

Little Muskingum, Ohio

1. Region surrounding the river

a. The Little Muskingum drains portions of Monroe and Washington Counties and flows into the Ohio River southeast of Marietta. The river region is characterized by rugged topography and numerous rocky hills with well over half of the area being forested.

The vegetative cover in the Little Muskingum Valley consists primarily of three forest types: oak-hickory, maple-beech-birch, and elm-ash-cottonwood with the oak-hickory predominating. In addition to these common forest types, one can find Virginia pine, shortleaf pine, gum, red cedar, and aspen growing in abundance in scattered locations throughout Washington and Monroe Counties. Commercial forest land in these two counties consists of nearly 435,000 acres.

The Little Muskingum River flows through as "wild" an area as might be found in Ohio. This area is relatively untouched as far as natural and scenic beauty is concerned. Presently about 90 percent of the entire river basin lies within the proclamation boundary of Wayne National Forest. Major land uses are devoted primarily to agriculture, timber production, mining, and recreation.

The Little Muskingum does not contribute significantly to domestic, industrial, or agricultural water supplies due to the lack of substantial urban and industrial development within its basin. At the present, there appears to be no immediate or foreseeable danger of a water shortage in the watershed.

Low population densities and rugged topography have limited the development of an extensive highway system in these counties. The main arteries which traverse these counties are Interstate 77, U. S. Route 50, and State Route 7. Other highways connect the small rural settlements throughout both Washington and Monroe Counties, but do not create a continuous overall county system. The absence of a dominant and continuous transportation network in this area has had an impact on the economic growth of the area; the proposed Appalachian Highway which will pass to the north of the river basin should provide better access from major urban areas and improve access within and to the region. The river can be reached from such major urban centers as Columbus, Cincinnati, Cleveland, and Pittsburgh within two to four hours.

b. The Little Muskingum River is within 60 miles of 13 Ohio counties and 17 counties in West Virginia, most of which are sparsely populated. These 30 counties have a combined population in excess of 900,000 according to 1970 statistics. Major population centers within

an hours drive of the river include Marietta, Athens, Zanesville, and Cambridge in Ohio; and Wheeling, Clarksburg, and Parkersburg in West Virginia. The largest city nearest to the Little Muskingum River is Marietta, with 18,000 people. It lies to the southwest of the river basin and is about two miles downstream on the Ohio River from their confluence. Belpre, the other large community in this area also occurs in Washington County, with an estimated population of 8,000 people. Monroe County is relatively underdeveloped with an estimated county population of approximately 15,500 people.

c. At the present, recreational opportunity in the two counties is somewhat restricted. Some 10,026 acres of recreation space, constituting three percent of the total county area, is available in Monroe County and 19,650 acres or five percent in Washington County. Much of this recreation space available consists of Wayne National Forest with 21,664 acres in the two counties. Privately owned recreation areas account for 3,913 acres of the total supply. Commercial recreation sites with facilities for camping, picnicking, fishing, and boating comprise a little more than 712 acres. The following data table summarizes the availability of outdoor recreation space along the river in both Monroe and Washington Counties (Clarksburg topographic map for locations):

Monroe County

	<u>Area</u>	<u>Ownership</u>	<u>Administering Agency</u>	<u>Acres</u>
1.	Cranenest Fork	Private	*DNR Div. of Wildlife	12
2.	Covered Bridge	County	County	1
3.	Grange Community Park	Private	Members Only	2
4.	Knowlton Covered Bridge Pk.	Private	Open to Public	6
5.	Covered Bridge	County	County	1
6.	Camp Jackson	Private	Members Only	75

Washington County

7.	Covered Bridge	County	County	1
8.	Covered Bridge	County	County	1
9.	Chapel Hill	Private	Members Only	5
10.	Covered Bridge	County	County	1
11.	Little Muskingum River	Private	*DNR Div of Wildlife *Fishing Easement Lands	2

2. River

a. The length of the Little Muskingum River to be considered for inclusion into the state scenic river system flows some 69 miles from the junction of Twp. Road 358 and Twp. Road 351 to its mouth on the Ohio River southeast of Marietta. The average width varies in this stretch

from about 25 feet in the upper portions to approximately 65 feet in the lower sections near the Ohio River. The river has an 8.8 foot per mile rate of fall, which is a rather gentle slope somewhat atypical of other streams in this region which fall precipitously from the Muskingum River divide at slopes greater than 15 feet per mile. Depths have been recorded from a shallow three inches to 24 inches and deeper where the river pools. The average width low flow tabulation is 11.2 million gallons per day.

b. The Little Muskingum River is one of the three major water-courses, other than the Ohio River, which flows through this rugged, hilly section of southeastern Ohio and it is unquestionably the most outstanding of the three. The Little Muskingum River is a free-flowing stream of unique quality and is an important recreational feature of both Monroe and Washington Counties as well as being significant regionally. Its outstanding natural features and good water quality offer excellent opportunities for hunting, fishing, canoeing, and picnicking.

Two unique natural areas have been identified and listed by the Ohio Biological Survey as being worthy of preservation along the river. These white pine areas are of significance because of their latitude and should be considered for inclusion into a scenic rivers program to ensure their preservation.

The wildlife resources of the river basin are considered to be good to excellent with fishing, deer hunting, and trapping being the prime wildlife recreation pursuits. The Little Muskingum Basin encompasses an important area of the remaining forest game range in the extreme southeast Ohio.

Good populations of bass, bluegill, crappie, bullhead, channel catfish, carp, and suckers can be found in the major portions of the stream system. Of particular interest is the outstanding smallmouth bass fishing in the upper and middle reaches of the river.

There are no archeological sites of any importance in the area and, except for covered bridges, there are no historical resources of much more than local significance except in the City of Marietta which has attractions of both archeological and historical significance.

Although much of the land along the river is in private ownership, the area has great potential as a recreation area. The U. S. Forest Service has studied the potential of this river system, and has developed long-range plans for its utilization. The potential of this system lies in the creation of a scenic or recreational river system. Development would be limited to a few small boat or canoe access points, combined with extensive development of picnicking and camping facilities. Opportunities for hiking and riding trails, both paralleling the river and on ridge tops, would be an important part of the overall system proposal.

c. Data on oxygen demanding substances is of primary concern in relating observed or projected dissolved oxygen levels with existing or proposed treatment or control measures.

The following is an analysis of samples collected at the water quality partial record station at Bloomfield in 1969:

Bicarbonate (HCO_3) = 128 Mg/L; this can be interpreted as having average productivity. In United States waters that support good fish fauna, 95 percent of such waters have less than 180 Mg/L content.

Carbonate (CO_3) = 0 Mg/L; in general it may be expected that carbonates, in themselves, are not detrimental to fish life but their buffering actions and effect upon pH may contribute to the toxicity of high pH values.

Sulfate (SO_4) = 24 Mg/L; sulfates occur naturally in waters as the result of leaching. The following concentrations will not be detrimental to their specific uses:

Domestic Water Supply = 500 Mg/L
Irrigation = 200 Mg/L
Livestock = 500 Mg/L

Chloride (CL) = 54 Mg/L; ". . . it appears that the following concentrations of chloride will not be normally deleterious to the specified beneficial use:

Domestic Water Supply = 250 Mg/L
Industrial Water Supply = 50 Mg/L
Irrigation = 100 Mg/L
Livestock and Wildlife = 500 Mg/L

Hardness (CA, MG) = 148 Mg/L; this is the soap neutralizing power of water.

Specific Conductance (Micro MHOS) = 423; the determination of conductivity is a quick method of measuring the iron concentration of water.

pH (units) = 7.4; slight alkalinity.

As indicated by the preceding analysis, the water quality of the Little Muskingum is well suited for such water based recreation as fishing, canoeing, and other such activities.

d. As was pointed out in the foregoing paragraphs, land and water uses adjacent or in the area of the Little Muskingum River include municipal, agricultural, timber production, mining, and recreation. Present or future specific data as to consumptive and other water uses

along the river are not currently available. No present or future water resources developments exist or are planned for the Little Muskingum or its tributaries.

e. Specific land use data along the river is not available.

f. Specific land ownership data along the Little Muskingum is not currently available; however, the majority of river bank lands are currently in private ownership. (Refer to attached map of Wayne National Forest, Marietta area.)

g. Specific data not available.

h. Access to the river is not highly developed, although several state highways cross the river. Other access is limited to local and county roads of low quality. (Refer to 1:250,000 Clarksburg quadrangle.)

3. The water quality of the Little Muskingum is of a sufficiently high level to support a wide variety of water-based recreation. Its continued high quality, however, must be ensured by an actual program of preservation.

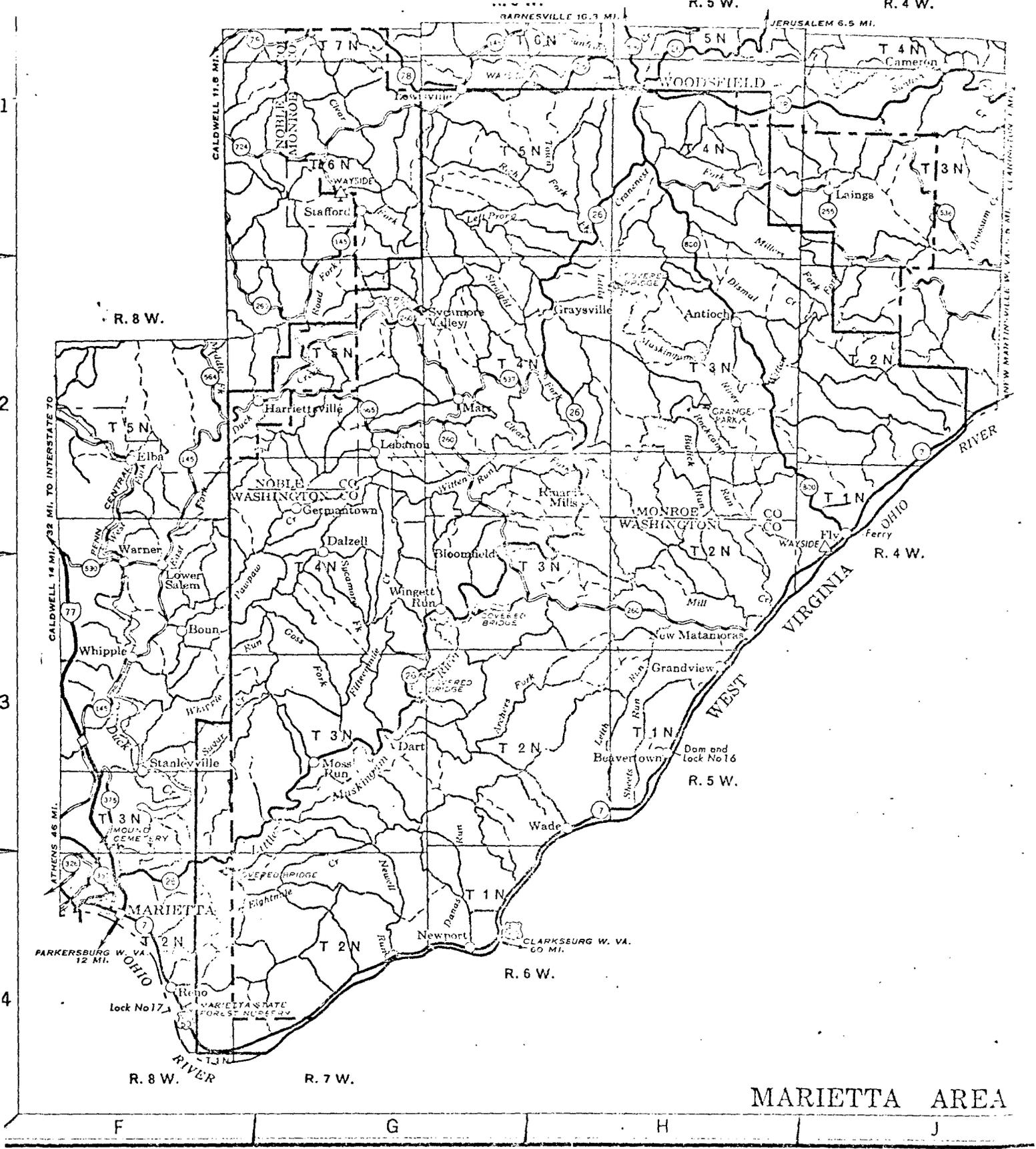
The climate of the area including the Little Muskingum can be described as moist-temperate with a mean annual precipitation of 39 inches. This rainfall creates an adequate flow which makes the river available for canoeing during the spring, but the flow decreases significantly during the later summer months.

The U. S. Forest Service Five Year Acquisition Plan for the Wayne National Forest (FY 1970 - FY 1974) comprises the major known acquisition and development program which will affect the Little Muskingum. This plan proposes land acquisition along the entire length of the river. In addition, acquisition has been proposed for a 1,710-acre Witten Fork Reservoir, the 148-acre Rock Camp Reservoir, the Clear Fork Reservoir, and the Baker Run Reservoir. These would all involve recreational developments/opportunities closely affecting the Little Muskingum such as impoundment areas (no impoundments are planned on the river itself), boat ramps, camping units, picnic units, and beach areas.

More than half of the total acreage in both Monroe and Washington Counties is in commercial forestlands, thus timber harvest, especially hardwoods, will continue to dominate the area land use. Marginal farming is likely to continue and extensive production of oil and natural gas will also be a continuing land use. Urban development and encroachment has not been a significant factor affecting the recreational potential of the Little Muskingum and it is not a serious threat in the immediate future.

4. U. S. Department of the Interior, Bureau of Outdoor Recreation, Ohio National Recreation Area Feasibility Study, Lake Central Region, Ann Arbor, Michigan 1969.

U. S. Department of Agriculture, Forest Service, Five Year Land Acquisition Plan, (FY 1970 - FY 1974) For Land and Water Conservation Act Fund - Wayne National Forest, Bedford, Indiana 1968.



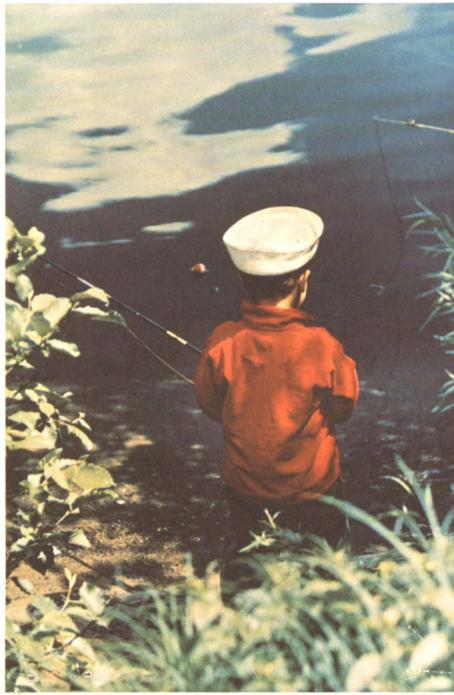
U.S. DEPARTMENT OF AGRICULTURE
 FOREST SERVICE
 Edward P. Cull, Chief

WAYNE NATIONAL FOREST

OHIO

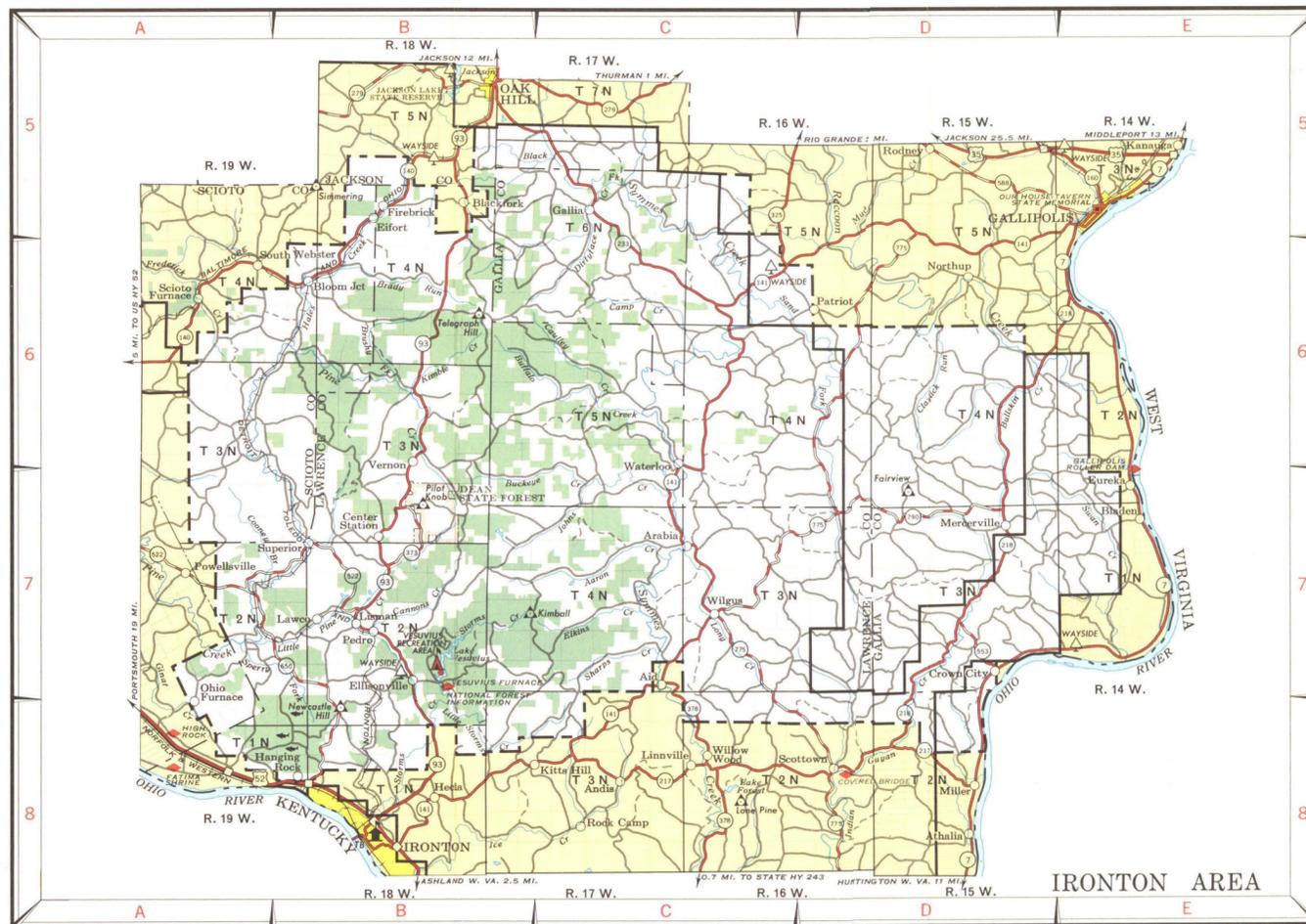
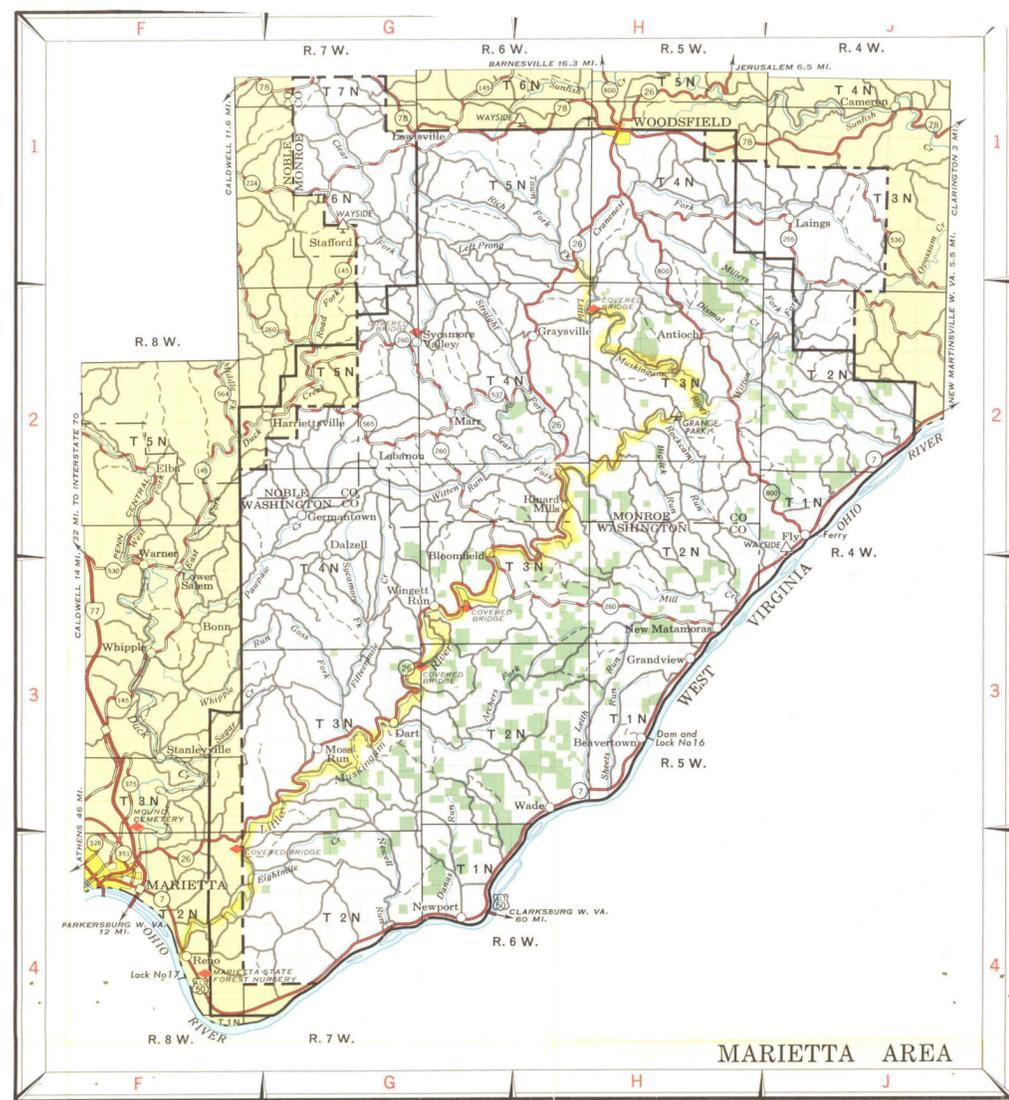
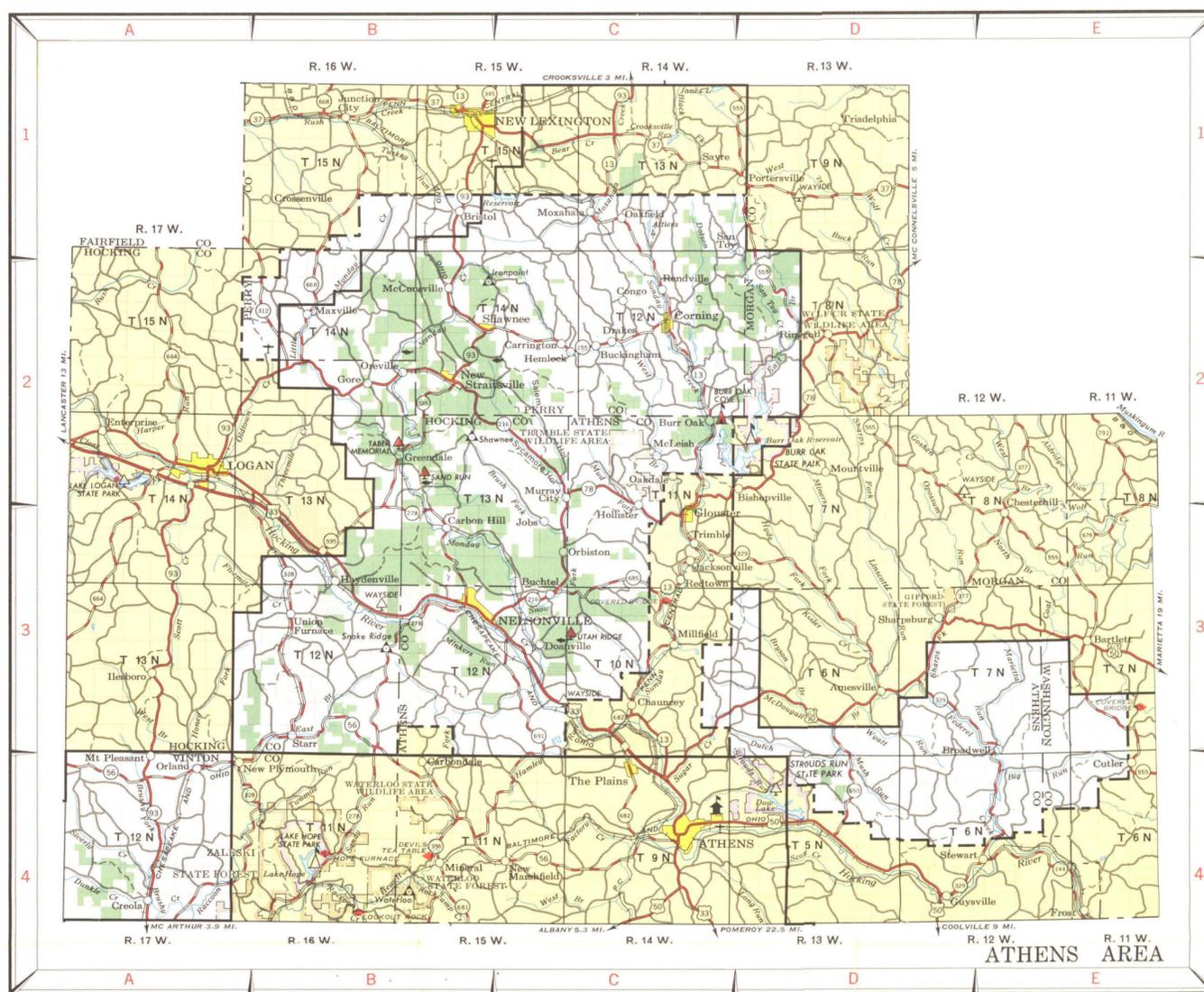


National Forest management of natural resources provides sport for all ages.



WAYNE

National Forest



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
Edward P. Cliff, Chief

WAYNE NATIONAL FOREST

OHIO

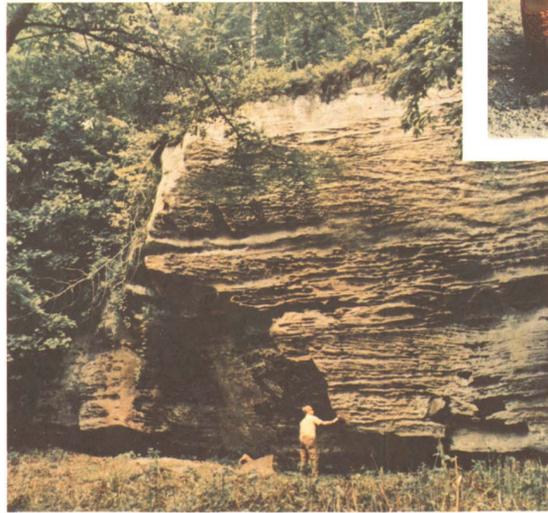
1970

Scale 1/4" = 1 mile
0 1 2 3 4 5 6 Miles

- LEGEND**
- National Forest Boundary
 - - - Purchase Unit Boundary
 - State Forest and Wildlife Areas
 - State Park
 - Main Highway
 - Secondary Highway
 - Good Road
 - - - Poor Road
 - National Forest Land
 - Interchange
 - Railroad
 - (77) Interstate Route
 - (50) U. S. Route
 - (56) State Route
 - † Landing Field
 - △ Fire Lookout Tower
 - ⊙ District Ranger Station
 - ▲ Recreation Site, Forest Service With camping facilities
 - ▲ Recreation Site, Forest Service Without camping facilities
 - △ Recreation Site, Other With camping facilities
 - △ Recreation Site, Other Without camping facilities
 - Historical Site
 - ◆ Point of Interest
 - Boat Launching Site
 - ⊙ Fishing Pond
- Forest Supervisor's Headquarters, Bedford, Indiana
- Population of Cities and Towns
○ 0-999 ● 1000 and over



Compiled at the Regional Office, Milwaukee, Wisconsin, 1970
From U.S. Forest Service maps, Forest Service Map Class A



Huge outcroppings of sandstone and shale afford variety for the eye and refuge for the imagination.

A THING OF BEAUTY

Amidst rolling, timbered hills, striking rock outcroppings and a network of streams and man-made lakes, the Wayne National Forest meanders gently across the southeastern corner of Ohio. This is a small Forest. Its two Ranger Districts recline against the Ohio River; but it is a growing forest, and its management is rigorously directed toward reconciling the march of civilization through the natural environment to a gentler cadence than many of these lands have known in the past. This is a vital concern, for the Wayne is located in the heart of the Mid-Atlantic population belt no more than a day's drive from such metropolitan areas as Columbus, Cincinnati, Louisville and Pittsburgh.

Major highways providing access to this Forest include Interstate 77 and U. S. Routes 21 and 23 (north-south), and U. S. Route 50 and Interstate 70 (east-west). Sister to the Hoosier National Forest in Indiana, Wayne National Forest headquarters are:

Forest Supervisor
Wayne-Hoosier National Forests
1615 J Street
Bedford, Indiana 47421

EXPERIENCING THE GREAT OUTDOORS

Recreation is one of the important highlights of the Wayne National Forest. Scenic picnic and campgrounds have been developed at Burr Oak-Cove (C-2 on map), Taber Memorial Picnic Ground (B-2 on map), Sand Run Pond (B-2 on map), Utah Ridge Pond (C-3 on map) and Lake Vesuvius Recreation Area (B-7 on map).

Camping units are generously spaced and a maximum of natural cover is maintained between them. For added enjoyment, hiking trails and swimming and boating facilities have been incorporated at some of the sites.

Fishing, especially for bass, is generally good throughout the Forest and an abundant variety of wildlife offers rewarding opportunities for hunting or just plain enjoyment. Many people find a camera as exciting as a gun when hiking the Forest trails.

Southeastern Ohio is rich in historical and legendary lore and scenic features; the legend of the map will assist you in finding these. One historic landmark of particular interest is the Vesuvius Furnace (B-7 on the map), restored by Corpsmen from the former Vesuvius Civilian Conservation Center. This furnace, used in the early smelting of iron ore, was built in 1833 and operated continuously until 1906, when its fires were banked for the last time.

Another area of interest on the Forest is the Hanging Rock Region (A-8 on the map). During the chaotic period of the Civil War, this was one of only three places in the world capable of producing the high-quality iron needed for heavy cannon. The hulls of both the Monitor and Merrimac, as well as the big guns at Harper's Ferry, began as glowing metal in Jefferson's Furnace, which was located in this region.



The Vesuvius Furnace, an important facet of early Ohio history, is a landmark of America's Industrial Revolution.

Welcome to Your

WAYNE

National Forest

YOU'LL WANT TO...

- Enjoy a pleasant recreational visit and leave a good impression...by:
- Being considerate of other visitors, including those who'll follow;
- Leaving trees, shrubbery, flowers growing in their naturally beautiful state;
- Using the garbage cans;
- Letting others rest between 10 p.m. and 7 a.m.;
- Checking the rules posted at each recreation area.



YOU'LL WANT TO KNOW...

Campground visits are limited to 14 consecutive days, and you cannot reserve a campsite. A first-come first-served policy operates on all National Forests. Plan on arriving as early as possible; on the weekends camp and picnic grounds are heavily used.

A campfire permit isn't needed at developed recreational areas. Firewood is provided—pack a small buck saw to cut it.

On this National Forest the camping and picnicking season extends from May through September. Warm spring days and cool nights are typical in May and June. Swimming is best in the summer months of July and August; September varies with warm and hot days and refreshingly cool nights. The average annual rainfall on the Forest is 43 inches; 23 inches fall in spring and summer.

You can stock up with supplies at nearby towns: milk, ice, fresh provisions.

You can bring a camping trailer here but water and sanitary facilities provided at the campground must be used. There are no utility hook-ups.

You can bring your pet, but please keep it leashed in consideration of fellow campers.

Cabins, summer homes, and sites are not available on Wayne National Forest lands.

You'll need Ohio hunting and fishing licenses if you're a sportsman. Firearms must not be used within any developed recreation area.

THE TOTAL MAN...THE TOTAL FOREST

Multiple use is not only an old concept in the Forest Service, it is one of its founding principles. There are probably many ways to express this idea but, very simply, it is the recognition that we are all a part of the natural environment—regardless of how high we build our cities or how desperate those environments may become—and we are all dependent upon the natural environment for our lives, our livelihoods and the spiritual renewal which is an inherent part of the outdoors.

The Wayne National Forest was born out of this principle in 1934, when the Ohio State Legislature passed enabling legislation, allowing the Federal government to establish purchase units for National Forest purposes. And it was none too soon. For the demands for increased industrial production which accompanied World War II laid coal-rich southeastern Ohio open to intense mining by a new and devastating technology; and today virtually one-quarter of a million acres around the Wayne National Forest are scarred by the spoil banks of abandoned strip mines.

The Wayne—which was not actually proclaimed a National Forest until 1951—did not escape entirely unscathed. But multiple use management which requires consideration of future and often changing, as well as present, land uses has played a vital role on the Wayne.

One example of this sort of concern is the Hanging Rock Strip Mine Area from which 4,500,000 tons of coal were extracted between 1954 and 1966. Imposing strict regulation on operators, what might have been left as spoil bank was instead converted to sparkling ponds stocked with game fish, new forests growing up to replace the old and appealing habitat for numerous species of wildlife.

Since its inception, the Wayne National Forest has been managed not only to insure sound mining practices on its own holdings but to acquire and reclaim other lands that had been operated without the benefit of long term management. Mining, however, is only one part of the management picture on this Forest.

Timber harvesting, one of the parts of multiple use management, has far reaching effects throughout the Forest and our society at large. This part of the country was once one of the leading hardwood-producing areas of the world; but that time passed as lands were overcut, turned to agriculture or abandoned.

Through intense management—which means programmed reforestation and harvesting—the forest is growing up again, and all the benefits which accrue from a healthy forest are growing along with it. For the immediate needs of society there are products and employment; beyond that, the natural environment is maintained in a vigorous, life encouraging state. Openings created in the forest by timber harvesting promote the growth of food for wildlife—particularly white-tailed deer.

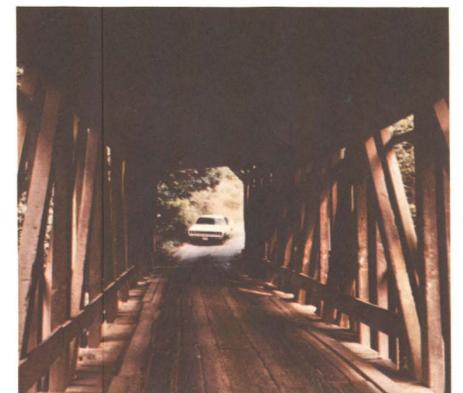
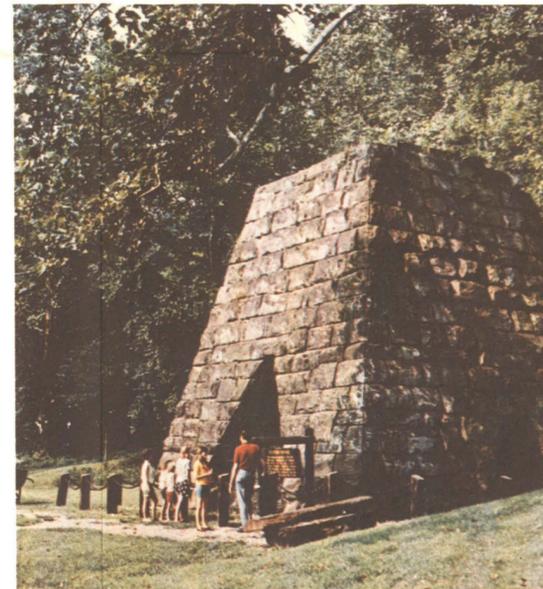
Trees which are left to mature provide needed shelter, and in the case of some species, food as well as shelter. The wild turkey is an excellent example of this latter sort. Because of the manner in which this forest has been managed, reintroduction of this wily game bird has been successful enough to permit an open hunting season.

Healthy forests also serve to bind the soil and prevent erosion which, in turn, prevents sediment from reaching and polluting lakes and waterways. And pure water means good fishing and good recreation.

So, when you visit the Wayne National Forest, set some time aside to get off the beaten path. Explore the quiet places in the Forest where the natural setting erupts in spontaneity—and remember, this is no accident. Your National Forest will endure today and for generations into the future.



Only you can prevent forest fires.



Covered bridges, like this relic on the Wayne, are a fast disappearing part of the American past.

