

# final wild and scenic river study

august 1983

BIRCH RIVER



WEST VIRGINIA

UNITED STATES DEPARTMENT OF THE INTERIOR/NATIONAL PARK SERVICE



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U. S. administration.

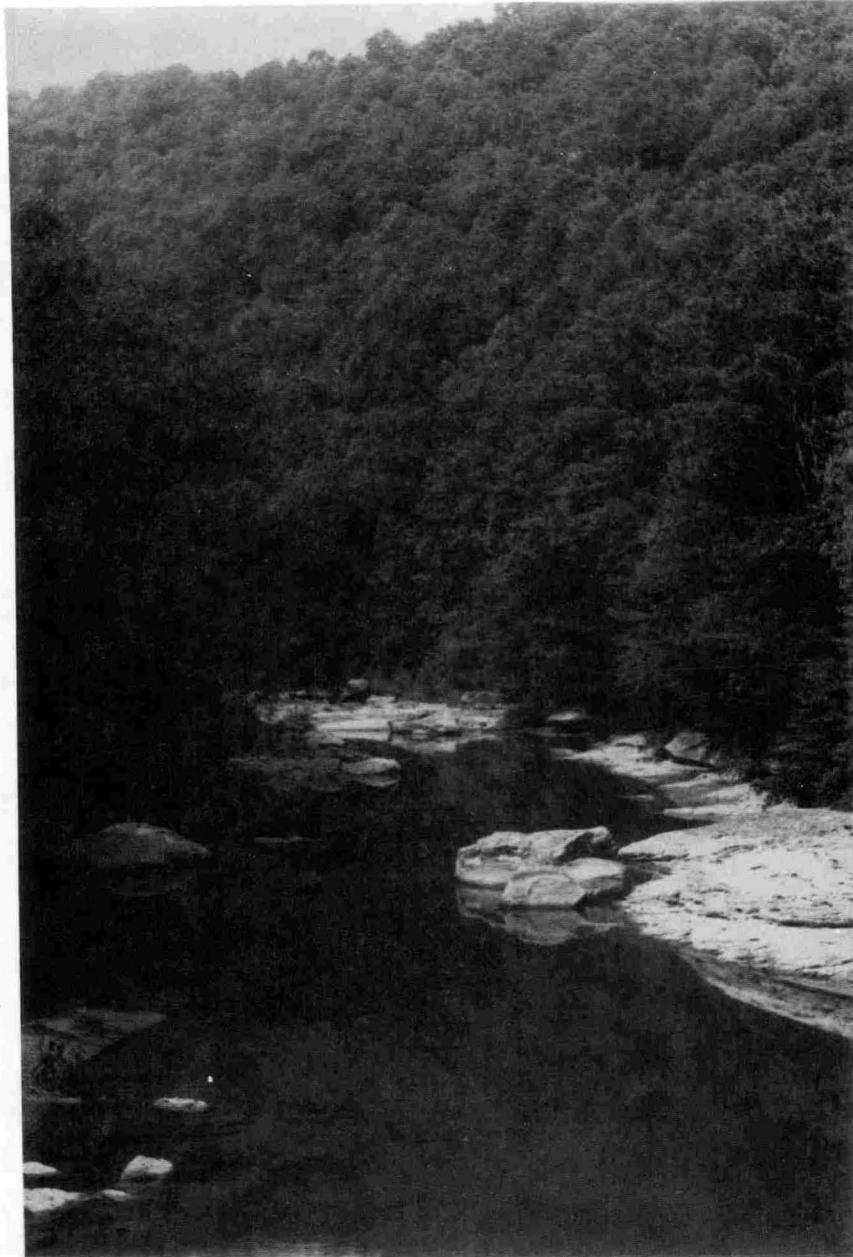
FINAL REPORT

BIRCH RIVER  
WILD AND SCENIC RIVER STUDY  
WEST VIRGINIA

August 1983

Prepared by:

Mid-Atlantic Regional Office  
National Park Service  
U.S. Department of the Interior



Birch River near Herold Bridge

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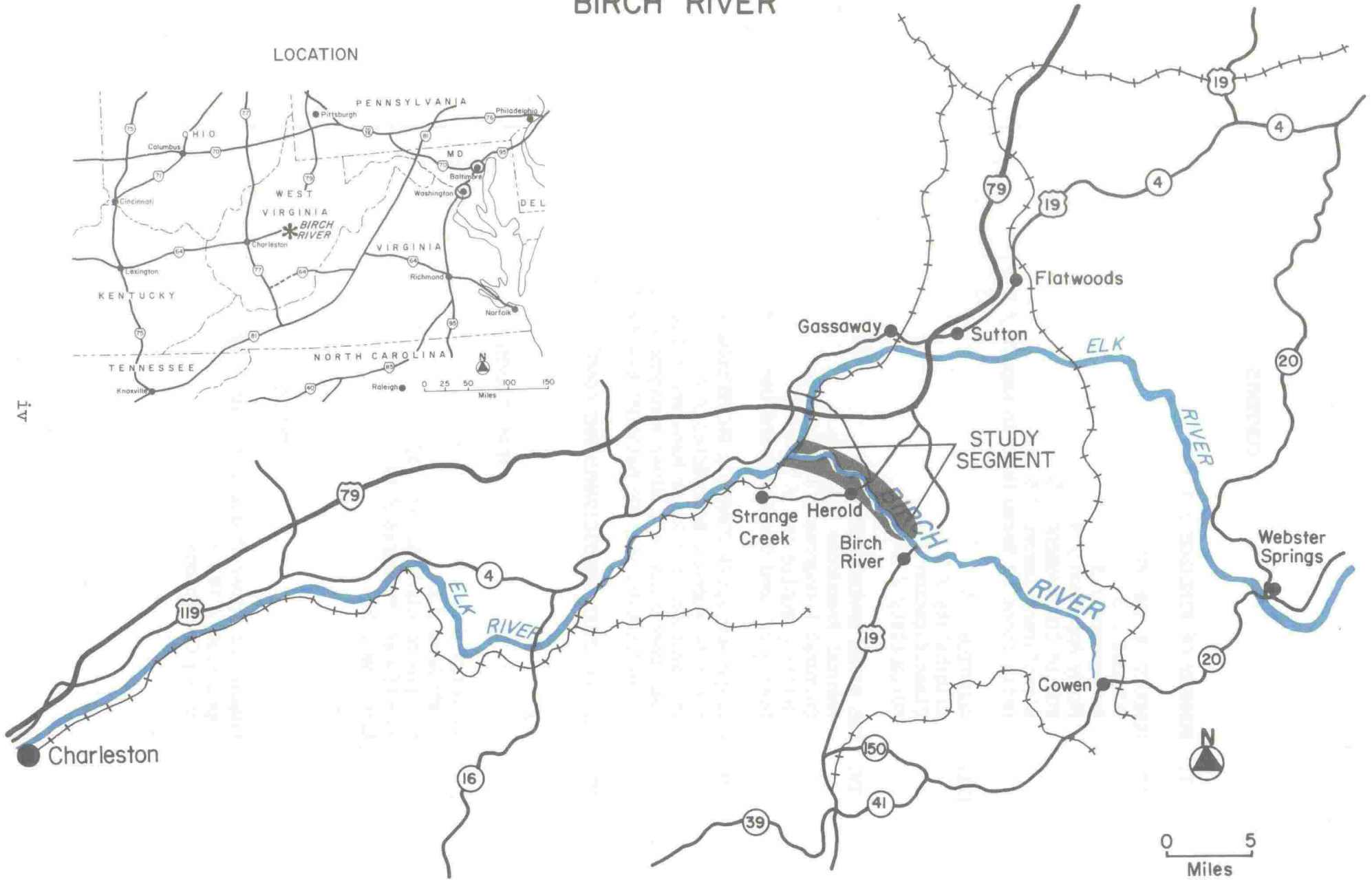
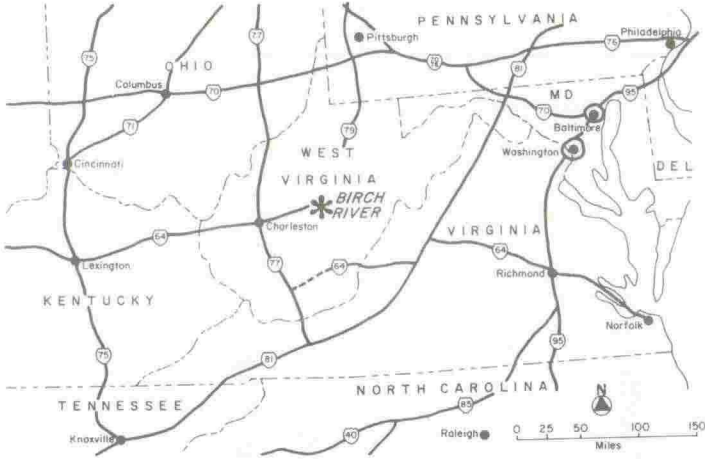
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# VICINITY BIRCH RIVER

## LOCATION



## I. SUMMARY OF FINDINGS

1. THE 17.5-MILE SEGMENT OF THE BIRCH RIVER, BETWEEN CORA BROWN BRIDGE IN NICHOLAS COUNTY AND ITS CONFLUENCE WITH THE ELK RIVER IN BRAXTON COUNTY, QUALIFIES FOR INCLUSION IN THE NATIONAL WILD AND SCENIC RIVERS SYSTEM.

The eligible segment is in a free-flowing condition. The river and its immediate environment possesses outstandingly remarkable scenic values and its geologic values are of local significance. The water quality is suitable for primary contact recreation. The flow and water level are sufficient for boating during the spring and after heavy rains. The river is of sufficient length to provide a meaningful high quality recreation experience.

2. THE ENTIRE ELIGIBLE SEGMENT QUALIFIES FOR SCENIC RIVER CLASSIFICATION.

The river is free of impoundments, its water quality generally meets minimum criteria for river recreation and is able to support the range of plant and animal life which occurs naturally in this area, its shorelines are generally undeveloped, and it is generally inaccessible by road.

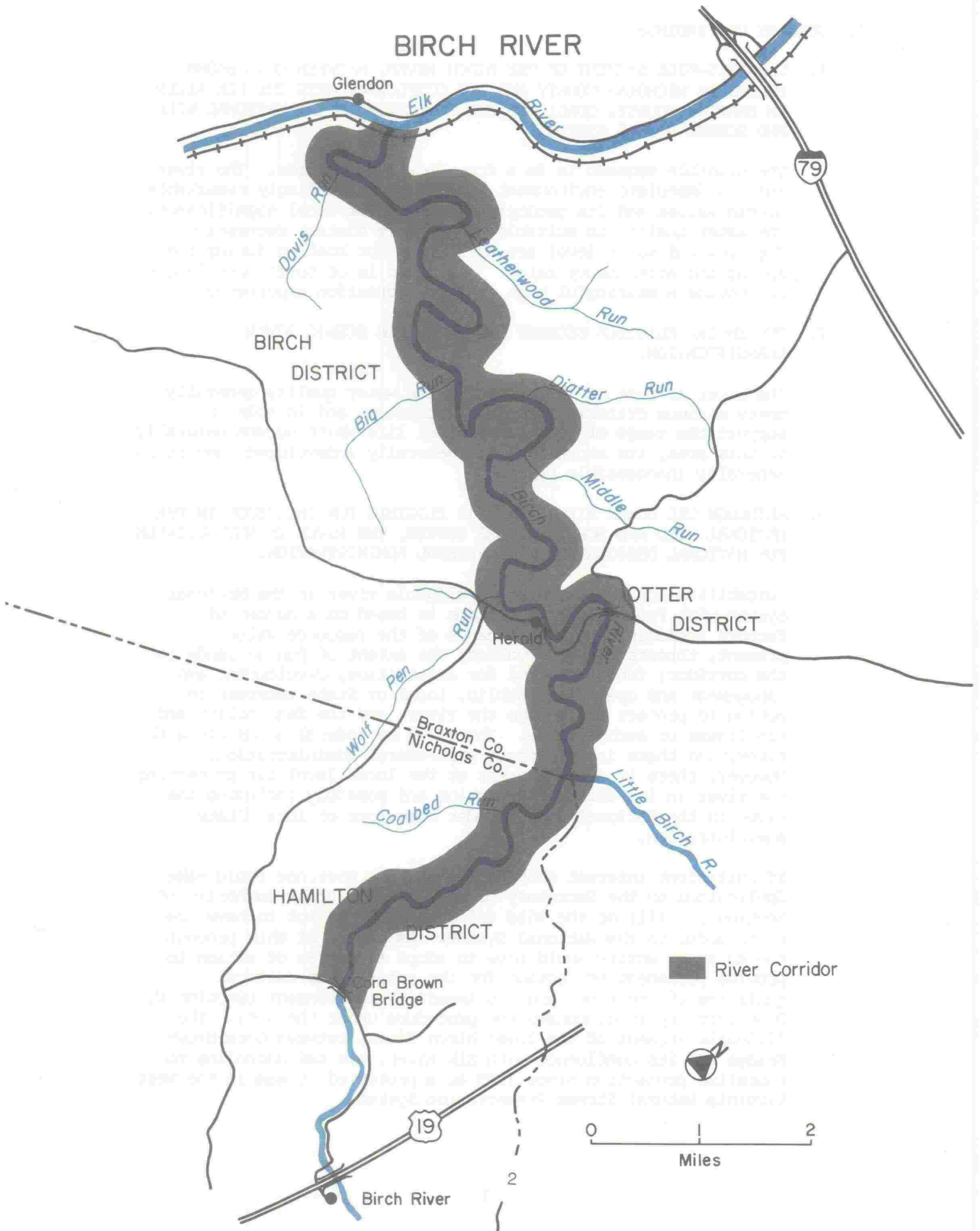
3. ALTHOUGH THE LOWER BIRCH RIVER IS ELIGIBLE FOR INCLUSION IN THE NATIONAL WILD AND SCENIC RIVERS SYSTEM, THE RIVER IS NOT SUITABLE FOR NATIONAL DESIGNATION WITH FEDERAL ADMINISTRATION.

Suitability for inclusion of an eligible river in the National System with Federal administration is based on a number of factors including the significance of the resource values present, threats to those values, the extent of public lands in the corridor; funds required for acquisition, development and management and operation; public, local or State interest in acting to protect and manage the river; and the feasibility and timeliness of such actions. There are no Federal lands along the river, and there is no support for Federal administration. However, there is some interest at the local level for protecting the river in its existing condition and possibly including the river in the National System under some form of local/State administration.

If sufficient interest should develop, the Governor could make application to the Secretary of the Interior under authority of Section 2(a)(ii) of the Wild and Scenic Rivers Act to have the river added to the National System. As a part of this process, the managing entity would have to adopt a program of action to provide permanent protection for the natural and cultural qualities of the river and its immediate environment (Section V. D of this report discusses the procedure under the Act). The 17.5-mile segment of the lower Birch River, between Cora Brown Bridge and its confluence with Elk River, has had shoreline to shoreline protection since 1975 as a protected stream in the West Virginia Natural Stream Preservation System.

# STUDY AREA

## BIRCH RIVER





## II. CONDUCT OF THE STUDY

### Purpose

The purpose of this study is to determine whether or not the Birch River in West Virginia is free-flowing and possesses outstandingly remarkable values which qualify it for addition to the National Wild and Scenic Rivers System and whether any eligible segments are suitable for inclusion in the National System based on such factors as the significance of the resource values present, threats to those values, and extent of public lands in the river area; costs required for acquisition development and management and operation; public, local or state interest in acting to protect and manage the river; and the feasibility and timeliness of such action.

This report on the Birch River was prepared under authority of the Wild and Scenic Rivers Act (Public Law 90-542, as amended) enacted in October 1968 which states:

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

### Background

The Birch River was authorized for study as a potential component of the National Wild and Scenic Rivers System under Public Law 96-199, (March 5, 1980), which amended Section 5(a) of Public Law 90-542 to add the Birch River, between Cora Brown Bridge and its confluence with the Elk River to the study category. It is one of four rivers in West Virginia which are being studied by the National Park Service; the others are the Gauley, Bluestone and Cacapon. In addition, the Greenbrier River is being studied by the Forest Service.

In 1975, the Birch River between Cora Brown Bridge and its confluence with the Elk River was designated a "protected stream" under the West Virginia Natural Streams Preservation Act (Chapter 20, Article 5B). Protected streams under this legislation are designated for "preservation and protection in their natural condition" and are not to be impounded, flooded, or diverted.

The State Water Resources Board has the authority to promulgate rules and regulations to implement and make effective the powers, duties and responsibilities vested in the board by the provisions of the law. It is unlawful, until the department's permit has been granted, to modify any protected stream. No permit is issued unless the work proposed to be done under the permit will not materially alter or affect the free-flowing characteristics of a substantial part of a protected stream.

Efforts resulting in addition of the Birch River to the list of studies in Section 5(a) of the Wild and Scenic Rivers Act were led by the late Congressman John Slack and Skip Johnson, outdoor writer for the Charleston Gazette who lives in the river corridor.

### Study Approach

The study of the Birch River to determine its potential for addition to the National Wild and Scenic Rivers System was a cooperative effort led by the National Park Service.

On-site inspections and data collection were accomplished by an interagency study team composed of the following:

Federal Energy Regulatory Commission  
Division of River Basins

U.S. Department of Agriculture  
Forest Service

U.S. Department of Defense  
Army Corps of Engineers

U.S. Department of the Interior  
Bureau of Mines  
Fish and Wildlife Service  
Geological Survey  
National Park Service

U.S. Environmental Protection Agency  
Water Quality Office

State of West Virginia  
Department of Natural Resources

In addition, Braxton County agreed to serve on the team as an observer.

Field trips were conducted in October 1981 and May 1982 to evaluate the study area. The study team was assisted by private landowners on the evaluation trips which were conducted on portions of the adjacent land as well as the river itself. The study team then met to determine whether the river was suitable for inclusion in the National System and, if so, how it should be classified.

The study team has determined the eligibility of the Birch River for inclusion in the National System and has prepared other information required by Congress.

## Public Involvement

Initial public meetings to discuss the purpose of and plans for conducting the study were held near Sutton and at Charleston on October 22 and 23, 1981. A public meeting was held near Sutton on May 5 and an interest group meeting was held in Sutton on May 6, 1982 to discuss findings of the study and possible alternative actions to protect segments eligible for the National System.

A series of workshops were held in cooperation with the State to obtain the views of private interests in the study area and region.

There has been informal consultation with county and local government officials, conservation groups, private individuals and landowners in the study area and region.

State agencies were contacted with the assistance of the State Department of Natural Resources. The State Historic Preservation Officer (SHPO) prepared a short report on the cultural resources of the study area under contract with the National Park Service.

## Significant Issues

The issues outlined below were identified by the study team through contacts with concerned public agencies, organizations, and individuals.

Coal - There is some commercial coal mining in the upper Birch watershed, but none within the study area. Designation of the lower portion could have an impact on future development and mining of upstream coal reserves. Were the river included in the National System, any new surface mining within the designated corridor would be prohibited by Section 522(e) of the Surface Mining and Reclamation Act of 1977.

Timber - Currently, timber is being harvested for the production of saw logs and mine timbers. As the existing timber matures and as logging techniques improve, logging within the river corridor could become more extensive. Timber harvest activities present a potential adverse effect on other natural resource values, but if conducted in accord with existing State regulations, would not affect the outstandingly remarkable values.

Oil and Gas - There is a recent interest in oil and gas exploration of the study area. There are no known oil or gas wells within the study corridor.

Recreation - Increased use by white water enthusiasts may lead to conflicts with landowners bordering the river.

## Definitions of Terms Used in Report

Study Area: The portion of the Birch River authorized for study (Cora Brown Bridge to the Elk River confluence) and its immediate environment, which, in this study, is the area extending one-quarter mile from each river bank.

River Area: That part of the study area and its immediate environment eligible for inclusion in the National System.

Study Segment: The river itself between Cora Brown Bridge and the Elk River confluence.

Region: The surrounding environment of the study area, extending for several miles or more, which affects and is used to describe the river for study purposes. The boundary is indefinite (e.g. Braxton and Nicholas Counties for population data, the watershed for stream flow data).

Designation: Inclusion of a river area in the National System either by act of Congress or by authority of the Secretary of the Interior.

Eligibility: Qualification of a river for inclusion in the National System through determination that it is free-flowing and with its adjacent land area possesses at least one outstandingly remarkable value.

Eligible Segment: The portion of the study segment which is eligible for the National System. (See River Area)

River Corridor: In preparing a river management plan the river corridor boundary may be more or less than the one-quarter mile distance from each riverbank.

Classification: The determination of which of the classes (wild, scenic, or recreational) outlined in Section 2(b) of Public Law 90-542, best fit the river or its various segments.

Suitability: A determination as to whether an eligible segment should be included in the National System by weighing natural and cultural resource values, and threats to those values with such factors as extent of public lands in the river area; costs required for acquisition, development, management and operation; public, local or State interest in acting to protect and manage the river; and the feasibility and timeliness of such action.

### III. EVALUATION

The natural and cultural resource values of the Birch River are discussed in detail in Chapter IV of this report. They are summarized in this chapter in sufficient detail to establish the outstandingly remarkable values of the qualifying segment.

The 17.5-mile study segment of the Birch River between Cora Brown Bridge and its confluence with the Elk River flows through a relatively natural, heavily wooded, narrow valley. The river is clean and unpolluted. There is a good variety of flow types with an abundance of riffles and rapids (up to Class IV) during heavy spring runoff. Large boulders are numerous in many places, and sandy beaches are located in many places along the river. Plant life within the river corridor is varied. Bare rock cliffs and a few associated caves also provide a scenic setting for a river recreation experience.

Most of the recorded history in the valley involves the logging industry, which thrived in the late 19th century. Prehistoric mounds have been identified near Diatter Creek just outside the study area.

A few farms border the upper section of the river. There are also a few scattered summer homes but no commercial or industrial development. Timbering and mining are almost nonexistent in the corridor.

Recreational activities include canoeing, kayaking, tubing, fishing, and swimming in the river and sightseeing, hiking, and hunting within the river corridor. Overall, recreation use is light.

#### Eligibility

It has been determined that the study segment of the Birch River is eligible for inclusion in the National Wild and Scenic Rivers System.

This determination is based on the following:

1. The segment is in a free-flowing condition.

There are no impoundments or man-made alterations to the river channel within the qualifying segment. The river possesses a variety of natural flow conditions.

2. The segment and its immediate environment possesses outstandingly remarkable scenic values. Its geologic values are assessed as significant but not outstandingly remarkable.

The water course has a variety of flow types from deep calm pools to riffles and rapids (up to Class IV during heavy spring runoff). The aesthetic value of the clear, blue-green waters is enhanced by stretches of sandy beaches and large boulders in the

beaches and large boulders in the riverbed, some supporting vegetation. The river is framed by a gorge (with a steep local relief up to 500 feet) which contains a rich variety of vegetation, including hemlock and rhododendron thickets. It is an aesthetically pleasing, largely natural, heavily-wooded river gorge.

The gorge along with its exposed rock cliffs and caves is of local geologic significance.

Also, the Birch River normally has a water flow and level sufficient to permit full enjoyment of water-related outdoor recreation activities generally associated with comparable rivers such as canoeing, kayaking, swimming, and fishing. Stream flows have seasonal variations, with high and medium-high flows during late winter and spring. Summer and early autumn flows normally slacken and boating activity decreases accordingly, except after heavy rains.

Water quality is suitable for primary contact recreation, including swimming, wading, and fishing. It may not, in some cases, meet all of the criteria provided by the West Virginia Department of Natural Resources. A few homesteads may be discharging inadequately treated sewage and septic tank overflows into the river, but overall, the river's water quality is improving.

The segment is long enough to provide a meaningful high quality recreation experience.

In summary, the lowermost 17.5 miles of the Birch River and its immediate environment is eligible for addition to the National System.

### Classification

Following a determination that the Birch River qualifies for inclusion in the National Wild and Scenic Rivers System, the following classification criteria presented in Section 2(b) of the Act were used to determine potential classification should the river be designated:

Wild River Areas - 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.

Scenic River Areas - 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.

Recreational River Areas - 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 diversions in the past.

It is concluded that the entire segment would be classified as SCENIC. Scenic classification of the river area is based on the following factors:

1. It is free of impoundments.
2. The water quality generally meets minimum criteria for river recreation and is able to support the present range of animal and plant life.
3. The shoreline is generally free of development with only one small hamlet.
4. The river is generally inaccessible by road. There is limited access by paved road at two locations and by several unimproved roads and jeep trails.

#### Suitability

If a river with its immediate environment is found eligible for addition to the National System, the Secretary must determine whether the river corridor is suitable for addition to the National System. Generally, suitability is based on such factors as the significance of resource values present, threats to those values, and extent of public lands in the river area; costs required for acquisition, development, and management and operation; public, local, or State interest in acting to protect and manage the river; and the feasibility and timeliness of such action.

Although some local interest has been expressed for national designation of the qualifying segment, there is no plan of action by any entity to protect and manage the river area as a component of the National System. The degree of protection afforded by designation as a "potential stream" in the West Virginia Natural Streams Preservation System is inadequate for a component of the National Wild and Scenic Rivers System. Additionally, there are no public lands in the river area. Therefore, the river is nonsuitable for designation as a federally administered component of the National System at this time.

The Secretary of the Interior has authority, under Section 2(a)(ii) of the Wild and Scenic Rivers Act, to include the Birch in the National System. (Section V. D of this report discusses the procedure for including a river in the National System under Section 2(a)(ii) of Public Law 90-542).



Sign at Herold Bridge



Typical scenes along the Birch



#### IV. THE RIVER ENVIRONMENT

This chapter provides a description of the natural resources, cultural resources, existing public use, and status of land ownership and use.

##### Natural Resources

The Birch River watershed is located in Webster, Nicholas, and Braxton Counties in central West Virginia. It drains a 150 square-mile area and is the largest sub-basin of the Elk River basin. It lies within the Allegheny Plateau where there are many hill and ridge summits.

The River and its Immediate Environment - The Birch River's source is near Cowen at an elevation of 2,280 feet above mean sea level and flows in a general northwesterly direction for 36.5 miles to its confluence with the Elk River (778 feet above mean sea level). Its overall gradient averages 41 feet per mile. From Cora Brown Bridge to its confluence with the Elk River, the descent is 17 feet per mile. The average discharge at its mouth is 100 cfs.

The Birch River is a swift, shallow, and narrow stream, seldom exceeding 80 feet in width, with exciting white water during high spring runoff or after heavy rains, wide bends, and scenic views in a secluded setting. The little stream rushes through a deeply entrenched, V-shaped, forested valley with up to 500-foot slopes. Several of the white water stretches drop more than 40 feet per mile. The stream bottom is composed of steep gravel bars, boulder patches, eroded rock shelves, and various combinations of each. Occasional islands create narrow bifurcations that funnel concentrated chutes over the rock-lined bed.

Downstream from Cora Brown Bridge, the valley floor gradually narrows between converging inclines and the stream enters a gorge. Flow velocity increases and reaches Class III or IV difficulty at higher water levels within the six-mile stretch between Feedtrough Run to approximately one and one-half miles downstream from the hamlet of Herold. This is the heart of the white water boating stretch. The channel bends and loops around steep wooded promontories. Rocky islands and boulders are scattered throughout the river bed. Virtually the only visible development is a medium-duty road bridge and the few scattered dwellings which make up Herold. Downstream from Herold the river gradient lessens to 8 feet per mile and the waters become calmer. Blue Hole, at the neck of the largest loop of the river, is the deepest part of the stream, nearly 40 feet in depth. There are three more sizeable loops before the Birch's juncture with the Elk River.

The major tributaries of the study segment include: Slabcamp Run, Big Run, Feedtrough Run, Coalbed Run, Little Birch River, Long Run,

Table 1. SUMMARY OF RIVER CHARACTERISTICS

The Birch River Watershed

Located in: Webster, Nicholas, and Braxton Counties

150 square miles in area

Birch River

Located in: Webster, Nicholas, and Braxton Counties

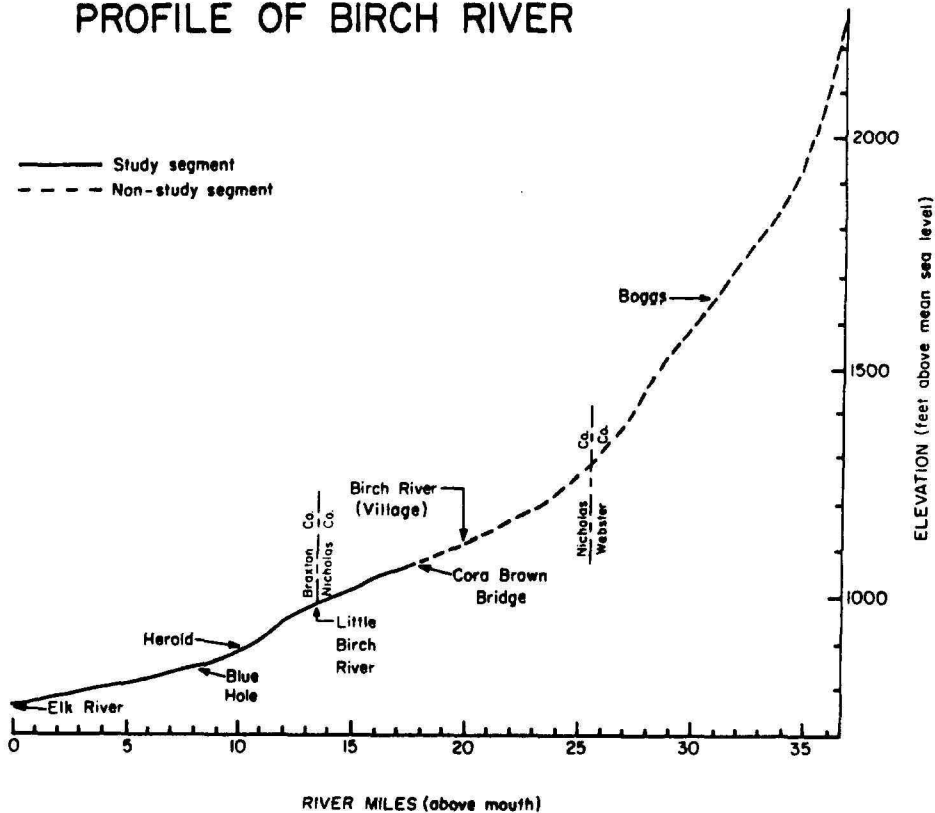
36 1/2 miles overall river length; elevation change 1,505 feet  
17 1/2 miles of qualifying segment (scenic)

2,280 feet elevation at source  
1,075 feet elevation at Cora Brown Bridge  
775 feet elevation at mouth

41 feet/mile gradient between source and mouth  
63 feet/mile gradient between source and Cora Brown Bridge  
17 feet/mile gradient between Cora Brown Bridge and mouth

100 cfs average discharge at mouth

PROFILE OF BIRCH RIVER



Wolf Pen Run, Middle Run, Diatter Run, Big Run, Leatherwood Run, and Davis Run (See Study Area Map on page 2).

Ground Water - Ground water is the principal source of public water supplies for many communities and individual users in the Birch River region. Most wells are drilled into rock aquifers which generally yield sodium-calcium bicarbonate water with iron, manganese, and other constituents which cause bad taste and stains.

Water Quality - The overall water quality of the Birch River is good. However, domestic sewage and a limited amount of acid mine drainage from upstream sources have some adverse effects on the river.

Domestic sewage is received by the main stem from the village of Birch River and from a few scattered residences along the river. A tributary of Little Birch River receives some acid drainage from coal mining operations.

The available water quality data are limited to two main stem samplings upstream from the study segment and one from Little Birch River. Nevertheless, these pH and dissolved oxygen readings are well within the range acceptable under the West Virginia Water Quality Standards. The study segment is well aerated and water is usually clear. The presence of May flies also indicates good water quality.

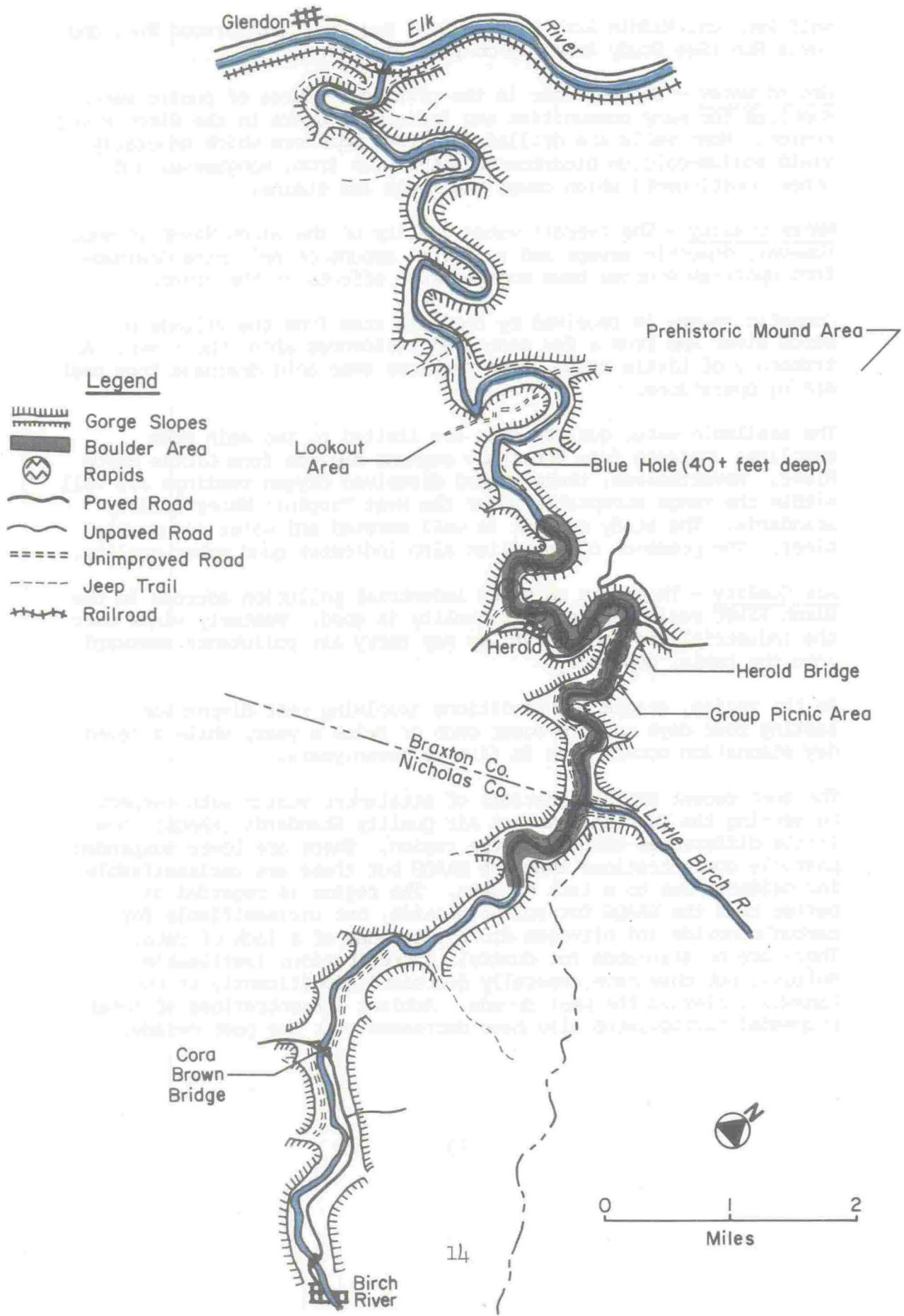
Air Quality - There are no major industrial pollution sources in the Birch River region and the air quality is good. Westerly winds over the industrialized Kanawha Valley may carry air pollutants eastward into the basin, however.

In the region, stagnation conditions involving poor dispersion lasting four days or more occur once or twice a year, while a seven day stagnation occurs once in five to seven years.

The most recent EPA designations of attainment status with respect to meeting the National Ambient Air Quality Standards (NAAQS) show little differences throughout the region. There are lower suspended particle concentrations than the NAAQS but these are unclassifiable for oxidants due to a lack of data. The region is regarded as better than the NAAQS for sulfur dioxide, but unclassifiable for carbon monoxide and nitrogen dioxide because of a lack of data. There are no standards for dustfall concentrations (settleable solids), but they have generally decreased significantly in the Kanawha Valley in the past decade. Ambient concentrations of total suspended particulates also have decreased over the past decade.

# SIGNIFICANT FEATURES

## BIRCH RIVER



Geology and Mineral Resources - The entire region lies within the Allegheny, Kanawha, and Conemaugh Formations and consists of cyclic sequences of sandstone, siltstone, shale, limestone, coal, and underclay. Thickness of the Allegheny strata ranges from approximately 100 to 300 feet.

The upper portion of the study area is located in the Southern Coalfield with Pennsylvania age and younger rocks of the Pocahontas Basin. The lower portion is located in the Northern Coalfield with a thinner sequence of coal-bearing formations of the Dunkard Basin. Mineral resources pertinent to the study area include coal, gas and oil, and to a much lesser extent, clay and shale.

Coal - Coal in the region is classified as high volatile bituminous. It has a low sulfur content and is marginal to premium grade as coking coal. Total coal reserve base in the two county region exceeds 900 million tons. Coal production in 1980 exceeded 2.5 million short tons; underground mines accounted for 1.6 million short tons and surface mining nearly 1 million tons. The five coal beds along the Birch River reporting production in 1980 in ascending stratigraphic order are: Coalburg, Clarion, Lower Kittanning (or No. 5 Block), Middle Kittanning and Upper Kittanning. Other coal beds that may locally attain minable thickness include Winifrede, Stockton, and Lower Freeport.

The principal coal bed within the Birch River area is the Lower Kittanning. It, with Middle Kittanning and Stockton, is considered a premium grade coking coal along with Middle Kittanning and Stockton. Upper Kittanning, Coalburg, and Winifrede are considered marginal grade coking coals.

Oil and Gas - Since the early 1900's there has been a history of continuous oil and gas production in the region. Recent oil and gas activity has been predominantly developmental drilling to extend known producing fields in the upper river area. Production is limited to gas.

Clay and Shale - Underclay may be mined in conjunction with overlying coal beds. It is generally suitable for the manufacture of tile and brick mixtures. The shale may be suitable for structural tile.

Soils - The soils of the river area fall into three categories: alluvial soils (stream-washed materials), colluvial soils (soils moved downslope through action of gravity, local wash, or freezing and thawing), and upland soils (developed in place from underlying parent materials).

The alluvial soils contain the Pope, Craigsville, Chavies, and Philo series. The Pope series, with a slope range of only 0 to 4%, consists of deep, well-drained soils on flood plains. They generally experience moderate to severe flooding and seepage, restricting development. The Craigsville Series, with a slope range of 0 to 5%, consists of deep, well-drained soils on flood plains. They generally experience moderate to severe flooding and seepage. The Chavies series consists of deep, well-drained soils on terraces, with a slope range of 0 to 12%. They experience moderate flooding and some seepage. The Philo series consists of deep, moderately well-drained soils on floodplains and has a slope of only 0 to 3%. They experience severe flooding.

The coluvial soils contain the Buchanan and Ernest series. The Buchanan series, with a slope range of 0 to 35%, consists of deep, moderately well drained soils on lower slopes. It may contain seep spots. The Ernest series, with a slope of 0 to 35%, consists of deep, moderately well-drained soils formed in colluvial material. Typically, these soils have a very stony or extremely stony dark grayish-brown silt loam surface layer with moderate wetness. They are highly erodible and may receive excessive sediment loss and induce slope failure during construction or mining.

The upland soils contain the Gilpin, Lily, and Dekalb series. The Gilpin series, with a slope range of 0 to 70% or steeper, consists of moderately deep, well-drained soils on uplands. They experience slight to severe seepage. The Lily series, with a slope range of 0 to 50% or steeper, consist of moderately deep, well-drained soils on uplands. They experience moderate to severe seepage. The Dekalb series, with a slope range of 0 to 80%, consists of moderately deep, well-drained soils on uplands. They experience slight to severe seepage.

Vegetation - The forests of the region have been altered severely since presettlement days by logging, farming, and other activities. By the turn of the century, less than 10% of the Birch watershed remained in virgin forest. Today, no virgin stands exist in the basin except, perhaps, for a few small isolated areas. The regrowth will mature within a few decades.

Forested land covers approximately 94% of the region. Three-fourths of the forest is deciduous and one-fourth mixed forest. Mixed forest is the climax vegetation of the study area and is found in all sections not developed.

The timber resources are of significant economic value. Currently, timber is being harvested for the production of saw logs and mine timbers. Forest types capable of producing marketable timber include Virginia pine, pitch pine, oak, hickory, maple, beech, and birch.

Fish and Wildlife - The Birch River supports a good warmwater fishery. The fishery includes large and smallmouth bass, sunfish, perch, darter, chub, sucker, catfish and walleye.

The Birch provides the necessary water quality and habitat diversity to support a population of benthic organisms. The aquatic insects present are typical of non-polluted waters. Several species of may flies, caddisflies and dobson flies found are intolerant of poor water quality.

The fauna of the river area include species which are common and widespread throughout the deciduous forests of central West Virginia. Squirrels, wild turkey, white-tailed deer, rabbits, ruffed grouse, wild ducks, dove, crow, woodcock, woodchuck, raccoon, fox, and black bear are especially sought after by hunters. In addition to the above, more than fifty species of mammals have been identified including opossum, otter, weasel, mink, skunk, bobcat, chipmunk, beaver, mouse, rat, vole, muskrat, mole, shrew, and bat.

The most common reptiles are turtles, lizards, skinks, and various snakes which include copperhead and rattlesnake. The most common amphibians include frogs, toads, and salamanders.

More than two hundred species of birds (including residents, migrants, and casual visitors) known or expected to occur at some season of the year include songbirds, raptors, and scavengers. Local permanent residents include various owls, hawks, woodpeckers, and nuthatches. Breeding residents which winter elsewhere include swifts, swallows, thrashers, vireos, and warblers. A large number of species, particularly waterfowl, shorebirds, and certain passerine birds, occur only as migrants.

Federally endangered or threatened species which may occur in the study area include the bald eagle, Kirtland's warbler, and the Indiana bat.

### Cultural Resources

Archeology and History - Little research has been done on the prehistory and history of the Birch River. Recovery of several flint chips and a projectile point from prehistoric mound(s) on Diatter Run indicate a Woodland period occupation. While central West Virginia was frequented by various tribes between 1500 and 1650, little is known about the Birch in this period.

Settlement of the river area began in the early 1800's by hunters and trappers who gradually turned to farming and eventually to lumbering.

Little visible evidence of the prehistory and history remains. No nominations to the National Register of Historic Places have been made within the study area, although the mounds near Diatter Run may be eligible.

Economy - The economy of the area is strongly tied to natural resource extraction industries, such as coal production and timber resources, and does not have a strongly diversified employment base. During the past decade there has been a turnaround and revitalization of the economy due to an increased demand for coal. An improved highway system and a general "back to the country" movement also contributed to this process.

Nevertheless, the region has had an unemployment rate significantly higher than the State average. In 1979 Braxton County had the highest unemployment rate in the State (17%).

Although there is coal mining activity in the upper watershed, there is none within the study area of the Birch. In the past, a few individuals mined the coal outcroppings along the river.

While timber production along the river can be expected to increase in the near future, the young age of the existing growing stock and the steep slopes found there make logging a marginal economic operation. However, as present stands mature, volumes increase and log quality improves, the present status will change to a profitable operation. It is anticipated that most of the river area will be ready for harvesting after the turn of the century.

Much of the land in the river area is too steep and too confined to meet the extensive needs of industrial development. The absence of a large labor force, adequate industrial sites, highway facilities and immediate access to market areas are additional deterrents to the location of heavy industry. While some light industry might be attracted to the river area, substantial economic growth appears to be in the use of the outstanding recreation and unique scenic qualities.

Historic settlement patterns have produced widely dispersed housing, making the provision of basic utility services in many instances noneconomic. The lack of these services has, to some extent, resulted in deterioration and dilapidation of housing. The low per capita incomes which are characteristic of the region have also contributed to the housing problem. The two counties rely heavily upon revenues generated by property and property transfer taxes.

Population - Throughout the region, population is concentrated near places of employment. Large areas are unsuitable for development due to the terrain and the population tends to be distributed and concentrated along major streams and valleys.



The two-county region has a population of approximately 42,000, accounting for only 2% of the State's population. The population of the two counties increased 19% between 1970 and 1980 and contains a density of 37 persons per square mile.

TABLE 2. POPULATION\*

County	Population			Projected Population		Population Density (1980)	
	1970	1980	% Change	1990	2000	Land Area (sq. mi.)	Persons per sq. mile
Braxton	12,666	13,994	+11	15,000	16,800	520	27
Nicholas	22,552	28,126	+25	34,000	39,000	642	44
Total or Average	35,218	42,020	+19	49,000	56,800	1,162	37

\*Source: U.S. Bureau of Census

Within the region there are three small communities whose populations are approximated as follows: Birch River (300), Little Birch River (100), and Herold (10). Herold comprises the only cluster of houses in the river area. A total of about 100 inhabitants are scattered throughout the river area.

The Northeast megalopolis lies within three hundred miles to the northeast and the Pittsburgh-Cleveland complex lies within two hundred miles to the north. Within a 250-mile radius of the river area there are more than 30 million people.

#### Existing Public Use

Recreation - Recreational opportunities available throughout most of the study area include boating, swimming, water skiing, tennis, golf, wildlife viewing, fishing and hunting, skiing and other winter sports. Federal and State parks and forests and county and city parks provide excellent outdoor recreation opportunities and constitute one of the region's major assets.

Braxton County recreation facilities include two theaters, one indoor and one outdoor, a county park, a golf course, a baseball field, one auditorium, and twelve playgrounds. Sutton Reservoir and the Elk River Public Hunting area offer more than 11,500 acres of natural park, forest, hunting, and fishing areas.

Nicholas County contains numerous recreational facilities including indoor and outdoor theaters, a country club, swimming pools, ballfields, nine parks, and more than 40 playfields. A 23,540-acre portion of Monongahela National Forest offers camping, fishing, picnicking, hiking, and water sports. Summersville Lake Recreation Area, Cornifex Ferry Battlefield State Park, Nicholas County Memorial Park, and the Richmond Memorial Athletic Field and the Community Park provide various sport and game activities.

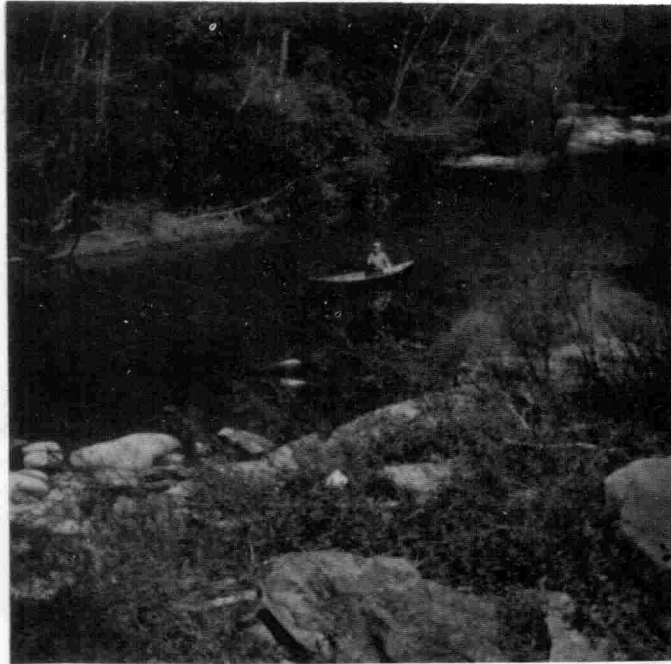
The Birch River itself offers boating and fishing. During the higher water levels of spring, the river can be canoed or kayaked. The stretch between Cora Brown Bridge and the Little Birch can be canoed or kayaked by users with intermediate skills. Between Little Birch and Blue Hole the river gradient is at its peak (28 feet per mile) and requires experience. Downstream from Blue Hole the river gradient slackens considerably and may be negotiated by canoeists in the beginner to intermediate class.

In addition to canoeing and kayaking, inner tube riding is popular. Swimming is popular in the Herold area and there is some camping and picnicking. Fishing in the Birch River and its tributaries in spring and summer is quite good, consisting primarily of small mouth bass and walleye. The stream is classed as a warmwater stream but there is an annual stocking of trout. There is some hunting of deer, but mainly small game (squirrels, grouse, turkey). Sightseeing is limited to roads, jeep trails and overlooks.

TABLE 3. BOATING CONDITIONS

SEGMENT OF RIVER	DISTANCE (MILES)	DROP (FEET)	GRADIENT (F/M)	DEGREE OF DIFFICULTY	TYPE OF CRAFT	EXPERIENCE NEEDED BY USERS
Cora Brown Bridge to Little Birch River Junction	4	88	22	Easy Medium Difficult	Canoe Kayak	Intermediate
Little Birch River Junction to Blue Hole	5 1/2	159	28	Medium Difficult Very Difficult	Canoe Kayak	Intermediate Experienced
Blue Hole to Elk River Junction	8	55	7	Easy Medium	Canoe	Beginner Intermediate
Total or Average	17 1/2	302	17	Easy to Very Difficult	Canoe or Kayak	Beginner to Experienced

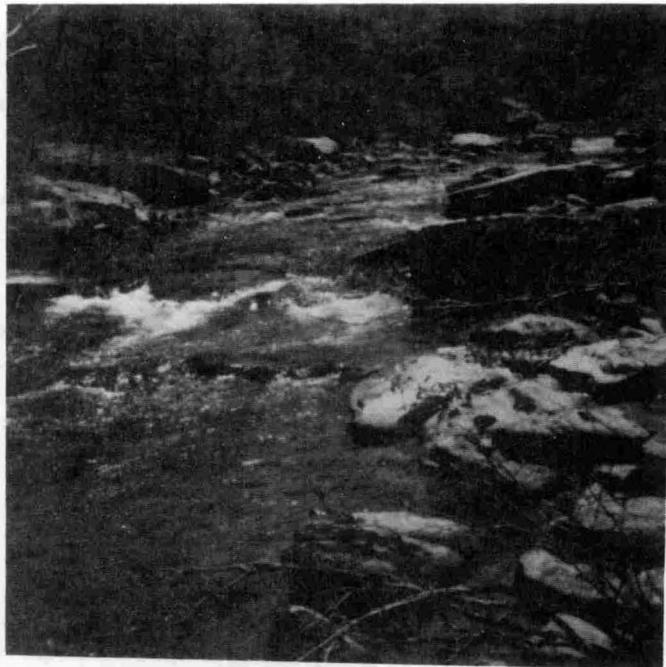
Water Resources Development - A Corps of Engineers' study to construct a dam on the Birch River near its confluence with the Elk has authorized status but has been deferred for restudy. Its purpose



Birch River is usually canoeable in the springtime



Birch River during normal flow levels



.... and after heavy rains

would be to augment the flood control provided by Sutton Lake. Birch Lake would inundate the lower half of the qualifying segment.

#### Status of Land Ownership and Use

Land and Water Use - Land and water uses are limited due to the ruggedness of the terrain. Agriculture consists mainly of grazing, hay production, and home gardening. Logging and coal mining are active outside of the river's immediate environment. Outdoor recreation activities include hunting, fishing, boating, hiking, picnicking, sightseeing and camping.

Most of the impacts on land and water resources have been in the form of logging, mining, agriculture, and highway construction. However, the general inaccessibility and relatively rapid plant and animal succession have allowed abandoned areas to recover to a near natural condition.

Today, 78% of the river area is in forest land, 14% in pastureland, 4% in hayland, 0.3% in cropland, 0.7% in other agricultural land, and 3% in non-agricultural land (includes roads, utility lines, non-farm residents, and idle non-farmland). There are no commercial, industrial, or service operations. Land and water uses are expected to change very gradually from less agriculture to more summer home development and related activities.

Land Ownership - Virtually all of the river area is in private ownership. Individual family properties on small tracts predominate. There are several large lumber and coal company tracts nearby. Public ownership is almost entirely limited to roadways and utility lines. Land ownership patterns are expected to remain stable with little foreseeable change.

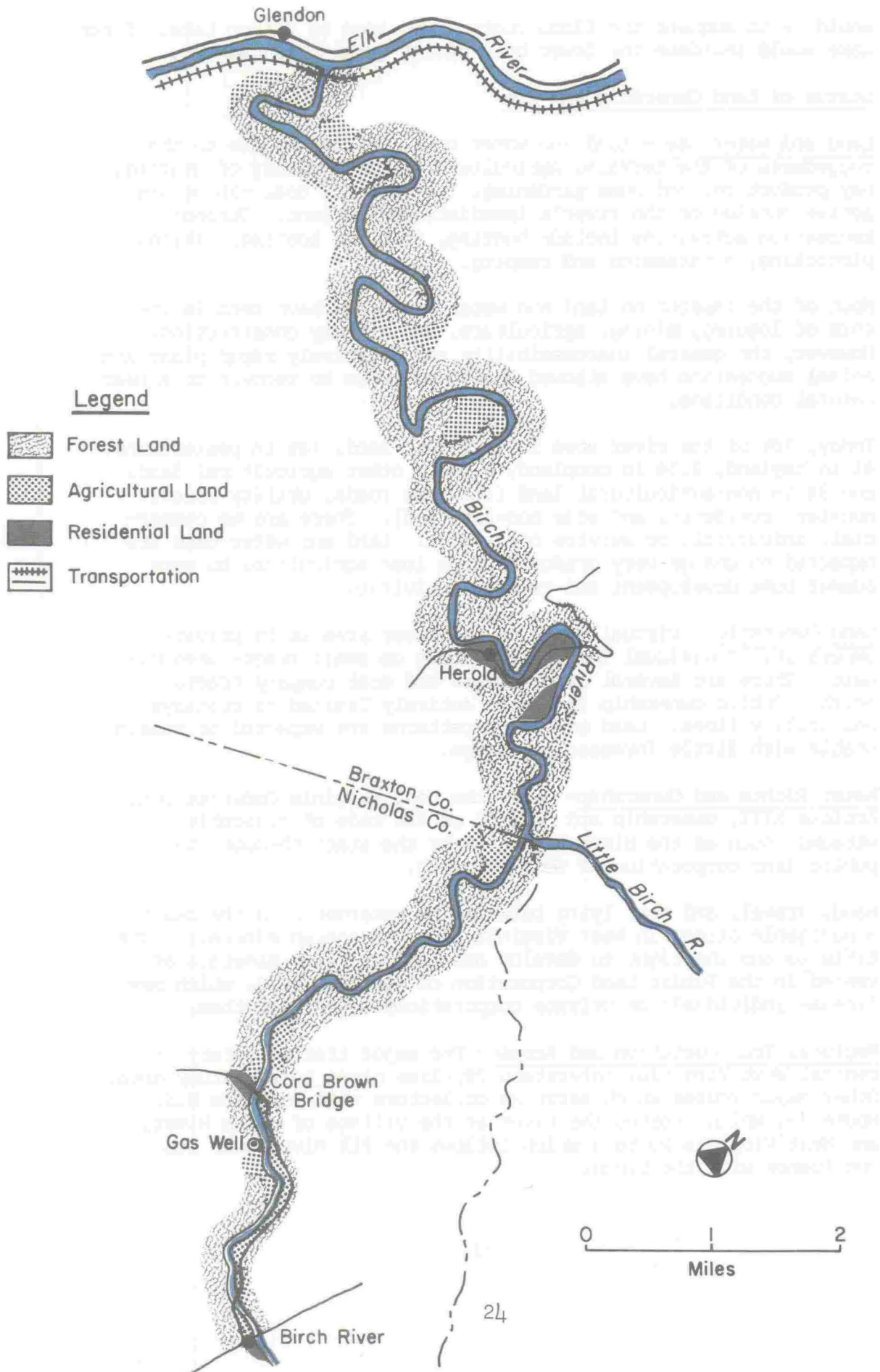
Water Rights and Ownership- Under the West Virginia Constitution, Article XIII, ownership and control of the beds of navigable streams, such as the Birch River, is by the State through the public land corporation of West Virginia.

Sand, gravel, and coal lying between low watermarks on the bed of a navigable stream in West Virginia, are considered minerals. The title to and the right to develop and exploit these minerals are vested in the Public Land Corporation of West Virginia, which may license individuals or private corporations to extract them.

Regional Transportation and Access- The major traffic artery in central West Virginia, Interstate 79, lies close to the study area. Other major routes which serve as collectors with I-79 are U.S. Route 19, which crosses the river at the village of Birch River, and West Virginia Route 4 which follows the Elk River near its confluence with the Birch.

# LAND USE

## BIRCH RIVER AREA

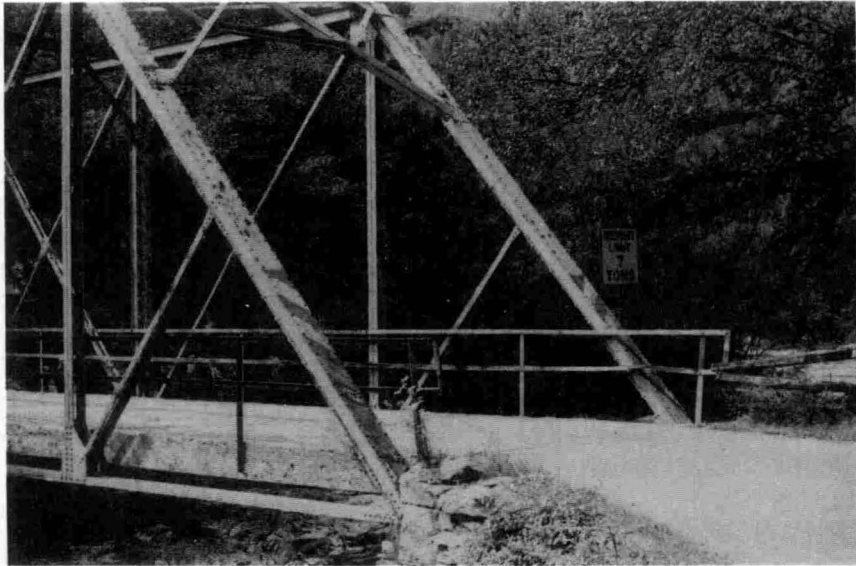


Average daily traffic counts for all vehicles on major routes in the region are as follow: I-79, 4,000; U.S. Route 19, 3,500; and West Virginia Route 4, 400.

Secondary and unpaved roads reach or parallel a few short stretches of the river. Two paved road bridges transect the study area - Cora Brown Bridge and Herold Bridge. A paved secondary road parallels the river for approximately one and one-half miles before crossing at Herold. Unpaved jeep trails reach or parallel the river for short stretches at a dozen locations.

None of the river area is paralleled by railroad tracks. A Chessie System railroad line used primarily for hauling coal parallels the Elk River and crosses the Birch at the Elk confluence.

Charleston is the only major transportation center providing long-distance access by air, bus, and rail. Less frequent long-distance bus connections can be made from Sutton and Summersville. A small airport is located near Summersville.



Herold Bridge



Railroad Bridge over Birch River at Elk River junctior



## V. A GUIDE FOR RIVER CORRIDOR PROTECTION

### A. River Management Approaches

The following management approaches discuss how one or more public and private interests might work together to protect the natural resource values of the Birch River. These approaches are not mutually exclusive but can be combined and changed to provide the best possible management approach. They are presented to stimulate interest in how best to plan for and manage the river corridor. If requested, and subject to the limits of its resources, the National Park Service is willing to provide technical assistance to State/local river planning interests.

Public Agency - Administration could be exercised through a land managing agency at the State and/or local level. There could be a bi-county agreement where the two counties could jointly design parallel regulations and controls, taking into account each jurisdiction's own development goals and needs, existing land use, and natural and scenic features deserving attention. This would create uniform standards for the preservation, management, development, and use of the river corridor.

Interagency Authority - An intergovernmental organization, composed of a combination of concerned State or local agencies could be set up to manage the river. This could be a River Corridor Commission composed of representatives from the two counties, representative private landowners, local interest groups, the two regional planning and development councils, and the State of West Virginia.

The Commission would administer the corridor and be empowered to adopt, prepare and implement a river management plan; establish a planning and zoning commission; levy taxes and/or user fees; enter into contracts and agreements and accept all funds; acquire, dispose of and encumber real and personal property; participate in Federal/State loan and grant programs; operate and maintain areas and facilities to serve the purposes of the commission; appoint citizen advisory committees; control erosion and water pollution; approve, implement and enforce land use controls such as zoning and ordinances and subdivision regulations; and hire and retain employees and consultants.

Nonprofit Agency - A nonprofit management agency or similar organization would oversee and resolve problems or resource protection and development opportunities within the corridor and resolve conflicts. This could be a River Corridor Foundation, a nongovernmental, tax-exempt, nonprofit, private corporation

organized and operated for the benefit of the general public. Generally a foundation is supported by donations, grants, gifts, loans, fund-raising efforts, and membership fees.

A foundation could offer permanent protection to selected areas along the river by accepting gifts of land or rights in land, offering tax benefits to those who donate land or rights in land, rendering technical assistance to landowners by helping them develop long-range plans for the conservation of part or all their property, accept gifts of land or rights in land, and then transfer them to a public managing agency, using gifts for matching purposes in obtaining grants, and setting up a revolving fund where the foundation purchases land, holds it for a time, and then sells it with certain restrictions.

Private Partnership - A compact between private interests in the river corridor would provide mutual notification of any resource protection or development actions. Concerned public officials would also be kept informed.

If there is enough interest, landowners and user groups could volunteer their time to clean-up the river. Any selling of second-home lots could have covenants designed to ensure that future development will be environmentally compatible. Homeowner associations could police development activities. Existing associations could tighten their codes and new associations could be formed.

## B. Preparation of a River Management Plan

### Management Objectives

Under any of the above management approaches, a management plan for the Birch River would be developed with specific objectives in mind. In order to take into consideration the outstandingly remarkable values which qualify the river for inclusion in the National System and the intent and purposes of the Wild and Scenic Rivers Act, the following objectives or goals for preservation, development, and use are suggested for the plan and its implementation.

1. To preserve the river and its immediate environment in its natural setting.
2. To preserve the free-flowing condition of the waters.
3. To maintain and upgrade water quality.

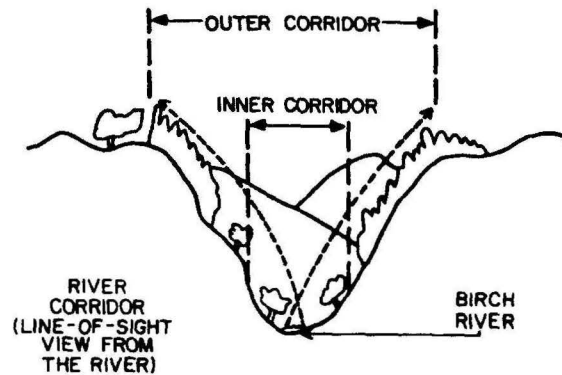
4. To provide high quality recreational opportunities for present and future generations.
5. To provide for a level of recreation use and distribution of use that minimizes deterioration of land and water resources and safeguards the rights of private landowners.
6. To assure the preservation of geologic features.
7. To maintain and enhance fish and wildlife resources.
8. To assure the effects of the management plan are in the interests of local residents.

#### Establishing a River Corridor

A river corridor or visual corridor is determined by line-of-sight from the river, in the case of the Birch to the immediate ridge tops. It consists of land on either side of the river, the river itself, and any islands that require protection to preserve natural, scenic, cultural, and recreational values. Specific boundaries should be mapped to document the major jurisdictional area of the plan. Some problems outside of this corridor could be addressed in the management plan, but most of the management approaches should be focused within the boundaries.

The most common means of boundary delineation is inclusion of all land within one-quarter mile that can be seen from viewpoints on and along the river. Where topography and distance permit, this boundary may be the ridge line, based on line-of-sight from and near the river. In those flat to gently sloping areas where the line-of-sight is a great distance from the river, other boundary criteria should be considered, such as topography, jurisdictional or property lines, an approximate one-quarter mile setback from the river, and the inclusion of critical resource areas.

An inner and outer corridor could be established. The inner corridor would encompass the river and adjacent lands that require a high degree of protection. This corridor could include the river, its banks, floodplain, unstable soils, and other lands critical to protection of its ecological function. Management approaches and measures should prohibit new development; protect agricultural lands, forest lands, and other compatible land uses; and encourage the maintenance and enhancement of natural conditions. The outer corridor should prohibit visual intrusions and water, air, or noise pollution activities, protect and enhance agricultural lands, and provide visual and ecological guidelines for new development.



### Inventory and Analysis of Critical Resource Values

An inventory is the "fact finding" stage of the management planning process, in which essential information regarding natural, scenic, cultural, and recreational resources is assembled. This information base should develop a clear picture of current river conditions, identify critical areas, and identify political actions affecting the river. The inventory should be conducted through careful study, mapping, fieldwork, and consultation with knowledgeable parties.

Critical areas are specific sites within the river corridor requiring special attention and protection for their ecological, cultural, recreational, and economic values. Generally these critical areas include habitats of rare and endangered species, potential archeological sites, fragile ecological areas, potential sites of incompatible land uses, historical sites, public use areas, pollution sources, coal and timber resource areas, and areas of special interest.

### Protection of the River Environment

Following an inventory the managing agency should prevent the destruction or deterioration of the river's critical resource values. Generally, the Birch River and its immediate environment should be protected from recreational overuse, air and water pollution, incompatible land uses, excessive vehicular traffic, unacceptable noise levels, or other threats to environmental quality.

Efforts should be made to maintain only compatible land uses. The good stewardship exercised in the past by private landowners suggests that voluntary efforts might continue to be an effective tool for protecting the river corridor's aesthetic appeal.

The State has laws and programs that provide some protection for the Birch River. It is unlawful to deposit any litter into or within 100 yards of a river or in a location where drainage conditions will cause any runoff of litter into a river. The Water Pollution Control Act authorizes the State to maintain and enforce reasonable standards of purity and quality of water consistent with public health and enjoyment and the propagation and protection of plant and animal life. The Division of Water Resources enforces a permit system to ensure that any development that discharges effluent into a river does not pollute the river above acceptable standards; water quality is monitored, and offenders are penalized according to the severity of their infraction.

The Natural Streams Preservation Act protects the Birch by prohibiting State, local and private user activities that will materially affect or alter the free-flowing characteristics of the river.

#### Land Use Management

A land use management program is designed to protect the land within the river corridor from activities that would alter its visual, ecological, and cultural values. Special attention should be given to maintaining natural conditions in the inner corridor, protecting critical areas from degradation, and preventing visual intrusions in the outer corridor. Management strategies for critical areas should protect their special values, prohibit overuse and degradation of the environment, and provide guidelines to maintain and enhance their natural condition. In addition, strategies for solving problems should rely upon State, regional, and local decision makers to coordinate their activities with respect to the ecological and cultural values of the river corridor.

There are several legal and administrative tools that could be incorporated in this program to effectively protect and guide land use activities in the river corridor. Some of these tools are described in the following section dealing with river preservation techniques.

Land in the corridor would normally be protected by land use controls, agreements with landowners, and other less-than-fee acquisition measures. Normally, there would be only two situations where it might be necessary for a managing agency to acquire real property: (1) Where a specific parcel is threatened by development which would seriously threaten the river's special values and there is no other way to prevent development, and (2) where a specific parcel of land is needed for public access or use.

It is possible that there will be some areas along a river which cannot be protected from incompatible development through land use controls, agreements, or similar techniques. In such

cases it may be necessary to acquire a scenic easement or full title to the land. Although a priority list for acquisition of lands or interests in lands may be desirable, there may be occasions when less critical parcels of land become available for acquisition. An evaluation would then be needed to determine to what extent, if any, a parcel would help protect the river corridor.

The West Virginia Code, Chapter 8, Article 24, provides the legal basis for county and municipal planning, as well as land use controls such as subdivision zoning ordinances and regulations. These measures, when enforced, could provide a large degree of control over incompatible development.

Another useful means for resource protection is a requirement of that proposals for construction activity, logging operations, etc. that may have an adverse impact on soil resources, water quality, and ecological values within the river corridor have a sediment and erosion control plans (subject to the review and approval by qualified local Soil Conservation District officials) that would make provisions for the installation of Best Management Practices (BMP's) needed to adequately protect these resources. It could be carried out through local ordinances and land use regulations.

#### Visitor Use

Natural limitations on recreation use are imposed by the relatively narrow river and valley floor. Nevertheless, recreational experiences are possible for canoeists, kayakers, fishermen, hikers, sightseers, swimmers, and others in a manner consistent with protection of the scenic values of the river. Therefore, the plan should call for securing appropriate, but limited areas of public use and access, but prevent the deterioration of natural resource values through overuse.

Canoe and kayak use on the Birch during the limited period of high water flows should be controlled by designation of access points to prevent trespass on private property.

Recreation management could also include educational efforts by the managing authority through instructional brochures and announcements of boating conditions by the local media.

Recreation facilities should be located with primary emphasis upon retention of existing environmental conditions at selected sites and should not disrupt the scenic values of the corridor. The local managing authority would establish a code of conduct for recreation use of the corridor and promote information on river conditions, safety equipment requirements, facilities, and the location of access points.

### C. Implementation of a River Management Plan

#### 1. River Preservation Techniques

There are a number of ways to protect the river's natural values while providing for residential, agricultural, and recreational uses. Methods selected will depend on the capabilities of local and/or State government;

the natural, scenic, recreational, and cultural values of the river area; and the degree of impact of proposed development within the river area. It is suggested that a variety of the following preservation techniques could be implemented by individual owners, land trusts, foundations, and local and State government.

### Land Trust

A land trust is a nongovernmental, nonprofit, tax-exempt, private corporation organized and operated for the benefit of the general public. A trust can purchase, manage, accept gifts, sale or lease of property. It is administered by private citizens whose interest in this instance would be river preservation. Generally a foundation is supported by donations, grants, gifts, loans, fund-raising efforts, and membership fees. The foundation could work closely with the counties, the State, the Nature Conservancy, and/or an established river commission.

Factors to be Considered - A land trust could offer permanent protection of selected areas along the river by performing the following functions: accept gifts of land (fee-simple) or rights in land; through the Internal Revenue Service and tax codes offer tax benefits to those who donate land or rights in land; render technical assistance to landowners by helping them develop long-range plans for the conservation of part or all of their property; accept gifts or land or rights in land, and then transfer them to a public managing agency (county or State government, river commission, etc.); use gifts for matching purposes in obtaining grants; and set up a revolving fund whereby the foundation purchases land, holds it for a time, and then sells it to another party with certain restrictions, preferably at a profit. In addition, it can act quickly without excess red tape and can work effectively to coordinate complicated transactions. A land trust can help local landowners decide what types of land preservation would be most workable.

### Easements

An easement is a limited or "less than fee" interest in property created by a conveyance. It can be acquired by purchase or donation. If one used the analogy that owning land is similar to holding a bundle of sticks, use of an easement would be setting aside or giving up some of the sticks. Easements do not affect basic ownership of the land -- the owner may sell or lease land with an easement at any time, subject to the terms of the easement. Depending upon the type of easement, no changes in right of access necessarily occur. Examples of easements are giving up the right to build structures taller than a given height or the right to put structures closer than a given distance to the water.

Factors to be Considered - An easement can be extremely flexible -- it may be written to particular specifications; reduce tax burdens; greatly increase the probability of long-term preservation of current use or preservation of open space; keep land under private control; and allow land to be sold, leased, or inherited and used in any manner consistent with the terms of the easement. Although an easement may restrict intense future development, it may also increase the marketability of the tract

by preserving its natural and scenic values if other adjacent tracts are also protected.

### Donations

Types - An outright donation occurs when the owner gives the land in fee-simple to a nonprofit organization or governmental agency for its use. Easements can also be donated outright.

A donation by the execution of a standard deed with the reservation of life estate allows the owner or members of his or her family to occupy and use the property during their lifetime with possession passing to the nonprofit organization or governmental agency at a later date.

The owner can donate land, money, or other valuables to the organization in his will.

Factors to be Considered - Donation offers potential for preserving land in a desired condition, when a donor no longer has the individual means to do so. This can be a tool for realizing substantial tax benefits. However, restrictions on the donation can limit the extent of the tax benefits. Donations can reduce estate taxes and provide significant savings if they qualify for deductions from taxable income.

### Bargain Sale of Land

A bargain sale combines the advantages of a gift and a sale. Because the land is sold in fee-simple at a reduced price, the difference between the fair market value and the actual selling price to a nonprofit organization or public agency represents a charitable contribution.

Factors to be Considered - A bargain sale may allow the seller to realize a charitable tax deduction in addition to a cash return. Like donations, bargain sales can reduce estate taxes and provide other tax benefits. Restrictions written in the transaction, however, can limit the extent of the tax benefits.

### Zoning

Zoning is a method of controlling the use and development of land so as to yield the greatest benefits to the people in a community. Its aim is to protect the community from haphazard and careless development that may destroy land values. A variety of zoning techniques include traditional zoning, subdivision ordinances, trailer park zoning districts, cluster zoning, performance standards, special natural area districts, and scenic view districts.



Types - Trailer park regulations dealing with design criteria/ minimum and maximum density requirements and encouraging innovative site layouts could encourage development that would be beneficial to property values and the general welfare.

River-edge setback requirements could be useful for reducing damage from flooding and storm water runoff, as well as for providing a buffer zone from development along the river's edge. These setbacks would also ensure a certain amount of open space.

Cluster zoning is a variation of traditional zoning regulations that assigns a fixed number of dwelling units per acre in a particular land use classification. Through clustering, the same number of units is maintained, but the standard lot and yard size are reduced and sometimes eliminated; this leads to placement of dwelling units in a way that will maximize open space. The resulting open space is generally owned and shared by the homeowners. One type of clustering is the farm colony concept, intended to keep land in farming while using some for residential purposes.

Performance standards are another way to guide land use activity in environmentally sensitive areas along the river's edge and throughout a jurisdiction or watershed. They permit existing land use activities to continue up to the point at which they interfere with or begin to inhibit the functions of natural processes. Development of performance standards requires selection of natural resource areas and a description of their key functions related to public health, safety, and welfare. This approach offers flexibility to the landowner or developer.

Special natural area districts can be delineated in conjunction with established zoning to protect and conserve high-value natural lands such as wetlands, woodlands, floodplains, and old fields along the river edge. These districts could focus on a specific natural resource such as wetlands in a wetland conservancy district. The use of these areas can be regulated through ordinance, in addition to existing zoning, and would focus on the unique qualities and functions of that resource. Uses compatible with the functions of the special area could be permitted, and density transfers (see next section) would allow landowners to shift their development rights from the special resource area to a less environmentally sensitive part of their land.

Factors to be Considered - Zoning regulations are locally decided and administered, can be designed to meet local needs, and are widely known and used. However, they require consensus in development and establishment, can sometimes be rigid and

inflexible, and can be used to promote undesired development if not properly administered. Zoning and subdivision regulations can be very useful in managing land along a river and provide a good basis for more complicated land management techniques.

#### Transfer of Development Rights

Transfer of development rights is based on the same idea as easements -- that landownership is a bundle of separable rights. Thus it is possible to separate development rights from any given parcel of land and apply them to another parcel of land. Under transfer regulations, the piece of land that has had its development rights transferred away will remain "undeveloped" while the piece receiving the development rights becomes eligible for higher density development than it would have been without those extra rights. This transfer is noted in the deeds to the respective parcels of land.

Factors to be Considered - A transfer of development rights offers the potential for preserving open space in desired areas while allowing higher density development in more suitable areas, thereby producing benefits for everyone -- the open space is protected, the landowner receives compensation for his loss of potential development, and the potential for expanded growth is allowed in another area. A transfer, however, is a rather complex concept to put into practice and requires strong public planning and zoning powers as well as a firm commitment by local officials to the objectives of the transaction. Also, a transfer may be more useful at a later stage of planning after some basic land management mechanisms are already functioning.

#### Agricultural District

An agricultural district, often a State-approved program, involves the creation of locally initiated districts designed to encourage agricultural operations and to discourage intensive nonfarm development, regulations hampering agriculture, and prohibitive taxation. It is designed to preserve and protect viable agricultural land by providing special tax relief to farmers. Agricultural districts are created in response to local initiative, whereby individual landowners who collectively own substantial acreage of agricultural land submit an application to the county legislative body for approval of the district.

Factors to be Considered - Usually, an agricultural district limits nuisance ordinances that affect the right to farm, keep property taxes low, limit special service tax assessments, and restrict public funds for nonfarm development. It must be locally initiated and supported and would require an initial enabling act by State legislature and time and effort to pursue

through necessary steps. Agricultural districts could help preserve farmland in large sections by reducing development pressures.

### Public Education and Information

Different methods such as the following, can facilitate intelligent land use and make alternative land use preservation techniques widely known to the public:

More informative signing concerning littering, trail use, and identifying private lands;

local land use workshops featuring topics that affect everyone;

technical assistance consisting of advice to landowners about the value of natural, scenic, and/or cultural resources, and sound management and construction practices;

registration program leading to formal recognition of natural or historic landmarks to encourage voluntary protection;

cooperative agreements consisting of formal or informal contracts for cooperation in management, maintenance, or operation of valuable resources.

### 2. Coordination

One of the most important functions of a river management plan would be to establish a means of coordinating planning and various regulatory activities.

The plan management authority would develop positions on such issues as bridge crossings, road access, road improvements, mineral extraction, gas exploration, timbering, and landowner rights.

Any local management authority centered in Braxton County should seek cooperation from Nicholas County to help preserve the upper four miles of the Birch qualifying segment which lies in Nicholas County. The local authority should also cooperate with the State in order to complement the existing West Virginia Scenic River designation.

Environmental impact statements or environmental assessments prepared by the plan management authority would be reviewed to be certain that the direct and indirect impacts on the river environment are addressed, and appropriate mitigative measures are included.

#### D. Consideration for the National System

Since the Birch River is already a protected stream in West Virginia Natural Streams Preservation System, the State may at some future time decide to nominate the eligible 17.5-mile segment for inclusion in the National Wild and Scenic Rivers System under Section 2(a)(ii) of Public Law 90-542. In the procedures for adding a river to the National System under State and/or local management, the following requirements should normally be met.

1. The outstandingly remarkable values which qualify the river for addition to the National System must be assured of permanent protection and management by or pursuant to State statute. As a means to this end, the State must adopt a program of action which will provide permanent protection for the natural and cultural qualities of the river and adjacent lands.
2. Protective measures for the river corridor may include, but need not be limited to, fee acquisition, scenic easements or other than fee acquisition, zoning, limitations on building permits and other regulations. The intent is to provide for regulation of the use of private lands immediately abutting or affecting the river to preclude changes in use which would substantially alter the character of the river corridor. The State must prohibit adverse impacts on the river resources by its own agencies and programs and through its permitting and licensing requirements. If local zoning will be a major tool, it must either be in place or expressions of local intent must be included in the application.

The procedures for designation are as follows:

1. The Governor of the State must make application to the Secretary of the Interior requesting that the river be added to the National System and documenting the actions taken to comply with requirements 1 and 2 above. The application shall indicate the extent of public involvement in the decision to protect the river. The application should include sufficient environmental data to permit the Secretary to assess the environmental impact of adding the river to the National System.
2. The Secretary's determination as to whether requirements 1 and 2 above have been adequately met would be based on:
  - a. An evaluation of the program of action prepared by the State and a field reconnaissance of the manner in which the State is implementing its program, or

- b. If a Federal study has been completed, the extent to which the conceptual plan, as contained in that report, is being implemented.
3. The Secretary must determine that the river possesses outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values and that it qualifies for inclusion in the National System.
4. The Secretary must submit the proposal to the Secretaries of Agriculture and Army, the Chairman of the Federal Energy Regulatory Commission and the administrators of other affected Federal agencies for review and comment as required in Section 4(c) of the Act.
5. Finally, if the State's request is approved by the Secretary, the river would be added to the National System by publishing notice in the Federal Register.



Beaver activity



Cliff area near Birch



Rock formations along the river's edge



Cave in the vicinity of the Blue Hole

## VI. LIST OF STUDY PARTICIPANTS AND CONSULTANTS

### A. Principals

David Kimball, Chief, Division of Planning, National Park Service,  
Mid-Atlantic Regional Office  
Edward Hay, National Park Service, Mid-Atlantic Regional Office  
William Bock, National Park Service, Mid-Atlantic Regional Office  
Robert Schenck, National Park Service, Mid-Atlantic Regional Office  
Frank Pelurie, WV Department of Natural Resources

### B. Contributors

#### Federal Agencies

John Haubert, National Park Service, Washington Office  
Jeff Chidlaw, National Park Service, Washington Office  
William Cochran, Bureau of Mines  
Gordon Leaf, U.S. Bureau of Mines  
Ed Pickering, U.S. Geological Survey  
Celso Puente, U.S. Geological Survey  
Richard Watkins, U.S. Geological Survey  
Chris Clower, U.S. Fish and Wildlife Service  
William Tolin, U.S. Fish and Wildlife Service  
Robert Miley, U.S. Forest Service  
John Hazel, U.S. Forest Service  
John Cox, Soil Conservation Service  
William Harris, Soil Conservation Service  
Rollin Swank, Soil Conservation Service  
Henry Brubaker, Environmental Protection Agency  
Jerry Pollis, U.S. Environmental Protection Agency  
Don Herndon, U.S. Army Corps of Engineers  
Sutton Epps, U.S. Army Corps of Engineers  
Ed Goodno, U.S. Army Corps of Engineers  
James Hebson, Federal Energy Regulatory Commission  
Peter Valeri, Federal Energy Regulatory Commission

#### State Agencies

David Callaghan, Director of Natural Resources  
Dan Ramsey, Department of Natural Resources  
Lewis Baxter, Department of Natural Resources  
Dan Cincotta, Department of Natural Resources  
Bert Pierce, Department of Natural Resources  
Fred Cutlip, Governor's Office of Economic and Community Development  
Mike Gioulis, Department of Culture and History  
Rodney Collins, Department of Culture and History  
Michael Pauley, Department of Culture and History  
Robert Erwin, Geological and Economic Survey  
John Hymes, Jr., Glenville State College

#### State Legislators

Marjorie Burke, House of Delegates  
Robert Kidd, House of Delegates

County Agency

Fred Delp, Braxton County Commissioner  
Libra Argabrite, Braxton County Commissioner  
J. R. Frame, Braxton County Commissioner  
David Jack, Braxton County Clerk  
George Welly, Braxton County Representative

Others

Skip Johnson, Resident  
Bill Johnson, Resident  
Bill Hopen, Resident  
George Hoylman, Resident  
Chelcie Westfall, Resident  
Lovie Westfall, Resident  
Karl Skidmore, Resident  
Chris Brown, American Rivers Conservation Council  
Pat Munoz, American Rivers Conservation Council  
Laura Loomis, National Parks and Conservation Association  
James Watkins, Izaak Walton League  
Paul Brant, Mountain-Dominion RC&D  
Oliver Johnson, Mountain-Dominion RC&D  
Perry Bryant, West Virginia-Citizen Action Group  
Charles Carlson, WV Highlands Conservancy  
Fred Ray, WV Hills and Streams  
Richard Cantrell, Cantrell Canoe Sales and Rental  
Douglas Cooper, WV Wildwater Association  
Jeff Wartluft, WV Wildwater Association  
Terry Iden, WV Coal Association  
Bill Raney, WV Surface Mining and Reclamation Association  
Stephen Keen, Island Creek Coal Company  
Ernest Kincaid, Sewell Coal Company  
David Morrison, Mid Allegheny Corporation  
Andrew Zettle, Mid Allegheny Corporation  
Lee Kirtley, Flynn Coal and Lumber Company  
George Curtin, Pardee and Curtin Lumber Company  
Glenn Longacre, Pardee and Curtin Lumber Company  
Kenny Funderburke, Jr., Westvaco Corporation  
Tony Mollish, Westvaco Corporation  
Bruce Schick, Westvaco Corporation  
Richard Waybright, WV Forests, Inc.

C. Principal Cartographic and Clerical Support

Janice Smith, National Park Service, Mid-Atlantic Regional Office  
Patricia Weldon, National Park Service, Mid-Atlantic Regional Office  
Deborah Trent, National Park Service, Mid-Atlantic Regional Office  
Bonnie Rogan, National Park Service, Mid-Atlantic Regional Office  
Steve Kucheruk, National Park Service, Mid-Atlantic Regional Office



D. Correspondence Received

The draft study report was available for public and agency review from March 24, 1983 to June 22, 1983. In addition to responses from the Governor of West Virginia, West Virginia Department of Natural Resources, West Virginia Geological and Economic Survey, the U.S. Department of Agriculture, Soil Conservation Service, Environmental Protection Agency, Federal Energy Regulatory Commission, and the U.S. Army Corps of Engineers, comments have been received from four Interior Department agencies, two conservation groups, and one coal interest. The comments from the Governor, State agencies, and Federal agencies are included in this report.

While most respondents provide comments on the background material of the draft report, only a few indicate either support or opposition to National designation. The State recognized that the qualifying segment already receives some degree of protection from the West Virginia Natural Streams Preservation System and is not in immediate danger of losing resource values. The State also indicated that any additional protection would best be done by State and/or local management in the National System, since the resources are chiefly of State or regional importance.

Designation is objected to by coal interests in the upper watershed. Federally management is opposed by an interest group concerned about Federal intervention.



STATE OF WEST VIRGINIA  
OFFICE OF THE GOVERNOR  
CHARLESTON 25305

May 31, 1983

JOHN D. ROCKEFELLER IV  
GOVERNOR

Dear Mr. Arnett,

The State of West Virginia has completed its review of the draft Wild and Scenic River Study reports for the Gauley, Birch and Bluestone Rivers.

In general, we concur with the findings and believe that the river segments determined eligible would benefit by having Wild and Scenic River status. All have significant scenic, recreational, geologic and fish and wildlife values. It is felt that the National Wild and Scenic River concept would certainly assist the protection and management of the subject rivers and is a goal worth considering further. Therefore, in the future, should the people of West Virginia desire to support protection of some part of the rivers found to qualify, the state will initiate the appropriate action.

I have requested that our Department of Natural Resources submit specific comments to your Mid-Atlantic Region Office relative to each of the studies and these should be forthcoming in the near future.

The opportunity to review these studies is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "John D. Rockefeller IV".

John D. Rockefeller IV

The Honorable G. Ray Arnett  
Assistant Secretary for Fish and  
Wildlife and Parks  
United States Department of the Interior  
Office of the Secretary  
Washington, D. C. 20240



STATE OF WEST VIRGINIA  
DEPARTMENT OF NATURAL RESOURCES  
CHARLESTON 25306

JOHN D. ROCKEFELLER IV  
Governor

May 26, 1983

DAVID C. CALLAGHAN  
Director  
WILLIS H. HERTIG, JR.  
Deputy Director

Mr. James W. Coleman, Jr.  
Regional Director  
National Park Service  
Mid-Atlantic Region  
143 South Third Street  
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

The West Virginia Department of Natural Resources has reviewed the draft Wild and Scenic River studies for the Birch, Gauley and Bluestone rivers. This department supports the wild and scenic river concept and, in general, concurs with the findings of these studies. The establishment of river protection as embodied in the Wild and Scenic River Act is a goal worth considering further if in the future the State so desires to support protection of some segments of rivers found to qualify.

Comments relating to each of the individual studies are as follows.

Gauley River

The designation of the Gauley River as a wild and scenic river will enhance the recreational potential of the Carnifex Ferry Battlefield State Park. Conversely, the location of the park should be considered a positive factor in the final decision for the river receiving this designation.

It is a position of this department to encourage the protection of wetlands. The designation of the Gauley River as a Wild and Scenic river should include the protection of the large wetland area on the headwaters of the Meadow River.

The following are specific comments on the content of the document.

Page 21, Par. 5, Sent. 4 -- This inaccurate sentence indicates that the Gauley and Meadow Rivers are classified as acid-degraded streams. Although these basins have been mined extensively, acid mine drainage is not a significant problem.

Mr. James W. Coleman, Jr.

Page Two

May 26, 1983

Page 27, Par. 6 -- Fresh meadows, scrub swamps, etc. are wetland habitat types, not vegetation types.

Page 27, Par. 7 -- The three plant species referenced as being considered as federally endangered plants have been deleted from the list of petitioned species and are no longer under consideration by the Office of Endangered Species.

Page 28, Par. 1 -- The citation of goldenrod is nonspecific. A more exact common name should be used. Preferably, scientific names should be used for all species.

Page 28, Par. 2, Sent. 1 -- This sentence should be altered to read: "The lower main channel Gauley River supports a warmwater fishery...." This modification is necessary as there are native brook trout streams in the upper Gauley River.

Page 28, Par. 2, Sent. 7 -- "Perch" should be deleted from sentence as this species is rarely encountered in the drainage.

Page 28, Par. 2, Sent. 8 -- The Gauley River contains approximately 50 species of fish. Due to the number of species discussed here, it appears this review is restricted to the lake and lower Gauley River. However, it is unclear in the first part of this sentence whether the "21 species" were collected from either area.

Page 28, Par. 4 -- The first sentence should be altered to read, "Cranberry River offers a popular put-and-take coldwater fishery...."

Page 28, Par. 5 -- The finescaled saddle darter is not rare in West Virginia. However, this darter is unique and of special interest to the State since it is endemic to the New River (i.e., found only in West Virginia and a small portion of Virginia).

Page 29, Par. 4 -- This discussion is somewhat misleading. The eastern cougar (mentioned in paragraph 1 of this page, but not here), bald eagle, Kirtland's warbler and the Indiana bat should be discussed collectively or in a separate paragraph as they are all listed by the U. S. Department of the Interior as federally endangered species. Furthermore, the sentence regarding the Carolina parakeet should be deleted unless other extinct or extirpated species known from this area are discussed.

#### Birch River

This department concurs with the findings of the study that the 17.8 mile segment of Birch River has significant scenic and geologic values. Also, that including it in the National River System would best be done under local or state administration since the resources are chiefly of state/region importance. Since the Birch is a protected stream in the West Virginia Stream Preservation System, it already has some degree of protection and is not in

Mr. James W. Coleman, Jr.

Page Three

May 26, 1983

immediate danger of losing resource values. It is suggested that the National Park Service and the Department of Natural Resources continue working with local interests in pursuing further protection of this river for possible inclusion in the National System.

Specific comments on the document are:

Page 17, Par. 1 -- The Birch River is not stocked with trout. Thus, the first sentence should be altered to read, "The Birch River supports a good warmwater fishery."

Page 17, Par. 6 -- This sentence should be altered to read, "Federally endangered or threatened species which may occur in the study area include the bald eagle, Kirtland's warbler and the Indiana bat." No other species discussed in this paragraph should be expected.

#### Bluestone River

The draft report is generally complete and addresses the issue of scenic river designation for the Bluestone River objectively and thoroughly for the present. However, a follow-up study should be conducted within the next five to ten years soliciting more input from the general public since the public meetings and workshops were not well attended and representative of the state citizenry. The untimeliness of the study may have had a negative impact on the public interest shown since the study was made during the time when the New River Gorge area was being studied for management purposes by the National Park Service. This management study for the New River considered acquiring large areas of property as one option. Of course, the proposed acquisition of private properties arouses the negative concern of local citizens who have voiced their objections vociferously.

With regard to the different management concepts presented in the study for the river corridor protection, this department favors management by a public agency, preferably state, since approximately one-half of the eligible segment is currently under public control by the state.

No appreciable impact is to be expected in the foreseeable future on the three state parks and one state forest within the watershed - Pipestem, Bluestone, Pinnacle Rock State Parks and Camp Creek State Forest - by the exclusion of the Bluestone River from Scenic River classification. However, inclusion of the river as a scenic river area in the National Wild and Scenic River System would most certainly enhance and complement the scenic and recreational potential of Pipestem and Bluestone State Parks.

The following are specific comments on the study.

Page 20 -- White pine is not noted as an important part of the vegetative cover in the river corridor. White Pine (*Pinus strobus*) is common in both cover types mentioned - Northern hardwood forest found at higher elevations; Central hardwood forest at lower elevations.

Mr. James W. Coleman, Jr.  
Page Four  
May 26, 1983

Page 21, Par. 3, Sent. 5 -- According to West Virginia Department of Natural Resources, pickerel and northern pike have never been taken from the Bluestone Lake or River. This sentence should be altered to read, "Carp are also present."

Page 21, Par. 5, Sent. 3 -- This sentence should be deleted, as neither fish species are presently considered rare.

Page 22 -- No mention is made of woodland song birds in the section on bird species inhabiting the area. The river corridor is good habitat for a high number of wood warblers and other song birds which are a very important part of the ecosystem in the river corridor.

The opportunity to review and comment on these studies is appreciated.

Sincerely,



David C. Callaghan  
Director

DCC/hgw/sas

cc: Division of Parks and Recreation  
Division of Water Resources  
Division of Wildlife Resources  
U. S. Fish and Wildlife Service



WEST VIRGINIA  
GEOLOGICAL AND ECONOMIC SURVEY

*[Handwritten signature]*

Robert B. Erwin, Director  
and State Geologist

P. O. Box 879  
Morgantown, WV 265070879  
304/594-2331

Offices at Mont Chateau  
Mont Chateau Road  
Exit 10 (Cheat Lake) off U.S. 48

April 27, 1983

IN REPLY REFER TO:  
00-EV/14110/8630

Mr. James W. Coleman, Jr.  
U. S. Department of the Interior  
National Park Service  
143 South Third Street  
Philadelphia, PA 19106

Dear Mr. Coleman:

Our comments on the Gauley, Bluestone, and Birch wild and scenic river studies are listed below:

**BIRCH RIVER, p. 14, 17:** The prehistoric mound(s) in question are located on Diatter Run, more than two miles upstream from its junction with Birch River. Presence of the mound(s) would tend to indicate a Woodland Period occupation (1000 B.C.-A.C. 1000) rather than an Archaic (8000-1000 B.C.).

**BLUESTONE RIVER:** In addition to those mineral resources listed, some of the shale units within the Mauch Chunk Group are potential lightweight aggregate resources.

**GAULEY RIVER:** The draft report failed to list the sandstone conglomerates as aggregate, concrete sand and mortar sand resources and the shale units that are potential resources for building brick and lightweight aggregate.

The extraction and processing of the above listed resources would require volumes of water obtainable only from the rivers themselves. Would not the declaration of the Bluestone and Gauley Rivers prohibit water withdrawal for industrial use? Should this happen, the economic growth of the State and suitable housing development would be hampered.

Sincerely yours,

*[Handwritten signature of Robert B. Erwin]*  
Robert B. Erwin

RBE:PL



DEPARTMENT OF AGRICULTURE  
OFFICE OF THE SECRETARY  
WASHINGTON, D. C. 20250

May 12 1983

Honorable G. Ray Arnett  
Assistant Secretary for Fish  
and Wildlife and Parks  
Department of the Interior  
Washington, D.C. 20240

Dear Mr. Arnett:

Thank you for the opportunity to comment on your draft wild and scenic river studies for the Bluestone and Birch Rivers in West Virginia.

Although the studies found that segments of these rivers are eligible for inclusion in the national system, we agree with the conclusion that the rivers should not be recommended for designation with Federal administration. Lacking public support for such designation, Federal management would be infeasible. As the reports suggest, it would be more appropriate to provide for protection and management of eligible segments of the rivers through local initiatives.

Sincerely,

A handwritten signature in cursive script that reads "John R. Block".

John R. Block  
Secretary





United States  
Department of  
Agriculture

Soil  
Conservation  
Service

State Office  
75 High Street, Room 301  
Morgantown, West Virginia 26505

May 13, 1983

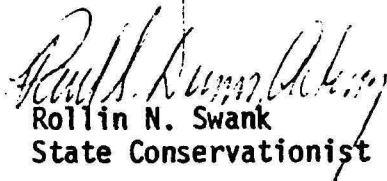
James W. Coleman, Jr.  
Regional Director  
National Park Service  
Mid-Atlantic Region  
143 South Third Street  
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

Members of our staff have reviewed the draft reports on the Gauley and Birch Wild and Scenic River Studies. Comments and suggested changes in the soils sections of both reports are attached.

We appreciated the opportunity to review the documents. If we can be of further assistance, please advise.

Sincerely,

  
Rollin N. Swank  
State Conservationist

Attachments



SUGGESTED CHANGES IN THE SOILS SECTION  
BIRCH RIVER WILD AND SCENIC RIVER STUDY

Page 16

Paragraph 2

- Line 2: 0 to 25% should be 0 to 35%
- Line 3: Should read "moderately well drained soils on lower slopes."
- Line 4: Delete "can experience severe wetness." and insert "may contain seep spots."

Paragraph 3

- Line 1: Gilipin, Lilly, and DeKalb should be Gilpin, Lily, and Dekalb.
- Line 2: Insert "or steeper" after 0 to 70%.
- Line 4: Lilly should be spelled Lily
- Line 5: Insert "or steeper" after 0 to 50%
- Line 6: DeKalb should be spelled Dekalb.



United States  
Department of  
Agriculture

Soil  
Conservation  
Service

Soil Conservation Service  
207 W. Maple Avenue  
Fayetteville, WV 25840

March 31, 1983

Subject: L7423(MAR-PC) Review and Comments

To: James W. Coleman, Jr. Regional Director  
National Park Service, Mid-Atlantic Region  
143 South Third Street  
Philadelphia, PA 19106

Thank you for the opportunity to review and comment on the draft reports of the Birch, Bluestone, and/or Gauley Wild and Scenic River Studies. These comments may also be applicable to the New River Gorge National River.

One idea that might be given some careful consideration under the "Land Use Management" program for the protection of the soil resources, water quality, and ecological value within the river corridors, is the requirement (through local ordinances and land use regulations) that all persons proposing any kind of construction activity, logging operation, etc., that may have an adverse impact on the above, prepare and submit a sediment and erosion control plan (subject to the review and approval by qualified local Soil Conservation District officials), that would make provisions for the installation of Best Management Practices (BMP's) needed to adequately protect these resources.

Sincerely,

*William Harris*

William Harris  
District Conservationist  
Fayetteville Field Office

cc:

Southern Soil Conservation District, Beckley, WV





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

6TH AND WALNUT STREETS  
PHILADELPHIA, PENNSYLVANIA 19106

APR 26 1983

Mr. James W. Coleman  
Director  
Mid-Atlantic Regional Office  
National Park Service  
US Department of Interior  
Greene Building  
6th and Arch Streets  
Philadelphia, Pennsylvania 19106

Dear Mr. Coleman:

The staff of Region III, EPA has reviewed the Draft Wild and Scenic River Studies for the Gauley, Bluestone, and Birch Rivers in West Virginia. The comments appear below and we appreciate the opportunity to present them to you for your use in the decisions regarding the delegations.

All the studies mention mine drainage as a water quality problem with some areas more significant than others in terms of the water quality impacts. In areas where mining is currently going on, acid mine drainage should be under control and in compliance with the regulations covered by the NPDES permit in effect. Since the West Virginia Department of Natural Resources now administers the NPDES program, they should be contacted to assure that all active mines are in compliance.

However, the acid mine drainage problems often worsen after mining is completed and the mine is closed. The current state-of-the-art in reclamation leaves something to be desired in this regard and results are inconsistent in attempts to control the chemical reactions involved. The possibility exists that mine drainage will be a problem worthy of consideration into the future and this should be included in your deliberations.

Thank you for the opportunity to participate and review the studies. We have rated these documents LO-2 in EPA's Reference Category, which is attached for your information. If we can be of any further assistance, please contact Mr. Robert Davis of my staff at 215-597-4388.

Sincerely,

A handwritten signature in cursive script that reads "Henry P. Brubaker".

Henry P. Brubaker  
Chief  
Planning & Analysis Section

Enclosure

## Definition of Codes for the General Nature of EPA Comments

### Environmental Impact of the Action

#### LO--Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement or suggests only minor changes in the proposed action.

#### ER--Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

#### EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all)

### Adequacy of the Impact Statement

#### Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

#### Category 2--Insufficient information

EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

#### Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the draft statement.

If a draft impact statement is assigned a Category 3, ordinarily no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

FEDERAL ENERGY REGULATORY COMMISSION  
NEW YORK REGIONAL OFFICE  
26 FEDERAL PLAZA, ROOM 2207  
NEW YORK, NEW YORK 10278

April 4, 1983

Mr. James W. Coleman, Jr.  
United States Department of the Interior  
National Park Service  
Mid-Atlantic Region  
143 South Third Street  
Philadelphia, Pennsylvania 19106

Re: Draft Wild and Scenic River Study Reports  
Bluestone, Gauley, and Birch Rivers - West Virginia


Dear Mr. Coleman:

This is in reply to your memorandum dated March 24, 1983 requesting our review of the draft reports for the referenced studies.

At the present time, the Commission has only one jurisdictional project near the proposed study areas. The City of Summersville, WV has filed a major license application for construction of a hydropower plant at the existing Corps of Engineers' Summersville Dam on the Gauley River. It is noted that Summersville Dam forms the upper boundary for the Lower Gauley River segment which your draft study proposes to classify as a wild river.

If you have any further questions or require additional information, please contact Mr. Anton Sidoti, Chief - West Branch at telephone number (212) 264-1161.

Sincerely,

  
James D. Hepson  
Acting Regional Engineer



DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
WASHINGTON, DC 20310

9 MAY 1983

Honorable G. Ray Arnett  
Assistant Secretary for Fish  
and Wildlife and Parks  
US Department of the Interior  
Washington, D.C. 20240

Dear Mr. Arnett:

This is in further response to your letters of March 22, 1983, which transmitted for Department of the Army review and comment your proposed reports on wild and scenic river studies of the Birch, Eluostone and Gauley Rivers in West Virginia.

While your proposed reports conclude that portions of all three of these rivers and several of their tributaries meet the criteria for inclusion in the National Wild and Scenic Rivers System, public interest and support are not sufficient to consider them suitable for inclusion in the system at this time.

In view of the above, the Department of the Army interposes no objection to submission of these reports.

The opportunity to review these proposed reports is appreciated.

Sincerely,

*William R. Gianelli*

William R. Gianelli  
Assistant Secretary of the Army  
(Civil Works)

Photo Credits:

West Virginia Department of Natural Resources, pages ii, 10, and 26  
National Park Service, pages 10, 21, 22, and 40