDGE HYDROELECTRIC PROJECT

FEDERAL POWER COMMISSION

Project No. 2317

Prepared by the Environmental Protection Agency in accord with Section 309 of the Clean Air Act of 1970.

Contents

I. Flood Control Storage Benefits

In reformulating the project to eliminate water quality storage, the flood control storage was increased from 160,000 to 346,000 acre-feet (an increase of 186,000 acre-feet). This was done despite the fact that the lesser amount appears already to provide enough storage to control 72% of the damages of a flood of 3500 years recurrence time (FEIS, pp. 35 and 47). The utility of the additional storage is not convincingly documented in the final statement despite its incremental costs of 2000 acres, 37 homes and $1.7 million (to alleviate damages estimated (1967) at approximately $658,000).

II. Adverse Effects Which Could Be Avoided

If, after full consideration of all factors, it is considered necessary for the Blue Ridge Project to proceed at its proposed site, the project could and should be modified to avoid several adverse environmental impacts implicit in the present proposal. EPA's recommended modifications are as follows:

1. Adverse Effects From Private Development of Recreational Facilities. Although the applicant is required to acquire control of the immediate shoreline of the proposed reservoirs, the potential of such control to insure optimal recreational development compatible with environmental protection will evidently not be utilized. Unrestricted private

development of recreational and second homes along the shoreline and of commercial facilities to service recreational use of the reservoirs have the potential to degrade the scenic value of the reservoirs and to lead to water contamination from on-site sewage disposal. This is especially true since it is known that soil and slope characteristics may, in some areas, be unsuitable for such sewage disposal (FWPS, p. 362).

It is vital in any such project to coordinate local land use plans and zoning ordinances with the recreational development plans of the applicant, as overseen by the FPC, and of the States. The ultimate control by the FPC through the applicant's actions in acquiring and administering project lands could be used to reinforce State and local implementation of a previously agreed-on comprehensive recreational development plan for the reservoir area.

Should the Commission determine that Blue Ridge is to proceed, we recommend specifically that a comprehensive recreational development plan be drawn up, which incorporates the proposed State parks, the facilities to be provided by the applicant and those private residential and commercial developments compatible with optimum recreational use of the reservoirs. In our opinion, such a plan should be based on an adequate environmental inventory, and thus its preparation will require professional assistance. The applicant should assist the

States and affected municipalities in financing the necessary work. The plan should regulate shoreline use as stipulated in the comments of the Department of Interior (FEIS, p. 314), provide for use-zoning of the reservoir shore and incorporate cluster development as advocated by the FPC staff (FEIS, p. 45). Where practicable, it should also incorporate the restrictions on reservoir use necessary to avoid objectionable noise or other degradation of the reservoir and surrounding environment (FEIS, p. 52).

In addition, commitments should be secured from the affected governmental units to implement the recreational plan. To the extent that such commitments cannot be secured, easements or fee ownership should be secured by the applicant adequate to preclude violation of the basic provisions of the plan.

Regional development goals, including proposed industrial development and population trends, and the manner of provision of necessary municipal services, should be fully integrated with this plan. The proposed highway relocations should also be incorporated into the plan as they will both affect and be affected by many essential features of the regional development patterns and the recreational use of the Blue Ridge reservoirs.

2. Flood-plain Development. Flood control should be considered as part of a comprehensive flood damage prevention program which also incorporates regulation of flood-plain use. In particular, prior to provision of structural flood control measures, commitments should be secured from affected counties and municipalities to institute flood-plain zoning and to participate in the Federal Flood Insurance Program. Unwise development of the flood plains may lead to increased flood damage despite the decreased flood stages as regulated by the proposed project. Such commitments should be secured from all affected local governmental units as far downstream as the Bluestone reservoir. These commitments should be obtained prior to construction, and the incorporation of flood control storage in the project can be made contingent on acquisition of commitments to flood-plain zoning. This will provide an incentive for the affected local governments to participate in the overall program, and may also help alleviate further the need for the additional 186,000 acre feet of flood control storage discussed above.

3. Downstream Erosion. The State of Virginia has pointed out that hydroelectric generating releases from the lower reservoir will exceed the bank-full channel capacity, resulting in increased erosion of banks and channel bottom (FEIS, p. 372) The widely fluctuating flows below the project could be a hazard to recreationists, adversely affect the natural qualities

of the stream, and have unspecified and potentially adverse effects on aquatic and terrestrial biota. We recommend that the peak flows be regulated so as to depart so drastically from the natural flow regime. Fluctuations should not exceed those which can be demonstrated to be compatible with channel stability and the protection and propagation of an abundant and balanced population of indigenous aquatic life. Documentation of the effects of proposed fluctuations should be available prior to finalizing license conditions.

III. Unavoidable Adverse Effects: Inundation of the Upper New River. Even if mechanisms are fully implemented to mitigate the possible detriments cited above, it can be effectively argued that the Blue Ridge project may still entail major adverse impacts on the environment in that it would eliminate a major environmental resource of marked scenic, and recreational and biological value, the upper New River, and replace it with a flatwater expanse having questionable biological productivity.

The fundamental effect of a reservoir project is to replace a flowing stream with a flatwater expanse. Thus a basic issue which must be addressed is the comparison of the relative scarcity and value of the two environmental resources, stream and reservoir. This is a topic in which EPA has a vital interest because it is intimately related to our own mandate under the Federal Water Pollution Control Act to

protect and enhance water quality and provide for a range of associated uses such as recreation and the propagation of aquatic life. Resources committed to maintaining and enhancing water quality are motivated by the values perceived in such uses; in turn these values are very much affected by their relative availability, abundance or scarcity.

EPA's mandate encompasses not only clean-up of waters that have been polluted but maintenance of existing waters of high quality and biological productivity. Furthermore, we note that over a period of time, and partly due to our own pollution control activities, the inventory of good quality flatwater expanses is expected to increase. In addition to widespread availability of multi-purpose reservoirs, most large metropolitan areas immediately adjoin extensive flatwater areas--estuaries, broad rivers, or lakes Although existing pollution restricts the range of water uses in those waters immediately adjacent to the major population centers, it is a primary goal of EPA's (and the States') regulatory activities to make such areas suitable for many diverse uses contributing to human welfare. Thus these immediately accessible flatwater areas will be available for a wide variety of recreational pursuits. Bringing new recreational opportunities to the people, rather than accelerating development of recreational facilities in remote areas, has been a major goal of this Administration, and is even more pertinent in view of the current fuel shortages.

Our appreciation of these trends leads us to believe that broad water expanses suitable for recreation will become progressively less scarce as time passes. On the other hand, high quality natural rivers, of which we possess a limited number, are becoming relatively less abundant and more valuable. On this point, the State of North Carolina has emphasized in its comments the unique value of the upper New River and the lack of uniqueness of the reservoir which would take its place. Other comments have made the same point, and these have not been rebutted by the FPC staff. We believe the possibility of preserving this outstanding river reach by developing alternative generating facilities and/or an alternative pumped storage site in an area where the destruction of natural values would be less significant merits serious further study.

IV. Air Pollution

The final impact statement has not adequately demonstrated that the proposed project would result in less air pollution than the next most-economical alternative. In particular, we question the conclusion that, over the lifetime of the project, a power generation system utilizing pumped storage capacity at Blue Ridge would emit less air pollution than an alternative scheme with incremental coal-fired base load capacity. Our reasoning is as follows:

First, it appears that the air emissions were not calculated directly. The cost of the fuel burned in alternative schemes was compared and used as a surrogate for a direct estimate of SO_2 or particulate emissions. However, different generating stations in the system probably pay widely different amounts for fuel. Since the fuels they burn also have widely different sulfur content, this should proportionately affect their SO_2 emissions. In general, one expects sulfur content to be inversely related to fuel cost, depending on location, so that a system's expense will not properly reflect SO_2 emissions. For example, a generating scheme which minimizes fuel cost will tend to maximize SO_2 emissions.

Second, it appears that no account was taken of the fact that new generating stations must meet stringent new source performance standards whereas existing units may continue to operate subject to much less stringent requirements under the State air implementation plans. As the Blue Ridge project could require the utility to operate existing power units more of the time, air quality could be adversely affected. The alternative, of course, would have them operate older units less of the time and use an additional baseload or cycling unit for peaking power.

Response to Comments Received From
The U.S. Environmental Protection Agency

1. A copy of this letter, with special attention directed to this statement, has been sent to the State of North Carolina, Department of Natural and Economic Resources, so that this point will be considered in the master planning process.

2. Changes have been made to the text which will address the points made in this comment.

3. Specific details with regard to solid and sanitary waste facilities will appear in the final management plans to be prepared after designation. These facilities will meet all applicable State and Federal air and water quality standards.

4. All references to a 50-foot easement in the text have been deleted and replaced with references to a corridor ranging in width from 20 to 500 feet.

5. The final budget approved by the North Carolina General Assembly for the 1975-77 biennium included $500,000 in each year of the biennium ($1,000,000 total) for land acquisition in conjunction with State public recreation facilities. In addition, $2,500,000 were appropriated for use during the biennium to provide for development at public recreation facilities. Although the State was unable to provide exact numbers, they did make assurances that a "reasonable portion" of the appropriations would be applied to the New River proposal.

6. The designation of the New River as a component of the National Wild and Scenic River System would be conditional upon, among other things, North Carolina's agreeing to perform the inventory and survey of cultural resources.

7. The section on water quality has been revised in response to this and other comments. See also response to comments of S. Grady Lane, North Carolina Soil and Water Conservation Commission.

8. A new section dealing with impacts outside the two-county area has been added to Section III, Environmental Impact of the Proposed Action. Additionally, three additional alternatives, ranging in scope from the entire length of the New River as a wild and scenic river to a smaller scenic river proposal, have been added to Section IX, Alternatives to the Proposed Action. (See also response to the Commonwealth of Virginia.)

THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

Honorable Thomas Kleppe
Secretary of the Interior
Washington, D.C. 20240

Dear Tom:

This is in response to your recent letter asking our review of the draft environmental impact statement for the inclusion of a segment of the New River and its South Fork in North Carolina in the National Wild and Scenic River System. The draft environmental impact statement appears to be adequate, and we have no comments to offer on it.

Thank you for the opportunity to review the proposal.

Sincerely,

BILL
William T. Coleman, Jr.

Response to Comments Received From
the Department of Transportation

We appreciate the review by the Department of Transportation.

FEDERAL POWER COMMISSION
WASHINGTON, D.C. 20426

PWR-LP
Appalachian Power
Project No. 2317

Mr. Robert M. Baker
Regional Director
U.S. Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker,

This will acknowledge your letter of November 28, 1975, requesting our comments on the draft environmental statement on the proposed South Fork New River, North Carolina, National Wild and Scenic River.

The Secretary of the Interior also transmitted a copy of this draft environmental statement for our comments. A copy of the Chairman's reply to the Secretary is enclosed for your information.

Very truly yours,

James J. Stout

Chief, Division of Licensed Projects

Enclosure
cc of letter to Secretary

JAN 28 1976

Honorable Thomas S. Kleppe
Secretary of the Interior
Washington, D. C. 20240

Dear Mr. Secretary:

This is in response to your request of November 28, 1975, for our comments, pursuant to Section 4(c) of the Wild and Scenic Rivers Act, on the Governor of North Carolina's application for the inclusion of a 26.5 mile segment of the New River and its South Fork in North Carolina in the National Wild and Scenic Rivers System.

As you are aware, the Federal Power Commission granted on June 14, 1974, a license to the Appalachian Power Company to construct and operate the Blue Ridge Project, a combined conventional and pumped storage hydroelectric project, on the New River in southwestern Virginia and northwestern North Carolina. The development of the Blue Ridge Project would affect the portion of the New River and its South Fork that is the subject of the North Carolina application.

Since North Carolina's application was filed approximately six months after the license was issued for the development of the Blue Ridge Project, we are of the opinion that the Wild and Scenic Rivers Act of 1968, as a matter of law, does not alter our ability to license this project. Our opinion has been reiterated in various Commission opinions and before the Court of Appeals for the District of Columbia. Because the matter is now pending before the court, we believe that it would be inappropriate for us to comment on North Carolina's application or on the accompanying draft environmental impact statement.

If, at a later date, it is held that the Wild and Scenic Rivers Act of 1968 is applicable to the Blue Ridge Project, we would at that time be pleased to comment on the North Carolina application.

Sincerely,

RICHARD L. DUNHAM

Richard L. Dunham
Chairman

Response to Comments Received From
the Federal Power Commission

1. We are advised by the Solicitor's Office that the Secretary of the Interior's action in listing the river, in and of itself, will not cancel or void a valid existing license. The active listing does not have a retroactive effect on valid licenses, but rather precludes respective licensing that would affect the river.

OHIO RIVER BASIN COMMISSION

Suite 208-20 36 East Fourth Street
Cincinnati, Ohio 45202 513/684-3831 (FTS)

February 4, 1976

Honorable Thomas S. Kleppe
Secretary of the Interior
Interior Building
Washington, DC 20240

Dear Mr. Secretary:

I have Mr. Warren D. Fairchild's letter of January 21, 1976 soliciting views and comments on the New River Wild and Scenic River proposal. The State of North Carolina proposes that a 26.5 mile segment of the New River in North Carolina be included in the National Wild and Scenic River Systems. In order to expedite the Water Resources Council response to the Department of the Interior on the proposal, I am taking this opportunity to provide comments direct to your office.

As Chairman of the Ohio River Basin Commission, a Federal/State Presidential Commission charged with coordinating all Federal, State, local, and private water and related resources planning within the Ohio Basin, I must consider the New River as a whole including its involvement with other effected State members of this Commission. As I related in my letter to you on December 23, 1975, it is true that North Carolina opposes the proposed private development of the Blue Ridge Project (FPC License No. 2317), but it is equally true that Virginia and West Virginia strongly support the project. This disagreement among three of the Commission's State members has precluded the Commission from achieving consensus on this matter and at present the Blue Ridge project appears in the "Action Pending" portion of the Baseline Record of our comprehensive coordinated joint plan (CCJP) for the Kanawha Subregion. This same lack of consensus has also prevented adoption into the CCJP of the North Carolina proposal for the establishment of a wild and scenic river on that part of the New River which lies in North Carolina.

The Commonwealth of Virginia has a record of long-standing support of the construction of the Blue Ridge Project, and it further opposes the proposed designation of the South Fork of the New River as a component of the National Wild and Secnic Rivers System because such designation would conflict with the construction of the Blue Ridge Project. Their position is based upon the numerous and significant benefits derived from the Project and their belief that benefits will far surpass those benefits to be derived from administration of the river as a scenic river.

My staff has reviewed the Environmental Impact Statement for the proposed wild and scenic river. It does not appear to have been properly coordinated with all affected parties. Although Virginia and West Virginia now have

copies and are making their own comments, these two States were not included in the official distribution. This Commission, although designated by CEQ as a reviewer of all water related EIS's in this region, was also not included in the EIS distribution. The statement itself barely mentions the benefits that would be foregone by implementation of the wild and scenic river in North Carolina. It is this aspect of the wild and scenic river proposal that concerns Virginia and West Virginia. This elimination of development possibilities on any portion of the Nation's limited water resource base would certainly seem to merit a discussion of the benefits foregone equal to the discussion material provided relating the benefits. 1 2

I reiterate my offer to meet with you to discuss the controversy surrounding these two competing uses of the upper New River.

Sincerely yours,

Fred E. Morr

Fred E. Morr
Chairman

Response to Comments Received From
Ohio River Basin Commission

1. The States of Virginia and West Virginia, although not listed in the Summary Page of the DEIS, were sent copies of the statement. We are sorry that you received a delayed copy of the draft environmental statement.
2. Impacts outside of the two-county area have been addressed with the addition of a discussion entitled "Impacts Outside the Two-County Area," in Section III, Environmental Impact On the Proposed Action.

North Carolina Department of Administration

OFFICE OF INTERGOVERNMENTAL RELATIONS

EDWIN DECKARD
DIRECTOR

JAMES E. HOLSHOUSER, JR., GOVERNOR • BRUCE A. LENTZ, SECRETARY

January 26, 1976

Mr. Robert M. Baker
Regional Director
U. S. Department of the Interior
Bureau of Outdoor Recreation
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

Re: Draft Environmental Impact Statement- South Fork New River, National Wild and Scenic River; Ashe and Alleghany Counties SCH File No. 144-75

The North Carolina State Clearinghouse has completed its review of the draft environmental impact statement on the proposed designation of the South Fork New River as a component of the National Wild and Scenic Rivers System. As a result of this review, we find the draft environmental impact statement to be competent and complete.

The following state agencies participated in this review: Department of Natural and Economic Resources, Department of Agriculture, Department of Transportation, Department of Cultural Resources, Department of Justice, the Office of State Planning, and Region D Council of Governments. No substantial comment was submitted by the Office of State Planning. The Region D Council of Governments submitted no comment on this statement. Comments submitted by the remaining agencies indicating minor suggestions for improvement to this statement are attached.

It is our conclusion, based on the material in the draft environmental impact statement, that the highest and best use of the segment of the South Fork New River segment discussed is the National Scenic

116 WEST JONES STREET RALEIGH 27603 (919) 829-2594

River Status. We urge the Bureau of Outdoor Recreation to proceed forthwith to facilitate attainment of Scenic River Status for this segment of the South Fork New River by completing the final environmental impact statement.

Thank you for the opportunity to review this proposal.

Sincerely,

Jane Pettus

Jane Pettus (Ms.)
Clearinghouse Supervisor

Attachments

JP:jm

January 19, 1976

M E M O R A N D U M

TO: Jane Pettus

FROM: Art Cooper

SUBJECT: DNER review of DEIS, proposed South Fork, New River, National Wild and Scenic River in North Carolina

The Department of Natural and Economic Resources has reviewed the draft EIS for the proposed South Fork, New River, National Wild and Scenic River in North Carolina. Our comments on this DEIS, provided herein, include the views of the agencies within our Department with management or advisory concerns relating to the proposed action.

Recreation Planning and State Parks

As the DEIS now reads, there is some possibility of confusion between the entire 90-mile stretch which was studied and the 26.5-mile segment which was selected for inclusion in the State System and for which national designation is requested. This distinction needs to be made more obvious. For example, the Peak, referred to on page 12 as the second highest elevation along the river, is the highest elevation along the 26.5-mile stretch for which national designation is requested. It is the second highest peak along the entire 90-mile stretch that was studied for inclusion in the State System. 1

The analysis of the environmental impact of the proposed action on pages 150-198 makes a comparison of (1) the impact of designation with (2) existing conditions for most factors analyzed. However, some factors analyzed include a comparison of (1) the impact of the designation with (2) impoundment--i.e., in the discussion of wildlife a reference is made on page 176 to protection of salamanders via prevention of impoundment and on page 178 a reference is made to protection of fishery resources from impoundment. It appears that all of these analyses should be consistent in comparing the impact of the designation with existing conditions, and leave the comparison with impoundment to the later section on the "No Action" alternative beginning on page 207. 2

A comment on page 187 implies that the State will provide all camping facilities. This is contrary to the management plan which specifically states that "...substantial opportunities exist for private entrepreneurs to develop and manage facilities that will support use of the designated section of the New River as a scenic river. In fact, appropriate private facilities may relieve the necessity of establishment of public facilities at given locations. During master plan development an effort will be made to incorporate private enterprise when the opportunity occurs and when such activity is clearly consistent with management goals for the river." 3

There is a comment on page 186 that, on existing roads, "...pulloffs and parking at river crossings would be required." The State's management plan makes no reference to such a requirement. It is not our intention to provide these as we wish to avoid congestion at river crossings. 4

There is reference in numerous places (pages 164, 168, 172, 174, 179, 181, and 182) to a 50-foot easement strip. These references imply, in varying degrees, that a 50-foot easement would be automatic, and that this results from taking the 1,500 acre limitation on easements contained in the State legislation and distributing it along the 26.5-mile segment, resulting in a "corridor averaging 50-foot-wide on each side of the stream plus some slopes extending farther from the stream." Neither the State act designating the river into the State System or the management plan submitted for the river indicates that a 50-foot easement would be standard for the river segment. 5

A comment on page 179 implies that the 50-foot strip on each side of the river makes up 1,000 to 1,500 acres. Actually, it would take a strip approximately 467 feet wide to make up the 1,500 acres for the 26.5-mile segment. A comment on page 181 erroneously implies, on the other hand, that a 50-foot strip on each side of the river may exceed 1,500 acres.

It is suggested that the section on "Impact on Population" on pages 182-183 be broken down to include one section on the impact of population--number of people --and one section on social impact--including impacts of visitors to the area. 6

Water Quality

The DEIS appears to cover most water quality impacts of the proposed designation of part of the South Fork as a unit of the National Wild and Scenic River System. It is well prepared and if all of the controls are imposed as discussed in the report, there will be no significant adverse effects on water quality.

Some known discharges to tributaries of the New River are not covered in Table II - 13 on page 74. These include the permitted and unpermitted treatment facilities serving a laundromat, a restaurant-motel, a mobile home park, a car wash and a private housing development. None of these discharges will alter the waste quality conclusions reached. In addition, an error on page 74 should be corrected. The Greensboro Mfg. Company has chlorination. On page 77 in the first paragraph a total flow of 0.133 MGD should be noted as the cumulative discharge from Sparta and Sparta pipes rather than 0.33 MGD. 7

In addition, no impacts on regional groundwater resources are anticipated as a result of the proposed action.

Air Quality

No air quality impacts are anticipated as a result of the proposed action nor will any air quality permits be required. 8

Land Quality

Minimal impact from erosion is anticipated if the proposed action is implemented. 9

Local Planning and Management

The section on land use planning that begins on page 148 states that there are no land use programs in Ashe and Alleghany Counties: This is not completely true. Batten Associates of Winston-Salem developed a generalized land development plan for both counties in 1970, LBC&W consultants of Columbia, South Carolina prepared for Region D Council of Governments a Regional Land Potential Study and Land Development Plan in 1975 which included Ashe and Alleghany Counties, and the Division of Community Assistance in the Department of Natural and Economic Resources (Winston-Salem field office) prepared a Land Use Survey and Analysis for Ashe County in 1974.

Although there has been limited success with the adoption of land use controls in Ashe and Alleghany Counties, there have been some achievements in this area. Sparta, the largest town in Alleghany County, is enforcing the state building code. Alleghany's Board of Commissioners has stated publicly that it will adopt a flood plain ordinance to control the section of the New River flowing through Alleghany County. Ashe County is enforcing a countywide building code and monitoring development in designated flood potential areas throughout the county to comply with HUD's Flood Insurance Program. A countywide zoning ordinance for Ashe County has been prepared and is being studied by the County Commissioners. If a countywide zoning ordinance is not adopted, the Commissioners intend to adopt a flood plain ordinance to protect the New River. 10

Economic Development

The Division of Economic Development considers the action proposed in the DEIS to be an important recreational opportunity for the two counties involved. The Blue Ridge Parkway is the most highly traveled scenic route in the U. S. The addition of supplemental recreation opportunities can only enhance the tourist industry in North Carolina and obviate declining economic base/population loss problems in northern Ashe and Alleghany Counties through service industry development. 11

The industrial development potential of the area is severely limited by the near absence of acceptable location factors such as transportation, topography, climate and physical infrastructure. The loss of 400 acres to parkland cannot be considered a major adverse impact on potential industrial development. This proposal offers the best opportunity to create economic opportunity in the area without an upheaval of the population and a subsequent detrimental effect on the quality of life in those counties. 12

On page 39, 40 and 41 reference is made to unemployment, with the statement made that unemployment is now undoubtedly greater than it was in 1970, the year for which data are provided. Employment data for 1970-1974 and for 1974 by months for Alleghany and Ashe Counties and Region D are attached. They show that unemployment generally declined from 1970 through mid-1974 and that it rose rapidly in late 1974 reflecting a national economic downturn. Although data for 1975 are not available, discussions with persons in the area suggest that employment is now on the rise and that unemployment is declining. Therefore, it would appear that employment opportunities in the area improved markedly through mid-1974. It is reasonable to suppose that, as the overall economy improves, the favorable employment levels of 1973 will be achieved. We suggest that an effort should be 13

made to update these figures for 1975 in the final EIS.

Wildlife Resources Commission

The presentation of Commission interests is well done in the draft--with exception of the fishery resources. In this aspect, considerable slippage has occurred between the material the Commission supplied to the ad hoc State New River Study Committee and this document. In our opinion, the omission of this information has greatly weakened evaluation of fishery resources of the proposed scenic river reach of New River. 14

A comprehensive survey and classification of New River was completed by the Commission during the summer of 1963. This study is alluded to on page 133 of the subject draft, but the reader is left quite in the dark as to the results or where they might be found. No mention is made of a Commission fishery study even more pertinent to the proposed scenic river reach which was undertaken in 1958 and concentrated on the smallmouth bass resources. Finally, no mention is made of the Commission's Creel Census of 1970-71 which revealed that, numerically, smallmouth bass provided 15.4 percent of the anglers' creel--an unusually high contribution considering the year-round catch rate of 1.64 fish per hour of effort. 15

Several errors in need of correction were found in the draft.

Table II-23 (page 133) is erroneously titled "Fisheries by Ecological Classification." The ecological classifications apply to the streams, not to the fisheries. The ecological classifications were made on the basis of the 1963 field studies previously mentioned and just what is implied by the Commission studies "in 1964-68" on page 132 is not at all clear. 16

The Catalog of Inland Fishing Waters in North Carolina, mentioned in a footnote on page 133 and again in the references quoted on page 140, was a publication of the North Carolina Wildlife Resources Commission and not of the Department of Natural and Economic Resources as stated. 17

The "undated report prepared sometime in 1974" mentioned in the next to the last reference listed on page 140 actually was a report upon the current wildlife resources of the South Fork New River area compiled by F. F. Fish and transmitted, along with Crowell's assessment of the fisheries, to Buckner in the September 30, 1974, letter listed as the fourth reference on page 140. 18

In conclusion, the Commission is in complete agreement with the assessment made in the subject draft concerning project impact upon the fish and wildlife resources.

cc: Thayer Broili
Division Directors
Bob Hazel

	1974	1973	1972	1971	1970
CIVILIAN LABOR FORCE 1/	3,670	3,700	3,660	3,620	3,680
UNEMPLOYMENT, TOTAL	160	80	110	110	120
RATE OF UNEMPLOYMENT	4.4	2.2	3.0	3.0	3.3
EMPLOYMENT, TOTAL	3,510	3,620	3,550	3,510	3,560
AGRICULTURAL EMPLOYMENT	400	400	450	420	460
NONAG. WAGE & SALARY EMPLOY.	2,660	2,720	2,640	2,610	2,630
ALL OTHER NONAG. EMPLOYMENT 2/	450	500	460	480	470
INDUSTRY EMPLOYMENT BY PLACE OF WORK 3/					
MANUFACTURING	1,390	1,460	1,400	1,350	1,350
LUMBER & WOOD	30	50	50	40	40
OTHER MANUFACTURING 4/	1,360	1,410	1,350	1,310	1,310
NONMANUFACTURING	1,170	1,120	1,080	1,130	1,130
CONSTRUCTION	120	120	90	70	70
TRANS., COMM., & P. UTIL.	30	30	30	30	30
TRADE	380	370	360	330	290
FIN., INS., & REAL ESTATE	40	40	30	30	30
SERVICE	260	260	260	340	350
GOVERNMENT	340	290	300	320	350
OTHER NONMANUFACTURING 5/	0	10	10	10	10

1/ DATA BASED ON PLACE OF RESIDENCE.
2/ INCLUDES NONAGRICULTURAL SELF-EMPLOYED WORKERS, UNPAID FAMILY WORKERS, AND DOMESTIC WORKERS IN PRIVATE HOUSEHOLDS.
3/ INDUSTRY SEGMENTS ARE NOT ADDITIVE TO THE "NONAG. WAGE & SALARY EMPLOY." SHOWN UNDER "CIVILIAN LABOR FORCE" SINCE LABOR FORCE DATA ARE BY "PLACE OF RESIDENCE."
4/ INCLUDES APPAREL: FURNITURE: LEATHER; ELEC. MACHINERY; AND MISC. MFG.
5/ INCLUDES AGRICULTURAL SERVICES.

ASHE COUNTY

1974 MONTHLY DATA

	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC
CIVILIAN LABOR FORCE 1/	9,080	9,100	9,220	9,310	9,280	9,870	10,300	10,040	9,550	9,110	8,840	8,570
UNEMPLOYMENT, TOTAL	610	550	540	330	260	360	420	510	620	500	740	880
RATE OF UNEMPLOYMENT	6.7	6.0	5.9	3.5	2.8	3.6	4.1	5.1	6.5	5.5	8.4	10.3
EMPLOYMENT, TOTAL	8,470	8,550	8,680	8,980	9,020	9,510	9,880	9,530	8,930	8,610	8,100	7,690
AGRICULTURAL EMPLOYMENT	680	660	710	930	930	1,210	1,680	1,580	1,160	900	720	640
NONAG. WAGE & SALARY EMPLOY.	6,930	7,010	7,080	7,140	7,130	7,320	7,220	7,010	6,890	6,850	6,590	6,290
ALL OTHER NONAG. EMPLOYMENT 2/	860	880	890	910	960	980	980	940	880	860	790	760
INDUSTRY EMPLOYMENT BY PLACE OF WORK 3/												
MANUFACTURING	3,170	3,240	3,250	3,290	3,290	3,390	3,350	3,230	3,070	2,990	2,780	2,490
LUMBER & WOOD	270	270	270	290	290	280	270	260	260	250	240	200
OTHER MANUFACTURING 4/	2,900	2,970	2,980	3,000	3,000	3,110	3,080	2,970	2,810	2,740	2,540	2,290
NONMANUFACTURING	2,220	2,180	2,220	2,270	2,300	2,360	2,400	2,390	2,360	2,270	2,230	2,260
CONSTRUCTION	270	280	300	320	320	360	370	340	300	280	260	230
TRANS., COMM., & P. UTIL.	160	160	160	160	160	160	160	160	160	150	150	150
TRADE	650	590	610	630	640	640	640	660	650	630	630	670
FIN., INS., & REAL ESTATE	90	90	100	100	100	100	100	100	100	100	100	100
SERVICE	370	380	370	380	400	420	410	410	400	410	400	410
GOVERNMENT	660	660	660	660	660	660	660	660	680	680	680	690
OTHER NONMANUFACTURING 5/	20	20	20	20	20	20	60	60	70	20	10	10

1/ DATA BASED ON PLACE OF RESIDENCE.
2/ INCLUDES NONAGRICULTURAL SELF-EMPLOYED WORKERS, UNPAID FAMILY WORKERS, AND DOMESTIC WORKERS IN PRIVATE HOUSEHOLDS.
3/ INDUSTRY SEGMENTS ARE NOT ADDITIVE TO THE "NONAG. WAGE & SALARY EMPLOY." SHOWN UNDER "CIVILIAN LABOR FORCE" SINCE LABOR FORCE DATA ARE BY "PLACE OF RESIDENCE."
4/ INCLUDES FOOD; TEXTILES; APPAREL; FURNITURE; PRINTING; STONE, CLAY, & GLASS; FAB METALS; ELEC. MACHINERY; AND TRANS. EQUIPMENT.
5/ INCLUDES AGRICULTURAL SERVICES.

• 1974 ANNUAL AVERAGE DATA ARE SHOWN ON REVERSE SIDE OF PAGE.

ASHE COUNTY

ANNUAL AVERAGE LABOR FORCE ESTIMATES 1970 - 1974

	1974	1973	1972	1971	1970
CIVILIAN LABOR FORCE 1/	9,360	9,240	8,280	8,080	7,960
UNEMPLOYMENT, TOTAL	530	330	430	460	410
RATE OF UNEMPLOYMENT	5.7	3.6	5.2	5.7	5.2
EMPLOYMENT, TOTAL	8,830	8,910	7,850	7,620	7,550
AGRICULTURAL EMPLOYMENT	980	1,070	1,090	1,030	1,130
NONAG. WAGE & SALARY EMPLOY.	6,960	6,940	5,950	5,780	5,640
ALL OTHER NONAG. EMPLOYMENT 2/	890	900	810	810	780
INDUSTRY EMPLOYMENT BY PLACE OF WORK 3/					
MANUFACTURING	3,130	3,070	2,450	2,350	2,330
LUMBER AND WOOD	260	290	250	200	240
OTHER MANUFACTURING 4/	2,870	2,780	2,200	2,150	2,090
NONMANUFACTURING	2,290	2,260	2,070	2,120	2,010
CONSTRUCTION	300	350	250	250	200
TRANS., COMM., & P. UTIL.	160	140	140	130	130
TRADE	640	650	570	560	530
FIN., INS., & REAL ESTATE	100	80	70	80	70
SERVICE	390	360	350	380	370
GOVERNMENT	670	640	650	700	680
OTHER NONMANUFACTURING 5/	30	40	40	20	30

1/ DATA BASED ON PLACE OF RESIDENCE.
2/ INCLUDES NONAGRICULTURAL SELF-EMPLOYED WORKERS, UNPAID FAMILY WORKERS, AND DOMESTIC WORKERS IN PRIVATE HOUSEHOLDS.
3/ INDUSTRY SEGMENTS ARE NOT ADDITIVE TO THE "NONAG. WAGE & SALARY EMPLOY." SHOWN UNDER "CIVILIAN LABOR FORCE" SINCE LABOR FORCE DATA ARE BY "PLACE OF RESIDENCE."
4/ INCLUDES FOOD; TEXTILES; APPAREL; FURNITURE; PRINTING; STONE, CLAY, & GLASS; FAB. METALS; NONELEC. MACHINERY; ELEC. MACHINERY; AND TRANS. EQUIPMENT.
5/ INCLUDES AGRICULTURAL SERVICES.

MULTI COUNTY PLANNING REGION C

CLEVELAND, MCDOWELL, POLK, AND RUTHERFORD COUNTIES

ANNUAL AVERAGE LABOR FORCE ESTIMATES 1970 - 1974

	1974	1973	1972	1971	1970
CIVILIAN LABOR FORCE 1/	83,490	81,950	79,120	75,050	73,400
UNEMPLOYMENT, TOTAL	3,630	2,080	2,560	2,800	2,870
RATE OF UNEMPLOYMENT	4.3	2.5	3.2	3.7	3.9
EMPLOYMENT, TOTAL	79,860	79,870	76,560	72,250	70,530
AGRICULTURAL EMPLOYMENT	1,920	2,090	2,120	1,990	2,210
NONAG. WAGE & SALARY EMPLOY.	70,570	70,310	67,020	63,040	61,320
ALL OTHER NONAG. EMPLOYMENT 2/	7,370	7,470	7,420	7,220	7,000
INDUSTRY EMPLOYMENT BY PLACE OF WORK 3/					
MANUFACTURING	38,510	38,290	35,980		
FOOD	720	710	790		
TEXTILES	21,680	23,390	23,060		
APPAREL	3,000	2,090	2,010		
LUMBER & WOOD	400	350	320		
FURNITURE	3,580	3,440	2,810		
PAPER	380	420	400		
PRINTING	230	210	200		
RUBBER	550	510	460		
STONE, CLAY, & GLASS	1,640	1,640	1,640		
NONELEC. MACHINERY	260	240	190		
MISC. MFG.	120	170	190		
OTHER MANUFACTURING 4/	5,950	5,120	3,910		
NONMANUFACTURING	26,250	25,310	23,960		
CONSTRUCTION	2,100	2,300	1,990		
TRANS., COMM., & P. UTIL.	1,590	1,540	1,400		
TRADE	8,570	8,340	7,940		
FIN., INS., & REAL ESTATE	1,510	1,350	1,280		
SERVICE	5,490	5,390	4,930		
GOVERNMENT	6,240	5,550	5,590		
OTHER NONMANUFACTURING 5/	750	840	830		

1/ DATA BASED ON PLACE OF RESIDENCE.

2/ INCLUDES NONAGRICULTURAL SELF-EMPLOYED WORKERS, UNPAID FAMILY WORKERS, AND DOMESTIC WORKERS IN PRIVATE HOUSEHOLDS.

3/ INDUSTRY SEGMENTS ARE NOT ADDITIVE TO THE "NONAG. WAGE & SALARY EMPLOY." SHOWN UNDER "CIVILIAN LABOR FORCE" SINCE LABOR FORCE DATA ARE BY "PLACE OF RESIDENCE."

4/ INCLUDES CHEMICALS; LEATHER; PRIM. METALS; FAB. METALS; AND TRANS. EQUIPMENT.

5/ INCLUDES AGRICULTURAL SERVICES AND MINING.

Response to Comments Received From North Carolina
Department of Natural and Economic Resources

1. This correction has been made on page 12.
2. The analysis of impact attempts to make a comparison of existing conditions with the future conditions under designation, not only in terms of what would be done by the project, but also what possible future actions would be precluded. In this context, protection from impoundment and/or other types of alteration are appropriately cited. "Impoundment" refers not only to the currently proposed Blue Ridge Project, but other impoundments for whatever purposes they might be proposed in the future.
3. This discussion has been corrected to be consistent with your comment.
4. This correction has been made.
5. The 50-foot figure was an estimate obtained in telephone conversation with staff of the Department and was intended to represent an <u>average</u> width of the corridor of scenic and conservation easements to be acquired along the river, not including the easement up the slopes of the Peak. Subsequent conversations with Mr. Bob Buckner of the Department has clarified this matter. The enabling legislation for the North Carolina Natural and Scenic Rivers System specified that the corridor to be protected for such a river will be a <u>minimum</u> of 20 feet and <u>no more than</u> an average of 320 acres per

mile or roughly 1/4 mile per side. The authorizing legislation for the New River and South Fork as a component of this State system; however, specifies that for this river, no more than 1,500 acres can be acquired. This would allow a maximum average corridor width of 467 feet. Therefore, we have clarified the discussion of the corridor to replace the references to a 50-foot average width with the terms "1000-1500 acre corridor ranging generally in width from 20 to 500 feet, possibly wider at a few places."

6. The broad term "social impacts" has many ramifications which are adequately addressed in "Impact on Land Use," pages 180 and 181; "Impact on Population, pages 182 and 183;" "Impact on Transportation," pages 186 and 187; "Impact on Economy," pages 187, 188, and 189; and "Impact on Recreation," pages 189-196. The interrelationship of all of the above mentioned impacts collectively describe "social impacts."

7. Table II-B listed all the sources of wastewater discharges to tributaries of the New River which we were aware of at the time the Draft EIS was prepared. This additional information is appreciated, and the errors noted which occur on pages 74 and 77 have been corrected as suggested.

   This statement has been added to the Impact on Water Quality subsection of Section III on page 167.

8. This comment agrees with our assessment of the impact found on page 169.
9. This comment agrees with our assessment of the impact found on page 164.
10. The section in question has been rewritten according to these comments.
11. The affect of the river designation on population loss is discussed on pages 182 and 183 under "Impact on Population" and the economics effects are discussed on page 188 under "Recreation and Tourism." As stated in these references, the economic impact on recreation and tourism would be minor and the impact on population loss would be insignificant. Although the Blue Ridge Parkway is a highly travelled scenic route, an insignificant number of Parkway users are expected to visit the river and their proportionate expenditures within the two county areas would be minor.
12. The "severely limited ... acceptable locations factors such as transportation, topography, climate and physical infrastructure" will be unaffected by the river proposal. It would be difficult to contribute an improvement in "economic opportunity," limited by the aforementioned factors, to the river proposal.
13. Changes have been made on page 39 in the FEIS text reflecting 1970-1974 data; however, Table II-3 was not changed since all other data was compiled with 1970 as the base year.

14. We regret that the Commission's information supplied to the ad hoc State Committee was not supplied us by the Department of Natural and Economic Resources for the preparation of the draft report. Information supplied in these comments is, however, added to the final.

15. Since the study methods and data collection points of the 1974 study were intended to reevaluate the data of the 1964 study, and as the conclusion of the reevaluation was that the watershed had remained stable in the 10-year period, we believe it unnecessary to present the results of the 1964 study. (The results of the 1974 study are presented.) A visit to the Wildlife Resources Commission in Raleigh by staff of the Bureau of Outdoor Recreation was made and a copy of the 1964 study was requested; however, it was not available. Nevertheless, we have included it in the reference list and noted in the text that it is available from the Commission.

    We assume that the 1958 study referred to is the "Cool Water Stream Studies" report referenced in material previously supplied us by the State. We have added this to the text of the FEIS. The creel census information suggested has been included also.

16. The title of this table is taken verbatum from a published document which credits the 1963 field studies by Dr. Fish, published in 1968 as the source. We do not believe that the title of the table is sufficiently misleading for us to change it, as that would cause confusion in the reference to

its publication. The reference to studies "in 1964-68" was intended to refer to Dr. Fish's published Catalogue which is dated 1968, but which in its preface says data were updated in "summer of 1964."

17. The error in attribution of the Catalogue has been corrected.
18. This correction has been made.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION AND HIGHWAY SAFETY
RALEIGH 27611

JAMES E. HOLSHOUSER, JR.
GOVERNOR

J. F. ALEXANDER
SECRETARY

DIVISION OF HIGHWAYS

January 5, 1976

Ms. Jane Pettus
Clearinghouse Supervisor/OIR
N. C. Department of Administration
Raleigh, North Carolina

Dear Ms. Pettus:

Subject: South Fork New River National Wild and Scenic River in North Carolina; SCH File Number 144-75.

We have reviewed the Draft Environmental Statement for the proposed action with respect to transportation. Generally, the Environmental Statement accurately describes the transportation network and traffic patterns within the study area; however, it should be pointed out that the N. C. Department of Transportation has plans to replace the existing bridge over South Fork New River on SR 1595. Additional details concerning this bridge replacement are contained in the attached Project Planning Report.

As pointed out in the Environmental Statement, the construction of a dam as proposed by the Appalachian Power Commission would have a major impact on the highway system of the area; in that, all roads in the reservoir would have to be relocated. On the other hand the Wild and Scenic River proposal would have only minimal affect on the road system.

Sincerely,

W. M. Ingram
Head of Project Management

BJO/WMI/jc
Attachment

PROJECT PLANNING REPORT

Ashe County

Bridge No. 195 Over South Fork
New River on SR 1595

State Project: (B-108)

SUBMITTED TO

PLANNING BOARD

BY

PLANNING AND RESEARCH BRANCH

DIVISION OF HIGHWAYS

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

J. M. Greenhill
pecial Transportation Engineer

T. L. Waters
Manager of Planning and Research

Ormond Bliss
Project Engineer

TABLE OF CONTENTS

PROJECT PLANNING REPORT

for

Ashe County
Bridge No. 195 over South Fork
New River on SR 1595
State Project: (E-108)

I. Background: State Bridge Replacement Program

The 1975 session of the North Carolina General Assembly enacted Senate Bill 546 which directs replacement or removal by June 30, 1980 of all bridges on the State Highway system which have through truss spans over 125 feet long with clear roadway width less than 12 feet. The Bill also waives requirements of the State Environmental Policy Act.

II. Existing Conditions

SR 1595 has a 16-foot BST pavement and is classified a minor collector in the 1990 Functional Classification Plan for Ashe County. The route serves rural eastern areas of the County. Residential development is sparse. ADT was 200 vehicles in 1974 near the subject bridge.

Bridge No. 195 consists of a main through steel truss 140 feet long and timber approaches totaling 115 feet in length. The timber deck has a clear roadway width of 11.5 feet and a vertical clearance of 13.5 feet. The substructure has two concrete bents consisting of piles. Timber reinforcement has been placed under the deck of the south approach. The 4-ton posted load limit does not permit use by trucks or buses.

The superintendent of Ashe County Schools reports that school buses are presently required to use roundabout routes to serve this area of the County. Replacement of the present bridge will provide more direct and desirable routing for buses.

The Blue Ridge Project, consisting of two hydroelectric dams along the New River near Galax, Virginia, has been

proposed by Appalachain Power Company. The upper reservoir is proposed to have a maximum pool elevation of 2652 feet above mean sea level. This elevation is about 40 feet above the deck of the subject bridge. Since the section of SR 1595 between a point just north of the bridge and SR 1600 (south of the bridge) is below the planned maximum pool elevation, Appalachain Power Company reservoir plans include relocation of the road generally parallel to and southwest of the existing alignment (see Figure 3).

The Blue Ridge Project has become controversial during the past few years. The NC General Assembly has passed resolutions opposing the project during recent sessions. The present NC Administration has expressed objections to the project. The Federal Power Commission's liscensing procedure for the project will be appealed by the State of North Carolina before the DC Circuit Court of Appeals in Washington beginning the latter part of October 1975. Depending on the outcome of this appeal, a separate suit is pending before the Fourth Circuit Court of Appeals in Richmond, Virginia. Legislation has been presented in the US Congress to include the New River in the Scenic Rivers Act.

III. Alternatives

Alternatives which were investigated were based on two general concepts: (1) replacement at approximately the same elevation of the existing bridge; and (2) replacement at an elevation above the maximum pool of the proposed reservoir.

A. Replacement at Elevation of Existing Bridge

Replacement along the existing alignment is most economical from a construction standpoint. Very little, if any, additional right of way is required for roadway approaches. Construction operations are simplified since traffic can be conviently detoured via other routes in the area.

Replacement immediately upstream (west) of the present structure involves acquisition of additional right of way for realignment of roadway approaches. Borrow material and floodplain encroachment is greater than along the existing or a downstream alignment. Channel change of a small creek located northwest requires replacement of a 72-inch pipe culvert.

Replacement immediately downstream offers the best approach alignment and requires very little borrow

material. Additional right of way and moderate to heavy excavation on the north approach is necessary for roadway approaches. Approximately 3 acres of right of way is required for roadway approaches.

B. Replacement Above Maximum Pool of Proposed Reservoir

Assumming the proposed Blue Ridge Project is constructed, the replacement structure should be located approximately 250 feet downstream of the existing structure. Elevation of the structure above the maximum pool elevation of the proposed reservoir would require about 0.5-mile of approach work with fill ranging up to 50 feet in depth. Length of the structure would be about 400 feet. Estimated cost is about $1 million.

IV. Recommendations

In view of the present indecision regarding the Blue Ridge Project, replacement of bridge No. 195 at the existing site is recommended with a clear roadway width of 28 feet[1]. Length of the structure will be about 270 feet. Minor approach work required should have a 20-foot pavement with 6-foot shoulders.

If the Blue Ridge Project is approved for construction and approval is granted before the recommended bridge replacement is constructed, the structure and approaches would be replaced above maximum pool elevation of the reservoir under current plans by Appalachain Power Company. Under these conditions, alignment would be generally in the location shown in Figure 3. However, this proposal cannot be reasonably recommended at this time due to the indeterminate status of the Blue Ridge Project and high cost to the state.

---

[1] AASHTO, "Geometric Design Guide for Local Roads and Streets, 1969", Table 8.

V. Estimated Cost

Estimated costs of the recommended project are itemized as follows:

Structure	$260,000
Remove Existing Bridge	10,000
Roadway Approaches	30,000
Engineering and Contingencies	60,000
Total	$360,000

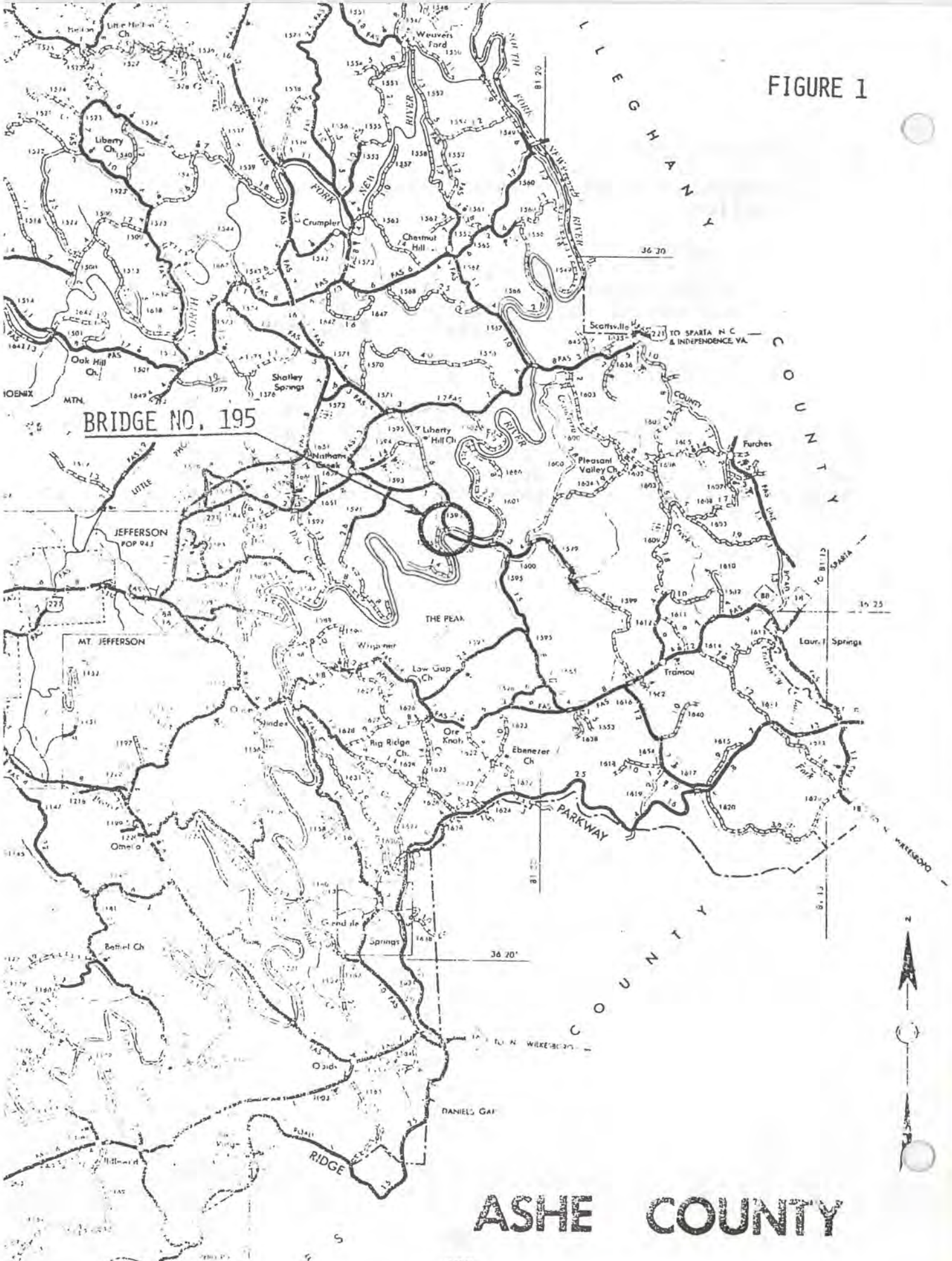
VI. Permits Required

A Section 404 (Water Pollution Control Act) permit may be required from the US Corps of Engineers. Permits from the US Coast Guard will not be required since the New River was placed in the advance approval category in 1968. The Corps and the Coast Guard have been advised of plans to replace the bridge.

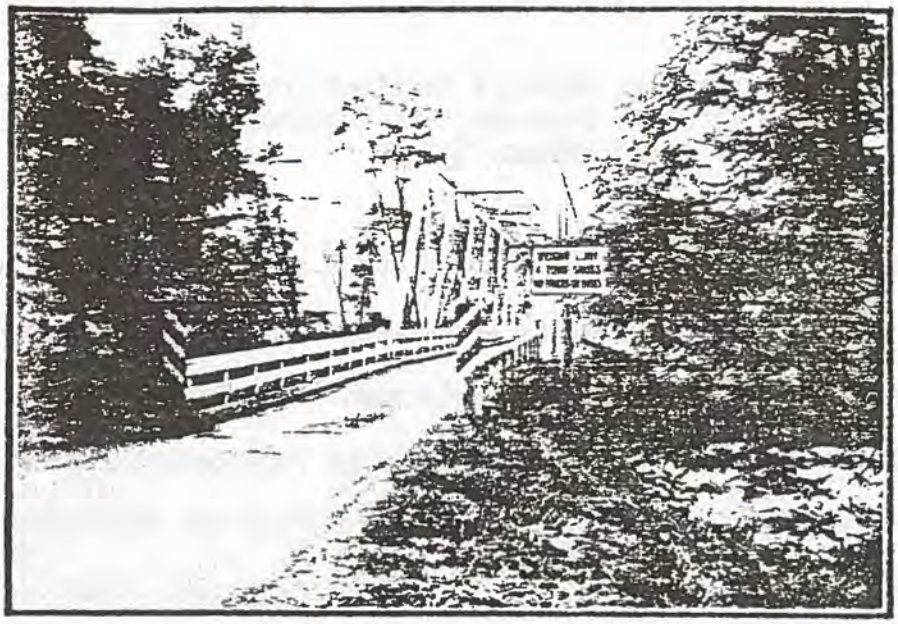
ONB/JMG/TLW/et

Attachments

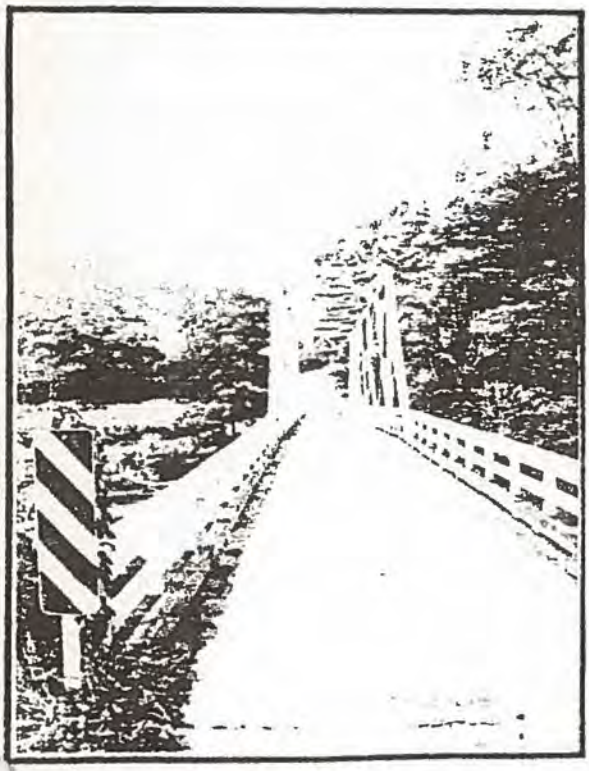
FIGURE 1


BRIDGE NO. 195
ALLEGHANY COUNTY
ASHE COUNTY
JEFFERSON
POP 943
MT. JEFFERSON
THE PEAK
Weavers Ford
Liberty Ch
Crumpler
Chestnut Hill
Scottsville
TO SPARTA N C & INDEPENDENCE VA
Oak Hill Ch
Shatley Springs
Liberty Hill Ch
Pleasant Valley Ch
Furches
Low Gap Ch
Ore Knob
Ebenezer Ch
Big Ridge Ch
Tramou
Laur. Springs
PARKWAY
Omera
Glendale Springs
Bethel Ch
Ozida
DANIELS GAP
RIDGE
Hillsville
36 30
36 20'

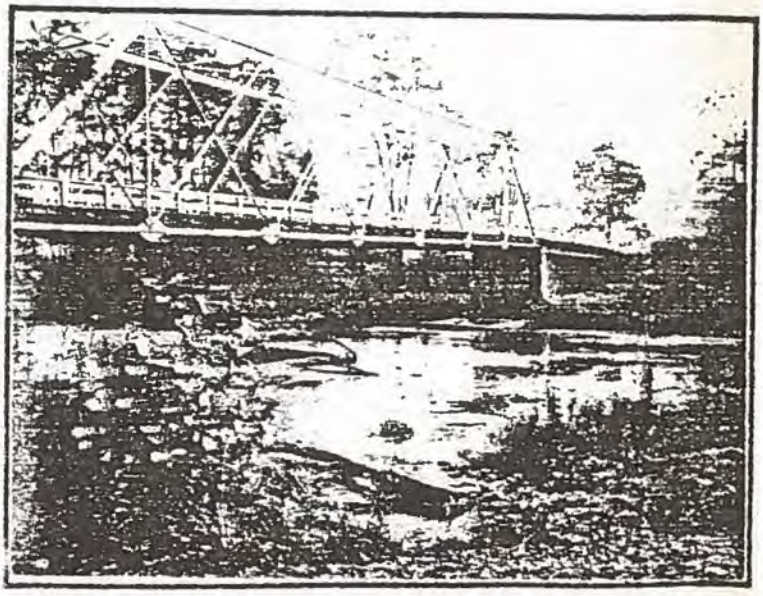
ASHE COUNTY, BRIDGE NO. 195 OVER S. FORK NEW RIVER ON SR 1595



NORTH APPROACH



SOUTH APPROACH



VIEW FROM UPSTREAM (NORTH WEST)

FIGURE 2

Response to Comments Received From
the North Carolina Department of Transportation
and Highway Safety

1. A sentence has been added on page 46 of the FEIS identifying plans by the North Carolina Department of Transportation and Highway Safety for a bridge replacement over South Fork New River on SR 1595. Plans for the bridge replacement should be carefully coordinated with the North Carolina Department of Natural and Economic Resources if the proposed scenic river is implemented.

STATE OF NORTH CAROLINA
Department of Cultural Resources
Raleigh 27611

James E. Holshouser, Jr.
Governor

Grace J. Rohrer
Secretary

January 13, 1976

Division of Archives and History
Larry E. Tise, Director
State Historic Preservation Officer

Mr. Robert M. Baker
Regional Director
Southeast Regional Office
Bureau of Outdoor Recreation
U.S. Department of the Interior
3401 Whipple Avenue
Atlanta, Georgia 30344

Dear Mr. Baker:

A copy of the draft environmental impact statement for the proposed South Fork New River, National Wild and Scenic River in North Carolina (SCH 144-75) has been forwarded to the Survey and Planning Branch and to the Archaeology Section of the Division of Archives and History by the state clearinghouse. Each agency comments separately.

The Survey and Planning Branch comments that page 185 of your agency's draft environmental impact statement indicates that if the study area is included in the National Wild and Scenic Rivers System, the state would conduct a surface structure inventory, which will comply with Executive Order 11593. The conducting of such an inventory in accord with Executive Order 11593 is not the responsibility of the State Historic Preservation Officer, but of the federal agency in question. This agency would be glad to provide assistance and existing file material. However, present staff capability and existing resources would make the undertaking of such a survey by the state alone impossible.

The North Carolina Department of Cultural Resources has applied for a federal grant (Appalachian Regional Commission) to conduct a survey of the western portion of the state including the area in question. Should this grant be received, this agency would be in a better position to conduct or assist in such a survey and would give the project area top priority.

The Archaeology Section comments that the New River draft environmental statement contains one of the best considerations of archaeological resources that has come through this office for review in recent times. The only question that has arisen in regard to the statement is a reference to an archaeological survey of the area conducted in 1974. The Archaeology Section has no documentation on any surveys after 1969. However, the Archaeology Section is in agreement with the draft environmental statement, and concurs with the conclusion that use of the area as a National Wild and Scenic River would offer maximum possible preservation of the archaeological resources that are present. Also, the Archaeology Section is in agreement with the statement that additional archaeological survey is needed on the project property. The additional survey should be carried out regardless of the project alternative chosen. Additional survey in the case of the Wild and Scenic Rivers alternative should be conducted on the small developmental tracts as well as those areas that will not be developed. 2

Please contact Mr. Patrick Garrow of the Archaeology Section if you have additional questions concerning the archaeological needs of this project. Thank you for your cooperation in this matter.

Sincerely yours,

Larry E. Tise

LET:e
cc: Ms. Jane Pettus
Clearinghouse

Response to Comments Received From the North Carolina Department of Cultural Resources

1 and 2. The responsibility for performing the cultural resources inventory, in compliance with Executive Order 11593, will belong to the State of North Carolina. This responsibility will be set forth in the official Secretarial letter of designation of the South Fork New River in the event that this proposal is approved. Designation will be contingent upon performance of this inventory, among other things.

NORTH CAROLINA
DEPARTMENT OF AGRICULTURE

RALEIGH, N. C. 27611

ILLIAM G. PARHAM, JR.
DEPUTY COMMISSIONER
.EX M. LEWIS
OFFICE OF FISCAL MANAGEMENT
ILLIAM A. WILDER, JR.
OFFICE OF CONSUMER SERVICES
ELVIN H. HEARN
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SEED & FERTILIZER—GEORGE E. SPAIN
ANIMAL HEALTH—DR. T. F. ZWEIGART
CONSUMER STANDARDS—MARION KINLAW

January 6, 1976

A-95 Clearinghouse
Office of Intergovernmental Relations
N. C. Department of Administration
Raleigh, North Carolina

Gentlemen:

The South Fork of the New River which is a proposed National Wild and Scenic River is of vital concern to the North Carolina Department of Agriculture. The only land uses now present in the proposed area are farm and forestry related. Their presence and practices have not been detrimental to the beauty of the River. The cattle grazing on the pastures along the hillsides have done much to enhance the aesthetic quality of many portions of the river.

When the North Carolina General Assembly considered this river in 1975, the major concern was for the people living along the river. The changes which would affect their way of life were the big questions. Our legislature considers farming and forestry practices as they now exist to be totally compatible with North Carolina's Natural and Scenic designation. We wholeheartedly agree with this concept.

We do have some misgivings about parts of this Draft Environmental Statement. There seems to be an automatic assumption in several places which equate agricultural operations with water pollution.

> "Perhaps the most significant detrimental factor now influencing the fishery of the South Fork is poor agricultural practice." pg. 138
>
> "Poor Agricultural Practices" are again presented on page 179 as a chief threat to good fish habitat."

If statements like this are going to be made, then a description and explanation of the "poor agricultural practies" is necessary. Placing blame on agriculture for water quality damage cannot be done lightly or without proof.

The information given on page 135 showing water quality parameters does not lead me to believe that agriculturally related problems exist. By your data this water is of extremely high quality. 1

"Thermal Pollution is also a constant risk in an agricultural area where trees and shrubs have been removed from streambanks." Pg. 138

Thermal pollution is a threat to cold water species in ANY area where trees and shrubs have been removed. However, it may be of some benefit to other species which inhabit warm water, by expanding favorable habitat temperature wise.

On pages 148-149, the competition for good land seems to be among agricultural, industrial, urban, developmental, transportation, residential and recreational interests. At the bottom of page 149, it states that farm land in the five county New River Valley area is being diverted to non-farm uses at a rapid rate. However, I have seen no evidence indicating that these statements have any merit in the proposed area affected by this wild and scenic designation, especially since on page 182 is this quote: 2

"In the river corridor nearly 100 percent of the land is privately owned farm land (primarily pasture and forested slopes)."

I can find no need to have such a discussion of conflicting land uses as on pages 148-149. Surely if this pressure to convert to non-agricultural uses was present, some measurable amount of land would be observed in that use and mentioned in this environmental statement.

On pages 165-166 it is stated that a moderate amount of pollution reaches the river due to agricultural runoff and livestock. This statement is made in conjunction with the combined discharges from the city of Jefferson and all other municipal and industrial discharges upstream. These non-agricultural discharges are in excess of one million gallons of waste water per day. This correlation is not necessary. The U. S. Environmental Protection Agency does not consider the grazing of cattle on pastureland to have any significant effect on nearby stream quality.

The studies done on the river in 1964 and 1974 have shown that the watershed has remained relatively stable over the past 10 years (page 134) 3

With this information it is unnecessary to place agriculture in the same category with "the widespread dumping of trash and garbage into the streams." (page 138)

The North Carolina Department of Agriculture supports the designation of Wild and Scenic River Status on the South Fork New River in North Carolina. However, it is our sincere hope that misleading information concerning agricultural activities will be removed from the final environmental statement.

We believe that the plans set forth for protection, management and use of the proposed area are consistent with the wishes and desires of the North Carolina General Assembly and the people of this great state. Thank you for your work and concern in helping us conserve an area of unique natural and historic importance for future generations of North Carolinians.

Sincerely,

Thomas W Ellis III

Thomas W. Ellis, III
Environmental Planner

cc: Secretary James Harrington

Response to Comments Received From
North Carolina Department of Agriculture

1. The first three sentences of paragraph three on page 138, referring to poor agricultural practices, roads, and dumping, are a direct quote from the September 1974 report Assessment of Fishery Resources of the New River Watershed by Thomas E. Crowell of the North Carolina Wildlife Resources Commission. However, this discussion has been revised to make clear that siltation from agricultural operations is one of several nonpoint sources of pollution. This is according to information from the Water Quality Management Plan for the New River Basin, draft, November 1975, prepared by the Division of Environmental Management of North Carolina Department of Natural and Economic Resources. Siltation from agricultural operations is second in significance to that contributed by dirt roads in the watershed, according to the New River Valley Resource Conservation and Development Project Plan.

   Although the water is of sufficiently high quality to support fish and wildlife propagation, some degradation exists. The above-mentioned documents cite agricultural runoff from feedlots, fertilizers, and pesticides, as contributing "a significant volume of manmade pollutants to the surface waters." (See discussion on page 80ff.) "Large acreages of intensively grazed pastures, lack of proper forest management, and large land developments with ensuing problems of erosion, sedimentation, and waste disposal are examples of trends that have been damaging to fish and wildlife resources."

The description of thermal pollution risks has been changed to reflect any process causing removal of streambank vegetation, as you suggest.

2. The type of land use adjacent to a river which is being considered for inclusion in the National Wild and Scenic River System is critical to whether or not the river can be effectively managed for this use. Land use trends and the presence of conflicts between land uses must be discussed in any document which purports to be an aid to decisionmakers in determining the final disposition of this issue. The Draft EIS is such a document. In addition, most of the information relating to conflicting land uses and land use trends was drawn from a report prepared by the Council, New River Valley Resource Conservation and Development Project of North Carolina and Virginia entitled New River Valley Resource Conservation and Development Project Plan. The council represented the county commissioners of Alleghany, Ashe, and Watauga Counties, North Carolina, the County Supervisors of Grayson and Carrol Counties, Virginia, and Galax, Virginia, City Council, and three Soil and Water Conservation Districts. It was assisted by the U.S. Department of Agriculture, Soil Conservation Service in the preparation of the project report.

3. The statement referred to in this comment does not imply that pollution due to agricultural runoff is of the same order of magnitude as the pollution due to municipal and industrial sources.

There is evidence that some pollution from cattle is reaching the river directly. Refer to our response to item 1 above and the photograph which appears under the statement in question on page 166.

Mr. Ellis' statement that the U.S. Environmental Protection Agency does not consider the grazing of cattle on pastureland to have any significant effect on nearby stream quality is not correct in all cases. According to telephone consultation with EPA staff in the Southeast Regional Office, the impact on nearby stream water quality of cattle grazing would depend on the number of cattle, type of ground cover, slope, amount of rain, and other factors. In certain cases the impact could be significant, in others it might be minor. In the case of the New River not enough data is available to make a more exact determination than is offered in the revised section on water quality in this document.

4. The listing on page 138 has been revised to clarify the importance of various sources of pollution.

RUFUS L. EDMISTEN
ATTORNEY GENERAL

State of North Carolina
Department of Justice

P. O. Box 629
Raleigh
27602

7 January 1976

MEMORANDUM

TO: Jane Pettus
Clearinghouse Supervisor
Office of Intergovernmental Relations
N. C. Department of Administration

FROM: Millard R. Rich, Jr.
Deputy Attorney General

RE: South Fork New River National Wild and Scenic River in North Carolina; SCH File Number 144-75.

Pursuant to your Memorandum of December 9, 1975, the office of Attorney General offers the following comments on the draft Environmental Impact Statement prepared by the Department of the Interior on the proposed South Fork New River National Wild and Scenic River in North Carolina.

We have no comments with respect to the description of the proposed action, description of the environment and environmental impact on the proposed action. These statements appear to us to be accurate and reasonable.

The statement with respect to the mitigating measures included in the proposed action are particularly appropriate and accurate, in our opinion.

With respect to the unavoidable adverse environmental impacts of the proposed action, we find no fault with the statements contained therein.

In our opinion, the statement with respect to the relationship between local short-term uses and the maintenance and enhancement of long-term productivity is reasonable and does not conflict with our understanding of the proposed action.

JAN 5 1976

We fully agree with the statement contained in part 7 that "the proposed action involves no significant physical changes to the existing environment and no irreversible and irretrievable commitments of resources."

With respect to the impact on the river if the Appalachian Blue Ridge Project is constructed, we note at page 207 that "part of the following discussion is drawn from the final environmental impact statementfor the Blue Ridge Project prepared by the Federal Power Commission and issued in June 1973." It would have been helpful if the Department of the Interior had set out with more specificity the portions in this part which it adopted from the environmental impact statement prepared by the FPC. 2

We agree with the conclusion contained in part 8 that the building of the Blue Ridge Project will have a major impact upon soils, air quality, scenic quality, vegetation, fish and wild life, land use, population, archeology, transportation and recreation. We feel that the major impacts in these areas are to the detriment of Ashe and Alleghany Counties and its citizens and that the Environmental Impact Statement should so state. 3

The statement with respect to the impact on the economy states "The local economy would be significantly stimulated by the Blue Ridge Project by creating jobs doing construction and the potential for new industrial development upon Project completion." This statement apparently is taken from the statement prepared by the FPC with which we do not agree. The record of this proceeding, in our opinion, does not sustain such a conclusion. Persons and businesses displaced by the project do not appear to have been adequately considered. 4

MRRJr:ae

Response to Comments Received From
State of North Carolina
Department of Justice

1. We appreciate the review of the Department of Justice. These comments do not need a response.

2. The sections drawn directly from the Federal Power Commission's Final Environmental Impact Statement have been identified by an asterisk.

3. In the draft and final statements, impacts for the proposal and the alternatives have been described and discussed as objectively as possible in terms of the magnitude of the change from existing conditions and trends.

4. Appropriate footnote information has been added on page 222 of the FEIS. In the absence of additional or updated economic data, that included in the FPC statement will be used as the best available.

North Carolina Department of Natural & Economic Resources

JAMES E. HOLSHOUSER, JR., GOVERNOR • JAMES E. HARRINGTON, SECRETARY

A. GRADY DALE
BOX 27687, RALEIGH 27611
TELEPHONE 919 829-4776

December 16, 1975

Mr. Robert M. Baker
Regional Director
U. S. Department of the Interior
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

The following are comments (refer to 3400) by the State Soil & Water Conservation Commission on the Draft Environmental Statement as proposed for the South Fork New River National Wild and Scenic River in North Carolina.

The draft environmental statement for the most part is a well prepared document. There appear to be several inconsistencies and omissions, some of these are listed below:

1. The definition of a scenic river and the 4th paragraph on page 5. "The present prevailing land use in the identified segments consist of active pasture and cultivated lands." These two statements do not seem to be compatible. | 1

2. Page 164 - Impact on Soils - last paragraph. "Impact should be minimal." This statement is questionable. Areas along the river near access areas will be subject to walkers at a rate in excess of 10,000 per year one way on a 50 foot strip. | 2

3. Page 180. The 400 acres of cropland (page 175) will be seriously damaged by the prorata part of 50,000 people using the area each year. | 3

4. Page 204, 3rd paragraph - Horse back riders and 50,000 people per year on a strip 50 feet wide on each side of the stream should seriously curtail agriculture or any vegetation in the area under study. | 4

5. Page 210, paragraph numbered 1. This paragraph indicates that all sediment would come from recreational sites and none from upstream. This is obviously not the case. The major source of sediment would be from the same area as under present conditions. Also why not recognize benefits from trapping sediment in the reservoir? | 5

Paragraph numbered 2 - page 228 states low flow would be 350 CFS or 694 acre feet per day. This is equal to about 4 times the maximum rate of evaporation from a lake in this area. Page 78 states " ---------- water quality has not been adversely affected." 5

Paragraph numbered 3 - page 78, 3rd sentence states "In spite of the presence of waste water discharge overall water quality has not been adversely affected. If this statement be true, how can eutrophication be a problem in the lake? Page 227 states that lack of nutrients will cause fish population to decline. Clarifications of these statements is needed.

Paragraph numbered 4 - Water can be withdrawn from the impoundment at any desired level under present structural designs. 6

6. Page 212. Impact on Scenery - Is the change from natural river scenery to mountain lake scenery good or bad? 7

7. Page 213. Impact on Vegetation - It is stated on page 112 "The value of timber within the study area is negligible. This seems to be a conflict with the impact statement on the aforementioned page. 8

8. Page 216. Impact on Fish - Is the loss of river fishing equal to or less than the addition of 14,200 acres of lake fishing waters? The benefits as well as damages should be revealed. 9

9. Page 218. Impact on Population - Is the increase in population beneficial or detrimental? Applachia programs are aimed at increasing population. 10

10. Page 221. Impact on land use - It is stated on page 32 that "Agriculture is important but is declining in terms of both its absolute and relative employment levels ----------. The rugged nature of the country precludes agricultural production based on large flat fields." According to these statements agriculture is going out in either case. 11

11. Page 225. Impact on Economy - What would be the benefits from the impoundments in terms of increased income? Present income is 76% of state average. 12

12. Page 226. Impact on Recreation - Reference is made on page 211 to the increased nutrients which would be introduced into the lake while it is stated on page 227 that fishing will decline from lack of nutrients. The scenic area would bring in 50,000 visitors a year - How many would the lakes bring in each year? 13

Impacts from the alternative fail to set forth the beneficial as well as the detrimental effects. A statement that there will be a "strong impact" without clarification is nearly meaningless. 14

Many thanks for the opportunity for comments.

Sincerely,

S. Grady Lane

S. Grady Lane

SGL/fa

Response to Comments Received From State of North Carolina
Department of Natural and Economic Resources,
State Soil and Water Conservation Commission

1. Under a Scenic River classification, in the National Wild and Scenic Rivers System, agricultural practices which do not adversely affect the river area may be permitted. This is the case regarding the potential New River designation.

2. The figure of 10,000 land-based users per year is misinterpreted in this comment. The figure was taken from the table on page 196 and includes campers and picnickers as well as hikers. The use of these 10,000 participants is anticipated to occur over the 400 acres of recreation area and not along a 50-foot strip as stated in the comment. Actually, the easement corridor will vary from a minimum of 20 feet to nearly 500 feet on each bank. It is felt that this level of use would result in some soil compaction and erosion, but that the overall impact of the proposal on soils would be minimal as stated.

3. Page 180 does not state that the current use of the approximately 400 acres slated for recreation development by the State of North Carolina is cropland. This land is currently "open land" as stated on page 180, and it would be purchased and managed by the State. Fifty thousand annual visitors would present a management challenge and a significant impact could occur on the 400-acre resource;

however, the table on page 195 of the FEIS states that the carrying capacity of this land for recreation purposes exceeds the anticipated visitation.

4. No mention was made of horseback riders on page 204 of the DEIS. However, the table on page 173 states that the two primary recreation sites (150 acres each) will have a 1-mile trail and a ½-mile loop trail for hiking and horseback riding. Less than 3 miles of horseback riding trail was felt to be so insignificant that horsemen were not included in either the annual recreation visitation estimates (page 193) or in determining the "Carrying Capacity of Land Based Recreation Facilities," (page 195). Horseback riders will not be allowed "on a strip 50-feet wide on each side of the stream." See also the response to comment 2 above, regarding the width of the corridor.

5. The paragraph cited in this comment does not indicate that all sediment in the reservoir would come from recreational sites. It states that the total silt load would be the sum of the present silt load in the river plus the silt carried by runoff from construction and recreation sites.

   The comment suggesting the recognition of benefits from the trapping of sediment has been incorporated into the text on page 210.

   The comments with regard to paragraphs 2 and 3 on page 210 of the draft EIS indicate that the discussion of existing water quality in

the South Fork New River has been confused with the discussion of the impact on water quality if the reservoirs are constructed. Although the present quality of water in the South Fork New River is high, the situation could change as a result of the Blue Ridge Project.

We agree that some clarification with regard to eutrophication is needed. Appropriate changes have been made therefore to paragraph 3, page 211.

6. This fact has been corrected in the FEIS.

7. This would be a matter of individual interpretation and preference.

8. Page 112 refers to commercial timber production, as stated. Page 213 refers to typical forest cover of a noncommercial nature. The value of commercial timber is negligible; however, the potential loss of noncommercial forest vegetation due to inundation would be significant.

9. According to the 1973 Final Environmental Impact Statement for the Blue Ridge Project, the two reservoirs would inundate approximately 44 miles of mainstream river and 212 miles of tributary streams, changing the fishery from riverine to reservoir type. It also estimates the loss in existing riverine fishery to be worth $47,600 per year, and the new fishery to be worth $140,200 per year, exclusive of a potential additional second story trout fishery. However, comments of the Department of the Interior, the State of North Carolina,

and the State of Virginia, on the FPC FEIS point out that the reservoir fishery can be described as more valuable only in terms of the greater number of man-days of fishing to be offered in contrast to that available in the existing river. North Carolina, as stated in the draft EIS on the proposed scenic river, considers the existing smallmouth bass fishery to be more valuable than the reservoir fishery because of its greater scarcity statewide.

The comments of Virginia and West Virginia on the proposed impoundment point out the lack of information on the potential quality of downstream fisheries and the possible damage to existing downstream riverine fisheries from greater water fluctuation. In view of the lack of definitive information on the downstream effects and potentials, we cannot say that the loss of river fishing is equal or not equal in quantitative terms to the addition of lake fishing opportunities. We have set forth the impacts that are known or partially known at this time.

10. This is an individual value judgement based on individual interpretation and perspective.

11. Without the Blue Ridge Project, agriculture would remain important but decline slightly in employment levels. Due to the rugged terrain, field crops are not significant, but the raising of cattle is. With the reservoir project, thousands of acres would be removed from any kind of agricultural production--cropland or pastureland.

12. As stated on page 225 of the FEIS, construction of the Blue Ridge Project would significantly stimulate the local economy during construction; however, this stimulation could decline upon completion of construction.

13. Refer to the discussion under item 5 above. The comments about increased versus decreased nutrients do not conflict, as the conditions occur at different times. Nutrients would be abundant in the reservoir immediately after filling and would decrease over the years if this impoundment follows the general pattern of most reservoirs. This discussion is based on the general case, not detailed information on the proposed project, because such information is not presently available. The estimated average annual visitation to the Blue Ridge Project is 6,230,000.

14. Impacts were judged according to the degree of significant change from the present status. No judgment of net benefit or detriment of a change was made since these judgments are individual evaluations which vary greatly.

COMMONWEALTH of VIRGINIA

Office of the Governor
Richmond 23219

E. Godwin, Jr.
nor

January 9, 1976

The Honorable Thomas S. Kleppe
Secretary of the Interior
Washington, D. C. 20240

Re: Proposed South Fork New River National Wild and Scenic River in North Carolina

Dear Mr. Secretary:

This letter provides the comments of the Commonwealth of Virginia on the draft environmental statement (DES '75 58) issued November 28, 1975, on the proposed South Fork New River National Wild and Scenic River in North Carolina.

Before proceeding to a discussion of the above mentioned statement, the Commonwealth of Virginia must reiterate her long-standing support of the construction of the Blue Ridge Project (FPC License No. 2317). The Commonwealth opposes the proposed designation of the South Fork of the New River as a component of the National Wild and Scenic Rivers System because such designation might be inconsistent with the construction of the Blue Ridge Project.

The support of the Commonwealth for the Project is premised upon the numerous and significant benefits which the Project will provide. These benefits will far surpass the benefits to be derived from administration of the river as a scenic river.

The primary benefit will be 1,800 megawatts of needed peaking capacity for the Appalachian Power Company and the American Electric Power System. The Federal Power Commission found that "the electric power to be generated by the project is needed, and that the potential beneficiaries of that power represent a sizable part of the population of the nation." See Opinion and Order No. 698 issued June 14, 1974, at p. 16. Secondly, there will be important recreation benefits. The large upper lake will be much more accessible to public use than is the present river or the proposed scenic river. Annual visitation to

the Blue Ridge Project is estimated at over 6 million compared with the 50,000 visits estimated on page 188 of the draft environmental statement for the proposed scenic river. See Appendix E-3, p. 203, of the Final Environmental Impact Statement of FPC Project No. 2317, June, 1973. In addition, under the terms of the FPC license, Appalachian Power Company is required to provide land for a State park in Virginia and for a State park in North Carolina. This will provide over 6,000 acres of State park land compared to approximately 400 acres to be provided under the scenic river proposal. The Blue Ridge Project will provide water storage for flood control purposes and also to augment the river during periods of low flow. This will provide a more reliable water supply for down-river communities and will substantially improve the summertime recreation potential of the river below the Project.

Before turning to comments on the substance of the subject statement, it is helpful to review the law applicable to such statements in order that we may have a norm against which to measure the subject statement.

Federal actions under the Wild and Scenic Rivers Act, 16, U.S.C. Section 1271-1287, are subject to the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4331, et seq. That Act requires the thorough integration of environmental considerations into the decision-making process in every instance in which an activity of the federal government would significantly affect the quality of the human environment. Environmental Quality: The Third Annual Report of the Council on Environmental Quality, 1972, pages 224-227. The Act requires that after consultation with, and obtaining the comments of, federal and state agencies which have jurisdiction by law with respect to any environmental impact, each agency which proposes any major federal action having a significant effect on the quality of the human environment shall prepare a detailed environmental impact statement. 42 U.S.C. Section 4332(2)(C). The purpose of such a statement is to alert the President, the Council on Environmental Quality, the Congress, and the public to all known possible environmental consequences of the proposed agency action. Environmental Defense Fund v. Corp of Engineers (Gillham Dam), 470 F.2d 289 (8th Cir. 1972), cert. denied, 412 U. S. 908 (1973).

NEPA reflects the Congressional intent that the impact statement present decision-makers with a number of alternatives or policy choices. It has been held that the agency must consider the possibility of foregoing the proposed action altogether. Further, it has been held that the range of alternatives to be considered must extend from the alternative of rejecting the proposed action up to and including alternatives that would fully accomplish the goal of the proposed action but would avoid all of its objectionable features.

Environmental Defense Fund v. Corp of Engineers, supra. These alternatives must be discussed fully, and the discussion must include the environmental consequences of the alternatives. Without such an analysis, the decision-makers would have a difficult time in evaluating the alternatives presented relative to the original proposal. Natural Resources Defense Council v. Morton, 337 F. Supp. 165 (D. D. C., 1971), 458 F. 2d 827 (D. C. Cir., 1971).

The foregoing discussion provides us with the norm against which we must measure the subject statement. While we have not performed an in-depth review of all aspects of the statement, even a cursory examination discloses that it is grossly insufficient as a matter of law.

The alternative of building the Blue Ridge Project instead of designating a scenic river was not discussed in sufficient detail to enable the decision-makers to adequately evaluate and compare the economic and environmental costs of the alternatives. The statement made no effort to quantify the increased costs which would necessarily be incurred to build the generating capacity which would be needed if construction of the Blue Ridge Project is precluded. There should be a discussion of the air pollution, water pollution and thermal pollution effects of building the coal, nuclear or oil-fired generating stations to supply the power which would otherwise be provided by the Blue Ridge Project. The effect of alternate power sources on Project Independence and our balance of payments should also be treated. There should be discussion of the costs of flood damage which will be incurred as a result of the Blue Ridge Project not being built. The predicted recreational use of the scenic river should be compared with the predicted recreational use of the lakes to be provided by the Blue Ridge Project. In addition, a discussion of the recreational potential of the New River below the Blue Ridge Project should also be included, since water storage provided by the Blue Ridge Project would be used during the summer to maintain an optimum water level downstream for recreational purposes. 2

Lastly, we think the environmental statement is deficient in limiting itself to local effects on North Carolina. While the proposed scenic river designation would be limited to North Carolina, its effects would necessarily be felt much more widely, and an environmental statement prepared by a federal agency should certainly analyze those effects wherever they will be felt. The proceedings before the FPC have borne out that if the scenic river is designated, a substantial part of the eastern half of the country will feel increased power costs or reduced reliability, a large area will probably be subjected to the adverse environmental effects of alternative generating systems, much of the New River Valley would still be exposed to flood damage, and recreational opportunities will be limited far below what they would otherwise be.

3

In addition, the New River should be treated more as a whole. The proposed scenic river designation of the New River gorge in West Virginia should be discussed. The effect on the rest of the New River of a scenic river designation in North Carolina, and of the Blue Ridge Project, should be fully developed and compared.

In conclusion, since the proposed scenic river designation may preclude the building of the Blue Ridge Project, we think it essential that the environmental statement adequately set forth the benefits which will be foregone and the additional economic and environmental costs which will be incurred. The subject statement presents no discussion of these costs and benefits sufficient to enable the decision-maker to effectively perform a cost-benefit analysis of the alternative courses of action. Thus, the environmental statement is deficient as a matter of law.

Sincerely,

Mills E. Godwin, Jr.

jm

cc: The Honorable Andrew P. Miller
Attorney General of Virginia

Response to Comments Received From
the Commonwealth of Virginia

1. It must be recognized that the upper reservoir of the Blue Ridge Project would provide different types of recreation opportunities than the proposed South Fork New River National Wild and Scenic River would provide. These opportunities will be for those activities normally associated with reservoir recreation, such as powerboating, sailboating, water skiing, picnicking, camping, and swimming. The Federal Power Commission has estimated a visitation of 6 million people per year as stated. The Department of the Interior estimate was about 4.9 million.

   The proposed South Fork New River National Wild and Scenic River would provide some recreation opportunities that the reservoir could not provide, such as canoeing, rafting, etc., on a free-flowing stream. Some of the same activities would be provided for by the river such as picnicking, camping and swimming. Visitation to the proposed wild and scenic river is estimated at 50,000 visits.

   As stated, the Blue Ridge Project would make available to North Carolina and Virginia land for State parks. Virginia has committed itself to develop the park on its side of the reservoir. North Carolina has made no such commitment.

   We do not agree that the Blue Ridge Project would "substantially improve the summertime recreation potential of the river below the

Project." Because of the tremendous volume of power releases from the project (up to 12,500 cfs), the segment of the New River from the U.S. 58 Highway bridge to Claytor Lake would be too dangerous for floating, fishing, swimming, wading and possibly other recreation uses, much of the time. The guaranteed minimum flow release from the Blue Ridge Project is 350 cfs. At this flow, this segment of the New River would probably be only a series of pools and not usable for such activities as canoeing and rafting.

For a further discussion of the recreation potential of the remaining free-flowing segments of the New River below the Blue Ridge Project, see the alternatives section of this FEIS.

2. Alternatives to the Blue Ridge Project for the production of electric power have been discussed briefly in the FEIS prepared by the Federal Power Commission and dated June 1973. Alternatives considered included those using coal and oil, nuclear generating facilities, and other potential pumped-storage hydroelectric sites in the New River basin. The requirements of fossil fuel for a coal fired and a oil fired alternative are presented in this FEIS in Appendix A of the comments by Appalachian Power Company. This matter is also discussed in some detail in the Federal Power Commission's FEIS for the Blue Ridge Project.

Recognition of the flood control benefits to be provided by the Blue Ridge Project has been included in this FEIS. A comparison of the recreation benefits for the Blue Ridge Project and the wild and scenic river also appears in this FEIS as does a discussion of the recreation potential of the New River below the project.

The FEIS has expanded the discussion of the impacts of the proposed scenic river to include impacts outside the two-county area.

3. As stated in number 2 above, the impact discussion in this FEIS has been expanded. Alternatives to the proposed scenic river have been considered. These include the segments of the New River which would remain free-flowing with the Blue Ridge Project in place, both above and below the project.

LAW OFFICES
EDMUND I. ADAMS
121 E. DOUGHTON ST., P. O. BOX 97
SPARTA, NORTH CAROLINA 28675

January 30, 1976

Mr. Robert M. Baker
Regional Director
Southeast Region
Bureau of Outdoor Recreation
Department of the Interior
148 Cain Street, N.E.
Atlanta, Georgia 30303

Re: New River

Dear Mr. Baker:

In response to your circulation letter dated November 28, 1975 enclosing a copy of the Department's Draft Environmental Statement, DES '75 58, Proposed South Fork New River National Wild and Scenic River in North Carolina, the following comments on behalf of the Board of County Commissioners of Ashe County, North Carolina, and the Board of County Commissioners of Alleghany County, North Carolina, for whom I have been authorized to make this filing:

1. Page 42. Octennial land revaluations were completed in 1974 in Ashe County, and in 1975 in Alleghany County. Real estate values have increased dramatically over the last decade. The tax rates of 35 cents and 42 cents per $100 of market value were established subsequent to the revaluations.

2. Page 42. Table II-6 should be updated to show "1975 land tax value $211 million in Ashe County, and $118.9 million in Alleghany County". These figures have been provided by the Tax Supervisors in the two counties.

3. Page 141. See Table II-24, Cropland and the statements at Pages 220 and 228 that of the land to be inundated by the Blue Ridge Project " . . . approximately 8% is cultivated, 60% is fields, and 32% is woods". The latter statements are old claims made by Appalachian Power Company in its Environmental Impact Statement and in other documents it filed with the Federal Power Commission in 1969 and prior years, to which Ashe and Alleghany Counties, and the State of North Carolina, have taken strong exception. See Appendix F of the Comments of Grayson County, Virginia, and Ashe and Alleghany Counties to the FPC Staff Draft Environmental Impact Statement dated April 1973. The Appendix contains a list of farms

in Alleghany County to be at least partially inundated by the Blue Ridge Project, provided by the Agricultural Extension Service. According to the AES, 24% was cropland, 38% was pasture, 2% was in feed grain and 36% was woods. Although we do not have the same statistics for Ashe County, North Carolina, and Grayson County, Virginia, use patterns in all three counties are substantially identical. Appalachian's claim that only 8% of the land to be inundated is cultivated is therefore a gross understatement. However, it is possible that the Department of Interior may have intended 18% instead of 8% at Pages 220 and 228. This would be consistent with the chart on Page 141, which shows 18.3%. 3

4. Pages 156 and 158. The development of a state park in connection with the Blue Ridge Project is discussed. The prospect of a "major park" in connection with the Blue Ridge Project as stated at Page 226 is not consistent with the statement at Page 158 that "The state park will not be an automatic by-product of the Blue Ridge Project, but will be an item to be renegotiated . . ." The North Carolina Department of Natural and Economic Resources (NER) has expressed doubt that it would ask the General Assembly for funds to develop a state park on an impoundment having a 10-foot maximum drawdown. It is clear that the North Carolina scenic river plan would provide far superior recreation opportunities. 4

5. Page 211. The impact on water quality is deemed "moderate". In light of the immediately preceeding comments on sedimentation, evaporation, eutrophication, temperature changes and leakage of oil and gasoline, we feel this impact ought to be deemed "significant". By comparison, the lesser impact of the scenic river discussed at Page 164-168 is striking. 5

6. Page 219. "Significant population growth" and "second home development . . . increase" are claimed for the Blue Ridge Project. These claims of Appalachian Power Company have been strongly contested by NER in its comments on the FPC Draft Environmental Impact Statement. See NER's March 20, 1973 Memorandum which appears at Page 355 and succeeding pages of the FPC FEIS dated June 1973. These claims ought to be characterized by Interior as claims of Appalachian and not as facts established to its satisfaction. 6

7. Page 222. The same comment applies to the unsubstantiated claim that Blue Ridge Project would stimulate recreation and new industrial development. 7

8. Page 222. It is also claimed that the Blue Ridge Project would result in " . . . a net improvement of the quality of the roads . . . " The opposite of the true state of affairs is implied here. Of course, it goes without saying that the roads to be built will be new construction reflecting improved engineering methods and design and so on, but the point overlooked is that the Blue Ridge Project would create an enormous barrier which would cause significant social and economic upheaval. 8

9. Page 225. "Jobs during construction" and "potential for new industrial development" are alluded to. It is important to point out here that temporary jobs during construction must be balanced against the permanent destruction of the homes of some 1,000 persons, and the destruction of approximately 200 farming careers, in Ashe and Alleghany Counties alone. As noted at Page 361 of the FPC FEIS, approximately 294 North Carolina families will have their homes inundated. 9

10. Page 227. The discussion of fish population overlooks completely the key point that the procreation of fish will be greatly jeopardized by the dewatering of fish nests during daily and weekly fluctuations associated with pumped storage operations. 10

Very truly yours,

Edmund I. Adams

EIA: js

cc: State of North Carolina
Department of Administration
Office of Intergovernmental Relations
116 W. Jones Street
Raleigh, N. C. 27611

Response to Comments Received From Mr. Edmund I. Adams,
Counsel for the County Commissioners of
Ashe and Alleghany Counties

1. 1975 tax rates in Ashe and Alleghany Counties were 42 and 35 cents per $100 of assessed value, respectively. However, the assessed values have increased in recent years, particularly in Ashe County as noted by additional information provided on page 43 of the FEIS.

2. Suggested changes have been made to Table II-6, page 42.

3. Table II-24, page 141, referred to in this comment, expressed each of seven land use classifications both in terms of total county acreage (for Ashe and Alleghany individually) and as percentages of total county land area. This table has no relation to the statements made on pages 220 and 228 with regard to the amount of land that would be inundated by the Blue Ridge Project.

   The comment is correct in stating that our figures regarding land to be inundated were taken from the FPC environmental statement. After reexamining the comments of Alleghany and Ashe Counties, North Carolina, and Grayson County, Virginia, on the aforementioned FPC statement, the suggested changes have been incorporated on pages 220 and 228 in view of the newer data supplied by the North Carolina Agricultural Extension Service.

4. This comment implies that in one place the major park associated with the Blue Ridge Project is treated as a foregone conclusion

while in another place it is contingent upon State approval. This is not the case. The discussions on pages 156, 158, and 226 with regard to the proposed major park are consistent. In each place the word proposed is clearly in evidence and the phrase, "The state park is not an automatic by-product . . . ." appears both on pages 156 and 228.

5. The discussion on pages 209 through 211 concerning the impact on water quality of the Blue Ridge Project covers in general the types of effects usually associated with a reservoir such as would be built if this project is constructed.

6. Appropriate footnotes referencing the information source have been added on page 219 of the FEIS. The overall "impact on population" as a result of construction of the Blue Ridge Project is assessed as major regardless of the extent of "population growth/second home development."

7. Appropriate footnote referencing the information source has been added on page 222 of the FEIS. In the absence of additional or updated economic data, that included in the FPC statement will be used as the best available.

8. We do not believe that the disruptive social and economic impacts have been overlooked. We also feel the significant social impacts of the Blue Ridge Project are adequately described under "Impacts

on Population" on pages 218 and 219. Further, please note that economic impacts are also adequately discussed under "Impact on Economy" on pages 225 and 226.

9. An appropriate qualifying statement has been added on page 225 of the FEIS.

10. The final environmental impact statement by the Federal Power Commission asserts that "the proposed upper reservoir drawdowns should have a minimal adverse effect upon fish propagation." It further says that fish-rearing ponds are proposed by the Virginia Commission of Game and Inland Fisheries "on project lands along the lower reservoir for fish propagation purposes." The comments of the Fish and Wildlife Service on this document point out its lack of objective information on fisheries. In the absence of additional information on the potential of the reservoirs for fish propagation, a more conclusive assessment of this impact is not possible.

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February 20, 1976

Mr. Robert M. Baker
Regional Director
United States Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Re: North Carolina's Application for Inclusion of the South Fork-New River in National Wild and Scenic Rivers System

Dear Mr. Baker:

On behalf of Appalachian Power Company, I wish to make the following comments on the application filed by the State of North Carolina requesting the Secretary of the Interior to include a 26.5 mile portion of the South Fork-New River in the National Wild and Scenic Rivers System. These comments will supplement the Company's comments on the Department of Interior's draft environmental statement on this application.

It is the position of the Appalachian Power Company that the reach of river covered by North Carolina's application is not eligible for inclusion in the National Wild and Scenic River System because the Company holds a license issued by the Federal Power Commission for a hydroelectric project which will inundate the reach of river for which North Carolina has made application. Consequently, the affected reach of river does not meet the standards required of rivers proposed for inclusion as either a wild river area or as a scenic river area. See section 2(b)(1) and 2(b)(2) of

the Wild and Scenic Rivers Act (82 Stat. 906), 16 U.S.C. §1273(b).

The license for the Blue Ridge Project was issued by the Federal Power Commission on June 14, 1974, and by its terms became effective on January 2, 1975. Although implementation of the license was stayed by an order of U. S. Court of Appeals for the D.C. Circuit entered on January 31, 1975, that stay did not and could not retroactively divest the Company of its license. A stay order merely preserves the status of the parties, pending completion of judicial review. If the Court of Appeals, upon completion of judicial review, affirms the Commission's decision issuing the license, the rights of the parties as they existed immediately prior to the issuance of the Court's stay will continue into the future. United States v. Barrows, 404 F.2d 749 (9th Cir., 1968).

Congress has provided only two methods whereby a license issued by the Federal Power Commission may be set aside. The first is by obtaining an appropriate order of a Court of Appeals under Section 313(b) of the Federal Power Act. The second is by an action brought by the Attorney General under section 26 of the Act. Otherwise Congress has provided in sections 6 and 28 of the Federal Power Act that licenses may be altered or modified only upon mutual agreement between the licensee and the Federal Power Commission.

Very truly yours,

A. Joseph Dowd

A. Joseph Dowd

AJD:st

Response to Comments Received From
American Electric Power Service Corporation

1. The Department has a responsibility under the Wild and Scenic Rivers Act to consider a properly nominated river for inclusion in the system. At the present time the river meets the criteria as a Scenic River for inclusion in the Wild and Scenic River System as set forth in Section 2(b)(2) of the Act. The qualification "free of impoundments" is met since the river segment is currently by the factual matter, free of impoundments, not withstanding the legal issues concerning the validity of the F.P.C. license.

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* ADMITTED IN VA ONLY

January 9, 1976

Mr. Robert M. Baker
Regional Director
United States Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

Transmitted herewith on behalf of Appalachian Power Company are its comments on the draft environmental statement on the proposed South Fork New River, North Carolina, National Wild and Scenic River.

Very truly yours,

William J. Madden, Jr.
Attorney for Appalachian Power Company

Enclosures

cc (w/enc.): Secretary of the Interior

WJM:jcw

COMMENTS OF APPALACHIAN POWER COMPANY
ON DRAFT ENVIRONMENTAL STATEMENT ON
THE PROPOSED SOUTH FORK NEW RIVER
NATIONAL WILD AND SCENIC RIVER
IN NORTH CAROLINA

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR

COMMENTS OF APPALACHIAN POWER COMPANY ON INTERIOR'S DRAFT ENVIRONMENTAL IMPACT STATEMENT (DES75-58) ON THE PROPOSED SOUTH FORK NEW RIVER NATIONAL WILD AND SCENIC RIVER IN NORTH CAROLINA

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January 9, 1976

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UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR

COMMENTS OF APPALACHIAN POWER COMPANY
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

INTRODUCTION

Appalachian Power Company 1/has reviewed the draft environmental impact statement issued by the Department of Interior on November 28, 1975 regarding the proposal made by the State of North Carolina to have the Secretary include a 4.5 mile stretch of the New River and 22 miles of the South Fork in the National Wild and Scenic River System. Appalachian submits that the draft statement fails to disclose so much basic information regarding the impact of the Scenic River proposal that the document in its present form is not designed to apprise decision makers as to the effect which adoption of the proposal will have on the environment and the economy of the region. The document, while ackowledging that adoption of North Carolina's proposal

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1/ Appalachian is a wholly-owned subsidiary of American Electric Power Company (AEP), a registered holding company. AEP has seven subsidiaries which operate an integrated electric generating, transmission and distribution system covering portions of seven states from Virginia through Michigan.

is designed to preclude the Blue Ridge hydroelectric development of Appalachian Power Company, makes little effort to delineate the enormous benefits of the Blue Ridge Project which will be foregone. Moreover, in spite of the fact that the Project will have its greatest impact on the New River in Virginia, the authors of the Draft EIS have nowhere discussed the benefits of the Project which will be foregone in Virginia if the North Carolina proposal is adopted. Since the Commonwealth of Virginia supports the development of Blue Ridge, this omission constitutes a very serious defect in the draft. Similarly, the draft fails to discuss benefits of the Project which were sought by the State of West Virginia and which were provided for in the FPC license.

We are more than troubled by these omissions since much of the data regarding the benefits of Blue Ridge, including those to be received by Virginia, were developed in the Federal Power Commission licensing proceedings by expert witnesses sponsored by the Department of the Interior.

In general the draft EIS reflects a very insular view of the New River Basin and of the problems of this area of Appalachia. In contrast to the comprehensive analysis which the Interior Department personnel made of the entire New-Kanawha River Basin during their participation in the lengthy hearings on the Blue Ridge project at the FPC, the authors of this Draft EIS display almost no awareness and concern for the impact of the South Fork Scenic River

proposal upon the rest of the river and upon the people in the Basin. Millions of dollars in tax, job, recreation fish and other benefits will be foreclosed by approval of the North Carolina proposal. But one searches in vain for any genuine recognition or accounting of this loss in the draft statement.

I

THE DRAFT EIS DOES NOT DESCRIBE THE SUBSTANTIAL PUBLIC BENEFITS OF THE BLUE RIDGE PROJECT WHICH WILL BE PRECLUDED BY NORTH CAROLINA'S PROPOSAL AND MISREPRESENTS MANY OF THE FEATURES OF THAT PROJECT.

Although the Blue Ridge Project was licensed by the FPC on the basis of a hearing record which produced over 8,000 pages of transcript, nearly 300 technical exhibits, 3 favorable decisions of an Administrative Law Judge, a lengthy environmental impact statement prepared by the Staff of the Federal Power Commission, and after hearings which involved extensive participation by counsel and expert witnesses on behalf of the Secretary of Interior, this draft environmental impact statement devotes only four and one half pages to a brief description of that project. That description does a gross unjustice to a project which was once characterized by a former Secretary of the Interior as holding "great promise of providing tremendous recreation opportunities for the area and the region." (Interior News Release 9/18/68).

According to the FPC Environmental Impact Statement the Blue Ridge Project will attract an estimated annual visitation of 6,230,000 people 1/ with a total annual recreation value of $6.1 million. The Regional Director of the Southeast office of the Bureau of Outdoor Recreation testified that the project reservoirs would ultimately attract 4,905,000 visitors annually with an annual dollar value of $2,842,900. Without Blue Ridge he estimated that the project area would attract only 176,000 annual visitors with a value of $122,000 per year. 2

In contrast the Draft EIS on the Scenic River proposal estimates that the 26.5 mile stretch of river will attract only 50,000 visitors annually. (Draft EIS p. 188).

A dramatic increase in fishing benefits was also predicted by an Interior witness if the Blue Ridge Project is developed. The Field Supervisor of the Bureau of Sport Fisheries' Raleigh office estimated that <u>without</u> the project the New River from the upper reservoir area to Charleston, West Virginia would experience 68,450 man-days of fishing valued at $67,500 per year. But <u>with</u> the Project the same reach of river would attract 236,300 man-days of fishing valued at $287,500 per year. 3

1/ Federal Power Commission Environmental Impact Statement page 203.

The Project would provide some 160,000 acre feet of flood control storage upon which the Corps of Engineers is counting under its Basin wide plan and would reduce the 1940 flood of record by 72% and reduce an estimated $2.4 million in damages (1968 cost levels) to $700,000. That damage would of course take place in the States of Virginia and West Virginia which support Blue Ridge and not in the State of North Carolina. 4

Development of the Project and the implementation of land use restrictions on Company land below the Project, in accordance with prior Company commitments, would enable the Commonwealth of Virginia to establish a State scenic river system on a portion of the New River below the site of the lower dam. Moreover, the low flow augmentation which the Commission directed the Company to provide would enhance the flow of the New River in both the States of Virginia and West Virginia. 1/ 5

1/ The requirement in the FPC license that the Project provide releases which would insure weekly average summer flows of 2,500 cubic feet per second (cfs) below the Bluestone dam was adopted by the FPC at the request of West Virginia. Testimony of the State fishery experts indicated that optimum flows for fishery and recreational values below Bluestone were in the range of 2,500 to 3,000 cfs. The evidence further showed that the stretch of the River in the New River Gorge area below Bluestone dam currently experiences flows of less than 2,500 cfs 43 percent of the time in July, 53 percent during August and 67 percent during September. Thus the Blue Ridge Project as licensed will substantially enhance the scenic and recreational qualities of the 66 mile stretch of the New River in West Virginia which that State and the Department of the Interior now propose for inclusion in the National Wild and Scenic River System.

Interestingly, the Draft EIS issued by the Department with respect to the proposed Scenic River system on 66 miles of the New River in West Virginia acknowledges the fact that low flow regulation by Blue Ridge will enhance the scenic attributes of that stretch of the New River. The Draft EIS on the North Carolina proposal mysteriously omits any mention of the impact which the loss of such flow regulation by Blue Ridge will have on the West Virginia stretch of the Scenic New River if the North Carolina proposal is adopted. 6

The Draft EIS notes that the North Carolina proposal will have little impact on employment levels in Ashe and Allegheny counties. The Draft EIS totally ignores the tremendous increase in employment which will result from project construction and in the development of second homes and management of project recreation facilites in not only those counties but also in the Virginia counties of Grayson, Carroll and Wythe. 7

Under the license issued by the FPC the Company is required to purchase 2,400 acres in Virginia and 3,900 acres in North Carolina for the purpose of enabling each of those jurisdictions to develop state parks along the shores of the upper reservoir. This acquisition of 6,300 acres for park land required of the Company compares with the 400 acres which North Carolina proposes to acquire under its Scenic River proposal. 8

The Blue Ridge Project will produce capacity and energy by using less coal or oil than would a comparably sized, fossil fuel fired generating plant. The FPC found that an alternative coal fired plant would burn an additional 1,070,000 tons per year and an additional 115,000,000 tons over the estimated 100 year life of the Blue Ridge Project. The FPC also found that an alternative oil fired plant would use an additional 4,300,000 barrels per year and an additional 460,000,000 barrels over a 100 year life. 1/ It is of course anticipated that no oil or natural gas, our nation's scarcest fuels, will be required to provide pumping energy for Blue Ridge. 9

Besides achieving these savings in fuel, the Blue Ridge Project will also provide a far more reliable source of power for the customers of the American Electric Power System. Hydroelectric plants are typically out of service only 2% of the time compared to a 15% outage rate for a fossil fuel fired plant.

1/ It is often alleged in the popular press that Blue Ridge will be a net-user of energy because more kilowatt hours will be generated during the pumping phase than will be produced when Blue Ridge itself is generating energy. (The kilowatt hour ratio is about 4 to 3). The number of kilowatt hours registered on a meter, however, is meaningless in this context. The critical fact is that <u>less fuel</u> will be consumed in operating Blue Ridge, including its pumping operation, than would be used by an alternative steam plant to accomplish the same job - producing usuable electricity in the homes and businesses of the Company's customers.

At page 205 the Draft EIS claims that the inclusion of this 26.5 mile stretch of river in the Scenic System will enhance the value of the adjoining land over the long term. No support is found for this claim. The Draft EIS provides no similar finding with respect to the impact which Blue Ridge is expected to have on adjoining land values. This omission is significant because a witness who testified in the FPC hearings on behalf of the State of North Carolina estimated that land adjoining new man-made lakes in North Carolina had typically increased 600% in value, in a relatively short period of time. (Tr. 1804). In view of the rather impoverished economic profile which the Draft EIS provides for Ashe and Allegheny counties, we believe anyone expected to make a decision on the Scenic River proposal should not be deprived of this kind of information. 10

We have searched in vain for any recognition in the Draft EIS that the foregoing benefits of the Blue Ridge Project will be foreclosed by North Carolina's proposal. All of the foregoing benefits are presented in either the FPC licensing decision or in the FPC Environmental Impact Statement. They are spelled out there in simple language which requires no particular expertise by the reader to both discover them and to understand them. The fact that the voluminous FPC record has been available to the Department and has not been used in formulating the draft suggests that something far short of an objective presentation of the merits of North Carolina's proposal has been prepared for the decision makers at the Department. 11

A. Misrepresentations Regarding The Blue Ridge Project

1. The Draft EIS at page 178 asserts that the Project reservoirs would replace the existing cool water fishery with a warm water fishery type which is considered less valuable. This unsupported conclusion ignores not only the specific findings of the Federal Power Commission but also the testimony of an Interior Department fishery expert who testified in the FPC hearings. Both the Commission (Opinion No. 698, p. 26) and the Interior witness (Bradley, Tr. 3899) concluded that a two-storey, warm and cold-water, fishery would be created by the Blue Ridge reservoirs. 12

2. At page 211 the Draft EIS asserts that downstream water quality may be adversely affected by releases from the bottom of the reservoirs. This statement is based on a very incorrect assumption which a brief review of the FPC licensing decision would have caught. The project dams will have multi-level intake and outlet facilities which will permit water of differing temperatures to be released downstream. Because of this feature the FPC found that Virginia will have a choice as to whether it should develop either a warmwater or a coldwater fishery in the stream below the lower damsite. (Op. 698, p. 26). This is of course an option which will not be available to the Commonwealth of Virginia under the North Carolina Scenic River proposal. 13

3. The Draft EIS at p. 212 acknowledges that if Blue Ridge is developed the natural river scenery will be replaced by lake scenery which, in its own way, would also be scenic. The draft, while noting that the upper reservoir would still be quite scenic during the summer drawdown season, gives a figure of 10 feet as the size of the drawdown. That figure represents the maximum size of the drawdown and the FPC estimated that it would only be reached about 1 percent of the time. For 96 percent of the time the FPC estimated that the drawdown would be less than 3 feet. 14

4. It is brought out on page 178 that protection of this area of the river is important due to the presence of ten rare and endangered aquatic organisms. The table on page 129 and 130 lists the ten organisms in question. Looking at the general comments and status columns it is evident that the organisms are common in the New River except for the Kanawha Minnow, the Tongue-tied Minnow and the Sharpnose Darter. The table is difficult to verify because of the lack of information as to what are the definitions of threatened and endangered species in North Carolina. Does endemic mean just to the New River or to North Carolina? The table does not make it clear that the organisms have a limited range only in North Carolina. If these are the only habitats for species only in the New River, perhaps these species should be on the Federal list. These species are not on the Federal list and this fact should be disclosed in the EIS. 15

5. The Draft EIS is misleading in the unqualified statement on p. 210 that increased evaporation from a reservoir as compared to a river, will produce more concentration of pollutants and that flood control and power generation "drawdowns" will amplify this. This statement should be limited to non-degradable pollutants, those which do not breakdown by natural processes of oxidation, etc. Also, this statement should be qualified as to significance by adding "However, because of the low level of non-degradable pollutants in the South Fork, this concentration can not be expected to have any significant effect." 16

6. Also on page 210 of the Draft EIS, there should be similar qualification with regard to the possibly unusual definition of eutrophication. As shown on Table II-13 and in text on pages 73-76, only a small amount of untreated sewage is discharged into the South Fork; and this will decrease under the present federal programs. The following insert is needed: "Because of the comparatively low loading of nutrient materials into the waters of the South Fork, which are "Class C", the likelihood of eutrophication, as defined here, is extremely unlikely." 17

7. The conclusion on p. 277 of the Draft EIS is misleading in the implication that the equilibrium fish productivity of a reservoir would be lower than that of the present stream. Comparison of the ultimate fish yield was made in a somewhat obscure manner to a short peak that might occur 18

during the early fill of the reservoir; but the comparison should be with that of the present stream. 18

When the dam is completed and the lake is filled the productivity of the lake will increase to a level higher than the final equilibrium of the lake's productivity. The productivity of the lake will fluctuate around the equilibrium level until it finally reaches that level. The impoundment will fill over an extended time as a lake would naturally. Eutrophication is a natural process in the aging of a lake.

The Federal Power Commission in its Final Environmental Impact Statement entitled Modified Blue Ridge Project No. 2317 North Carlina/Virginia, 1973, states on page 227: 17

> "As to rate of eutrophication to be expected at the proposed reservoirs, the chemical composition (nutrient materials) and silt loads of the river today, preclude any but slow rates of planktonic proliferation and reservoir sedimentation and thus a low rate of eutrophication. With the Project, new development around and upstream of the reservoirs would cause some increase in these rates particularly if new development does not comply with the present trend in tertiary treatment of sewage and with recognized construction methods and other measures to control erosion. Overall, eutrophication rates are anticipated to be rather low, certainly no higher than presently exist at Claytor Lake."
>
> Claytor Lake has been in operation since 1939 and the filling that has occured over these past thirty-six years has been negligible. It has been stated that the life of the Blue Ridge Project would be at least one-hundred years.

8. On page 133 the Draft EIS claims that the New River and its tributaries in North Carolina is perhaps the most popular smallmouth and rock bass fishery in the State and that this natural fishery is enhanced by relatively clean water. This claim does not appear to be consistent with the information developed on this matter by the Federal Power Commission in its Environmental Impact Statement on the Blue Ridge Project.

The FPC EIS at p. 23 contains the following statement:

> "The New River waters in the project area are described as relatively low in dissolved chemicals, showing a specific conductance ranging from 38 to 70 micrombes at 25° C for the showed ranges from 4.4 to 5.2 mg/1 and bicarbonates, from 16 to 21 mg/1. for the same water year. These measurements indicate the New River waters near Galax to be relatively "pure" and thus biologically low in productivity of plankton and other aquatic biota forming the vital links in fish food chains. This conclusion is further substantiated by creel census studies in the New River in Virginia above Claytor Lake, which found a poor rate of catch (0.18 fish per hour for all species and 0.09 bass per hour in 1962 and 0.23 to 0.29 fish per hour in 1963). Smallmouth bass growth in this section of the New River may be described as relatively slow when compared to other streams with higher ranges of dissolved nutrients."

19

It appears that if this area has the best bass fishing in North Carolina than the bass fishing in North Carolina is in a sad state of affairs.

II

THE DRAFT EIS IGNORES A WEALTH OF EVIDENCE WHICH DEMONSTRATES THAT THIS AREA NEEDS A LARGE BODY OF WATER TO MEET PUBLIC RECREATIONAL AND ECONOMIC NEEDS

In the course of the FPC hearings on the Blue Ridge Project witnesses on behalf of the States of North Carolina and Virginia as well as the Department of the Interior testified as to the need in this region for a large body of water such as would be provided by the upper reservoir of the Blue Ridge Project. What has happened to that need in the meantime? Has it been met by some other lake in the area? Or, were those recreational experts mistaken as to the true facts? The Draft EIS is totally silent as to this matter. 21

The Assistant Director of the North Carolina Recreation Commission testified on October 18, 1967 as to the special contribution which man-made lakes had made to the ecomomy of North Carolina and particularly to the needs of the vacationing public. He specifically noted the area of Ashe and Allegheny Counties was "immensely well suited for increased recreation and resort development" and that there are "not enough large bodies of water in this section of the State for full realization of recreation purposes." (Tr. 1802-1805).

On October 12, 1967, John Dudley Scruggs, a recreation consultant testified on behalf of the Commonwealth of Virginia

that the Blue Ridge Project possesses a recreation potential equaled by few others in the eastern half of the United States and if carefully developed would become one of the really significant agencies in meeting the anticipated demands for recreation facilities by the year 2000. He testified

> ... consider what potentials exist here. To begin with, there is spectacular scenery, ranging from the deep canyon-like gorges of the Breaks Interstate Park to the distant views to be had from such places as Mt. Rogers and the Great Smokies. Most of the mountains are covered with magnificent forests. Then, there are sections, such as the area of Blue Ridge Reservoir, that are only partially forested and less steep, thus offering a variety of scenery. Trails and scenic drives already are available; ... a trip through this country on the existing local highways is a most refreshing experience. The addition of the Blue Ridge Parkway, the Appalachian Parkway, and the proposed scenic drive in the Mt. Rogers National Recreation Area will make this a tremendous drawing card for motorists.
>
> At the present time, although not set up for intensive use on any large scale, this country affords wonderful opportunities for picnicking, camping, hiking, bicycling, driving, nature walks, sightseeing and other activities related primarily to the land. When water is added there will be many more things for people to do by way of active participation, and this is a very important consideration for both vacationers and day-users. Water will mean swimming (the number 1 outdoor recreational activity by the year 1980), boating, fishing and water skiing. Not only will these active water-related sports be added to the list of available things-to-do, but the enjoyment of walking, camping, driving, picnicking, bicycling, sightseeing and all other activities will be tremendously enhanced. There is a

20

> possibility for making all forms of outdoor recreation available in this beautiful, mountain setting, with the result that vast numbers of people may make use of them. (John Dudley Scruggs, at Tr. 1476-77).

After enumerating and considering all of the present attractions of the area he concluded by saying

> "It is clear that the greatest lack is a large body of water. Not only is this element lacking at this time, but it is the only major recreation resource not now existing, and it is the key to the success of this area of the country. (emphasis in original).

Similarly, the Regional Director of the Bureau of Outdoor Recreation's Southeast Office testified 1/ as to the need in this area for a very substantial increase in water surface area to meet the unsatisfied public demands in 1980 and 2000. He identified the Blue Ridge Project as "the most significant multi-purpose water resource development under consideration in the basin." 20

It is of more than passing interest to note that, after ignoring these prior descriptions of the enormous recreation potential of Blue Ridge, the Draft EIS at p. 189 is able to characterize the proposed Scenic River as having only "good potential for providing a quality outdoor recreation experience." (emphasis added).

1/ Like the other two witnesses, the Regional Director objected to the size of the proposed drawdowns at the Project. Their concerns were later accommodated when the Commission limited those drawdowns to the levels urged by the States of North Carolina and Virginia.

Certainly a good faith effort in preparing an environmental impact statement on this Scenic River proposal requires, at a minimum, that its admittedly mediocre recreational potential be compared with the outstanding and nearly unique potential of the Blue Ridge Project. 20

III

THE DRAFT EIS DOES NOT DISCLOSE ANY SCENIC ATTRIBUTE OR FEATURE WHICH JUSTIFIES THE INCLUSION OF THIS SMALL STRETCH OF THE RIVER INTO THE NATIONAL WILD AND SCENIC RIVER SYSTEM

Only a small handful of our nation's rivers have been selected by the Congress or by the Secretary of the Interior for inclusion into the National Wild and Scenic River system. Only ten rivers out of some 650 which were originally considered (H. Rept. 90-1623) were selected by the Congress in 1968 for inclusion within the system and only 56 have been designated by Congress for further study. The 26.5 mile stretch of the New River and of its South Fork were not even among the 650 rivers originally reviewed. 1/ 21

1/ In 1974 Congress considered, although it did not pass, a bill which would have provided for a study of some 70 miles of the New River and of its North and South Fork for inclusion in the System.

Accordingly one would expect some slight indication in the Draft EIS as to what, if any, special attractions of this stretch of the New River have been discovered at this late date which now warrant its meteoric elevation to the select haldful of our nation's rivers deserving of the Wild and Scenic River classification.

Surely this past "oversight" of the scenic features of the river segment and the particular circumstances surrounding the proposal by North Carolina to have it included in the system clearly suggest that more than the usual scrutiny is required in this case in order for the Secretary to make the judgment that this stretch of river, in the words of the Act, "possess[es] outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, ..." (Section 1(b) of the Wild and Scenic River Act). 21

Although that legislation was enacted in October of 1968, the State of North Carolina made no effort to seek the inclusion of the New River in the system until March of 1974 when its legislature voted to place the 4.5 miles of the main stem of the New River which lies in that State into the State scenic system. For most of the intervening time North Carolina was a party to the FPC proceeding and was supporting, subject to certain conditions, 1/ the impoundment of the New River by the multi-purpose Blue Ridge Project. In July of 1973 the Governor of the State advised the FPC that he had

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1/ All of which were subsequently made a part of the FPC license.

decided to withdraw his State's support of the project because of the anticipated social impact of the project upon the people in the State. No mention was made by the Governor at that time as to any merit in having a portion of the New River preserved as a scenic river.

The initial application by North Carolina to the Secretary in December of 1974 was made after the issuance of the license by the FPC and after the Congress had refused to delay the construction of the project pending a study of the desirability of including a 70 mile reach of the New River in the Wild and Scenic River system. The inclusion of such a short stretch of river in the National system, however, was contrary to the guidelines which had been jointly adopted by both the Departments of Interior and Agriculture in February 1970 and which require that the segment of a river proposed for inclusion in the system should generally be at least 25 miles long unless it possesses outstanding qualifications. Upon being advised of this deficiency North Carolina officials considered adding portions of both the North and South Forks of the New and finally recommended the addition of 22 miles of the South Fork, an addition which just barely satisfied the 25 mile requirement.

We submit that these circumstances make it quite apparent that the sole motivation behind the North Carolina proposal is simply to use the Wild and Scenic Rivers Act as a device to block the Blue Ridge Project. But putting motivation aside, it is difficult to perceive from the Draft EIS any features of this small stretch of river which can justify its inclusion in the National System.

What are the scenic qualities which support its inclusion? The Draft EIS briefly mentions at p. 5 "many rapids in the riverway and approximately 10 outstanding rock crops..." No further description or clue is provided as to the nature or relative beauty of these rapids and rock outcrops. In fact it would appear from the emphasis on history and geology later on in the Draft EIS that its authors may not even be resting the case for inclusion in the System on the scenic qualities of the New River in North Carolina. If this is so, we would suggest that this not only be made clear in the EIS but that the decision makers be apprised as to how much more historic and how much more unusual the rocks in this segment of the New River are in comparison with other segments and with other rivers. In its present form these descriptive materials are meaningless in light of the judgment which North Carolina is asking the Secretary to make. 21

On the basis of prior testimony of Interior Department personnel there would appear to be serious doubt as to whether the portion of the river proposed for inclusion possesses the kind of "outstandingly remarkable scenic" features contemplated by the Act. Other nearby sections of the New River have previously been identified by Interior officials as more deserving of scenic river protection than the short stretch proposed here. But no mention is found in the Draft EIS of those other portions of the New River.

In testimony presented to the FPC on February 17, 1969 the Regional Director for the Bureau of Outdoor Recreation's Southeast Region identified a segment of the New River in Virginia below the lower dam as being deserving of scenic river protection in a primitive setting. The Regional Director, because of its tremendous recreational potential, also supported the Blue Ridge Project and the impoundment of the very stretch of river which is now, 6 years later, suggested for scenic river protection. Did the BOR Regional Director make a mistake in 1969 as to which portion of the New River was the more scenic? Or, has there been some change in the River during the past six years which required this reversal of position?

Similarly on February 7, 1974 the Assistant Director of the Bureau of Outdoor Recreation, in testimony before the Public Lands Subcommittee of the Senate Interior Committee on S. 2439, reported that, while Interior was opposed to the scenic river legislation to the extent it would conflict with the Blue Ridge Project, there were significant portions of the North and South Forks of the New River above the flowage of the Project which are free flowing and may well qualify as components of the National Wild and Scenic Rivers System (Printed Hearings p. 105).

This Draft EIS, however, issued less than two years later, is silent as to the scenic attributes of the adjacent portion of the South Fork and of the nearby North Fork. Has the river changed in those two years? Or, was the Assistant Director mistaken?

IV

THE DRAFT EIS TOTALLY IGNORES THE SUBSTANTIAL INTERESTS OF THE COMMONWEALTH OF VIRGINIA WHICH WILL BE AFFECTED BY ADOPTION OF THE SCENIC RIVER PROPOSAL

All of the Blue Ridge project structures, including the dams, powerhouses and transmission lines as well as two-thirds of the reservoir surface will be located in Virginia. Land for a 2,400 acre State Park will also be acquired in Virginia by Appalachian Power Company. Most of the construction jobs and most of the taxes associated with the $430 million project will accrue to the benefit of Virginia. Virginia supports the development of the Blue Ridge Project.

Incredibly the Draft EIS does not discuss the impact of the proposed Scenic River in the State of Virginia. In fact, with the exception of the Virginia Polytechnical Institute, no agency in the State of Virginia was consulted with respect to the preparation of the impact statement (p. 230) and no comments on the draft were even solicited from the State of Virginia. 22

Since officials of the Interior Department, including several from the very office which prepared the Draft EIS participated with Virginia in the FPC licensing proceedings, it strains one's imagination to believe that the authors of the draft were unaware of Virginia's interest in this matter. We would suggest that the preparation of this

draft was, under these circumstances, so lacking in good faith objectively, that elementary concepts of fairness and the law require the authors to begin again - this time with a full opportunity for the State most directly affected by the proposal to be consulted and to provide input.

In addition to the enormous direct economic and recreational benefits to be derived in Virginia by Blue Ridge, witnesses on behalf of the State testified that the development of Blue Ridge would allow Virginia to establish a State Scenic River System on a portion of the New River below the Company's lower damsite that the regulation of river flows requested by the State would have an ultimate annual net value of some $38.5 million and would materially assist Virginia in promoting industrial development near Radford, Virginia. The BOR Regional Director specifically endorsed Virginia's expectations and plans for the development of a State Scenic River below Blue Ridge. Now we find that the authors of this Draft EIS would forever destroy Virginia's expectations on these and other benefits without so much as even consulting the State in advance and without even mentioning these foregone benefits in the impact statement. 22

The State of Virginia with the expenditure of no little amount of money and time developed in 1965 a comprehensive outdoor recreation plan for the State.

The Director of the State's Commission of Outdoor Recreation testified that, during the development of that plan, considerable study was made of the recreational potential of the New River Valley and that the Blue Ridge Project was very much a part of the plan which was finally developed by his Commission. A very substantial part of that plan will be aborted by the North Carolina Scenic River proposal - and aborted without even the State of Virginia having had a chance to be consulted in the preparation of the Draft EIS.

The development of this Outdoor Recreation Plan entitled Virginia to receive more than $7,000,000 in matching monies from the Federal Land and Conservation Fund. 22

That fund is administered by the Interior Department's Bureau of Outdoor Recreation. That same Federal agency has now prepared a draft EIS on a proposal which will, if adopted, seriously frustrate the realization of a State recreational program backed by Federal monies distributed by that agency - and this frustration of Virginia's Outdoor Recreation plan is apparently going to occur without the agency either being aware of what it is doing or without being willing to acknowledge what it is doing to a State plan in which the agency itself has invested $7,000,000 of Federal tax dollars.

V

THE DRAFT EIS FAILS TO EVALUATE THE RELATIONSHIP OF NORTH CAROLINA'S PROPOSAL TO THE NEW RIVER BASIN

Section 1(b) of the Wild and Scenic Rivers Act makes it abundantly clear that it was the intent of Congress that segments of rivers proposed for inclusion in the system were not to be considered in isolation from the rest of the river and that the development of dams on portions of such rivers was compatible with the scenic river concept.

Section 1(b) provides, inter alia

> The Congress declares that the established national policy of dam and other construction at appropriate sections of the rivers of the United States needs to be complemented by a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes.

23

In view of this clear expression of Congressional policy we find it hard to believe that the Draft EIS focuses so exclusively on the relatively short stretch of the River encompassed within North Carolina's proposal. This kind of tunnel vision becomes even more incredible when one finds in the draft statement only the briefest of references (p.23) to the fact that the Department of the Interior, as recently as September 30, 1975, recommended to the Congress that another portion of the New River (the 66 mile stretch from the Federal Bluestone dam to the confluence of the Kanawha) be made part of the National Wild and Scenic River system.

The New River is 255 miles long and is already impounded at several locations by existing dams. But even with the Blue Ridge Project more than half of the New River, 150 miles of it, will remain as a free flowing river.

Due in large part to the evidence presented by witnesses on behalf of the Secretary of the Interior, the Federal Power Commission was able to evaluate the various and sometimes conflicting interests of the public in the vast resources of the entire New River and of the region of Appalachia through which it flows. Although the proposal of North Carolina would preclude the use and development of the New River for a whole host of competing public needs, including power, flood control, recreation, low flow augmentation and enhancement of scenic reaches in portions of both Virginia and West Virginia, no mention, much less any reasoned analysis is devoted to the kind of overall appraisal which the Act requires and in which the Department itself engaged during its long participation in the licensing proceedings at the Federal Power Commission. 23

For example, in testimony presented in the FPC proceedings a witness for the Department estimated that, on the basis of studies conducted by the Bureau of Outdoor Recreation, demand for water oriented recreation in the New Kanawha River Basin would reach some 33.8 million visitor days by the year 2000 as compared with an annual use of about 7.8 million visitor days in 1960.

Blue Ridge with its ability of meeting that demand to the extent of providing water based recreation for over 6 million visitors dwarfs by comparison the 50,000 annual visitors expected to be attracted by North Carolina's proposal. The important point, however, is that one searches the Draft EIS in vain either for any kind of overall evaluation of the needs of the public in this River Basin or for any consideration of how those needs are to be met by North Carolina's proposal either by itself or in conjunction with the proposed scenic river system on the New River in West Virginia. What are the needs and demands of the public in the New-Kanawha Basin for activities associated with scenic rivers? Can those needs be satisifed by one of the two proposals? What are the public needs and demands for recreation activities associated with lakes? Would a combination of Blue Ridge, the Virginia scenic river and the National Scenic River in West Virginia satisfy those needs better than the North Carolina proposal which precludes Blue Ridge? 23

The failure of the Draft EIS to discuss the relationship of North Carolina's proposal for the upper New River with that of the Department for the lower portion of the New River is significant for other reasons. For we submit that any comparison of the two proposals will reveal how totally lacking the former proposal is with respect to meeting any reasonable criteria for inclusion in The National Wild and Scenic River system.

The scenic river proposal for the West Virginia portion of the River encompasses the New River Gorge which received the following description in the Department's Draft EIS issued on September 26, 1975 (page 24)

> The size and topographic relief of the New River Gorge make it an outstanding natural phenomenon in the State of West Virginia. Extending 66 miles with an average depth of 1,000 feet, the Gorge is cut deeply into the Appalachian Plateau. The terrain is rugged with high, sharp ridges and clearly defined V-shaped valleys. Ridges in this physiographic province often are more than 800 feet above the valley floors and water courses tend to be narrow and tortuous. Because the New predates the Appalachian Mountain Chain, it is the only River which flows completely across the Chain from east to west.
>
> The Gorge is 700 to 900 feet deep near Hinton, 1,050 to 1,300 feet deep near Prince; and 475 to 625 feet deep near Hawks Nest. It is approximately 1 to 1.5 miles wide from ridge to ridge, although it narrows to a half-mile through the Fayetteville-Hawks Nest area. The Gorge walls have steep slopes which are greater than 60% for 80% of its length.

23

In contrast the New River and the South Fork in North Carolina which is described briefly in the Draft EIS (p. 5 and 88) is decidedly less scenic and attractive.

Under the management plan for the scenic river in West Virginia some 60,000 acres will be included within the designated corridor. About 11,000 acres would be in public ownership, including 10,000 by the State and 1,000 by the National Park Service. The remaining 49,000 acres would be protected by local conservation zoning. (Draft EIS, p. 64).

In contrast the North Carolina plan includes only 400 acres proposed for public acquisition and only 1,000 - 1,500 acres to be controlled by easements.

Under the management plan for the scenic river segment in West Virginia, the number of annual visitors is expected to increase from 1,000,000 to about 2,300,000 by 1985, and the amount of white water rafting use is expected to increase from about 6,000 to 30,000 per year. (Draft EIS p. 64). 23

In contrast North Carolina's proposal is expected to attract ultimately only 50,000 visitors per year including 5,000 for raft and canoe trips.

In sum, the North Carolina proposal is tailor made to achieve its primary objective, viz. blocking the Blue Ridge Project by placing the absolute minimum burden on the adjacent landowners and on the financial commitments of the State to provide associated public facilities.

VI

SCENIC RIVER ALTERNATIVE WILL ABANDON LOCAL ECONOMY TO ITS PRESENT DEPRESSED CONDITION

The draft environmental impact statement paints a bleak picture for the present economy of Ashe and Allegheny Counties. The Statement notes that only a 1 percent net increase in population was experienced from 1960-1970, and that the percentage of the population age 65 years and older is significantly higher than the figure for the rest of the state thus indicating a significant outmigration of younger residents. More than 26 percent of the families in Ashe and Allegheny Counties had income below the poverty level according to Bureau of Census statistics for 1970. The per capita income in 1970 for Ashe County was $2,456 and for Allegheny County $2,282 as compared to $3,207 for North Carolina and $3,139 for the United States. 24

The Scenic River alternative will do nothing for this relatively impoverished and sluggish economic condition. The Statement correctly points out that the Scenic River alternative will not stimulate any economic improvement or growth. Even the minor increase in recreational use is acknowledged to be of a type which will produce very few expenditures in the area. Campers and back-packers, not family visitations, are the kind of recreational use which the draft Statement predicts for Ashe and Allegheny Counties (p. 187-188).

Surprisingly, the draft Statement does recognize that the Blue Ridge Project will provide a tremendous stimulant to the economy of Ashe and Allegheny Counties. The need for overnight lodging and second home development would increase (p. 219). Some 62 miles of primary and 54 miles of secondary roads in Ashe, Allegheny and Grayson Counties will be relocated and vastly improved to modern-day standards by the expenditure of at least $35 million by the Appalachian Power Company. New industrial sites and recreation developments will be made possible due to improved access (p. 221-222). Jobs would be created during construction and new industrial development would be likely after completion of the project. A major increase in per capita income and employment in Ashe and Allegheny Counties would accompany the development of Blue Ridge (p. 225). 24

But the draft Statement fails to recognize that the Scenic River alternative will also, to a very large extent, actually freeze what little economic potential there may exist for this area of Appalachia without the Blue Ridge Project. Development of industries along the South Fork will be precluded forever under the Scenic River alternative. Development of even a recreation based economy will be forever stunted because of the kind of visitors which will be attracted by the limited recreation opportunities available for canoists and back-packers.

Although economic opportunities along the New River in Virginia will not be subject to the same frozen status which the Scenic River alternative will produce in North Carolina, the draft Statement makes no effort to discuss the economic options which will remain open to that portion of Virginia if the development of Blue Ridge is blocked by the Scenic River alternative in North Carolina. For some time now Virginia and particularly Grayson County have been counting on the major economic stimulus which Blue Ridge would provide. The Project would create jobs during construction, roads and access would be improved, a site for a 2,400 acre state park will be acquired by the Company, and low flow augmentation provided by Blue Ridge would remove present constraints on industrial development near Radford, Virginia. 22

The fact that these benefits to Virginia will be precluded by the Scenic River proposal is not revealed in the draft impact Statement. Nor is there discussion of the economic alternatives to which Grayson County, Virginia can turn if the Scenic River proposal is adopted for North Carolina.

The plain fact of the matter is that the draft Statement fails to display the slightest appreciation for the very major and largely irreversible commitment which adoption of the Scenic River proposal wil have towards the perpetuation of a very depressed economy in this area of Appalachia. 24

VII

THE DRAFT EIS FAILS TO DISCLOSE THAT THERE IS NO ASSURANCE THAT NORTH CAROLINA WILL EVER BE ABLE TO PROVIDE THE FINANCING FOR ITS SCENIC RIVER PROPOSAL

The State of North Carolina claims that it will acquire land for a 400 acre park and easements affecting some 1000 to 1500 acres. No information is provided in the Draft EIS as to the cost of this acquisition. The only information as to the availability of the necessary funds appears in the Draft EIS at p. 20, and even that information is inaccurate. The Draft EIS reports that the State's Department of Natural and Economic Resources has requested $1 million for each year of the 1975-1977 biennium for park land acquisition throughout the State. However, by letter dated October 6, 1975 that Department advised the Acting Secretary of the Interior that only $500,000 for each year was actually appropriated by the General Assembly. Since those reduced funds must be used for all the acquisition programs of the Department, there is more than a serious doubt as to whether sufficient money will ever be available to implement the Scenic River Proposal. 25

We would hope that before any consideration is given to a proposal to block the construction of a badly needed power and recreation project that the State will be required to make a definite commitment with respect to the amount of money it will devote to the Scenic River proposal. Appalachian Power Company has made a definite commitment with respect to its park land obligations under its Blue

Ridge license. We do not see how anything less can be required of the North Carolina Department of Natural and Economic Resources. 25

CONCLUSION

We submit that the Draft EIS on North Carolina's proposal should be revised to reflect the comments and information which we have presented above. We further submit that, for the reasons we have set forth herein, the present Draft Statement falls considerably short of achieving the basic objective of the National Environmental Policy Act. The Statement does not provide the decisionmakers with "information sufficient to permit a reasoned choice of alternatives so far as environmental aspects are concerned." 1/

Respectfully submitted,

APPALACHIAN POWER COMPANY

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1/ Natural Resources Defense Council v. Morton, 458 F. 2d 827, 836 (D.C. Cir. 1971).

APPENDIX A

BENEFITS OF BLUE RIDGE
COMPARED TO
NORTH CAROLINA'S PROPOSAL

	BLUE RIDGE	NORTH CAROLINA'S PROPOSAL
Recreational Visitors per year	6,230,000 (FPC Est.) 4,905,000 (Int. Est.)	50,000
Recreational Value	$6.1 million (FPC Est.) $2.8 million (Int. Est.)	? ?
Fishing mandays per year	216,400	48,550
Fishery Values	$287,500	$67,500
Flood Control	$1.7 million reduction of 1940 flood record	- 0 -
Net Annual Benefits to Virginia (1966 dollars)	$38.5 million	- 0 -
Low Flow Augmentation	2,500 cfs weekly average during summer below Bluestone Dam	- 0 -
Expenditures for Road Relocation and Improvements	$34.9 million	- 0 -
Park Land Acquisition	6,300 acres	400 acres
Coal (Alternative coal-fired plant)	(1,070,000 tons per year)	+1,070,000 tons per year
Oil (Alternative oil fired plant)	(4,300,000 barrels per	+4,300,000 barrels per year

APPENDIX B

BENEFITS OF NEW RIVER GORGE SCENIC RIVER COMPARED TO NORTH CAROLINA PROPOSAL

	NEW RIVER GORGE (66 mile stretch of New River in West Virginia)	NORTH CAROLINA PROPOSAL
Recreational Visitors per year	2,300,000 by 1985	50,000
Land devoted to Scenic River Corridor	60,000 acres	1,400 to 1,900 acres
Park Lands	11,000 acres	400 acres
Rafting and canoe use per year (ultimate)	30,000	5,000

Response to Comments Received From
Appalachian Power Company

1. Although only 4 pages are devoted to describing the Blue Ridge Project, another 23 pages are given to describing the impacts of that project. Another section, describing the impacts to be felt in areas outside the two-county scenic river proposal area, if the Blue Ridge Project is precluded, has been added to the FEIS.

2. The annual visitation expected at the Blue Ridge Project has been added to the discussion of impact of the project on recreation. Only total numbers of visitors are used. No estimated monetary values are stated as this is felt to be more appropriate for a cost-benefit analysis than a discussion of impacts.

3. Information on fishery impacts is somewhat contradictory. On the one hand, the testimony cited would seem to provide benefits downstream. However, the comments of the Department of the Interior on the FPC FEIS indicate that the Department is concerned about the possible adverse effects of fluctuation on the fishery between the project and Claytor Lake. In the river below Bluestone Dam, the State of West Virginia has commented on the FPC FEIS that the flows out of Bluestone Dam, as described in the FEIS will very adversely affect fishing below there, making it very difficult for fishermen to use the river because of high volume and velocity of water.

4. The impact of this reduction in flood control has been added to the section on impacts outside the two-county area.

5. While the land-use regulations associated with the proposal may enable Virginia to protect scenic values of the streambank, the fluctuation of flow in the riverbed itself will severely limit the recreation potential of this stretch of river, as is described in the section on alternatives in this FEIS.

6. The impact of the Blue Ridge Project on flows in the New River Gorge has been added to the discussion of alternatives.

7. The FEIS recognizes the impact of the Blue Ridge Project on the employment of Ashe and Alleghany Counties under Alternative IV, Impact on Economy. Additional description of the same effects in Virginia has been added in the discussion of impacts of the scenic river outside the two-county area.

8. These data are noted in the FEIS.

9. This information has been added to the discussion of impacts outside the two-county area.

10. This information has been added to the discussions of impact of the Blue Ridge Project on land use and on economy.

11. This information has now been added to the FEIS, as noted above in items 1-10.

12. The statement on page 178, which is repeated on page 2 has been corrected to state that the cold water riverine fishery which will be replaced by the warm water reservoir fishery is considered by the State to be of greater value. The FEIS acknowledges that the warm water fishery provided by the reservoir will have value. However, the State considers that the relative scarcity of high quality smallmouth bass riverine habitat equal to that provided by the New River makes it more valuable, even though it would not support as many total man-days of fishing and even though the reservoir may offer a two-story fishery. There is some doubt among professionals whether a two-story warm and cold water fishery will be possible in the reservoir as stated by the North Carolina Wildlife Resources Commission in their comments on the FPC FEIS.

13. This error has been corrected in the FEIS. It should be noted that there is also doubt whether a quality warm or cold water fishery can be supported below the lower reservoir in view of the water volume fluctuations. However, the loss of this possible option is noted in impacts outside the two-county area.

14. Page 45 of the FEIS for the Blue Ridge Project states that there would be less than a 12 percent reduction in reservoir surface area (26,000 acres, page 37) during maximum drawdown of 12 feet. This maximum drawdown would, therefore, amount to 3,120 acres of shoreline, distributed over the 425 miles of shoreline, or an average of 7.3 acres per mile drawdown around the entire upper reservoir. Page 37 (FEIS, Project No. 2317) further states that the "upper reservoir would fluctuate up to 10 feet during the prime recreation season." A drawdown of less than 3 feet for 96 percent of the time would further reduce the shoreline effect to approximately 780 acres distributed over the 425 miles of shoreline. Although drawdown will vary significantly, normally it will result in a significant impact on scenery and recreation.

15. The fact that the aquatic organisms occur elsewhere in the New River watershed in North Carolina as well as in the 26.5 mile stretch is made clear. Further "verification" is not necessary. Four of these species are considered by the U.S. Fish and Wildlife Service to be <u>potential candidates</u> for the Federal listing of threatened or endangered species. None is now on the Federal list, as was stated in the DEIS.

16. This comment appears to overlook the fact that the organic or so-called "bio-degradable" pollutants contribute to the destruction of a stream or lake ecosystem by removing dissolved

oxygen from the water through the natural processes of oxidation. In addition the natural river system would tend to dissipate and reduce the concentrations of both degradable and nondegradable pollutants more rapidly than the reservoir ecosystem.

17. Appalachian's comment with regard to the discussion of eutrophication on page 210 has been incorporated into the text.

18. Regarding the comments on fish productivity, it was impossible to compare quality of fishing in the reservoir with fishing in the river since the relative proportions of the various species would be different and the type of fishing activity would in all likelihood also be different. However, changes have been made to the text on page 227 in response to this particular comment.

19. Creel census data from the North Carolina Wildlife Resources Commission substantiating the State's evaluation of the fishery resources of the South Fork New River have been added to the appropriate section of the FEIS.

20. The information cited in these comments which reflects need for asscociated reservoir recreation facilities and activities in the Southeast is recognized as still existing. We recognize that if the Blue Ridge Project were constructed, public use of the reservoir area would occur and that the estimates previously

made of the extent of this recreation use and benefits are to date the best available data.

21. A discussion of the criteria for designation of the National Wild and Scenic River and the ways in which the South Fork New River meets these criteria has been added to the FEIS. The qualifying criteria in the case of the South Fork New River are not exclusively scenic qualities, but significant fish and wildlife, historic, cultural and geologic values.

22. The impacts to be felt outside the two-county scenic river area if the scenic river proposal is implemented have been described in a new section added to the FEIS. This section deals with the interest of the Commonwealth of Virginia which will be affected by adoption of the scenic river proposal.

23. The relationship of this proposal to other uses of the New River watershed has been addressed in the FEIS in an expanded alternative section. This section discusses the alternative of developing wild and scenic river proposals in all of the remaining free-flowing sections of the New River and also the sections of the New River which will be free-flowing after the Blue Ridge Project is in place. The additional discussion added to the FEIS which deals with impacts to be felt outside of the two-county area also reflects the many competing public needs for the resources of the New River not only in the scenic river proposal area but upstream and downstream as well.

24. The assessment that the DEIS "paints a bleak picture for the present economy of Ashe and Alleghany Counties" is an individual interpretation of statistical information presented. In a rural setting where the personal "standard of living" and "quality of life" is augmented by small scale agricultural production (gardening and livestock production), in addition to salaried income, the individual economic well-being is vastly different from intercity, low income individuals falling into a similiar economic category statistically. Although Ashe and Alleghany Counties may statistically be below State and national economic averages, the average standard of living is not accurately reflected by statistics alone. A change in the FEIS text on page 36 indicates that employment has experienced progress since 1970, the base year for economic information presented in the DEIS.

    Your final statement concerning campers and backpackers on page 30 is in error. Family camping is projected for the facilities to be developed; however, backpacking was not considered as a viable activity in either the DEIS or the FEIS.

25. Please refer to response to the Environmental Protection Agency, comment number 5.

United States Department of the Interior

BUREAU OF OUTDOOR RECREATION
SOUTHEAST REGIONAL OFFICE
148 Cain Street
Atlanta, Georgia 30303

IN REPLY REFER TO:
3400

Carolina Bird Club
Post Office Box 1220
Tryon, North Carolina 28782

NOV 2 0 1975

Dear Sirs:

Enclosed for your review is the draft environmental statement on the proposed South Fork New River, North Carolina, National Wild and Scenic River. The proposed action is the declaration of 26.5 miles of the New River and its tributary South Fork as a component of the National Wild and Scenic Rivers System by the Secretary of the Interior as requested by the Governor of North Carolina and provided for under Section 2(a)(ii) of Public Law 90-542.

We would appreciate your comments on the adequacy of this draft statement within 45 days of this date. If you have any questions regarding the statement, please call this office at (404)526-4778.

Your comments and cooperation will be most appreciated.

Sincerely yours,

for Robert M. Baker
Regional Director

Enclosure

The EIS appears adequate as written.

Frederick M. Probst
President CBC 1975

Response to Comments Received From
the Carolina Bird Club

We appreciate the review by the Carolina Bird Club.

NC
NR

National Committee for the New River

Box 575
Winston - Salem, N. C. 27101
Telephone (919) 722 - 9346

February 26, 1976

Mr. Robert M. Baker, Regional Director
United States Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Re: Proposed inclusion of the South Fork of the New River in the National Wild and Scenic Rivers System

Dear Mr. Baker:

The National Committee for the New River, a citizens organization combining the pre-existing organizations in Virginia, West Virginia and North Carolina which were committed to preserving the River in its free flowing state, and affiliated chapters in Tennessee, Ohio, South Carolina, and Michigan, is pleased to provide the following comments to the Department of the Interior's Draft Environmental Statement on the proposed inclusion of 26.5 miles of the South Fork of the New River in the National Wild and Scenic Rivers System.

Sections I through VII (pages 1 - 206)

After wading through the reams of papers filed by the Appalachian Power Company and the Federal Power Commission with their Environmental Impact Statements, it was refreshing indeed to read the Draft Environmental Impact Statement prepared by your Department. We agree generally with the conclusions drawn from the material available to the drafters: the distilled result is simply that the

Scenic River proposal would essentially preserve this ancient river and its bucolic, pastoral surroundings in their present beauty for future generations to enjoy.

The effects to mineral resources, soils, water and air quality, vegetation, fish and wildlife, all would be minimal. And a rooted, traditional way of life would be essentially undisturbed. This is what we, and the citizens most directly affected, fervently desire.

Let us observe by way of emphasis, that the Scenic River proposal offers (page 11) a unique opportunity for those citizens who live in the major Eastern population centers to enjoy two days of gentle canoeing or three days of unathletic backpacking, or a day of easy bicycling or horseback riding all within an easy drive of their homes. In these bicentennial years they could rediscover a pattern of life much like that of years ago - in a hospitable valley free of motor boats and chain hamburger stands.

Section VIII (pages 207 - 229)

By contrast to the Scenic River proposal, the consequences of the alternative of "no action" would be major and adverse.

Comments from other sources, including the State of North Carolina, have already emphasized many adverse consequences of the construction of the Blue Ridge Project and we will not repeat them. Our comments will be addressed to three headings: The Impact on Economy (page 225), The Impact on Archeology and History (page 219), and The Impact on Recreation (page 226).

Impact on Economy (page 225)

The Draft Environmental Impact Statement properly acknowledges (page 225) that though the per capita income in the affected valley is comparatively low in dollars, due to the residents providing much of their own subsistence from the land, the true picture is one of " a good standard of living".

The effect of taking the land needed for the Blue Ridge Project, however, would be profound: in mountain country, it is the bottomland that makes possible the utilization of the uplands for agriculture. This is basic to the problem. Much of the agriculture is beef and dairy production. The cattle are grazed on upland pastures during the warmer months, but the feed and pasture that makes their survival in the colder months possible, is grown in the fertile bottomlands —— the very

lands that would be flooded. Take the bottoms away, and the uplands become virtually useless for balanced cattle production. The effect is that the entire agricultural economy is crippled. This crucial factor has not been considered in the Draft Environmental Impact Statement. Our assertion is underscored, however, by a glance at the land use patterns shown on page 17.

More to the same point, the loss of land to the dams according to the Federal Power Commission mandate will be:

42,100	acres actually impounded
3,900	acres allocated to North Carolina for "park" purposes
2,400	acres allocated to Virginia for "park" purposes
3,835	acres required for shoreline control (a strip 200 feet wide along 80 miles of shoreline, and a strip 25 feet wide along 270 miles of shoreline)
52,235	acres

Thus, not only the bottomlands, but the gentler slopes would be largely lost. We submit that anyone with a passing familiarity with agriculture would agree that this loss would render the upland pastures, with their thin topsoil, substantially less useful.

The value of agricultural and livestock production in the project area in 1973 alone exceeded 13.5 million dollars. Excluding the extremely dubious recreational value attributed to the Blue Ridge Project by Appalachian Power Company (of which we will have more to say later), the net annual power benefits from the project would be a mere 3.2 million dollars over the alternative of coal production of electricity.

Hence, the land use impact of the Blue Ridge Project would be a net loss of over $10,200,000.00 per year in basic productivity. This figure grows significantly larger when the economic multiplier is applied to the project area. 2

The economic multiplier, simply put, reflects the "ripple effect" of the money received by the farmers for their present agricultural products: a dollar earned for string beans, for example, is spent at the local hardware store and thus becomes a dollar of income to the proprietor, who then spends it at the local gas station, where it becomes a dollar of income to its proprietor and so on.

If only 80% of each successive dollar were spent locally, the formula could be expressed

$$\$1 + \$1(.80) + \$1(.80)(.80) + \$1(.80)^3$$

$$= \$1\left[(\$1 + .80 + 1.80)^2 + (.80)^3\right]$$

$$= \$1\left(\frac{1}{1} - .80\right) = \$1(5) = \$5.00, \text{ or}$$

five times the original dollar received for the beans.

Thus, the loss of 13.5 million dollars to the local economy will have impact on the affected region far in excess of the income received by the farmer in the first instance.

2

And it should not be forgotten that the converse is equally true: the loss of one dollar to the farmer through the inundation of his field, represents also the loss of one dollar to the hardware merchant and one dollar to the gas station proprietor.

Contrasted to this, it is difficult to see how the temporary employment of labor to construct the dams, will provide more than a short term "stimulation of the economy" noted on page 225. Indeed it will inflate for a short time the demands on local government for schools, law enforcement and other essential services, then leave

them to gear down as best they can when the construction is complete and the labor has moved on to other projects.

Contrast, too, the benefits of continued agricultural production into the foreseeable future, with the limited economic value of the dams. According to the Federal Power Commission, the project's value in production will fall by more than one-half in its first twenty years (from 4,100,000 megawatt hours to 1,800,000 megawatt hours). At this rate, the dam would have totally lost its utility before the end of the fifty year license sought. 2

Impact on Archeology and History (page 219)

We acknowledge the truth of the fact that "the residents of Ashe and Alleghany Counties still take great pride in their ancestral ways and continue to preserve many facets of their old culture" (page 62), and would comment only that the culture referred to and illustrated in the Draft Environmental Statement (pages 61 and 62) does not just happen.

Any true culture must be fed from some source. Destroy the source and you ultimately destroy the culture.

It is true that no buildings nominated for the National Register of Historic Places exist within the

project area. But the citizens of Ashe and Alleghany don't count their heritage in bricks and timber: it resides in craftsmen who still make dulcimers, musicians who still write ballads, housewives who continue the old quilt patterns and who make apple butter the old way. Their lives, their churches and graveyards, are inextricably intertwined with the New River as it is.

As for the Archeological Impact, we here encounter the prodigality of the Blue Ridge Project, which would bury artifacts of eternal value, to provide one generarion with electric power. The Chairman of the Department of Archeology of Catholic University in Washington, wrote recently

> ".....I have observed projectile points (spear points) in artifact collections from adjacent to and within the area on the New River that will be flooded, and have seen points comparable to the notched forms dating from approximately 8,000 B.C. I have every reason to suspect the presence of occupation as old as Clovis (ca 9,500 B.C.). We also know that there is prehistoric human habitation in the New River valley running up the Contact Period with the European settlers. One of the more important aspects of the archeology of the New River is the connection the river and its valley provided between the Midwest and upper Southeast. Basically these are two different culture areas but there was considerable exchange of ideas and goods between these two regions with the New River Valley serving as the transportation and trade route. Understanding the

nature of this exchange is of extreme importance in understanding the culture history of each area. Further, cultural resources (prehistoric archeological sites) in general are being considerably depleted through such things as reservoirs, highways, construction of various kinds and so forth. While I am not against progress (an elitist as a recent power company ad called us), I am concerned for our country's heritage, both prehistoric and historic. Of course the cultural resources of the New River is only one aspect of the total environmental resources that will be altered, destroyed and otherwise changed.

As for the total age of the New River, I understand from my geological colleagues it it one of the two oldest rivers in the world which are still flowing. The other being the Nile. The prehistoric occupation goes back a minimum of 10,000 years and more likely back to 12,000 years ago".

Impact on Recreation

The assertion on page 212 of the Draft Environmental Impact Statement to the effect that the Blue Ridge Project impoundments would create lake scenery which "in its own way" would also be scenic is extremely misleading. One is led to believe that the lakes are going to resemble a true mountain lake, a belief that is entirely inaccurate. 3

The scenery of the Blue Ridge Project Impoundment would be characterized as is typical of projects for peak power generation: mudflats rimming the edge of the lake, bogs at the upper reaches, and artificial freshwater

intertidal zones where the land slope is nearly zero.

The impoundments in North Carolina, burying the 26.5 mile section being considered for scenic river status, would cover land with a slope averaging 5:1. Mudflat expanses at full draw-down would therefore average fifty feet wide. The assertion on page 212 "since draw-down of the upper lake would only be about ten feet during the recreation season, and since many of the streamside slopes are quite steep, the overall impact of the draw-down on scenic quality would not inhibit recreation" is therefore unfortunately inaccurate.

3

This is because for every foot of draw-down at the dam, the area laid bare is larger (unless the slope is as vertical as the dam face). Thus for a 5:1 slope, which the Appalachian Power Company considers average in the area, for every foot drawn down at the dam, five are laid bare. The ten foot draw-down forecast on page 212, therefore, would expose fifty feet of mud. Not a very pretty sight, and a factor making the launching of boats, the building of docks, expensive and difficult. This margin of muck, which everyone apparently concedes would be present, would drastically limit the attractiveness of the impoundment for recreation. The constant

fluctuation of the water level would insure the continual saturation of the muck, making it difficult if not dangerous to walk across.

Moreover, shorelines where little natural water flow exists, such as in the proposed impoundments, inevitably gather considerable amounts of debris and litter. This shoreline trash, combined with residue pollutants from eutrophic processes and petroleum leakage, will create a vista "in its own way scenic" but certainly not appealing and a far cry from the mountain lake scenery conjured by proponents of the Blue Ridge Project.

3

The recreational value of such lakes, especially when flat water recreation is so available nearby (see page 69) is so patently problematical that it should be substantially discounted.

Moreover, inasmuch as fish and other aquatic life spawn in shallow water, the fluctuations of the water level, alternately exposing and submerging their eggs, would render replacement of aquatic life, without constant restocking, highly unlikely. The impact of the Blue Ridge Project on this facet of recreation would be more than "significant" (page 217): it would be disastrous.

Conclusion

Projected on the national screen, benefits of Scenic River Status for the South Fork of the New River are obvious.

By contrast, the consequences of inaction would permit the construction of the Blue Ridge Project and the net loss to the nation of $10,200,000.00 annually (the difference between the value of agricultural products and the savings of hydropower over coal power) Equally important, in return for one generation's "peaking power", it would submerge forever a remarkable culture and uncounted archeological treasures. 4

We are grateful for the opportunity to provide these comments.

Yours very truly,

National Committee for the New River

By

President

HCHjr:mt

Response to Comments Received From
National Committee for the New River

1. In response to this comment the subsection, Impact on Economy, has been revised to reflect these comments.

2. A statement in this comment places the value of agricultural and livestock production in the project area at 13.5 million dollars for 1973. No information available to the drafters of the EIS contained this figure. The source of the figure was reported to be the Agricultural Stabilization and Conservation Service; however, ASCS offices for Ashe and Alleghany Counties as well as the State Office in Raleigh were unable to verify this. Although the numbers cited could not be substantiated, the point made is well taken and accordingly appropriate changes to the text have been made.

3. This comment fails to take note of the fact that the drawdown of 10 feet mentioned in the subsection, Impact on Scenery on page 212, is a maximum drawdown which will occur only 4 percent of the time. The remainder of the time the drawdown will average only 3 feet and since in many places the slopes are steep, the so-called mud flats would only exist on rare occasions.

   Further clarification of this issue has been provided in a revised section on this impact.

4. This comment again refers to a net loss to the Nation of $10,200,000 in economic benefits if the Blue Ridge Project is constructed. This figure is based on $13,500,000 in agricultural production lost through inundation of farmland and totally disregards any recreational benefits of the reservoir. As previously stated, the $13.5 million could not be verified with the reported sources. While the conclusion of this comment, i.e., that the costs of the Blue Ridge Project exceed the benefits, may be correct, the numbers used to justify that conclusion could not be substantiated.

COMMITTEE FOR THE NEW RIVER

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February 27, 1976

Mr. Robert M. Baker, Regional Director
United States Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

The following comments are provided by the North Carolina Committee for the New River to the Draft Environmental Impact Statement currently being circulated.

Yours very truly,

Hamilton C. Horton, Jr.

HCHjr:mt
enclosure

THE STRUGGLE FOR THE NEW RIVER

Published by:

November 20, 1975

The Committee for the New River
Post Office Box 575
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"Let us not dam the New River. I use the word 'dam' in the sense of ruining the New River from now until the last notes of Gabriel's horn tremble into silence. Because we cannot use the New River after it has been dammed."

-- Sam J. Ervin, Jr., former U. S. senator, 1974.

I. INTRODUCTION

If there is one group of American citizens being unjustly called upon to sacrifice for the nation's energy needs, it is the people of the New River valley in northwest North Carolina.

The biggest electric power company in the country wants to take away their land and livelihood and that of their neighbors across the Virginia state line. It would build two huge pumped-storage dams for what the utility industry calls "peaking power." As with all such projects, this one would actually be burning up more energy than it produces while the nation suffers from an energy shortfall.

Under the backwaters of the two dams would go more than 40,000 acres of the richest bottomland, pasture and forest. Nearly 3,000 people living on that land today would be forced to sell out and move on, while people far away, in Ohio and other states, would get all the benefits. They would be able to turn up their air conditioners as high as they pleased on summer afternoons. Consider what the people in the New River valley would get:

-- A devastated local economy and property tax base; both have already been wracked by years of uncertainty as this project hung over their heads.

-- The upheaval of a well-settled pattern of rural life; farm-to-market roads would be blocked by backed up streams and people would have to take more time traveling to and from jobs, schools and shopping centers.

-- In place of a magnificent, unspoiled and free-flowing river, probably the oldest in America, two "lakes" with shorelines that rise and fall continually, leaving mudflats and bog; these would mock attempts to use the water for recreation sites, of which the area has many already.

-- The flooding of the sites of hundreds of homeplaces, churches and cemeteries, entire little towns like Mouth-of-Wilson, Va., and buried, unexplored archeological treasures.

-- And, surely as the last straw, the people making this sacrifice would get in return not a kilowatt of the power produced by these dams, save in the remote chance that North Carolina utilities had a brownout.

The proud and independent people of the New River valley, whose heritage antedates the American Revolution, have been fighting this hydroelectric project for almost 10 years. For most of that time they fought alone. Since 1972, they have won many sympathizers and allies as their cause became a national issue.

But this struggle could be lost unless the U. S. Department of the Interior heeds North Carolina's call to place a 26.5 mile stretch of the New River in the National Wild and Scenic Rivers system. The Secretary of the Interior has the power to do this. His action would foil the dam builders.

II. THE RIVER AND THE PEOPLE

In a letter to the company stockholders, Donald C. Cook, the chairman of American Electric Power, complained last February that, "A much-needed hydroelectric project is held up -- in the face of a valid license, granted by the expert authority, after 12 years of proceedings -- because, among other things, a species of snail might be endangered. In the scheme of

things," he asked, "should we choose a snail over needed electric power which can contribute so much to the quality of human life?" This statement of the issue is typical of the power company's rhetoric. Clearly, more is at stake than a species of snail. For example, nearly 3,000 people would be driven off their land for a project that would be a net energy consumer.

The people threatened by the Blue Ridge power project can trace their ancestors back to the settlers who put down roots there before the American Revolution. Two hundred years later, the valley is an unspoiled countryside where the names on the mailboxes match the names on the gravestones. Many of the people are small farmers with less than 100 acres of land. To keep tilling the soil in the area, they would have to give up land nourished by the river for millions of years and move to shallow, stonier ground at higher elevations.

The river itself has many unique features. One of them is its age, there being nothing "new" about it. Raymond E. Janssen, a geologist who has studied the river, said in 1974, "There is no question that the New is one of the oldest rivers in the world. It could be the oldest. I can't say it is older than the Nile because I don't know how old the Nile is." Janssen is emeritus professor of geology at Marshall University, in Huntington, West Virginia.

Rising near Blowing Rock, North Carolina, in Watauga County, the New flows to the north. Its north and south forks join just before the river enters Virginia. It is the only river to cross the Appalachian Mountains from east to west. After making the passage it empties into the Kanawha River basin in West Virginia. Along the way it meanders about, falls into deep gorges and cuts back on itself. Its white-water stretches are favored by canoeists. Of special interest to fishermen are the tributaries of the New, which offer trout fishing. These will be backed up if the Blue Ridge project is built. The New itself is a favorite spot for bass.

Janssen and other geologists believe the New is the sole surviving remnant of the once-mighty Teays River, which long ago drained the eastern

and central United States and had as a mere tributary the now-mighty Mississippi. The Teays did not survive the glaciers of the Pleistocene Age, but its tail in what is now Carolina was spared and remained intact.

"From Blowing Rock west the New River occupies the bed of the Teays as far as Gauley Bridge, West Virginia." Janssen wrote in the Scientific American (June 1952).

The U. S. Fish and Wildlife Service has identified eleven species of aquatic life in and along the New that exist nowhere else in the world. Judging by the age of the rocks through which it has cut, Janssen believes the New River may be 100 millions years old.

III. THE PROJECT'S ORIGIN AND SCOPE

Plans for the Blue Ridge project were announced by a subsidiary of American Electric Power, the Appalachian Power Company, in 1962. North Carolina folks did not oppose the project in the early years. As it was conceived then, it would have taken fewer than 20,000 acres, and most of that land was in Virginia, a state served by Appalachian.

North Carolina's tolerance of this project next door faded swiftly in 1966, when the U. S. Department of the Interior imposed on it a scheme of its own. Looking at the severe water pollution problems of the Kanawha River in the Charleston, West Virginia area, the Interior Department called on the Federal Power Commission to double the project's size. The idea was that the added waters, when released to produce power, would also flush out industrial wastes far downstream. Rural people living along an unspoiled river were thus called upon to give up their land and homes to solve another area's problems with waste.

The Environmental Protection Agency eventually ruled out this "pollution-dilution" concept, but that proved to be an empty victory for the residents: In 1968, Appalachian Power decided that with or without "pollution-dilution" it needed a far bigger project than it originally proposed.

On June 14, 1974, the five members of the Federal Power Commission unanimously granted Appalachian Power a 50-year license for a project costing $430 million,* with a generating capacity of 1,800 megawatts. There would be two dams, the upper with a water surface of 26,000 acres, the lower 12,390 acres. The water stored in the upper reservoir would be released to generate up to 1,600 megawatts during periods of peak demand, usually late afternoons. At night and on weekends, the water would be pumped back from the lower to the upper reservoir, to be released again. The power to do this would come from other plants in the American Power system. The lower reservoir would have a small generator of 200,000 kilowatts to produce conventional hydroelectric power. This would make the Blue Ridge project slightly less of a net consumer of power than other pumped-storage projects. Instead of burning three kilowatts of power (while pumping the water upstream) to produce two for consumer use, as other projects do, it would burn four while producing three for consumers. That still leaves it, of course, a net user of power.

The water, with the back-up from the lakes, would cover about 42,100 acres of land, of which 27,900 are in Grayson County, Virginia, 8,400 in Alleghany County, North Carolina, and 5,800 in Ashe County, North Carolina. Under water would be the sites of 936 homes, trailers and cabins, 10 industrial buildings, 23 commercial buildings, five U. S. post offices, 15 churches, and 12 cemeteries. The Federal Power Commission estimates 2,821 people would be forced out of the valley, and 115 more might have to move because of flooded roads, and other disruptions.

IV. HOW OPPOSITION HAS GROWN

At first the State of North Carolina objected only to the drawdown of the water in the enlarged project, but by 1973, the government in Raleigh had at last caught up with the residents' opposition. Both candidates for governor in 1972 denounced the project, and the winner, James E. Holshouser, Jr., withdrew all state support for the dams in 1973. Today, no elected official in the state is known to support the project. Rather:

*This cost estimate was made well before the recent bout with inflation. It has never been updated.

-- The commissioners of both Ashe and Alleghany Counties voted to seek federal status for the New as a scenic river, despite the restrictions that would be put on land use.

-- Both houses of the 1975 General Assembly voted unanimously to put the New in the state scenic river sytem, the first step in getting federal protection.

-- The state delegation to Congress, Republican and Democrat, is united against the project.

The North Carolina press figured prominently in getting the state and Congress to take up the cause of the New River. Among the papers supporting the scenic river plan are the Winston-Salem Journal and Sentinel, the Raleigh News and Observer, the Charlotte Observer, the Greensboro Daily News, the Durham Morning Herald and the smaller papers in the mountain counties. Television station WSJS (now WXII) in Winston-Salem produced a one-hour documentary for showing on other stations, and WSOC in Charlotte and WRAL in Raleigh also produced documentaries sympathetic to the cause of the mountain people.

Throughout the mountains and Piedmont of North Carolina today, one may see bumperstickers that read, "The New River . . . Like It is." That is one sign of work of the Committee for the New River, formed in early 1975 after Congress failed to enact a law that would have staved off the project for at least two years. It is a coalition of groups long opposed to the dams.

A highlight of the committee's work was an afternoon festival in July on the banks of the New in Ashe County. It attracted about 5,000 people, including some from Virginia and West Virginia, where grass-roots opposition to the dams is growing. The site of the festival would be under 200 feet of water if the dams are built. Six original ballads composed by area residents were sung at the festival. They dealt with the long struggle to preserve the river.

Over the years, many outsiders have helped take up the cause. Former Interior Secretary Rogers Morton turned about the Interior Department's stand on the river. The chairman of the Appalachian Regional Commission supported the 1974 bill to study it for inclusion in the national scenic rivers system. Such newspapers as the Washington Star, the St. Louis Post-Dispatch, the Washington Post and the New York Times have joined. Groups now working to save the New include the Friends of the Earth, the Izaak Walton League, the American Rivers Conservation Council, the Wilderness Society, the National Parks and Conservation Association, the American Forestry Association, Environmental Action and the Environmental Policy Center.

V. THE STRATEGY TO SAVE THE NEW

The best hope for blocking the Blue Ridge project and saving the New River lies with the U. S. Secretary of the Interior.

The secretary could save the New by taking it into the National Wild and Scenic Rivers System. This is a category of rivers protected under the 1968 Wild and Scenic Rivers Act. In passing that law, Congress states, "It is hereby declared to be the policy of the United States that certain selected rivers of the nation ... shall be protected for the benefit and enjoyment of future generations." The Federal Power Commission is absolutely denied the right, under this law, to license a dam project on any river in the system or any river being considered for membership.

There is no question that the New qualifies as a scenic river under the act. Former Interior Secretary Morton stated he believed the river qualified. In a September 9, 1975, letter to Governor James Holshouser, Acting Secretary D. Kent Frizzell wrote that the Department's Bureau of Outdoor Recreation "has concurred in your classification of the segment (designated by the state) as a scenic river."

Being qualified and being admitted, unfortunately, are two different things. Ranged in opposition to the scenic river plan, along with the American Electric Power Company, are the State of Virginia and the AFL-CIO construction trades.

Whether the present Interior Secretary, Thomas S. Kleppe, will approve the scenic river plan is thus a critical question. During Senate Interior Committee hearings, Kleppe said, "We must keep in mind that the economic penalty for an error in the direction of overprotection can always be corrected, while the damage from resource abuse may be irreparable." Questioned specifically about the New River, however, Kleppe promised only to weigh the pros and cons.

Meanwhile, the Interior Department was behaving in a puzzling fashion. In his September 9 letter, Acting Secretary Frizzell sought clarification of some minor points involving the state management plan for the river. The North Carolina Secretary of Natural and Economic Resources responded October 6, clarifying the state's plan.

This may not be enough to prompt Interior to begin circulating the state's New River petition for comment by other federal agencies, however. The department, at Frizzell's direction, began an environmental impact statement on the scenic river plan. This work, which may take months, may have to be finished before other agencies begin comment, an Interior official said in October, 1975. The motive behind this stalling may be to hear first how North Carolina's suit against the Federal Power Commission is resolved by the U. S. Court of Appeals in Washington. A decision may be handed down before the end of 1975.

Under the 1968 law, the Interior Secretary must solicit comment on a scenic river plan from the Agriculture Secretary (Dr. Earl Butz), the Army Secretary (who is over the Corps of Engineers), the Federal Power Commission chairman, and "the head of any other affected federal department or agency." That could include Frank G. Zarb, head of the Federal Energy Administration.

The Interior Secretary, the law states, "shall evaluate and give due weight to any recommendations or comments which the said officials furnish him within 90 days of the date on which it is submitted to them" Thereafter the decision rests with the Interior Secretary alone. The law specifies no time limit for him to act. That, combined with the time spent writing an environmental-impact statement, affords the Interior Department plenty of time to delay action.

Rep. Stephen L. Neal, a Democrat, who represents the area that would be flooded, has introduced a bill in Congress that would accomplish the same ends as the scenic river plan. No hearings are scheduled. This avenue involves the grave risk that labor and utility lobbyists could defeat such a bill, as they did in late 1974. A second defeat in Congress would take pressure off the Interior Department to act in favor of protecting the river. The 1974 bill was approved by majorities of both the Senate and House. But because the House Rules Committee refused to grant the bill a rule, it required a two-thirds vote in that chamber. The vote was a majority, 196 - 181, but not the required two-thirds.

VI. THE LEGAL CASE AGAINST THE DAM LICENSE

In licensing the Blue Ridge power project, the Federal Power Commission was following the Federal Power Act, which gives it authority over hydro-electric projects and requires it to promote an abundant supply of power in the United States. While following the Federal Power Act, the commission may have broken two other laws, and the Interior Department may have violated a third.

These violations, alleged in two suits brought by the State of North Carolina, are that:

-- The Federal Power Commission licensed the project in defiance of a 1974 state request (renewed in 1975) to make the New a federally protected scenic river, under the 1968 Wild and Scenic Rivers Act.

-- The Federal Power Commission ignored the National Environmental Policy Act by failing to consider alternatives to a pumped-storage project to meet Appalachian Power's needs.

-- The Federal Power Commission failed to heed the same law's mandate that all federal agencies protect the nation's cultural and natural heritage.

-- The Interior Department failed to determine if archeological treasures might be lost through building of the dams, in violation of the 1960 Historic Preservation Act.

A three-judge panel of the U. S. Court of Appeals in Washington heard oral argument in the case on October 23. A decision may come later this year. From the questioning, it appeared two judges, Spottswood W. Robinson and David Bazelon, were sympathetic to the state, particularly on the FPC's failure to recognize the archeological importance of the valley.

A. The Scenic River Act Violation

This issue involves fine points of law and wording. In brief, North Carolina believes the Federal Power Commission showed disregard for the rights of a state, and should not have issued the license because the river was already being studied for inclusion in the scenic river system.

The 1968 law states," . . . no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river might be designated . . . in the case of any river recommended to the Secretary of the Interior for

inclusion in the national wild and scenic rivers system" by a state.* In other words, a license may not be granted while a state petition is being considered.

The relevant facts are these: On March 21, 1974, the General Assembly of North Carolina designated the main stem of the New, about four miles, as part of the state scenic river system. Interior Secretary Rogers Morton responded. "We . . . have enough (information) to be reasonably sure that physically and esthetically, it (the New River) qualifies for inclusion in the National system." The state accordingly drew up a river management plan, and on December 12, 1974, the governor petitioned for federal status as a scenic river.

In the spring of 1975, the General Assembly added a longer stretch of the river to the scenic system, making 26.5 miles in all. This was to meet guidelines issued by the Interior Department requiring minimums of 25 miles. Governor Holshouser amended the state's petition accordingly, and a revised management plan was submitted and is now before the Interior Department.

Despite the 1968 law, the Federal Power Commission was not deterred from licensing the project. It issued the license June 14, 1974, with an effective date of January 2, 1975. That delay was not in deference to North Carolina, but to Congress, which was then considering the bill to save the New.

North Carolina believes the FPC license was thus granted unlawfully, because before its effective date, the state

*The federal Power Commission contends this provision applies only to rivers originally named for study in the 1968 act, but the legislative history of the act supports the state's position.

had already sought Interior's approval for taking the New into the federal scenic rivers system. The violation is of the section of law quoted above*

B. Failure to Consider Alternatives Under the National Environmental Policy Act of 1969

The law requires that federal agencies "study, develop and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." In the case of the New River, that presumably would require the Federal Power Commission to recommend other ways to generate the power Appalachian states that it needs.

In the course of its lengthy hearings, the Federal Power Commission gave but cursory thought to alternatives to a pumped-storage project. It dismissed technological advances that might make the pumped-storage dam obsolete. And it failed to consider other moves that would reduce the need for peaking power itself. It ignored the fact that rising electricity costs are forcing consumers of all classes to use less power. It ignored the gains of charging customers more per kilowatt as consumption increased, thus wiping out the standing incentive to use more and more power. It overlooked other possible utility reforms, such as peak-load pricing, which would shave off the peak demand by inducing consumers to use less power during normal periods of peak use.

*Apart from this suit, before a three-judge panel of the Washington, D. C. Court of Appeals, the state has made the same argument in a Greensboro federal court. Judge Eugene Gordon declined to rule on the case, but he warned Appalachian not to begin construction. North Carolina appealed to the Circuit Court of Appeals in Richmond. The case is inactive, but can be revived if the suit in Washington fails.

Neither, incidentally, would use of even a new coal-burning plant cause more air pollution. The power company, supported by the Federal Power Commission, contends that less air pollution will be caused if the Blue Ridge project is built because less coal will be consumed to produce power. In the industry's thinking, using coal-fired plants to pump back the water means less coal burned than if that same peaking power were provided by added coal-fired plants.

The Environmental Protection Agency did not agree with this conclusion. It pointed out that the Blue Ridge project will require existing generating units to operate for longer times than they do now. These units are subject to less stringent pollution standards. The sulphur oxides they spew, even if dispersed by tall smokestacks, would bring about acid rainfalls and are a health hazard.

C. Failure to Protect Archeological Treasures

The size of the archeological treasure that would be lost forever if the Blue Ridge dams are built has only recently been grasped. Dr. C. G. Holland, one of the two anthropologists who have examined the artifacts found there, believes the New River valley to be one of the most important archeological sites in the eastern United States. A third, Dr. William Gardner, chairman of the anthropology department at Catholic University, Washington, D. C., says of the valley, "This was probably one of the major migration routes during the past 10,000 years. At a minimum, the valley has been occupied since 8,000 B.C., according to artifacts there."

The National Environmental Policy Act of 1969 requires agencies like the Federal Power Commission to help "preserve historic, cultural and natural aspects of our national heritage." The commission did direct the power company to

make studies of the area's archeology, one before the project was enlarged, one after. The power company did so, and the results were striking.

But the findings were not disclosed during the FPC hearings, and were not included in the FPC's environmental impact statement.

The Interior Department failed on the same score. Under the Historic Preservation Act of 1960, any U. S. agency approving a dam project must notify the Secretary of Interior, who must "cause a survey to be made" of any archeological artifacts that might be "irreparably lost" by flooding, and have them collected. At no time did the Interior Department require such a survey.

Douglas P. Wheeler, the Deputy Assistant Secretary for Fish, Wildlife and Parks, stated recently, "I think you can make a case that someone violated the letter of the law if you go into specifics." The department's negligence is surprising in view of the fact that in 1973 it urged the FPC to estimate the "archeological resources within the affected area" of the project, a proposal the FPC brushed aside.

Dr. Harvard Ayres, anthropology professor at Appalachian State University, Boone, North Carolina conducted the first survey of the area in 1965. In two weeks of work, he found 117 arrowheads and 112 pieces of pottery and other artifacts, mostly by looking in the surface of plowed fields and digging at small sites.

Dr. Holland's two-week survey in 1969 was even more productive. From 42 sites, he recovered 1,459 pieces of pottery and 415 arrowheads and other items. He found evidence of a "very large Indian village" and other encampments. Further excavation, he believes, would be a major contribution to the archeology of

the eastern United States. The river valley was a major Indian migration route, and Holland believes it will show successive levels of development from Paleo-Indian times to the 15th and 16th Centuries.

Despite the archeologists' findings, the power company neither made them known nor sought to have more work done there. A spokesman said recently the studies were kept secret because people might "go out and ruin" the sites. On June 1, 1971, W. S. White, the executive vice-president of Appalachian Power, told residents that the company is "committed to the preservation of items of historic significance" in the area to be flooded. "We will pay for further exploration by the Smithsonian Institute to recover artifacts that may be preserved for posterity," he said. This was never done.

The archeological significance of the New River valley did not become known publicly until September, 1975, when the Winston-Salem Journal and the New York Times reported the findings for the first time.

VII. WHO IS AMERICAN ELECTRIC POWER?

Looming behind the Blue Ridge project is the mighty American Electric Power Company, the largest private utility company in the United States with $1 billion in revenues in 1974. The company is perhaps more actively engaged in attacking the environmental movement than any other corporation.

In the spring of 1974, it began an advertising campaign reported to cost from $2.7 million to $3.2 million. Full-page ads were placed in newspapers such as the Wall Street Journal, the New York Times, the Washington Post and in Time and Newsweek magazines. The ads attacked the

Clean Air Act, especially controls on sulfur dioxides, and opposed laws to ban strip mining.

In September, 1975, American Electric Power's ad campaign was renewed. One ad featured a familiar AEP call for more use of coal rather than imported oil. Ironically, in view of the proposed Blue Ridge project, the ad called for "rigorous conservation through the efficient use of all forms of energy, including all fuels and electric power."

The subsidiaries of American Electric Power, which is the parent holding company, are the Appalachian Power Company, the Indiana and Michigan Electric Company, the Kentucky Power Company, the Kingsport Company, the Michigan Power Company, the Ohio Power Company and the Wheeling Electric Company. The full AEP system serves all or part of seven states: Michigan, Ohio, Indiana, West Virginia, Virginia, Kentucky and Tennessee.

AEP has its headquarters in New York. The electric system itself is run by a computerized control center in a bomb shelter in Canton, Ohio.

While AEP has millions for advertising, it spends little on research that might turn up ways to produce electricity more efficiently. According to FPC data inserted in the Congressional Record December 19, 1974, by Senator Lee Metcalf, Democrat of Montana, six of AEP's seven subsidiaries spent less on R & D in 1973 than they had in 1970. In 1973, not one of the seven spent more on R & D than on advertising and sales promotion. Appalachian Power spent $1,940,196 on the latter and only $640,467 on the former. Part of the advertising was for highly inefficient and expensive all-electric homes.

"Hopefully American Electric Power and the other electric utilities will realize that the best way to improve their public image is not to use a slick advertising campaign," Metcalf said, "but to devote their time and money to providing the public cheaper, more efficient, pollution-free energy and electricity."

Federal Power Commission data he inserted in the Congressional Record September 17, 1975, shows that Appalachian Power and four other AEP subsidiaries paid no federal income tax on their 1974 income. Appalachian had a return of 18 per cent on revenues of $425,550,313. Its return on equity capital was 17.8 per cent. Together, Appalachian and the other four subsidiaries amassed federal tax credits of $17.4 million.

"These AEP subsidiaries also made profits that must be envied by unregulated risk industries," Metcalf said. He added, tongue-in-cheek, "While I do not want to minimize the strong competition which that company has from numerous other utilities, AEP's ability to milk the Treasury and bilk the (state) regulators establishes it as the No. 1 seed in the tax-keeper of the year open."

The boss of American Electric Power Company is Donald C. Cook, chairman of the board. Cook was head of the Securities and Exchange Commission from 1949 to 1953, and was a personal friend and political associate of former President Johnson. At age 66, he may retire next year. His attacks on the environmental movement are well known.

At the April 1975 meeting of AEP's stockholders, Cook showed a film titled, "What Time Is The Power On Today?" The film purported to depict the impact on urban life of electric power shortages, which Cook predicts will be widespread by 1980. He blamed environmentalists, consumer groups, the Federal government and state utility regulators for the shortage.

While Cook predicts massive power shortages, however, he opposes any rigorous program to conserve energy. He told CBS News in November 1974: "Our concern is that if we push the conservation, so-called, of energy too far, it is going to be destructive of the economy, and result in a lower living standard for everybody."

VIII. THE PROJECT'S DUBIOUS AND FADING MERIT

There is substantial evidence that the Blue Ridge project, even within the logic of the power industry, does not have such economic justification as it had in 1968, when the project was doubled to its present size.

Statements made by Cook himself support this view. Cook told Forbes Magazine (July 1, 1975) that AEP had gotten itself into a financial jam because it was building power plants faster than its customers were calling for more power. "For the first time, we clearly overestimated the demand of the economy in our (service) area. We are grinding down our construction program," Cook told Forbes. He said two plants with capital costs of $1 billion would be dropped.

American Power Company's electric sales have not been climbing at their historic annual rate of 7 per cent, once common for the utility industry. The reason may be not only the recession but the higher consumer power bills which AEP justified, in getting the rate increases, by pointing to its costly construction program. Power demand in the AEP system grew only 1.3 per cent in 1974. Demand actually fell by 4 per cent in the first half of 1975, Forbes reported in July.

Not only is AEP failing to grow as rapidly as it projected in 1968, but the AEP system itself has more power and generating capacity today than it can use. It has a total generating capacity of 15,800 megawatts. However, up to 1,600 megawatt hours, or ten per cent of the full capacity, are being sold daily to other utilities outside the AEP system. Cook's own forecast for a power shortage is thus false in the case of his own company. He told Forbes: "While there is going to be a power shortage in the United States, there will not be a power shortage on the American Electric Power system. When the growth (in demand) comes, we will take that power away from outsiders and use it for our own growing requirements."

Given the excess capacity in the AEP system, and its wholesale misjudgment of power demand in 1974 (when it originally planned to begin use of the Blue Ridge dams), AEP's original claimed need for the $430 million project should be reconsidered.

IX. ALTERNATIVES TO PEAKING POWER

In a recent brief to the U. S. Court of Appeals in Washington, the Federal Power Commission charged that North Carolina's argument against the Blue Ridge dams "reveals only that it does not understand the workings of the utility industry."

What the state urges, however, is a new hearing on alternatives to pumped-storage dams.

Within the utility industry, AEP is a notably efficient system. Its average annual use of its plant capacity is 74 per cent, much higher than the 60 per cent use for all utilities. Its summer and winter peaks are about equal. But it has a great fluctuation in daily demand, the reason it seeks the Blue Ridge project.

According to the Federal Power Commission, AEP's demand may rise on a given day from 8,000 megawatts to 13,000 megawatts. By 1985, the difference may be from 15,000 megawatts to 24,000 megawatts. To accommodate that daily flux in damand, the system must have capacity equal to the peak, even if those added plants are idle much of the time. Because coal-fired boilers take time to warm up and cannot be switched on and off, the company seeks the instant flow of electricity it would get from the Blue Ridge dams.

For AEP, however, the challenge should be to smooth out the daily demand for electricity. But the Federal Power Commission has refused to direct the power industry -- whose earnings are a guaranteed return on capital investment -- to alter its rates to smooth out that demand. The industry prefers to build extra capacity and bill its captive customers for the cost.

On the other hand, Virginia Electric Power Company, a neighbor of Appalachian, was directed by the Virginia utility commission this year to begin work on introducing "time of day" rates. Consumers would be billed extra for using electricity during the peak hours. They would be billed less for use during off-peak hours. A number of states, including North Carolina, have similar rate reforms underway, or are studying them. Since AEP would get no use from the Blue Ridge project for several years, due to the construction time involved, it has adequate time to institute a rate reform that would make this $430 million project superfluous. The question is whether its call for "rigorous conservation through the efficient use of . . . electric power" is sincere or not. (Advertising in Wall Street Journal, September 16, 1975).

The gains of time-of-day rates (which need involve no cut in anyone's overall electric use) could enable the utility industry to pass on huge savings to power consumers. Business Week reported (Jan. 20, 1975), "Industry wide, peak demand is growing about 1 per cent a year faster than the average demand for electricity. Smoothing out the demand curve could save $60 billion in capacity additions over the next 10 years, the Federal Energy Administration calculates." That is about one-fourth of the amount the industry plans to spend on new plants in the next decade -- $232 billion.

Frank G. Zarb, the head of the Federal Enegry Administration, challenged the utilities at a "load management conference" in June 1975 to shave off the peaks in daily power demand. "We simply can't talk in terms of digging more mines, building more plants, and leaving consumption as usual," Zarb said. The same applies to costly and environmentally ruinous pumped-storage projects.

X. THE PROJECT'S FLEETING VALUE

The New River, as was noted earlier, ranks in age with the Nile. It has flowed free for millions of years. Compared to that, the usefulness of the Blue Ridge project would be a mere two or three decades, but the impoundments would destroy 70 miles of the river irrevocably.

The Blue Ridge project is not a set of dams that will go on producing power for years and years. On the contrary, within the power company's own planning, its life span is brief.

According to the Federal Power Commission, this is the decline in the dams' annual power output in the first 20 years of its 50-year license period:

1975	4,100,000 megawatt hours
1985	3,250,000 " " "
1995	1,800,000 " " "

In other words, the project's value in production will fall by more than one-half in only 20 years. And given the delay in building the dams, its first-year output may be even less than shown above for 1975 (because AEP's planned base-load construction program will absorb more and more of the need for the dams' production.)

During Senate debate on a bill to save the New River, Senator Jesse Helms, Republican of North Carolina, pointed to a possible reason for the rapid decline in the project's output. "The reason for this," Helms said, "is that the reservoir will silt up at a rapid rate, leaving no room for the quantities of water needed for economical generation." That charge was never covered in the environmental impact statements, but from the power company's own figures, it is evident the project may be in use only 1,000 hours a year two decades from now. That is less than three hours a day.

XI. THE DUBIOUS ECONOMIC JUSTIFICATION

By the calculations of the Federal Power Commission, the Blue Ridge project would produce a net saving of $3.2 million a year. This value is the difference between operating this four-kilowatt-for-three project and the cost of building and fueling a coal-fired plant of comparable capacity.

That $3.2 million a year must be weighed against the agricultural production that would be lost as a result of the 42,000-acre impoundments. The Agricultural Conservation and Stabilization Service estimated the value of farm crops and livestock that would be lost because of the project at $13.5 million a year. This is food production that could not be compensated for -- once flooded, the fields, pasture and forest would be gone. The actual economic loss from the project, then is more than $10 million a year. And because of the "multiplier effect," the impact would be far greater than that.

The Federal Power Commission has attempted to sell New River valley residents on the ancillary recreation benefits that the project would bring. It encouraged Virginia and North Carolina to build state parks on the edge of the impoundments, an invitation North Carolina rejected. The commission estimated the economic gains of the new "recreation areas" at $3,365,000, based on visits by 6,230,000 people a year. How boaters and swimmers are supposed to enjoy these impoundments has never been explained fully by the commission. Another mystery is why visitors would find the reservoirs more attractive than the river.

The lower reservoir would have a drawdown of more than 30 feet, the upper reservoir a drawdown of 10 feet. On the average, the shoreline would recede about five feet for every foot or drawdown, depending on the slope. That expanse would necessarily be an uninviting mudflat. The lowest point of the drawdown, notably, would be on Friday afternoons, about the time visitors began arriving for the weekend.

The northwest North Carolina area has no need for a misbegotten recreation area of this sort. Though the state is not blessed with many lakes, there are plenty of opportunities for water recreation in the area without adding the Blue Ridge impoundments.

XII. CONCLUSION

For almost 10 years, the embattled farmers of the New River Valley have been fighting the power company's scheme to take away their land and livelihood. Today they are willing to accept controls on the use of their land, under the terms of the Scenic Rivers Act, to keep their way of life. The issue now is whether the Interior Department will accept the New into the federal system, for which it is eminently qualified.

In licensing the project, the Federal Power Commission bent the law while approving a power project that would consume more energy than it used. Since the commission's hearings, it has become clear that projects such as the Blue Ridge contribute to our power problems rather than help solve them.

The New River may be the oldest river in the world. It is the oldest river in North America. The project that would destroy most of the ancient river would have a lifespan of only a few decades. It would be built at a net cost both to the nation's power supply and the economy. It would uproot 3,000 people who want only to be left alone.

A writer in the Izaak Walton League publication two years ago stated the cause well: "If those virgin lands with their pure sparkling streams and waters -- these people who trace their ancestors back to the first settlers of their present homeland -- this only remaining portion of a prehistoric river -- are of no significance to American history and culture, then we truly have no history, and this project signifies much more than the death of a river."

Response to Comments Received From Committee for the New River

1. We appreciate the Committee's submission of their position paper.

NPCA

February 27, 1976

Southeast Regional Office
Bureau of Outdoor Recreation
148 Cain St.
Atlanta, GA 30303

Dear Sirs:

Enclosed is our recent letter to Interior Secretary, Thomas Kleppe, regarding the application of the State of North Carolina requesting that South Fork New River be included in the National Wild and Scenic Rivers System.

We strongly support the conclusions in the draft environmental impact statement prepared by your office. If we can be of further help in insuring this portion of the New River's wild and scenic status, please let us know.

Sincerely,

T. Destry Jarvis

T. Destry Jarvis
Administrative Assistant,
Parks and Conservation

TDJ/lc

National Parks & Conservation Association, 1701 Eighteenth Street, N.W., Washington, D.C. 20009
telephone (202) 265-2717

NPCA

February 26, 1976

Hon. Thomas Kleppe
Secretary
U. S. Department of the Interior
Washington, D. C. 20240

Dear Secretary Kleppe:

On behalf of the National Parks and Conservation Association and our 45,000 members nationwide, we respectfully request that you give your approval to the pending administrative decision regarding the application of the State of North Carolina requesting that a segment of the New River and its tributary, South Fork, be declared a component of the National Wild and Scenic River System under the provisions of Section 2(a)(ii) of the Wild and Scenic Rivers Act, Public Law 90-542.

The Southeast Regional Office of the Bureau of Outdoor Recreation has prepared a draft environmental impact statement (DES 75-58) on the North Carolina state application which clearly determines, as others have long asserted, that this portion of the New River is well qualified for inclusion in the Wild and Scenic River System and that the State of North Carolina's management plan for the river clearly meets the standards of the Wild and Scenic Rivers Act for the management of such rivers. In our view, the impact statement is clearly adequate in its assessment of the environmental impacts of the proposed actions and thus seemingly, any potential impediments to your timely decision-making in this matter are negligible.

Again, we strongly urge that a timely and affirmative decision be made regarding the South Fork New River in North Carolina and its inclusion as a state managed component of the National Wild and Scenic River System. Thank you for your consideration of this matter and our views on it.

Sincerely,

T. Destry Jarvis

T. Destry Jarvis
Administrative Assistant,
Parks and Conservation

TDJ/lc
cc:
Southeast Regional Office,
Bureau of Outdoor Recreation

National Parks & Conservation Association, 1701 Eighteenth Street, N.W., Washington, D.C. 20009
telephone (202) 265-2717

Response to Comments Received From National Parks and Conservation Association

We appreciate the comments from the National Parks and Conservation Association.

Department of Economics
Wake Forest University
Box 7505 Reynolda Station
Winston-Salem, N. C. 27109

SIERRA CLUB ☙ Joseph LeConte Chapter

... To explore, enjoy and preserve the nation's forests, waters, wildlife and wilderness...

February 2, 1976

Mr. Robert M. Baker, Regional Director
United States Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Ref. 3400

Dear Mr. Baker:

The following are Sierra Club comments on the Department of the Interior's Draft Environmental Statement on the proposed New River National Wild and Scenic River in North Carolina, as requested by the Department of the Interior.

Pages 32-45 -- In the section titled "Economy," there is a discussion of income in the area and specific employment and sources of income. To what extent does the agricultural income reflect nonmarket imputed farm income. In this area, it is quite common to find one person employed both in a manufacturing sector, and also in agriculture in working his own family farm. The employment characteristics table on page 40 separates everyone into one category or the other. How have the many cases of multiple employment been handled? If the part-time agricultural employment has been ignored, this will have the effect of underestimating both the average income of the people in the area and also underestimating the value of farm income. 1

Page 179 states that a fifty-foot strip along both sides of the river would cover "approximately 1,000 to 1,500 acres." In fact, a fifty-foot strip along both sides of the river along the entire 26.5 mile segment would cover only 321.21 acres. 2

Page 210 -- "The reservoir will tend to fill up with sediment behind the dam." How quickly will this siltation occur? Surely some estimate can be made. Will the reservoir fill up with silt in 20 years, 50 years, 100 years? 3

Page 211 -- It is difficult to understand how a discussion of the dams that includes the effects of siltation, addition of raw sewage and other nutrients which will lead to eutrophication, sudden temperature changes, and spills of oil and gasoline from power boats, can all be summarized as having only a "moderate" impact on water quality. 4

Page 212 -- "Impact on Scenery" -- This statement says that although the natural river scenery will be destroyed by the project, it "would be replaced by lake scenery which, in its own way, would also be scenic." This assertion should be compared with the discussion about the drawdowns. On page 154, the statement describes the drawdowns in the upper and lower reservoirs. The drawdown in the 5

lower development would be 30 feet except when it was being used for flood control, in which case the drawdown would be greater. The upper development during peak recreation season is limited to a 10-foot limitation on drawdown. The statement tells us that the "overall impact of the drawdown on scenic quality would not inhibit recreation." How could such a drawdown not inhibit recreation? If the stream side slope were absolutely vertical, we would have a 10-foot wall, presumably not covered by vegetation whenever the reservoir was at its lower level. On average, however, it appears that there is roughly a five to one slope in this area. Thus, per 10-feet of drawdown, we would expect on average to have 50-feet of mud flats between the water and the shore. It would seem to be a stretch of credulity to call such a mud flat "scenic." Surely, some recreation will be inhibited by such mud flats? 5

The Interior Department's Impact Statement in its discussion of the impact on scenery of building the dams is remiss in not discussing the scenic impact of the transmission lines which will also be built if the power project is built. These transmission lines will be far from trivial. The transmission lines question was discussed in the final Environmental Impact Statement of the Federal Power Commission on page 64, "The presence of the lines would have a scenic impact on residents of the area and travellers using the highways and roads from which the lines are visible. Transmission routes proposed by staff below, would cross 71 existing roads, and highways and would cross the New River about 3 miles downstream from Frie's. It would also cross over high ridges where the cleared right of way, skyline towers would be visible from nearby roads and highways." 6

Page 220 states that of the land to be inundated by the reservoirs in Ashe and Alleghany Counties, approximately 8% is cultivated. This figure was originally put forth by Appalachian Power Company and causes an underestimate of the true costs of building the dams. The counties involved have repeatedly stated that this figure is too small. Indeed, Table II-24 on page 141 of this statement shows cropland in Alleghany to be 20.4 percent and cropland in Ashe to be 18.3 percent. Since the land to be flooded includes the rich bottom lands, it is inconceivable that the percentage of cropland not be at least as large as for the county as a whole. 7

Page 221 -- "Impact on Economy" -- This section tells us that "the impact on the per capita income and employment in Ashe and Alleghany Counties would be major," if the Blue Ridge Project is built. There is absolutely no justification for reaching this conclusion. No evidence supporting such a conclusion has been presented, even though the same conclusion has been stated in the Federal Power Commission's Final Environmental Impact Statement, and indeed, by all of the statements of American Electric Power Company. Not only is there no evidence to support such a conclusion, there is indeed much evidence to support the opposite conclusion. The Interior Department's study should consider empirical work that has been done on the effects of similar projects and show why this one would not be expected to be similar. One of the most extensive studies was done recently on Norris Lake. Norris Lake is a large and popular Tennessee Valley Authority reservoir. The absence of drawdowns would be expected to make Norris Lake a more popular reservoir in terms of recreation than the Blue Ridge Project reservoirs. A comprehensive survey of expenditures made by visitors to Norris Lake has made it possible to estimate the impact on both personal income and employment in the three-county area in which the bulk of Norris Lake's shoreline 8

is located. Such a study has been done recently by Charles B. Garrison. This study is titled "A Case Study of the Local Economic Impact of Reservoir Recreation." This study appeared in the Journal of Leisure Research, 1974, Winter Edition, pages 7-19. In summarizing his study, the author, who is an economist at the University of Tennessee, Knoxville, Tennessee, says "although Norris is one of the most popular Tennessee Valley Authority reservoirs, it was found that recreation's contribution to the local economy had been negligible." Of particular interest is his finding that the employment effect of the Norris reservoir has been very small. For example, over a period from 1962 to 1967, recreation expenditure increased by 178,000 dollars. This created five new jobs. In closing his article, the author says "while the pattern of recreation expenditures and the magnitude of income and employment multipliers may be expected to vary from reservoir to reservoir, it is likely that the results reported here have some general applicability to other rural reservoir areas. Rural and small town economies usually have in common the characteristic that they must import a large portion of their goods and services, and this serves to limit the local impact." (page 18) 8

In the case of the Blue Ridge Project with its large drawdowns, it seems more likely that the income lost through the flooding of farm lands would be larger than the income gained by the flat water reservoir recreation. In this case, the net impact on the economy and employment in the area as a result of building the dams would be major but it would be a major negative impact.

A complete study of the economic impact of the dams would estimate the regional income and the regional income multiplier from agriculture on the 40,000 flooded acres and compare this with the income and multiplier attached to the expected flat water recreation activity. In any case, there is no basis for making the statement that building the dams would have a positive effect on either per capita income or unemployment or population in Ashe and Alleghany Counties.

Page 228 -- River flows due to operation of power plants will vary from 350 cfs to 12,500 cfs. The study notes that this would offer "some hazard" to recreationists in the river flow and suggests that precautions would have to be taken to minimize the danger. What sort of precautions would minimize the danger, closing the river to all recreational use for miles below the dams? If this really extraordinary large difference in water flow implies that the river for some distance under the dams cannot be used for recreation, then this should be included as a negative impact of building the dams. How dangerous is this and does it mean no recreational use? 9

Page 232 lists the Sierra Club state chapter as one of the organizations that was contacted in the preparation of this draft environmental impact statement. Who in the Sierra Club was contacted? 10

In spite of the above criticisms, the Interior Department should be commended for preparing the most complete and extensive study of this New River segment to date.

In conclusion, the National Sierra Club, representing approximately 150,000 members in the United States, wholeheartedly supports the designation of the proposed segment of the New River as a component of the National Wild and Scenic Rivers System.

Prepared For the Sierra Club,
by Miles O. Bidwell, Ph.D., Department of Economics,
Wake Forest University, Winston-Salem, N. C. 27109

Miles O. Bidwell

Response to Comments Received From Sierra Club
Joseph Le Conte Chapter

1. Income figures utilized in this statement are reflective of base income data supplied from the Employment Securities Commission, North Carolina, and the United States Bureau of the Census. These sources do not break out multiple income data information.
2. The statement on page 179 has been corrected to include in the 1,000 to 1,500 acre total not only streambank easements but scenic easements reaching away from the river up adjacent slopes. The description of the easement corridor discussion has been changed from a 50-foot average to a 20 to 500-foot range, see response to comment 5 from the North Carolina Department of Natural and Economic Resources.
3. The statement referred to in this comment with regard to the filling up of the reservoir with sediment behind the dam was prefaced by a qualifying statement which read ". . . the following effects are characteristic of the type of reservoir to be built as part of the Blue Ridge project and may be expected in varying degrees in this case." The degree of this effect would depend on the present level of silt in the river and upon the degree of erosion and runoff caused by construction and recreational activities adjacent to the lake. Without data on these conditions it was impossible to quantify the impact. Appalachian Power Company, however, has stated that the life of the project would be at least 100 years.
4. While the impacts mentioned in this comment might occur in varying degrees, it was concluded that the cumulative effect would be something less than significant; i.e., moderate.

5. The discussion of impact on scenery has been revised to clarify the effects of drawdown.
6. The transmission lines will be only in the State of Virginia. The discussion of the Blue Ridge project included in the draft was concerned only with those portions of the project which would impact the two-county area included in the scenic river proposal. Subsequently, we have expanded this discussion to include impacts to be felt downstream if the scenic river is implemented and the proposed Blue Ridge project is not constructed. That added discussion deals with the impacts of the transmission lines.
7. A correction has been made on page 220 of the FEIS based on more current information received from the State of North Carolina.
8. A correction has been made on page 225 of the FEIS which clarifies this impact. Further, we acknowledge the study appearing in the Journal of Leisure Research, 1974, Winter Edition, pages 7-19. It should also be noted that the degree of impact is based on a degree of change from its present condition and not on the duration of such change.
9. According to the FPC's final environmental statement, the danger from increased releases below the lower dam could be minimized by scheduling releases "to limit the rate of tailwater rise." They consider the danger to be limited to an area immediately below the dam and do not think that it would eliminate bank fishing below the dam. In similar situations, danger to the public is minimized by warning signs and audible signals made before a

release. However, comments on the FPC statement by the State of Virginia say that "the entire stretch of river down to Claytor Lake, and especially the highly scenic section above Fries, will be subject to these sudden high-water hazards." From the information currently available, it is not possible to specify more exactly the degree of potential danger; however, we believe that the extreme fluctuation will severely limit recreation use, as is discussed in detail in the section on alternatives.

10. The Sierra Club is listed, not as one of the organizations that was contacted in the preparation of the draft, but as an organization which was invited to comment on it.

SIERRA CLUB

OLD DOMINION GROUP

3 Maple Avenue
Richmond, Virginia 23226
27 January 1976

Robert M. Baker, Regional Director
U.S. Department of the Interior
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

Dear Mr. Baker:

Reviewing the draft environmental impact statement on the proposed South Fork New River, North Carolina, National Wild and Scenic River for the Conservation Council of Virginia, I find it objective and accurate. It covers archeological losses not addressed in the EIS of the APCO Blue Ridge Project. Many of the local economic losses are hard to compute, but building the dams on the New River would be a foolish, irreversible move. The New River, second oldest in the world, would be changed for a project whose longest life expectancy is fifty years. The only benefit APCO offered to North Carolina- recreation- would be shortlived, because the the tributaries' entrance to the upper reservoir would begin to silt, gradually filling the recreational lake.

Secretary Kleppe should take immediate action to designate the New River as wild and scenic.

Sincerely,
M Susan Schmidt

M. Susan Schmidt
Secretary, Old Dominion Group,
Potomac Chapter, Sierra Club
Editor, Forum, Conservation
Council of Virginia

Response to Comments Received From
the Sierra Club, Old Dominion Group

We appreciate the review and approving comments from the Sierra Club, Old Dominion Group.

Wildlife Management Institute

709 Wire Building, 1000 Vermont Ave., N.W., Washington, D.C. 20005 • 202 / 347-1774

DANIEL A. POOLE
President
L. R. JAHN
Vice-President
L. L. WILLIAMSON
Secretary
IRA N. GABRIELSON
Board Chairman

February 19, 1976

Hon. Thomas S. Kleppe
Secretary of the Interior
Washington, D. C. 20240

Dear Mr. Secretary:

The Wildlife Management Institute concurs with North Carolina Governor James E. Holshouser, Jr. in recommending you designate the south fork of the New River in northwestern North Carolina as a Scenic River under the National Wild and Scenic Rivers Act.

We have reviewed carefully Draft Environmental Statement 75-58 and we believe this designation is in the public interest for many reasons.

The New River watershed is geologically unique in representing some of the oldest geological land forms in North America. Within this area, also, are major historical sites some of which may date back to earliest Indian settlements in the eastern United States. Preservation of these extensive sites for orderly investigation and interpretation is clearly a major value not available elsewhere in the eastern portion of our country.

The New River itself contains the most important small-mouth bass and rock bass fishery in North Carolina and its tributaries are important reservoirs for wild populations of brook, brown and rainbow trout. The high water quality of this river system is in part responsible for these outstanding fishery values. We believe this water quality will be an important factor in the use of this river system for riverine recreation. We concur with the Bureau of Outdoor Recreation estimates of substantial increases in use to the 50,000 man days projected for the 26 miles of scenic river within seven years of the program's implementation.

We believe designation of this area will be of major significance in the preservation of endangered species in North Carolina since it will provide an opportunity to preserve and enhance 22 wildlife and plant species on the Federal Endangered Species List in addition to more than 20 species considered endangered by the state.

Preservation of this habitat as the state of North Carolina proposes in its revised management plan for the south fork of the New River prepared in June, 1975, will also be of considerable significance to the game and nongame wildlife resources of the river valley. We believe these resources will be enhanced largely by providing a greater opportunity for protection and management of the older growth timber stands within the easement areas.

Neither the draft environmental statement nor the North Carolina proposed management plan for the area indicates fully the constraints which may be necessary on public visitation once the carrying capacity and saturation levels of recreational use are reached. We recommend that your approval of this designation be contingent upon the state's agreement to incorporate in its proposed management program, safeguards preventing the overuse of the area by recreational interests. 2

Sincerely,

Daniel A. Poole
President

DAP:mkv

Response to Comments Received From
Wildlife Management Institute

1. The protection of threatened and endangered species on the State's list is cited in the Environmental Impact Statement. Currently, according to the U.S. Fish and Wildlife Service we know of only four aquatic species in the immediate wild and scenic river area which are potential candidates for Federal listing as endangered or threatened. One terrestrial species which is on the Federal list occurs in the western portion of North Carolina and might possibly occur in the scenic river area; however, there is no record of it to date.

2. Federal designation of a State-managed component of the National Wild and Scenic River System is dependent upon the State's commitment to continued management, at no cost to the Federal Government, of the resource in such a manner that resource values that caused it to be designated are preserved and protected. No additional specification of this responsibility is needed in this case.

Feb 15, 1976

United States Department of the
Interior
Bureau of Outdoor Recreation
Washington, D.C. 20240

New River (North Carolina)

Comments from an Interested Citizen:

I don't know if citizens (other than those individuals or groups from whom comments have been requested) from outside N. Carolina are allowed to comment on the DEIS for the New River, but since I have read the DEIS and have been a visitor to the area concerned, I feel compelled to comment as an interested citizen.

After reading the gains (benefits) and losses (adverse effects) for both the Proposed Action and the Blue Ridge Hydroelectric Project, I feel that the proposal of including a segment of the New River and a segment of its tributary stream, South Fork, as a component of the National Wild and Scenic Rivers System involves the most gains and should be implemented.

I realize that the need for energy is a national concern and is receiving the most attention now. But too often this "need" is translated, either on paper or in actual construction programs, into energy boondoggles by those who have most to gain by such boondoggles. Thus land use and other resources such as wildlife values and air and water qualities are pitted against real and imagined energy needs. Until a sane national energy policy is promulgated where all resources are properly balanced in decision making, some of us citizens will be wary of those energy projects which promise much but often fulfill little; usually because they are ill-conceived at the start.

To me, the long-term gains of protecting significant archeological, scenic, aesthetic, and recreation values and increased water quality more than offset any gains to be made by the

Blue Ridge Hydro-electric Project, including the short-term (often seasonal) construction jobs. But there are other gains which offset any gains which might be made by the Project; these deal with preserving farmland and ultimately with food resources.

The consequence of the Project is the inundation of productive farmland (in 1973, the farmland that would be flooded by the project grossed $13.5 million; whereas annual power benefits from the dam are valued at $6 million for 1800 MW of peak capacity--a basic criticism of pumped storage projects is energy waste, only two-thirds of the energy consumed in pumping is recovered), the destruction of significant portions of wildlife habitat and the eventual decline of quality fishing because of the introduction of warm water into the superior cold water fishing. 1 2

In fact the Project would result in the loss of fisheries. "The stretch of the New River above U.S 221 in Alleghany County, which would be protected from impoundment by the proposal, contains a very significant population of the rare flathead catfish. The fish is abundant enough in this stretch to support a fishery. Loss of this fishery would be a significant impact. According to the North Carolina Wildlife Resources Commission, the South Fork New River contains the finest smallmouth and rock bass riverine habitat to be found in the State. Loss of this fishery would also be a significant impact." DEIS, p. 217.

My point here is that we are not only facing energy crises, but impending food crises that will prevail over our concern for energy. Those who do not take this seriously should consider this: "According to a UNESCO estimate, between 400 and 500 million children suffered from malnutrition and starvation in 1973. Ghastly as that figure is, it describes a state of affairs that is not new. It has been calculated that the availability of food per capita worldwide has not increased since 1936 and actually decreased in the last decade."

"Ten years ago, world food stockpiles for energy relief amounted to an eighty-day supply. Today those resources are sufficient for only thirty days' consumption--a nearly threefold reduction." (Mankind at the Turning Point, Mesarovic & Pestel, The

Second Report to the Club of Rome).

Needless to say, productive farmland and quality fishing, aside from their already inherent values, will gain in importance. This is not to belittle energy concerns but to put them in perspective. Those who now make a subsistence from the land may be numbered among our most well-off citizens in the future.

In terms of over-all costs, overt and hidden, how will the Project compare to keeping the New River a free-flowing river; that is, will the Project with its ability to attract industry offset ultimate costs of relocating residents and roads, inundating productive farmlands and forests and degrading wildlife and fishing values? I don't think so. Energy needs should not be based solely on historical growth curves or on the wishful thinking of a community that the supplied power will bring new wealth. New industries bring with them pollution and other environmental problems. These, in turn, bring hidden costs related to money spent on health problems created by pollution and cleaning up the environment.

Is this power needed right now or does its construction depend on the self-fulfilling prophecies of the Project itself? If so, then, this Project does not serve the people but only those who will <u>immediately</u> benefit by its construction. This would not merely be short-term planning but short-sighted planning. It would be short-sighted planning because it would gamble <u>real</u> values which exist now and in the future (i.e. water quality, farmland, quality fishing, and wildlife habitat, etc.), for supposed values that <u>may</u> exist in the future. Such short-sighted planning, as the DEIS indicates, precludes future options.

I hope my comments will be accepted as an interested citizen. Thank you.

Joanne L. Campbell
563 Walsh St.
Toledo, Ohio 43609

Joanne L. Campbell

Response to Comments Received From
Ms. Joanne L. Campbell

1. Quantification of farmland production foregone by construction of the Blue Ridge Project and annual power benefits of the project are difficult to ascertain and vary greatly among information sources. Page 202 of the FPC, FEIS for the Blue Ridge Project No. 2317, states the "Annual Power Benefit (Excluding Recreation Costs)" to be $3.2 million. Page 432 of the same source in a letter from the State of West Virginia commenting on the FPC's DEIS states that the "annual realized benefits from power facilities" will be $9.3 million. On page 362 (FPC-FEIS) the State of North Carolina, Department of Natural and Economic Resources, attributes a value of $2 million to crop production lost in Alleghany County if the Blue Ridge Project is constructed; however, information contained on page 438 (FPC-FEIS) sets this figure at $2,000 rather than $2 million. It is therefore apparent that estimates of losses and benefits attributed to construction of the Blue Ridge Project varied greatly. The figures you refer to ($13.5 million in farmland production lost and power benefits of $6 million) have not been found in sources of information used in completing the South Fork New River FEIS. Please see our response Number 2 to comments received from the National Committee for the New River.

2. It should be pointed out that the Blue Ridge Project would replace cool-water riverine habitat with warm-water habitat in the reservoirs, and possibly allow the establishment of either type of habitat

in the river downstream in Virginia. The reservoirs would also offer quality fishing opportunities.

36 Bellvista Rd.
Brookline, MA.
02146

Mr. John Crutcher, Director
Bureau of Outdoor Recreation
U.S. Dept. of the Interior
Washington, D.C. 20240

Dear Sir:

Due to my inability to get to one of the areas where a draft eis on the Blue Ridge Project is located I would appreciate your including this among the comments received.

Fi rst, as evidenced by your letter in reply to my letter of opposition to the proposed Blue Ridge Project you incorrectly assume that "There is much support for the proposed construction of the Blue Ridge Project." This assumption goes against an overwhealming amount of facts. The county commissioners in Alleghany and Ashe counties are on record as opposed to the dam project. The entire North Carolina Congressional delegation has co-sponsored legislation to protect the historic New River. The Governor of North Carolina and the state's Attorney General have gone through all available channels to stop the project. The state legislature after holding extensive hearings in the affected area voted unanimously to protect the New River by placing it in the North Carolina Natural and Scenic Rivers System. Finally the state has petitioned your department to act in concert with the overwhealming opposition to the project by granting Federal protective status to the historic New River. The sole oppostion to protecting the New comes from the power company itself and a very small vocal group, funded by the power company, called the "Beavers."

Second, your department has incorrectly assumed that this project will help provide energy; such is far from the point. The project will, in fact, use more energy than it produces. This method of producing peak demand power has been deemed "outmoded" by then energy administrator John Sawhill. You might even consider the probability that a water treatment plant will have to be built once the project is built due to the loss of the New"s quality water. The loss of such an invaluable resource compared with the building of a project that uses 3 units of energy to produce 2, simply to provide peak demand power for the use of people with air-conditioners 200 miles away is particularly unfair, unjust and tragic.

Please do not be overly influenced by the multi-million dollar campaign by American Electric Power, spreading half-truths and lies. Thank you for your consideration.

Sincerely,

Jack Comart

Response to Comments Received From
Mr. Jack Comart

We appreciate Mr. Comart's comments.

4000 4th Avenue, North
Great Falls, Montana
59401

Robert M. Baker, Regional Director
Bureau of Outdoor Recreation
Southeast Regional Office
148 Cain Street
Atlanta, Georgia 30303

February 17, 1976

Dear Mr. Baker;

I am adamantly opposed to the construction of a dam on the New River by the Appalachian Power Company or anyone else. The environmental havoc created by such a project is not worth the purported benefits. I support designation of the New River under the National Wild and Scenic Rivers Act as proposed in DES 75-58. Please include this letter of support in the comments regarding that environmental statement. Thank you.

Sincerely,

Thomas E Horobik

Thomas E. Horobik

Response to Comments Received From
Mr. Thomas E. Horobik

We appreciate Mr. Horobik's review and comments.

MAR 5 1976

FRANKLIN D. HUBBARD
ROUTE 1, BOX 310-H
WISE, VIRGINIA 24293

2/23/76

Enclosed with are comments on the Draft E.I.S. of the proposed South Fork, New River.

F.D.H.

COMMENTS ON DRAFT ENVIRONMENTAL STATEMENT
REGARDING PROPOSED SOUTHFORK NEW RIVER

COMMENT NO. 1 - Page 191, discussion of visitors per year as a result of the implementation of the Scenic River Proposal. ~~This~~ The figure of 16,000 visitors per year on the RIVER (Boating, etc) as constituting overcrowding for 26 miles of river seems to be an under-estimation.

(1) It might be worthwhile to consider the following:

(a) There are 2 shorelines, two river banks of the river so there would actually be 56 miles of potential river bank area available.

(b) With the designation of the New River as a scenic river and concurrent publicity, other commercial firms would develop water-~~based~~ oriented recreational resources.

(c) Designation as a scenic river would give emphasis to County and State development of water-oriented recreation resources on or near the river banks.

1

COMMENT NO. 2: Since the program will be to designate the new river as a ScenicRiver and not a Wild River, executive order by the Department of the Interior establishing the Scenic River should make provision to ~~make~~ accommodate And Stimulate the development by private firms of water-oriented recreation FACILITIES that would not conflict with the conduct of the Scenic River.

2

COMMENT NO. 3: An investigation should be made of similar stretches of river in other areas that are recreation oriented to determine the recreation loads they are accommodating. The 16,000 visitors per year figure sounds abysmally low. Stretches of the Colorado River between Arizona and California annually accommodate a density indicated at 10, to 20 times that for boating uses without creating an overcrowding condition. The greater the recreational advantages offered by the Scenic River undertaking, the more public support such a proposal is likely to receive. 3

COMMENT NO. 4: Since it is not a Wild River project, a much more thorough study of the Scenic recreational uses are indicated in support of the request to designate New River as a component of the Scenic River system. 4

COMMENT NO. 5: Page 48, "The old recreational visitor days" are estimated at approximately 50,000. This apparently includes both the 16,000 river users per year as well as the shore line users. Again this figure would seem to be very low. 5

COMMENT NO. 6: It would seem that the management plan for the river once included in the recreational and scenic river system program should provide for a moderate level of recreational use, Such use and development of recreational facilities being consistent with the preservation of the scenic amenities. 6

COMMENT NO. 7: Although the management plan could provide for moderately intensive use, such use ~~could~~ Should be of a type that would minimize commercialization. 7

COMMENT NO. 8: Page 10, Administration and Management. The management plan should provide for encouragement to State and/or local agencies to develop archaeological sites and perhaps reconstruct one or more Indian villages. This is being done by the San Bernardino County California Museum Association which has acquired land in Cajon Pass on the site of an ancient Indian campground and the Museum Association is reconstructing the Indian Village that stood on the site. It also serves as a ~~mech~~ mechanism to receive gifts and archaeological finds from people in the area and to preserve these finds. 8

COMMENT NO. 9: Since there are several educational institutions in the area of the project, including Appalacchian State University, Lees-MacCrae College, Wilkes Community College, Mayland Technical Institute, Tri-County Technical Institute, and others, the administrators kand faculty of these institutions should be contacted for such input and support that they might give to the Scenic River proposal. 9

COMMENT NO. 10: A thorough comparative analysis of the economic impact of including the New River of the Scenie River system as opposed to the American Electric plan to inundate the area with 10

their big pumping scheme should be made. This would include ~~preparing~~ COMPARING environmental impact statements and comparing detailed economic estimates. 10

COMMENT NO. 11: Page 152, Probable Future ~~of~~ Environment of the New River if the Blue Ridge Project of the American Power Company is Implemented. The long range ~~analysis~~ analysis of ~~this~~ THE time frame, AND all social costs, should be considered. The true alternate cost of a power source is the gross alternate cost less the cost of the New River peak pumping scheme less the total social costs over the long term. That equation offers some interesting implications. 11

Response to Comments Received From Franklin D. Hubbard

1. As discussed on page 191, DEIS, river "use in excess 16,000 visitors per year would constitute overcrowding" and thus degradation of the resource being afforded protection as a national scenic river. This estimate is based on similar river and use patterns observed in the Southeast and on data presented in the State management plan. It is felt that the project visitation and capacity estimates are based on the best available information.

2. Designation under the current proposal by the State of North Carolina would require complete State management including consideration of privately operated "water-oriented recreation facilities."

3. See response to your comment number 1.

4. We feel that the recreation potential has been assessed in sufficient detail to support the proposal.

5. As indicated on page 193, DEIS, shoreline visitation in excess of 46,600 annual visitor days, using facilities planned for development by the State in their management plan, would result in degradation of the resource.

6. It is felt, as indicated on pages 189-196, DEIS, that full development of the recreation facilities required by the State management plan could adequately accommodate the expected visitation.

7. The State, in its management plan and in other communications, has stated that private recreation facilities would be encouraged in the river corridor. We would expect, however, that the potential commercial operations would be designed so as to protect the environmental integrity of the proposal area.

   Commercial activities outside the 1,500 acres managed by the State would be difficult to regulate; however, as mentioned in previous responses to your comments, if fully implemented, the State management plan should adequately provide for the recreation needs of the expected number of annual visitors.

8. As indicated on page 185, DEIS, if designated a scenic river component of the National Wild and Scenic River System, archaeological and historical investigations would be accomplished by the State of North Carolina.

9. Various educational institutions, most notably Appalachian State University, were contacted in preparing the DEIS.

10. Such a comparison has been made and additional information added in the FEIS. Also see "Response to Comments Received from Appalachian Power Company," response No. 24.

11. See response to your comment No. 10.

Harold E. Sellers
602½ S. Boylan Ave.
Raleigh, N.C. 27603

Mr. John Crutcher
United States Department of the Interior
Bureau of Outdoor Recreation
Washington, D.C. 20240

Dear Mr. Crutcher:

In response to your letter of Jan. 2, 1976, I recently took the opportunity to review the Draft Environmental Impact Statement on file with the N.C. Department of Natural and Economic Resources for the New River. It does appear that the 26.5 mile segment of the New River can qualify for scenic river status under the provisions of the National Wild and Scenic Rivers Act and should be so designated. I was somewhat dissappointed with the economic analysis of the report. It did not appear to adequately address the long term effects of the Blue Ridge project. That is, what are the consequences of the agricultural looses versus the gains of the proposed project? The Statement only concludes that the project will have a major effect upon the economy of the area. Good or bad? 1
Also, in terms of the effects of the lake the report refers to structures removed instead of people relocated. The project reportedly would require relocation of 3,000-5,000 people. 2

Also, I would like to add that I am not one of the "affluent few" as a recent newspaper advertisement labeled those who oppose the project but simply a concerned citizen who, like many others in this state , fail to see the justification of the project.

Sincerely,
Harold E. Sellers
Harold E. Sellers

Response to Comments Received From
Harold E. Sellers

1. A change has been made on page 225 of the FEIS which adds clarification to the economy impact. Also see Response to Comments Received from Sierra Club, Joseph Le Conte Chapter, response No. 8, and Response to Comments Received from Appalachian Power Company, response No. 12.

2. Page 47 of the FEIS, Blue Ridge Project No. 2317, estimates that 2,821 inhabitants would be displaced by the construction of the proposed reservoirs. This estimate of 2,821 relocations includes inhabitants of Grayson County, Virginia, in addition to Ashe and Alleghany Counties, the two counties primarily affected by the scenic river proposal. More than one-half (1,646) of the estimated number of individuals to be relocated currently reside in Grayson County, Virginia. These figures have been added to the appropriate sections of the FEIS.

SANTA BARBARA OBSTETRICAL AND GYNECOLOGICAL MEDICAL GROUP, INC.

JAMES F. SHIPP, M.D.
DANIEL M. JOSEPH, M.D.
ROBERT A. REID, M.D.

PRACTICE LIMITED TO OBSTETRICS AND GYNECOLOGY
OAK PARK MEDICAL BUILDING
425 WEST JUNIPERO STREET
SANTA BARBARA, CALIFORNIA 93105

January 21, 1976

Robert M. Baker
Regional Director
Southeast Region-Bureau of Outdoor Recreation
148 Cain Street
Atlanta, Georgia 30303

RE: South Fork New River National Wild and Scenic River
Proposal - Draft Environmental Statement

Dear Mr. Baker:

We have reviewed the above document and it is our feeling that the long-term interests of the country would be best served by designating this area a wild and scenic river.

Sincerely,

Dr. & Mrs. James F. Shipp

JFS/bd

Response to Comments Received From
Dr. and Mrs. James F. Shipp

We appreciate the review by Dr. and Mrs. Shipp.

Rural Route 1, Box 122
Aledo, Illinois 61231
February 21, 1976

Douglas Baldwin, Chief of Communication
Bureau of Outdoor Recreation
US Department of the Interior
Washington, DC 20240

Dear Mr. Baldwin:

Enclosed are my comments on Draft Environmental Statement 75-58, Proposed South Fork New River National Wild and Scenic River in North Carolina. Please include them in the Official Record concerning this matter.

First, I believe the DES indicates that there is considerable public support for the project (i.e., declaring the New a Wild and Scenic River). This is indicated by the fact that the North Carolina State Legislature, as well as the Governor, has requested that a segment of the New River and the South Fork be declared a component of the National Wild and Scenic Rivers System. Also, on page 72 of the DES, the following statement is made: "The best uses for Class "C" waters (including the New River) were determined by the State to be fishing, boating, wading, and any other use except for bathing or domestic water supply resources...It is important to note that these steam classifications are based on the opinions of local people as to the best potential uses for the particular stream. These opinions were solicited at a series of public hearings...." (Emphasis Added) This statement clearly indicates that the people of North Carolina believe the New River should be used for recration. This fact should be brought out in the Final Environmental Statement and clearly emphasized.

Second, the gross farm income of $80 million will be substantially reduced if the Blue Ridge Project is completed. Furthermore, agriculture accounts for 12% of the jobs in the area. The Final Environmental Statement should point out that this benefit will be decreased if the New River and the South Fork are not declared to be Wild and Scenic Rivers.

Third, on page 119, the following statement is made: "The area harbors 16 rare and endangered animals on the State's list including invertebrates, salamanders, reptiles, fish, and one bird." This very important resource will be protected if the rivers are protected in the National Wild and Scenic Rivers System.

Fourth, the scenic quality of the river cannot be measured in dollars and should be protected. The caption to Figure II-10 states, "Most of the original forestland has been cleared one or more times; however, the second growth forests of the river corridor are still highly scenic." (Emphasis Added)

Fifth, the fact that the New River and the South Fork are practically untouched by man and remain in a relatively virgin state should be emphasized. If the Blue Ridge Project is completed, plans call for developing several recration areas, such as state parks. Howver, I contend that a natural area, untouched by man, is preferable to a man-made recreation area. Consequently, the New River and South Fork will be destroyed and inundated if they are not inluded in the National Wild and Scenic River System as the proposed Blue Ridge Hydroelectric Project will then be consturcted.

As a result, I believe the Final Environmental Statement should recommend that the New River and it tributary, the South Fork, be included in the National Wild and Scenic Rivers System because the scenic quality would be preserved, wildlife (especially rare and endangered animals) would be preserved, archeological resources would be preserved and the economy and recreational benefits would be improved.

Sincerely,

Joe Taylor

Joe Taylor

Response to Comments Received From
Joe Taylor

1. Final Environmental Impact Statements do not include a final recommendation, only a proposal. Resources are described and impacts, based on a degree of change, are presented as a tool to be used by decisionmakers in formulating project recommendations.

X. APPENDIX

List of Vascular Plants Found
in the
South Fork New River Proposal Corridor

Eastern White Pine (Pinus strobus)

Shortleaf Pine (Pinus echinata)

Virginia Pine (Pinus virginiana)

Eastern Hemlock (Tsuga canadensis)

Eastern Redcedar (Juniperus virginiana)

Beech (Fagus grandifolia)

Great Rhododendron (Rhododendron maximum)

Yellow Birch (Betula lutea)

Cherry Birch (B. lenta)

River Birch (B. nigra)

Red Oak (Quecus rubra)

Black Locust (Robinia pseudoacacia)

Tulip (Liriodendron tulipifera)

Pokeweed (Phytolacca americana)

Daisy Fleabane (Erigeron philadelphicus)

Blue-stem Goldenrod (Solidago caesia)

Goldenrod (Solidago gigantea)

Jewelweed (Impatiens capensis)

Pale Jewelweed (I. pallida)

New York Aster (Aster novi-belgii)

Flowering Dogwood (Cornus florida)

Swamp Dogwood (C. amomum)

Chestnut Oak (Quercus prinus)

Mountain Laurel (Kalmia latifolia)

Wild Hydreangea (Hydrangea arborescens)

Alumroot (Heuchera sp.)

Black Gum (Nyssa sylvatica)

Red Maple (Acer rubrum)

Witch-hazel (Hamamelis virginiana)

Virgin's Bower (Clematis virginiana)

Catawba Rhododendron (Rhododendron catawbiense)

Starry Campion (Silene stellata)

Yellowroot (Xantroriza simplicissima)

Catbrier (Smilax rotundifolia)

Catawba Tree (Catalpa speciosa)

Colomon's Seal (Polygonatum biflorum)

False Solomon's Seal (Smilacina racemosa)

Columbine (Aquilegia canadensis)

Jack-in-the-Pulpit (Arisaema triphyllum)

Poison Ivy (Rhus radicans)

Heartleaf (Hexastylis virginica)

Virginia Creeper (Parthenocissus quinquefolia)

Poison Hemlock (Conium maculatum)

Sycamore (Platenus occidentalis)

Sunflower (Helianthus atrorubens)

Dodder (Cuscuta sp.)

Elderberry (Sambucus canadensis)

Winterberry (Ilex verticillata)

Stonecrop (Sedum ternatum)

Black Cohosh (Cimicifuga racemosa)

Sassafras (Sassafras albidum)

Tag Alder (Alnus serrulata)

Five Fingers (Potentilla canadensis)

Baneberry (Actaea pachypoda)

Climbing Milkweed (Matelea carolinensis)

Purple Giant Hyssop (Agastache scrophulariaefolia)

White Helebore (Veratrum viride)

Blue Violet (Viola papilionaceae)

Yellow Wood Sorrel (Oxalis stricta)

New England Aster (Aster novae-angliae)

Fragrant Bedstraw (Galium triflorum)

Heart-leaved Aster (Aster cordifolius)

Silver-rod (Solidago bicolor)

White Snakeroot (Eupatorium rugosum)

Butternut (Juglans cinerea)

Horse Neetle (Solanum carolinense)

Crested Iris (Iris cristata)

Rattlesnake Fern (Botrychium Virginianum)

Cut-leaved Grape Fern (Botrychium spp.)

Cinnamon Fern (Osmundo cinnamomen)

Interrupted Fern (Osmunda clayteniana)

Maidenhair Fern (Adiantum pedtum)

Hayscented Fern (Dennstaedtia punctilobula)

Bracken Fern (Pteridium aquilinum)

Lady Fern (Athyrium asplenioides)

Silvery Spleenwort (Athyrium thelypterioides)

Blunt-lobed Woodsia (Woodsia obtusa)

Marginal Woodfern (Dryopteris marginalis)

Fancy Fern (Dryopteris intermedia)

Christmas Fern (Polystichnen acrostichoides)

Broad Beech Fern (Thelypteris hexagonoptera)

New York Fern (Thelypteris noveboracensis)

Sensitive Fern (Onoclea sensibilis)

Ebony Spleenwort (Asplenium platyneuron)

Maidenhair Spleenwort (Asplenium trichomanes)

Common Polypody (Polypodium Virginianum)

Fragile Fern (L)

Rocky Mountain Woodsia (Woodsia scopulina)

CHECKLIST OF FISH SPECIES[1]

Salmonidae - Trout

Brown trout	Salmo trutta Linnaeus
Brook trout	Salvelinus fontinalis (Mitchell)

Cyprinidae - Minnows

Stoneroller	Campostoma anomalum (Rafinesque)
Rosyside dace	Clinostomus funduloides Girard
Tonguetied minnow	Exoglossum laurae (Hubbs)
Bluehead chub	Nocomis leptocephalus (Girard)
White shiner	Notropis albeolus Jordan
Redlip shiner	Notropis chiliticus (Cope)
Warpaint shiner	Notropis coccogenis (Cope)
Silver shiner	Notropis ptrotogenis (Cope)
Rosyface shiner	Notropis rubellus (Agassizi)
New River shiner	Notropis scabriceps (Cope)
Spotfin shiner	Notropis spilopterus (Cope)
Kanawha minnow	Phenacobius teretulus (Cope)
Mountain redbelly dace	Phoxinus oreas (Cope)
Bluntnose minnow	Pimephales notatus (Rafinesque)
Blacknose dace	Rhinichthys atratulus (Hermann)
Longnose dace	Rhinichthys cataractae (Valenciennes)
Creek chub	Semotilus atromaculatus (Mitchell)

Catostomidae - Suckers

White sucker	Catostomus commersoni (Lacepede)
Northern hog sucker	Hypentelium nigricans (Lesuer)

Centrarchidae - Sunfishes

Rock bass	Ambloplites rupestris (Rafinesque)
Redbreast sunfish	Lepomis auritus (Linnaeus)
Pumpkinseed	Lepomis gibbosus (Linnaeus)
Bluegill	Lepomis macrochirus (Rafinesque)
Smallmouth bass	Micropterus dolomieui Lacepede
Largemouth bass	Micropterus salmoides (Lacepede)

1/From "Assessment of Fishery Resources of the New River Watershed" by Thomas E. Crowell, North Carolina Wildlife Resources Commission, September 1974.

Percidae - Perches

Greenside darter	Etheostoma blennioides Rafinesque
Fantail darter	Etheostoma flabellare Rafinesque
Kanawha darter	Etheostoma kanawhae (Raney)
Johnny darter	Etheostoma nigrum Rafinesque
Blackside darter	Percina maculata (Girard)
Sharpnose darter	Percina oxyrhyncha (Hubbs and Raney)

Cottidae - Sculpins

Banded sculpin	Cottus carolinae (Gill)