

PIGEON RIVER NATURAL RIVER PLAN

OTSEGO AND CHEBOYGAN COUNTIES

JUNE 1982



FISHERIES DIVISION

MICHIGAN DEPARTMENT OF
NATURAL RESOURCES
Revised March 12, 2002

PIGEON RIVER

(Otsego and Cheboygan Counties)

Plan adopted and river designated
As a WILD-SCENIC river by the
Natural Resources Commission
June 10, 1982

MICHIGAN NATURAL RESOURCES COMMISSION

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THE WATERSHED AND STUDY AREA

A. General Characteristics

The Pigeon River is located in the north-central part of the southern peninsula of Michigan. Its headwaters are located a few miles northeast of Gaylord. The river then flows in a northerly direction to its mouth at Mullet Lake, a distance of 42 miles. The Pigeon River system drains a surface area of approximately 88,000 acres and include 80 linear miles of stream.

The Pigeon is one of Michigan's outstanding trout streams and is the favorite of a large number of anglers who return annually. The river receives large amounts of ground water, especially in the upper reaches. This high quality water coupled with high quality trout habitat is conducive to good natural reproduction. Approximately one-third of the stream mileage in the river system flows through lands in public ownership.

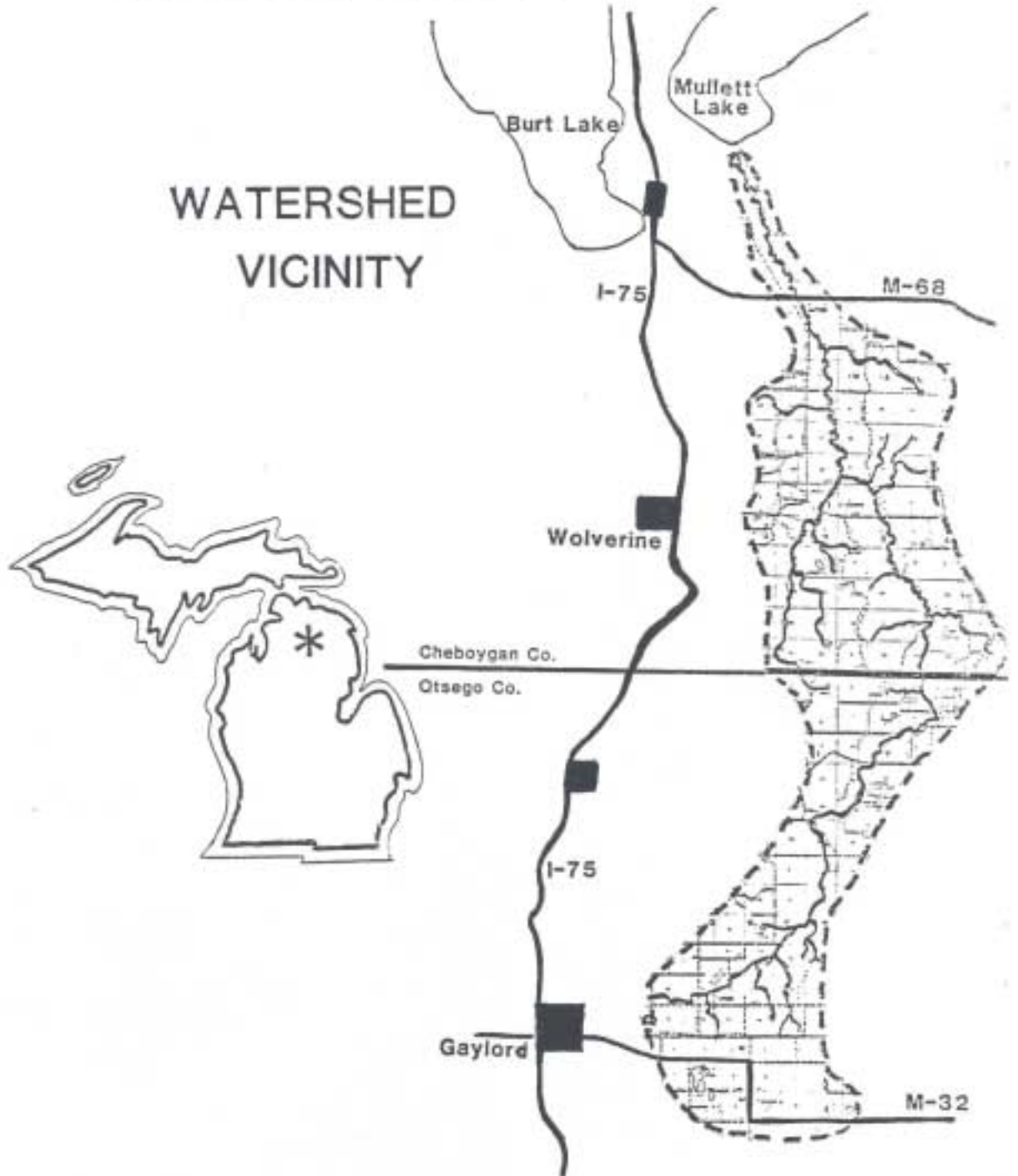


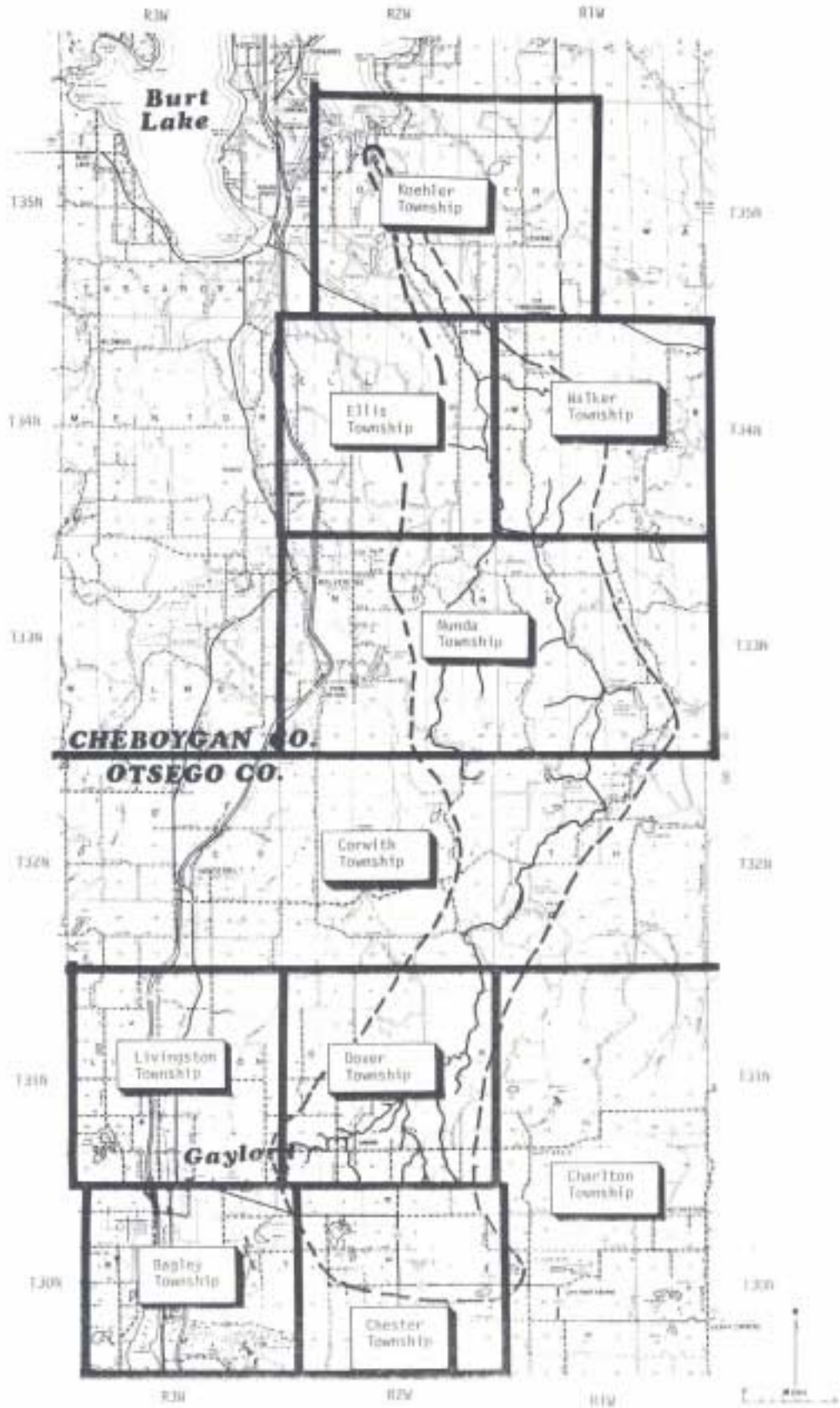
Pigeon River Mainstream
near "County Parking Lo
Otsego County

Pigeon River Mainstream
Ostrander Road ending
Cheboygan County



PIGEON RIVER





Local Governmental Units

B. Accessibility

The Pigeon River watershed is readily accessible by automobile. The west side of the watershed is bounded by I-75, on the east is M-33 and to the south is M-32. A few miles before the Pigeon River empties into Mullet Lake, M-68 crosses the mainstream.

In addition, there are many miles of county roads, forest trails and fire lanes in the watershed.

There are 15 road bridges crossing the Pigeon mainstream, averaging roughly one every three miles of river.

C. Area Government

The Pigeon River watershed is located entirely in Cheboygan and Otsego counties. In Otsego County, the townships of Chester, Dover and Corwith have portions of the Pigeon River in their boundaries. In Cheboygan County, Nunda, Ellis, Walerk and Koehler townships all have portions of the Pigeon River located in them. All of these townships are affected by countywide zoning. There are no cities or villages located in the watershed.

D. Physiography and Soils

Soils can be grouped into associations based on texture and drainage characteristics. The soil associations throughout the Pigeon River watershed along with their various characteristics can be seen on the map on the following page, along with the accompanying table.

The topography of the Pigeon River is similar to most northern Michigan watersheds. At its headwaters, the elevation of the river is approximately 1,140 feet. The elevation of the Pigeon at its mouth is about 595 feet. The Pigeon River thus drops 545 feet in 42 miles, averaging 13.0 feet drop per river mile.

The headwaters of the Pigeon flow northward down the inner slope of a prominent glacial moraine that was deposited in front of the Port Huron ice sheet some 13,000 years ago. The crest of this ridge forms the drainage divide between the Pigeon on the north and the AuSable River on the south. The Pigeon continues generally northward, cutting through a series of lesser morainal ridges left by the retreating ice. Between the ridges are terraces of sand and gravel outwash deposited by meltwaters. A few miles north of the Village of Afton, the river crosses an area of sandy lakebeds that were load down by ponded meltwater south of the ice front. The mantel of glacial drift is relatively thin from McIntosh Landing to a few miles below Afton, and limestone bedrock is exposed in several places.

E. Stream Characteristics

The Pigeon River system contains approximately 80 linear miles of streams – 42 miles of mainstream and 38 miles of tributary.

Summary of Streams

	Miles
Mainstream (includes all channels)	42.0
South Branch (Duck Creek)	5.5
Little Pigeon	9.5
McIntosh Creek	1.5
Nelson Creek	2.0
Wilkes Creek	5.0
Cornwall Creek (from outfall of flooding)	0.5
Molby Creek	2.0
Unnamed tributaries	12.0



Pigeon River
near headwaters

South Branch
(Duck Creek)



The Pigeon River has a moderately fast stream gradient dropping 545 feet from its source east of Gaylord to Mullet Lake. The average drop in elevation over this 42 miles of river is approximately 13 feet per mile. One area has a greater gradient than the average. About a mile above Afton, then downstream for four to five miles, the river drops 100 feet, or roughly 22 feet per mile.

The Pigeon River system originates in central Otsego County several miles east of Gaylord. Its beginning is an area of swamps separated by high rolling hills. The river flows generally north until it empties into Mullet Lake in Cheboygan County.

From its headwaters to the Lansing Club Dam, a total of about 14 miles, the river flows through mostly private lands. The river's headwaters in the vicinity of the Village of Sparr is composed of small feeder streams about 3-4 feet wide and less than three feet deep. The streambed is predominately sand although some gravel is found.

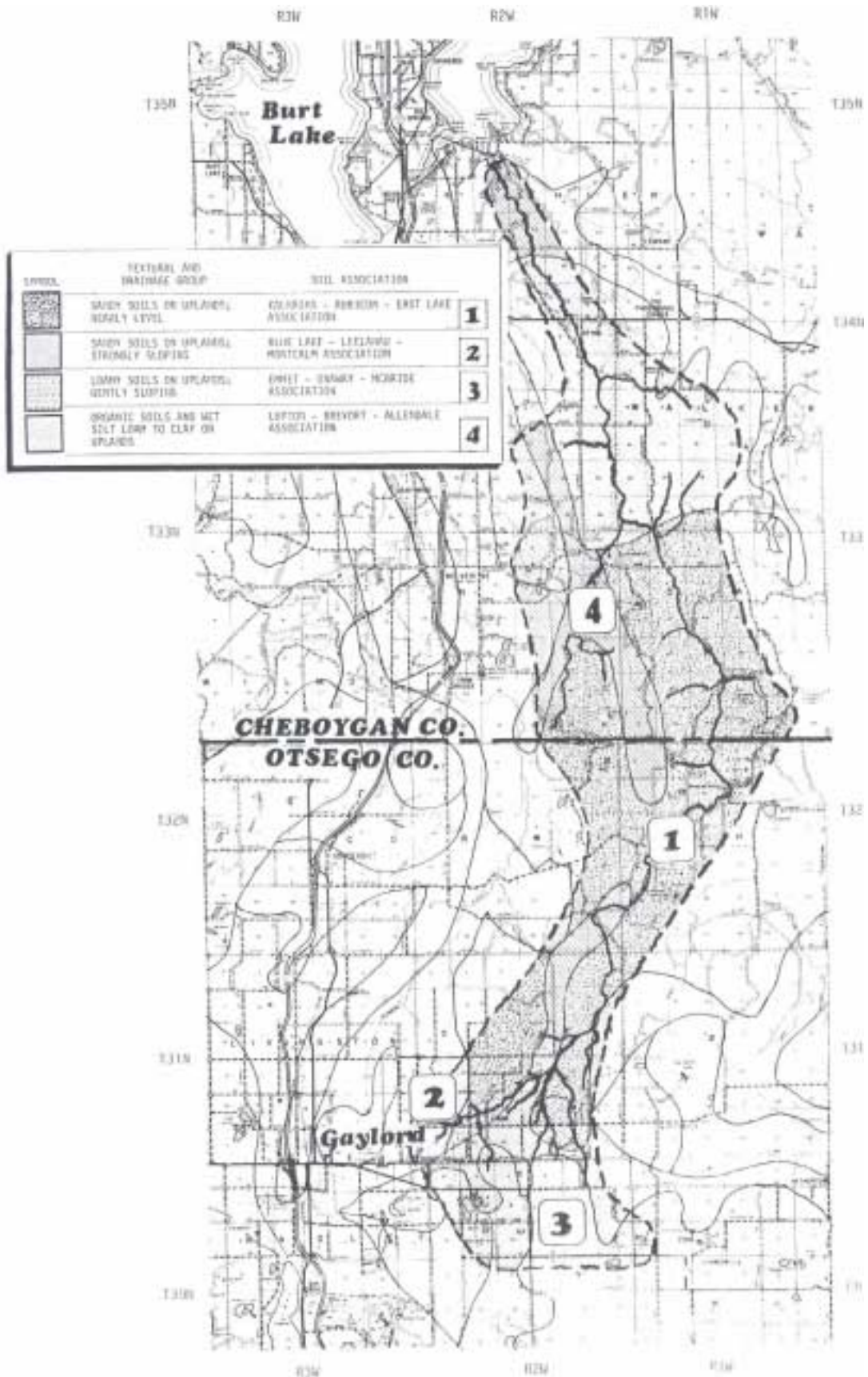
Below the Marquardt Road Bridge north of Sparr, the streambed is predominately gravel all of the way to the Lansing Club Dam Pond. Here the river is usually 25 to 35 feet wide. The predominant stream bank vegetation in this area is coniferous swamp and this stretch of stream is usually less than three feet deep with numerous windfallen trees and logjams.

A few miles above the Lansing Club Dam, the river enters the 83,000 acre Pigeon River Country State Forest Area. In this 145 square mile tract of land, there are very few private holdings; thus the forest provides a uniquely large contiguous area for many recreational pursuits.

From the Sturgeon Valley Road Bridge below the Lansing Club Dam to Tin Bridge is a little more than eight river miles. Here the river flows out of Otsego County and into Cheboygan County. Along this stretch of river is the Pigeon Bridge Forest Campground, and the Pigeon River State Forest Campground. These two campgrounds have ten and 19 campsites respectively. Also located along this stretch of river is the Pigeon River Country State Forest Area headquarters, and the Elk Hill Trail Camp for horseback riders.

The streambed from the Sturgeon Valley Road Bridge to Tin Bridge is almost entirely gravel. Boulders are found throughout this stretch of river, particularly about one mile below the Pigeon River State Forest Campground and for about a mile above Tin Bridge.

From Tin Bridge to Red Bridge is about four miles. Located midway between the two bridges is Pine Grove Campground which offers eight campsites. The streambed is predominantly gravel for the first one-half miles below Tin Bridge. For the next two miles, the streambed is mostly sand and then gravel and boulders for the last mile and one-half to Red Bridge. This area of the mainstream also has several very steep banks as well as an extensive area of clay banks near the campground.



Soil Associations

The next bridge after Red Bridge is the Pigeon River Road Bridge. It is located approximately five and one-half miles downstream. Located in this stretch of river is McIntosh Landing about one mile from Red Bridge in Pigeon River Country State Forest. McIntosh Landing is often used as an undeveloped campground and canoe launch. This stretch of river, down to M-68 near Afton, is probably the most popular with canoeists. Most of the windfalls have been cleared from this portion of the stream. Low water, which occurs frequently during the summer months, may cause some scraping of the bottom of the canoe and often offers a challenge in picking the best channel.

The streambed from Red Bridge to McIntosh Landing is generally boulders and sand and gravel mix. Below McIntosh Landing for about one mile is an area of mostly sand. About one mile above Pigeon River Road Bridge is an area where the stream bottom is predominantly rock. In the vicinity of Pigeon River Road to Munger Road Bridge, again there is a portion of the stream where the bottom is predominantly rock. The bottom downstream is again gravel.

Below M-68 for approximately four miles the streambed is mostly gravel. It is here where most of the Pigeon's higher banks are located.

About four miles from where the river enters Mullett Lake is the "spreads" area. Here the mainstream breaks up into several channels and portages are required.

F. Water Quality

The Michigan Water Resources Commission has established by administrative rules intrastate water quality standards and use designations for the Pigeon River. It is to be protected for recreation – total body contact (i.e., swimming); intolerant fish – cold water species; industrial water supply; agricultural and commercial water supply; and other uses. Where water is to be protected for more than one use under these standards, the most restrictive individual standard of designated water use applies. Also, if existing water quality is superior to the designated use requirements, it must be maintained at that level until it has been adequately demonstrated to the Michigan Water Resources Commission that the change in quality does not or will not become injurious to the public health, safety or welfare, or become injurious to any other uses being made of such waters.

Studies conducted on the Pigeon River by the Bureau of Environmental Protection staff, Department of Environmental Quality, indicate that the quality of the waters within the Pigeon River basin meet or exceed all standards, as mentioned above, established for the river. There is no municipal or industrial waste being discharged into the Pigeon River.

Only six small lakes drain into the Pigeon River, with Lake 15 in Otsego County being the largest at 30 acres. There are also several small impoundments on streams in the system, Lansing Club Pond on the mainstream and Cornwall Fisheries Flooding on Cornwall Creek are the largest. Although the warmer waters from these lake outlets and ponds influence water temperatures for short distances downstream, the water cools sufficiently to support a variety of coldwater fish species during most of the year. During

warmer summers, the effect of the Lansing Club Pond creates marginal water temperatures for trout.

G. Vegetation

The Pigeon River and its tributaries flow through a variety of vegetative conditions. Major types found within the study area include swamp conifers (white cedar, black spruce, balsam fir and tamarack), lowland brush (tag alder), lowland hardwoods (aspen, elm, black ash and red maple), upland hardwood (aspen), pine uplands (red pine, white pine and jack pine) and grassy meadows.

Vegetative conditions in different sections of the river vary considerably. The upper portion of the river (south of Sturgeon Valley Road) has, as the primary vegetative cover, conifer swamps which are found along about 67 percent of this portion of the river. On all of this upper portion of the river, the adjoining land is poorly drained, therefore, the plant communities are those commonly found on wet sites. Lowland brush covers about 16 percent of the river's length in this stretch, grassy meadow ten percent, and lowland hardwood six percent.

The next section of the river between Sturgeon Valley Road and Pine Grove Campground is considerably different. The riverbanks are higher, resulting in noticeable vegetative changes. Upland hardwoods are found over about one-quarter of this length with upland pine on an additional eight percent. Forty percent of the length has swamp conifers with the remaining in lowland hardwoods and lowland brush.



Pigeon River mainstream, Otsego County

North of Pine Grove Campground, the character of the vegetative cover again changes with lowland hardwoods nearly totally dominating the riverbanks to a point just south of

Afton. The river then flows through a plant community of upland hardwood dominated by aspen with scattered white and red pine. From Blats Landing north to where the river empties into Mullet Lake, the river bank vegetation is again dominated by lowland hardwoods and lowland brush with a small amount of grassy meadow.

H. Climate

The climate in the Pigeon River area is favorable for the summer recreationists with pleasant daytime temperatures and cool nights. Temperatures during the summer months average five degrees cooler than in southern lower Michigan. The average annual precipitation is 29 inches at Vanderbilt and 27 inches at Cheboygan. Considerable precipitation falls as snow in the winter. Average annual snowfall is 80 inches at Vanderbilt and 74 inches at Cheboygan. The average annual temperature is 43 degrees with the highest monthly maximum temperatures occurring in July (66F at Vanderbilt, 68F at Cheboygan) and the lowest monthly maximum temperatures occurring in February (18F at Vanderbilt, 20F at Cheboygan).

I. Ownership

The Pigeon River watershed contains roughly 88,000 acres of land. Of this total , 51,900 (59 percent) are in private ownership. The remaining 36,100 acres are in state ownership within the boundaries of the Mackinac State Forest.

Ownership along the Pigeon River and its tributaries is summarized as follows:

	Estimate of River Miles State Land (Frontage)		Estimate of River Miles Private Land (Frontage)	
Mainstream	11.0	(22.0)	31.00	(62.00)
Little Pigeon	.50	(1.0)	9.00	(18.00)
All Other Tributaries	13.00	(26.00)	15.50	(31.00)
	<u>24.50</u>	<u>(49.0)</u>	<u>55.50</u>	<u>(111.00)</u>
	(30%)		(70%)	

EXISTING USES AND RECREATIONAL OPPORTUNITIES

A. Land Use

The glaciated topography and limiting factors of the soils of the Pigeon River watershed limit agricultural activities. In areas where soils are more productive and slopes more gentle, dairy farming continues as a minor land use in the area. However, the major trend in the northern areas of the state is the abandonment of nonproductive farms. Hunting, fishing and other resort activities account for a large part of the land utilization in the area. Seasonal and permanent dwellings are fairly common and are concentrated along or near lakes or streams. A growing demand for recreational lands is one of the reasons for a higher proportion of private land retention in the watershed.

Development would be considered light along the entire river's length. From the headwaters to Tin Bridge, approximately 26 miles, only a few individual cottages exist in the upper reaches, two groups of cottages are located near the old Vanderbilt Road Bridge, and a cluster of buildings at the old Lansing Dam Club are visible from the river.

There are several subdivisions located adjacent to the Pigeon River. Most are located towards the mouth. All are in Cheboygan County. One subdivision is located on the Little Pigeon River. Generally, the lots in the subdivision adjacent to the Pigeon are larger, seasonal, recreation oriented, providing lower building densities and a higher quality type of development.

There are no commercial or industrial developments located on the river.

B. Hydrocarbon Development

For the past several years, the Pigeon River Country has been embodied in a controversy centering around oil and gas development in and around the state forest. In late 1980, an agreement was reached through the courts that opened the door to limited hydrocarbon development in the Pigeon River Country State Forest area. The development of hydrocarbon resources in the Pigeon River Country State Forest will be south and east of the Pigeon River itself. The court stipulation agreed to a "nondevelopment status" for the northern portion of the forest for 25 years beginning on June 11, 1976. Further, it was agreed that no well sites or associated roads could be permitted within ¼ mile of the river. In addition, no pipeline, flowline or electric transmission line crossings of the Pigeon shall be permitted. There are also strict safeguards on sound and odor levels. Storage of gas will not be permitted in the northern portion of the forest.

C. Private Recreation Facilities

Eighteen private campgrounds provide 1,907 campsites for the camping enthusiast in the two county area encompassing the watershed. Many of these campgrounds provide related recreational opportunities such as fishing, boating, swimming, hiking, etc. Other outdoor recreation activities provided by private sources include canoe and boat rentals, five ski areas for winter sports, and two public golf courses and a riding stable.

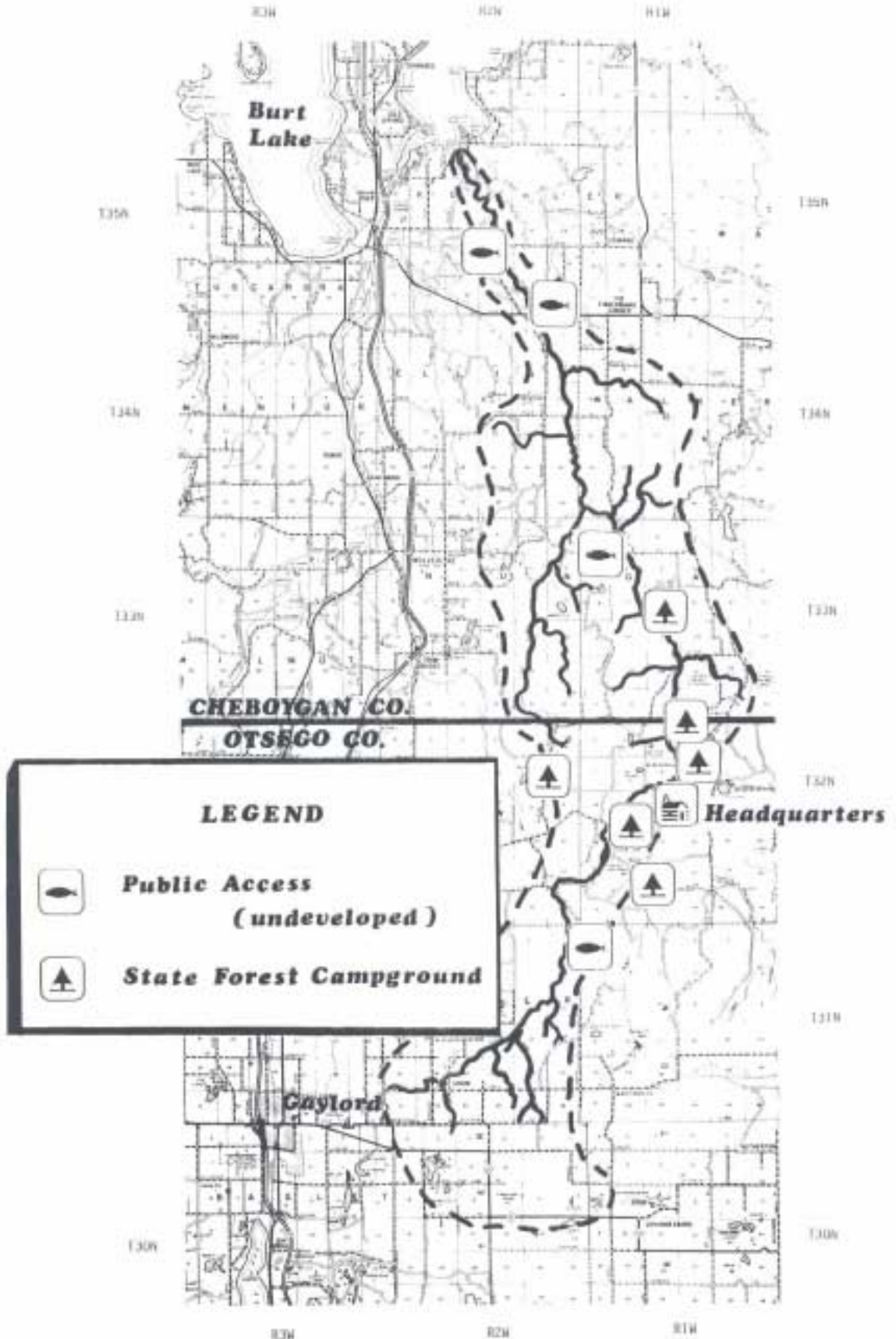
D. Public Recreational Facilities

Camping facilities along the immediate river area are limited. Pine Grove, Pigeon River and Pigeon Bridge Forest campgrounds offer just 37 campsites. Additional camping is available at Elk Hill Trail Camp. However, within a short drive of the river, nine forest campgrounds, four state parks and one county park offer 1,350 campsites.

There are eight public access sites (including the four forest campgrounds) located along the river. Additional access to the Pigeon for fishermen is provided over state lands and at county road bridges. Thirty-two other public access sites provide access to the many lakes and streams in the two county area through which the Pigeon River flows.



Other public facilities or areas of interest in the vicinity are: (1) the many miles of hiking, snowmobile and cross-country ski trails provided in the state forests, (2) Fort Michilimackinac, (3) ferry service to Bois Blanc Island and Mackinac Island where historic Fort Mackinac is located, (4) Ocqueoc Falls, and (5) five Wildlife Division waterfowl floodings.



Recreational Facilities

E. Fishing

The Pigeon River and its spring fed tributaries are classified as top quality trout waters and except for a few deeper pools are generally wadeable for fishing. With the exception of a short period just after opening day, fishing pressure is generally light. However, many anglers return annually to fish this outstanding stream.

Brook trout are the dominant and most sought after species. Due to cool water temperatures, the majority of the brook trout caught are in the 7" to 9" size class. However, a few larger brookies, up to 16", are taken. In addition to brook trout, brown trout are also present throughout the river system. Although the majority of the browns taken are 7" to 10", 14" to 16" fish are fairly common with a few up to 20" being caught. A small anadromous run of rainbow trout from Mullett Lake exists in the lower river.

F. Wildlife Observation and Hunting

The Pigeon River valley and surrounding Pigeon River country contain a good variety and population of large game, small game, furbearing animals and waterfowl, as well as a great many species of nongame animals.

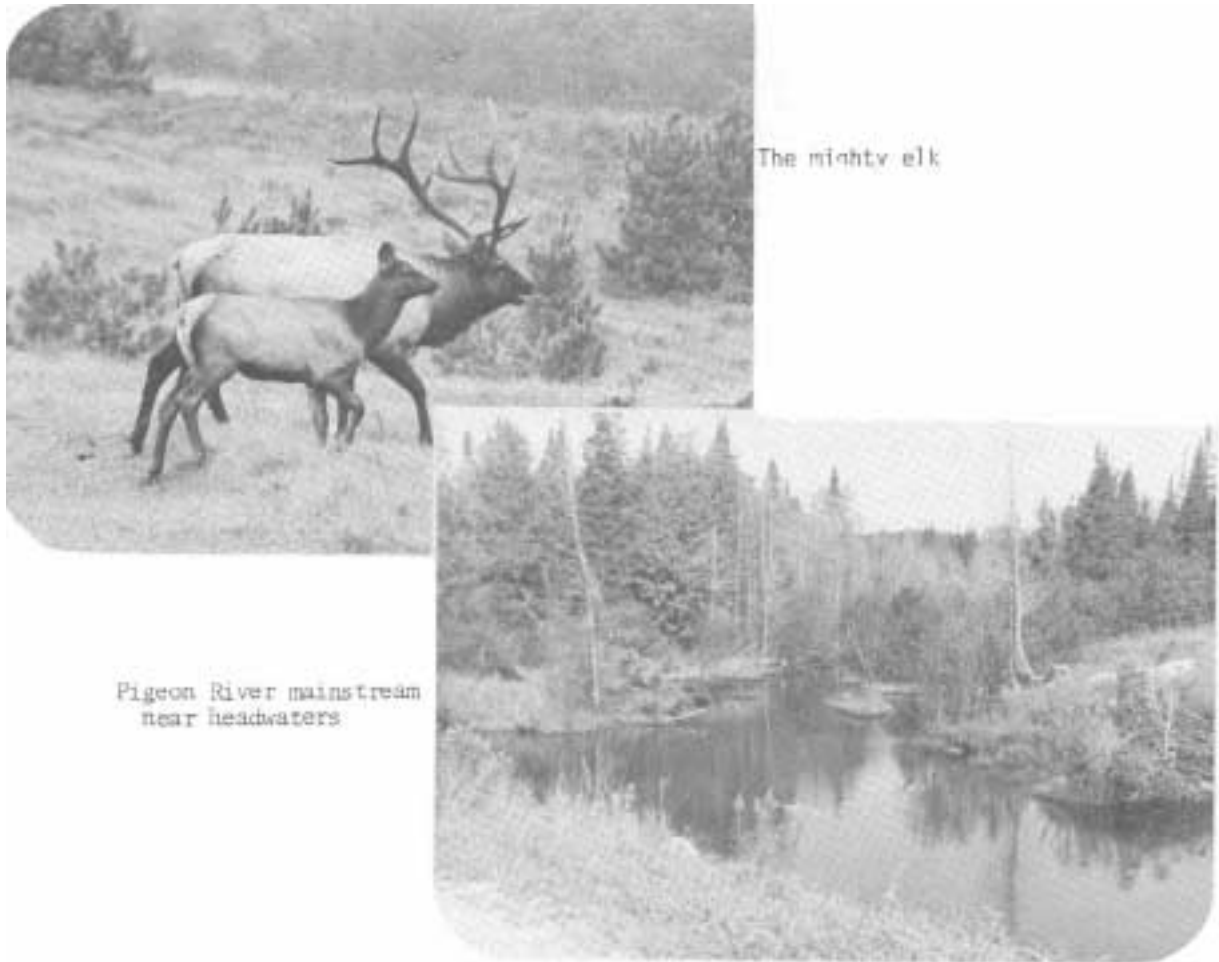
Major game species in the area include whitetail deer, squirrels (black, gray and fox), cottontail rabbits, snowshoe hare, ruffed grouse, woodcock and many species of waterfowl. Other species that provide opportunities for observation or sport are raccoon, coyote, red fox, porcupine, badger, skunk, red squirrel and woodchuck. Beaver, muskrat, mink and otter are important furbearers associated with the watercourses and adjoining wetlands.

The Pigeon River Country also provides habitat for several scarce species most typically found in large tracts of secluded lands, including bobcat, black bear, wild turkey and the unique elk. As of July 1981, a population of approximately 600 elk is found in the Pigeon River country. These magnificent animals provide the outdoorsman with a thrilling experience when they are sighted. Wild turkeys, once a native Michigan species, have moved from introductions made in the Mio area and are now reestablishing in areas to the east of the watershed.

The threatened osprey nests on the Cornwall Creek Flooding and the bald eagle nests outside the Pigeon River Country State Forest, but frequents the state lands and drainages of the Pigeon.

There are several other species of animals that are classified as threatened, rare or scarce whose range includes the watershed. They include the following: Mammals: Pine Vole. Birds: Black-Crowned Night Heron, Red-Shouldered Hawk, Cooper's Hawk. Reptiles and Amphibians: Wood Turtle.

A diverse group of other animals reside there as well, including bird life, mammals, reptiles and amphibians. A great variety of birds seasonally migrate through the area (see attached faunal lists – Appendix E).



G. Canoeing and Boating

Although the Pigeon River is free flowing, except for the old Lansing Club Dam, it is not a good river for canoeing. The 27 miles of river from Red Bridge up to the headwaters is relatively small, shallow and had numerous logjams and downed trees to portage. The 17 miles of river below Red Bridge is more suitable for canoeing. It has a good stream gradient and sufficient depths to afford a pleasant day's trip down the river. The lower six miles of river, before it levels off to the level of Mullett Lake, has a high gradient with numerous gravel and rubble riffles. During low water periods, this stretch offers a challenge to select the proper channel or end up on a gravel bar. The river is not suitable for boating, except for small boats in the first mile of river above Mullett Lake.

H. Historic and Archaeological Sites

There are no historic or archaeological sites listed on either the State Register or the National Register of Historic Places along the Pigeon River in Otsego and Cheboygan counties. Since there was a great deal of Indian and European activity in this area of Michigan in the past, such sites undoubtedly exist. However, until surveyed by archaeologists, there is no way to evaluate the historical or archaeological significance of the river.



Pigeon River
Below Afton

PRELIMINARY NATURAL RIVER PLAN

A. Goal

To preserve, protect and enhance the Pigeon River environment in a natural state for the use and enjoyment by all generations.

1. Key Value

It is department policy that State Forest Management Units consider all forest resource values. These include commercial as well as environmental, natural and recreational values. The department shall manage these units to yield a combination of products, services and other values to meet the needs of both present and future generations. All important products of the forest shall be given fair and equitable consideration.

A primary or “key value” use will be identified for each unit. Secondary uses will be assigned within the unit where they are compatible with the “key value”.

A key value system can be helpful to reduce or eliminate resource or user conflicts. Also, in considering key value designations, the importance of the unit’s resource or recreational base to the regional economic and community development base is recognized.

Due to the unique qualities of the river system and adjoining land areas, extensive public land holdings and opportunity to meet outdoor recreational needs, the key value for the Pigeon River Wild-Scenic river Area can be broadly defined as **DISPERSED RIVER RECREATION**. Because of the dramatic change in the resource itself, along with a change in ownership and use patterns, subdefinitions of the key value are identified as below:

- a. Mainstream from Pigeon River Road Bridge upstream to its headwaters, and all tributaries – key value identified as **DISPERSED RIVER RECREATION WITH EMPHASIS ON BLUE RIBBON TROUT FISHING**.

Compatible secondary uses include hiking, cross-country skiing, hunting, picnicking, nature study, horseback riding and camping on private lands by the landowner and his invited guests, or on public lands where such activities are permitted, and dispersed, ecologically sensitive residential development.

- b. Mainstream from Pigeon River Road Bridge downstream to the Hackelburg Road Bridge – key value identified as **DISPERSED RIVER RECREATION WITH EMPHASIS ON AESTHETIC ENJOYMENT**.

Compatible secondary uses include dispersed watercraft use, in addition to uses listed above in A. 1. a.

B. Objectives

1. Maintain the water quality of the Pigeon River and its tributaries consistent with the wild-scenic classification of the river and adhere to the concept of nondegradation of water quality.
2. To prohibit or limit those developments and activities which may damage or destroy the Pigeon River's free flowing condition, its fish, wildlife, scenic, aesthetic, flood plain, ecologic and recreation values and uses.
3. To ensure that the development and activities which do occur shall be done in an orderly manner, shall insure the protection of the river's natural values and qualities, and shall protect the river's outstanding scenic and aesthetic qualities.
4. To ensure that recreational uses which do occur, be done in an orderly manner consistent with the natural environment and aesthetic qualities of the stream, and that a quality recreation experience is maintained.

C. Proposed Designation

It is recommended that the following portions of the Pigeon River be designated as a wild-scenic river under authority of Part 305, P.A. 451 of 1994.

Mainstream – From the confluence of the Pigeon River mainstream and the South Branch (also known as Duck Creek) in Section 22, T31N, R2W, downstream to the Hackleburg Road Bridge.

Tributaries – All streams which flow into the Pigeon River upstream of M-68, from their sources (as shown on the “Designated Portions” map of this plan), to their confluence with the Pigeon River. This tributary designation includes that portion of the Pigeon River upstream of the confluence with the South Branch (also known as Duck Creek).

D. Natural River District

The Pigeon River Wild-Scenic River District includes an area 400 feet deep on each side of and parallel to all channels of the designated mainstream and to the designated tributaries. This district establishes a definable area within which local or state zoning may guide future development and use. ESTABLISHMENT OF THIS DISTRICT IN NO WAY IMPLIES A “TAKING” OF THESE LANDS BY THE STATE OR OPENING THEM UP TO PUBLIC USE. PRIVATE LANDS REMAIN PRIVATE AND ARE SUBJECT TO ALL RIGHTS OF PRIVATE OWNERSHIP.

E. Land Management-Private Lands-Zoning Guidelines

1. Residential Housing

Unplatted lots and new subdivisions in the Natural River District shall be of sufficient size to accommodate the building setbacks as set forth in Section E.3.

Minimum lot widths shall be as follows:

- Mainstream – 250 feet
- Tributaries – 150 feet

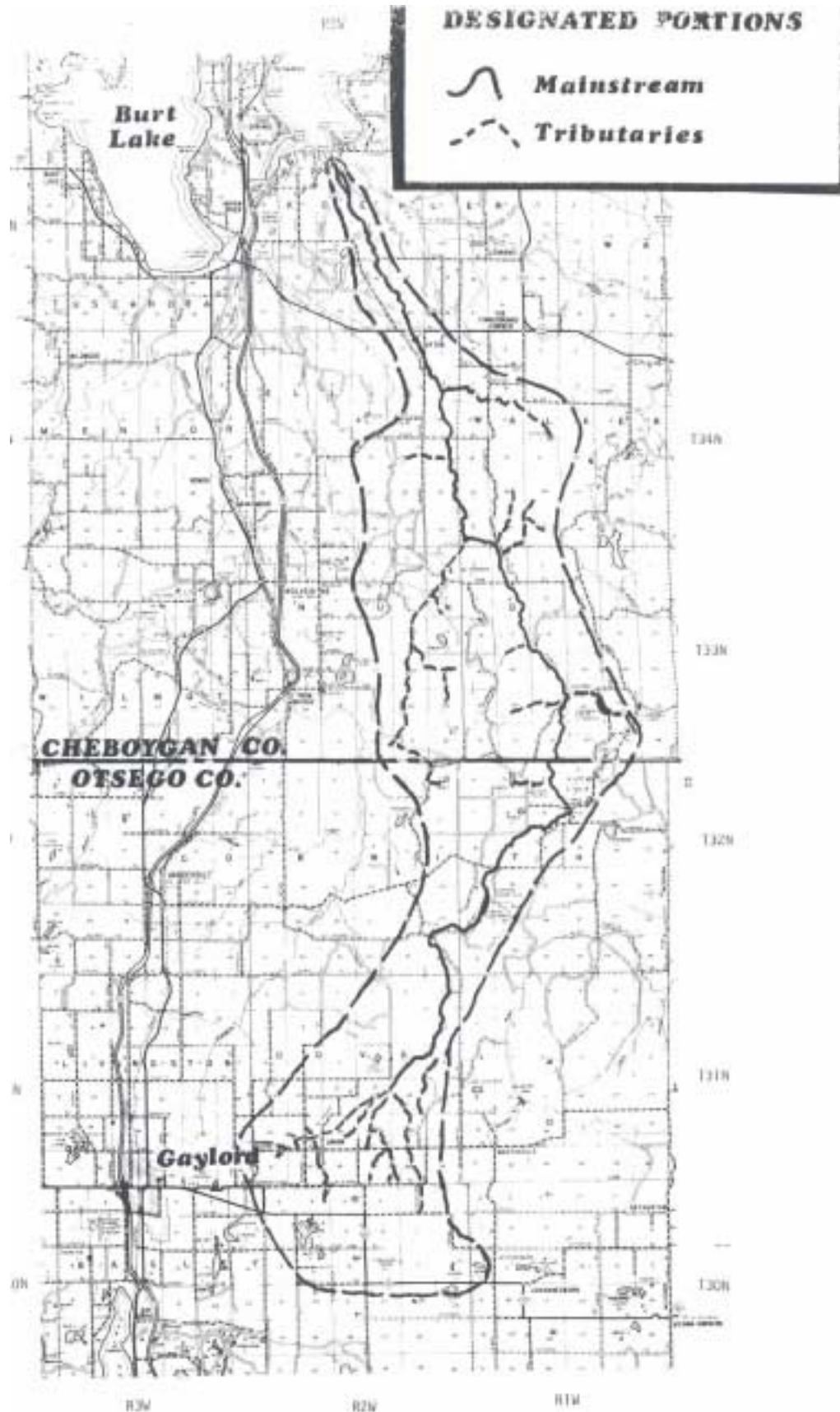
Lots or properties of record which are nonconforming at the time of the effective date of these regulations because of lack of size to accommodate the setback from the water's edge shall be allowed to be built upon and variances shall be allowed for the required setback upon such reasonable terms as set forth by the zoning administrator or the zoning review board.

Upon approval by the Department of Natural Resources of an ordinance, a local community may allow the administrator of their zoning ordinance to determine the location of proposed structures on substandard lots of record, provided that structures be so placed as to best meet the objectives of the Natural River Act.

One single family dwelling will be permitted on each lot or parcel within the Natural River District subject to the building setbacks as set forth in Section E.3. A single-family dwelling is defined as a detached building or structure designed for or occupied exclusively by one (1) family and containing housekeeping facilities.

2. Industrial and Commercial Structures and Uses

- a. New industrial uses and buildings and expansion of existing uses and buildings will not be permitted within 400 feet of the designated portions of the Pigeon River and tributaries.
- b. Commercial use and buildings, such as gas stations, motels, restaurants, retail stores, mobile home parks, etc. will not be permitted within 400 feet of the designated portions of the Pigeon River and tributaries. However, a number of commercial uses requiring special exception permits may be compatible with maintaining the natural aspects of the river, such as:
 - i. Small home operated businesses such as photography studio, beauty shop, home repair, insurance, or other businesses which do not alter the residential nature of the property and are in conformance with established setbacks.
 - ii. Small rental cabins with light housekeeping, but not motels, which are in conformance with setback requirements.



Designated Portions

3. Building Setbacks

The building setback for new structures and appurtenances along the mainstream and the tributaries of the Pigeon River system shall be as follows:

- Mainstream – 200 feet from the river’s edge¹
- Tributaries – 150 feet from the river’s edge

4. Docks

The construction of docks along the designated portions of the Pigeon River system is strongly discouraged. However, if necessary to provide safe and ecologically sound access for the riparian landowner, “log-sod covered docks” may be constructed of natural materials. Plans for such “log-sod covered docks” are found in Appendix E. Docks must be constructed in accordance with the rules of Part 301, P.A. 451 of 1994. Upon request of the property owner, the Department of Natural Resources will assist in the siting and location of a dock so as to blend in with the natural surroundings and best meet the objectives of the natural river designation.

5. On-Site Sanitation Systems

All habitations within the Natural River District shall be provided with sanitary waste disposal facilities conforming in type to those required by health specifications of the State of Michigan and the county or district health department having legal jurisdiction. The facilities provided may be for either waterborne waste disposal by the septic tank-absorption tile field method or for nonwaterborne disposal by the use of a health department approved or other State of Michigan approved sanitary system.

Local county health codes are usually not sufficient to protect fisheries, wildlife, or aesthetic values, or guard against excessive weed growth. Their purpose is to protect public health only. Therefore, the many nutrients from septic systems and fertilizers which do not endanger public health are left unchecked by county health codes. And these same nutrients move much greater distances through soils than do those which endanger public health. Therefore, a greater setback for these systems is necessary to protect this broad range of values in a natural river system. A greater building setback also ensures that the property owner will be able to safely develop a domestic water supply which will not be contaminated by a septic system which drains through it.

¹ River’s edge is defined as the ordinary high water mark and means “the line between upland and bottomland which persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil and the vegetation. Where water returns to its natural level as the result of the permanent removal or abandonment of a dam, it means the natural ordinary high water mark. (This is the definition used for administration of the Inland Lakes and Streams Act, Part 301, P.A. 451 of 1994.)

Minimum standards for new septic systems along designated portions of the Pigeon River system shall be as follows:

- a. The setback for septic tanks and absorption fields shall be a minimum of 150 feet from the ordinary high water mark.
- b. The bottom of the absorption field shall be at least four feet above the known high ground water table.
- c. No absorption field shall be closer than 50 feet from any permanent surface or subsurface drainage system.
- d. Variances from these standards may be allowed by the district health departments where existing lots of record cannot conform because of their size.

The bottom of an earth privy shall be not less than six feet above the known high ground water table. Where this is not feasible, a watertight vault shall be installed.

6. Signs

Only those signs necessary for identification, direction, resource information, regulation of use, and related to permitted uses, shall be placed along the designated river and tributaries. Within the Natural River District signs for the sale of products or services shall be prohibited. Signs within the Natural River District must be:

- a. In conformance with the following standards:
 - i. Signs may not be larger than one square foot in area posted no more than one per 100 feet or one sign posted at upstream and downstream corner of lot. However, one temporary real estate "for sale" sign per parcel of land not to exceed four square feet in area shall be allowed outside of the natural vegetation strip (as described in Section E.10).
 - ii. Not attached to any tree or shrub.
 - iii. Not illuminated.

7. Agriculture

Existing agricultural practices will be permitted within the natural vegetation strip. Grazing will be permitted within the natural vegetation strip unless the Bureau of Environmental Protection of the Department of Environmental Quality determines that it contributes to stream degradation (Part 31, P.A. 451 of 1994). In those cases, livestock will be fenced out to protect the riverbanks. Cattle crossings and watering areas shall be constructed according to accepted methods, after the landowner has consulted with the local Soil Conservation District, Soil Conservation Service, County Extension Service, and/or Department of Natural Resources.

Water withdrawal for irrigation will continue to be permitted in accordance with the rights of other riparians and the public values associated with the Pigeon River system.

New agricultural uses and practices including commercial tree farms and feedlots shall be allowed in the Natural River District provided they are landward of the natural vegetation strip.

8. Disposal of Solid Wastes

No unsightly or offensive material, including, but not limited to: trash, refuse, junk cars, junk appliances or garbage, shall be dumped or stored within the Natural River District or as provided by Part 115, P.A. 451 of 1994. No dumps or sanitary landfills shall be permitted within 400 feet of the designated portions of the Pigeon River system.

9. Land Alteration

Land alteration for building such as grading, dredging and filling of the land surface outside of the natural vegetation strip is permitted, unless the high ground water table is within six feet of the land surface or on lands subject to flooding.* All activities must meet provisions of Michigan's Inland Lakes and Streams Act, Part 301, P.A. 451 of 1994, the Soil Erosion and Sedimentation Control Act, Part 91, P.A. 451 of 1994, and the Wetlands Protection Act, Part 303, P.A. 451 of 1994.

10. Natural Vegetation Strip on Adjacent Shorelines

Trees, shrubs and other vegetation native to the Pigeon River area shall be maintained and enhanced on each side of the river and its tributaries to retain the river's natural values. Maintenance of the natural vegetation strip is required to help stabilize the riverbanks, minimize erosion, provide shading which will help maintain cool water temperatures, help protect water quality by absorbing nutrients from surface water runoff, provide screening of man-made elements, protect fisheries and wildlife habitat, and maintain the aesthetic quality of the river. The zoning administrator shall notify each applicant for a building permit of the purpose of the natural vegetation strip and of the provisions of this section.

*"Land that is subject to flooding" means that area of land adjoining the designated portions of river and tributaries which:

- 1) Will be inundated by a flood which has a one percent chance of occurring or being exceeded in any given year (intermediate regional flood), as determined by detailed hydraulic studies which are acceptable to the Michigan Water Resources Commission; or
- 2) In the absence of such detailed floodplain studies, have a history of flooding or are delineated by approximate methods such as USGS flood prone area maps or HUD's special flood hazard boundary maps.

a. Vegetation Strip:

On privately owned lands, the following minimum restricted cutting strip shall be maintained on each side of the stream:

- Mainstream – 100 feet deep
- Tributaries – 75 feet deep

The following provisions shall apply within the natural vegetation strip:

- i. Distances of the natural vegetation strip shall be measured horizontally from the ordinary high water mark.
- ii. Dead, diseased, unsafe or fallen trees, shrubs and noxious plants, including poison ivy, poison sumac and poison oak, and other plants regarded as a common nuisance in Section 2, Public Act 357 of 1941, as amended, may be removed.
- iii. Trees and shrubs may be pruned for a filtered view¹ of the river.
- iv. Upon approval of the local zoning administrator, trees and shrubs may be selectively removed for harvest of merchantable timber, public utility facilities, to achieve a filtered view of the river from the principal structure, and for reasonable private access to the river. The zoning administrator may consult with or direct a property owner to consult with the Pigeon River Country Area Forester to establish an acceptable cutting plan for lands adjacent to the Pigeon River or its tributaries.
- v. Clear-cutting within the above described management zones generally is not permitted. However, it may be allowed if it is necessary to maintain or enhance native vegetation, upon approval of the Pigeon River Country Area Forester.
- vi. Planting of native species is encouraged in the vegetation strip to enhance and protect the river's edge. The Department of Natural Resources or the Soil Conservation Service may be consulted for selection of native plant species. For purposes of erosion control and/or screening of existing developments within the Natural River District and where available at state nurseries, recommended planting materials will be supplied to property owners at cost from the Department of Natural Resources.

11. Minerals

New development, exploration or production of gas, oil, salt brine, sand and gravel or other minerals except ground water are not permitted within 300 feet of the designated river or tributaries (Section 10, Natural River Act).

F. Land Management – State and Other Public Lands

1. Structures Related to Recreation

On public land, no new structures associated with a campground, picnic area, rest area, access site or any other publicly provided facilities, except those necessary to protect the riverbank, will be permitted within 400 feet of the designated mainstream or tributaries. Such structures shall be designed and constructed in such a manner as to further the purposes of the Natural River Act.

2. Natural Vegetation Strip on Adjacent Shorelines

Trees, shrubs and other vegetation native to the area shall be maintained and enhanced on each side of the river and tributaries to retain the river's natural values. Maintenance of the natural vegetation strip is required to help in stabilizing the riverbanks, minimize erosion, provide shading which will help maintain cool water temperatures, help protect water quality by absorbing nutrients from surface water runoff, provide screening of man-made elements, protect fisheries and wildlife habitat, and maintain the aesthetic quality of the river.

a. On publicly owned land, the following minimum cutting strip shall be maintained on each side of the river:

- Mainstream – 200 feet deep
- Tributaries – 150 feet deep

The following provisions shall apply within the natural vegetation strip:

- i. Distances of the natural vegetation strip shall be measured horizontally from the ordinary high water mark.
- ii. Dead, diseased, unsafe or fallen trees, shrubs and noxious plants, including poison ivy, poison sumac, and poison oak, and other plants regarded as a common nuisance in Section 2, Public Act 357 of 1941, as amended, may be removed.
- iii. Trees and shrubs may be selectively removed for harvest of merchantable timber, to maintain public utility facilities, and for reasonable access to the river.
- iv. Clear-cutting within the above described management zones generally is not permitted. However, it may be allowed if it is necessary to maintain or enhance native vegetation, or for fish or wildlife habitat improvement, upon approval of such plans by the affected divisions of the Department of Natural Resources (Part 305, P.A. 451 of 1994).

3. Signs

Only those signs necessary for identification, direction, resource information and regulation of use shall be placed along the designated river and tributaries.

- a. Signs posted by public agencies must be kept to a minimum, of rustic design, no larger than ten square feet in area, not attached to any tree or shrub, and placed so as to best meet the objectives of the Natural River Act.

(Note: Signs by public agencies may need to be larger or within the 400-foot Natural River District to provide for public safety, such as warning of impending dangers in the river, or for an interpretive or historic sign.)

4. Minerals

New development, exploration or production of oil, gas, salt brine, sand and gravel, or other minerals except ground water are not permitted within 300 feet of the designated river or tributaries (Section 10, Natural River Act). On new leases on state land, Natural Resources Commission policy prohibits drilling for gas or oil within ¼ mile of any principal stream.

G. State Program Management

1. Stream Alteration

To protect the natural character of the river and the natural flow of its water, no damming, dredging, filling or channelization of the stream channel will be permitted in those portions of the Pigeon River or tributaries designated under the Natural River Act unless approved by the Department of Natural Resources under authority of Michigan's Inland Lakes and Streams Act, Part 301, P.A. 451 of 1994. Any further impounding of any portion of the Pigeon River system must receive approval from the Natural Resources Commission.

Natural materials should be used to construct streambank stabilization projects to control erosion, or to enhance fisheries habitat. These structures should be camouflaged and the local Conservation Officer, District Fisheries Biologist, or Soil Conservation Service representative contacted to provide technical advice for such projects. All work done below the ordinary high water mark requires a permit under the authority of the Inland Lakes and Streams Act, Part 301, P.A. 451 of 1994.

Permission must be obtained from the property owner when removing fallen trees and log jams from the river. If extensive removal of log material from the bottom during these operations is anticipated, advice should be sought from the District Fisheries Biologist.

2. Soil Erosion and Sediment Control Measures – Michigan's Soil Erosion and Sedimentation Control Act, Part 91, P.A. 451 of 1994.

All earth changing activities, other than normal landscaping or maintenance, undertaken within 500 feet of a lake or stream must be conducted in accordance

with the requirements of Part 91, P.A. 451 of 1994, its administrative rules and those procedures established by the local enforcing agency.

Development along the river involving earth moving shall provide for water disposal and/or protection of the soil surface during and after construction.

Practical combinations of the following will provide effective erosion control when skillfully used in planning and construction:

- a. The development plan should be fitted to the soils and topography so as to create the least erosion potential. Local officers of the Soil Conservation Service can provide detailed information on the soil characteristics of a given site and on the suitability of such soils for various uses.
- b. Wherever feasible during construction, natural vegetation shall be retained and protected. Where adequate vegetation does not exist, temporary or permanent vegetation shall be established where possible.
- c. Where it is necessary to remove vegetation for construction, limit the exposed area to the smallest practical size at any one time.
- d. Limit the duration of exposure of soils to the shortest practical time.
- e. Critical areas exposed during construction should be protected with temporary vegetation and/or mulching.
- f. Permanent vegetation and improvements, such as roads, storm sewers, and other features of development capable of carrying storm runoff in a safe manner, shall be installed as early as possible.
- g. Provisions should be made to accommodate the increased runoff caused by changed soil and surface conditions during and after construction.
- h. Sediment basins to remove suspended soil particles from runoff water from land undergoing development should be constructed and maintained where erosive conditions indicate their need to prevent sediment damage to the river.
- i. Diversions, grassed waterways, grade stabilization structures, and similar mechanical measures required by the site shall be installed as early in the development as possible.

3. Utilities

Except on existing rights-of-way, new gas or oil pipelines, or electric transmission lines shall not be permitted in the Natural River District or to cross the designated river and tributaries without prior written consent of the Department of Natural Resources. Plans for these transmission lines which include crossing the river district or the river and designated tributaries shall be done in accordance with the state administrative rules entitled Utilities and Publicly Provided Facilities in Natural River Areas.

New distribution lines shall not cross the designated portions of the river or housing setback zone unless they are placed underground, or if overhead lines are less disruptive to the environment. Plans for distribution lines which are to be placed under the river must be approved by the Department of Natural Resources and all construction shall meet requirements of the Soil Erosion and

Sedimentation Control Act, Part 91, P.A. 451 of 1994 and the Inland Lakes and Streams Act, Part 301, P.A. 451 of 1994. Local service lines to private dwellings shall originate from the landward side of the dwelling insofar as practical. Management of trees, shrubs and other vegetation for maintenance of utility rights-of-way shall be done manually in the natural vegetation strip. However, hand application of herbicides to stumps of selectively cut trees may be allowed in the natural vegetation strip where it is the objective to establish and maintain a low growing shrub community in this zone. The department may authorize application of selected pesticides to control insect or disease infestations.

4. Recreation

- a. Fishing, Hunting, Trapping and Camping: Fishing, hunting, trapping and camping will be permitted in the Natural River District in accord with current state and local laws and regulations.

IT IS EMPHASIZED THAT NATURAL RIVER DESIGNATION, OR ESTABLISHMENT OF A ZONING DISTRICT ALONG THE RIVER, DOES NOT OPEN PRIVATE LANDS TO THE PUBLIC.

Fisheries management practices will be done in conformance with the character of the area and the objectives of natural river designation. The following management guidelines shall be observed:

- Except where a natural or manmade disaster has decimated the fish population, streams in the Pigeon River system will not be stocked. All streams will be maintained essentially for naturally reproducing species. (An exception to this is allowed in the Cornwall Creek Flooding, where warmwater fish plants are permitted.)
- If it is found that trout populations cannot maintain themselves at adequate levels, more restrictive fishing regulations will be imposed to protect brood stocks.
- Stream management practices which may be needed for erosion control or fish cover will be designed to appear natural, in keeping with the surroundings as much as possible.

Wildlife management within the natural river district will be in conformance with the purposes and objective of natural river designation.

- b. Camping: Dispersed camping and campground management will be done in conformance with the character of the area as well as the purposes and objectives of natural river designation. Renovation and/or construction of camping facilities will be done to further the objectives of natural rivers designation and resource protection through management – not merely to expand camping opportunities.
- c. Boating and Canoeing: Boating and canoeing is strongly discouraged above Red Bridge. Koehler Township or Cheboygan County are

encouraged to adopt regulations to limit boats at the mouth of the Pigeon River above Hacklesburg Road Bridge to “slow, no wake” speed. Such controls should be done in accordance with the Marine Safety Act, Public Part 801, Marine Safety, of 1994 PA 451.

- d. Litter: In view of the special status of the Pigeon River and its unique beauty and character, the Department of Natural Resources shall encourage and cooperate with private interests as well as other public agencies that have programs for river clean-up.
- e. Recreation Control: Recreational conflicts, misuse and overuse is occurring throughout the rivers of the state. The limit of the statutory authority for controlling recreational uses of Michigan’s waterways has not been clearly defined either through the judicial system or by the Michigan Legislature. When the level of authority of the Department of Natural Resources is more clearly defined, the department should initiate study of the Pigeon River for such controls as necessary over the numbers, timing, location and conduct of river users in order to provide a quality recreation experience.

5. Public Access

The Pigeon River shall be managed to provide a quality experience for the recreationist and riparian landowner. Watercraft use above Red Bridge will be strongly discouraged.

- a. Access Sites and Rest Areas: At this time, access sites and rest area development is not anticipated. However, if future use accelerates to the point where launching and retrieval of watercraft is occurring at indiscriminate locations along the river, environmental damage is occurring, or a quality experience can no longer be maintained, access site and rest area development may be necessary as a part of the effort to address such problems. In that case, logical access points would be at Red Bride, and below Afton, above “the spreads”. A rest area for watercraft users and fishermen may be advisable in order to lessen impacts on private lands, and to provide necessary facilities. The rest area should contain litter and toilet facilities, but overnight camping should be prohibited. No public vehicular access should be allowed. If necessary in the future, such a rest area could be located somewhere below the Pigeon River Road Bridge.

Access site and rest area development should be used only as a last resort, after it has been proven that all other management techniques have failed.

- b. Fishermen Access: Any fishermen access on the mainstream or the tributaries to the Pigeon River must be walk-in only, with parking facilities at least maintaining established setbacks. These should be located only where there are sufficient adjacent public lands so trespass and user conflicts on privately owned lands will not occur.

- c. To help control trespass, litter and other associated problems, water tight vault toilets and trash collection facilities at public access sites and rest areas may be located closer than the recommended setback.

6. Motorized Vehicles

Operation of all motorized vehicles other than on designated public roads or access roads to permitted uses, will be prohibited within the Natural River District. Use of ORVs on publicly owned lands contiguous to the Natural River District shall be in conformance with guidelines and regulations of the agency administering such lands, and with state and federal noise level standards strictly enforced. (Muffler requirement of MVC – Section 708, Act 300, P.A.1949, etc.)

7. Historic and Archaeological Sites

To date, no comprehensive historic or archaeological survey has been done on the Pigeon River watershed. The identification, preservation and interpretation of historical and archaeological sites along the designated portions of the Pigeon River and tributaries, by public agencies and local historical societies, is strongly encouraged.

8. Water Quality Management

Waters in the Pigeon River system are protected for:

- a. Total body contact – recreation.
- b. Agriculture.
- c. Industrial water supply.
- d. Navigation.
- e. Public water supply.

In addition, all waters are protected for cold water fish.

A program of water quality monitoring shall be established by the Surface Water Quality of the Department of Environmental Quality to ensure that water quality of the Pigeon River system is not degraded.

H. Administration

1. Land Use Guidelines

Under Part 305, P.A. 451 of 1994, zoning by local governmental units shall be the chief means of protecting the Pigeon River and its tributaries as a natural river.

- a. Zoning shall be applied within the 400-foot Natural River District on both the designated mainstream and tributaries. Upon adoption of a local zoning ordinance, certified copies of maps and/or documents describing the Natural River District shall be filed with the local tax assessing officer and County Equalization Department.

In establishing true cash value of property within the Natural River District, the assessing officer shall take cognizance of the effect of use

limits established by the ordinance (Section 30511, Part 305, P.A. 451 of 1994).

2. Utilities and Publicly Provided Facilities in Designated Natural River Areas

As provided in Section 30514 of Part 305, P.A. 451 of 1994, administrative rules have been adopted by the state which provide that: Plans for construction, enlargement, and site or route location of all utility pipelines and transmission lines, roads and road rights-of-way, publicly provided recreation facilities, access sites, and public water management projects within a natural river area must be approved by the Department. An application for the approval of such plans shall be submitted by the applicant, in writing, to the Department of Natural Resources, Fisheries Division, Natural Rivers Program.

3. Appeals

Under certain circumstances, strict adherence to this plan may create unreasonable hardships for the frontage owner. Such cases may be appealed to the appropriate local board for a variance. Applications for a variance shall be based on a site plan. The county health department, Soil Conservation Service, appropriate staff and field personnel of the Department of Natural Resources, and other experts should be consulted to recommend to the appeals board a course of action which will have the least degrading impact on the character of the natural river. Final determination of the variance shall be made by the local appeals board.

4. Nonconforming Uses

As stated in Section 30512, of Part 305, P.A. 451 of 1994, “the lawful use of any building or structure, and of any land or premise as existing and lawful at the time of enactment of a zoning ordinance or rule or an amendment thereof, may be continued although such use does not conform with the provisions of the ordinance, rule or amendment. The ordinance or rule shall provide for the completion, restoration, extension or substitution of nonconforming uses upon such reasonable terms as may be set forth in the zoning ordinance or rule.”

5. Regulations in Unusual Circumstances

The regulations proposed in this report are not intended to be applied in disregard of the requirement of Part 305, P.A. 451 of 1994 that regulations “take cognizance of the characteristics of the land and water concerned, surrounding development and existing uses.” Where circumstances warrant, other or different regulations, either more or less restrictive, should be adopted.

6. Land Acquisition

The state may purchase or trade lands with owner consent on the designated river and tributaries to maintain or improve the river and its environment. Efforts

should be made by the appropriate public agency to purchase key parcels to provide for areas for walk-in fishermen access, or to protect sensitive environmental areas. Some landowners in the Natural River District may be interested in offering scenic or other easements or inserting restrictions in their deeds which serve to protect the river environment and which coincide with their property interests. The opportunity to obtain such easements or restrictions should be pursued by interested public agencies.

7. State Resources

Overall responsibility for implementing and coordinating the natural river plan is assigned to the Fisheries Division of the Department of Natural Resources. The Natural Rivers Unit and the Department of Natural Resources Natural Rivers Advisory Group will act in an advisory capacity. Enforcement of water quality standards and water use regulations will be the responsibility of the Surface Water Quality Division and other divisions of the Department of Environmental Quality. Other laws and programs reinforcing natural rivers management objectives should be utilized to the extent necessary to protect the river in implementing the management plan for the river and tributaries (see Appendix C).

I. Recommendations – Encouragements

1. Private Landowners

Property owners are encouraged to consider the following recommendations which will help protect and enhance private lands, and offer additional protection to the river and adjacent environment.

- a. **Building Design:** Property owners along the streams are encouraged to use natural materials and natural unobtrusive colors in the construction of new or remodeling of existing buildings. Upon request to the Department of Natural Resources, individual property owners may receive technical advice on location and design of structures and management of their lands. Such requests and the Department's response should be channeled through the local zoning administrator.
- b. **Building Screening:** Property owners of new or existing buildings visible from the river are encouraged to screen them with native vegetation. The Department of Natural Resources Area Forester and Soil Conservation Service will advise on planting stock, etc., on request. When available at state nurseries, recommended planting materials will be supplied to property owners at cost.
- c. **Erosion Control:** Planting of perennial native species in the natural vegetation strip is encouraged, especially where exposed soil and steep slopes exist. The Department of Natural Resources or Soil Conservation Service may be consulted for selection of plant species best suited for erosion control and/or screening of existing developments. Where available at nurseries, the recommended planting materials will be supplied to property owners at cost.

2. Local Units of Government

The management of areas beyond the natural river zone is extremely important since land use and water resources are closely related. What happens on the lands beyond the Natural River District but within the drainage area of the river, affects the river. Local units of government adjacent to the district, through their powers to influence the location, timing and nature of development, can have a positive effect on water resources.

It is recommended that local governmental units zone throughout the Pigeon River watershed to maintain the integrity of the Pigeon River and its tributaries:

- a. By limiting residential development to low density single family structures or medium density cluster developments. Medium density cluster developments are recommended because it is easier to provide services and control.
- b. By providing districts where industry which may produce noise, smoke, fumes, odors, etc., will not affect the natural characteristics of the river area.
- c. By providing districts for commerce where heavy traffic, parking, automobile exhaust and noise will not create environmental intrusions.

Further, it is recommended that local units of government incorporate water resource protection and/or management measures into their plans, programs and decisions involving land use. Such measures are of particular importance when dealing with lands in the stream corridor as defined below.

A stream corridor essentially consists of lands contiguous to the stream, the alteration or development of which could potentially cause direct impacts on the stream and its environment. It is a composite of:

- a. Soil types with severe limitations for development.
- b. Vegetation along creek banks.
- c. Wetlands.
- d. Slopes.
- e. Flood profiles when known.

Sensitive areas involving one or more of the above facts may occur within the drainage area of the river but outside of the Natural River District itself. Modification or development within such areas may adversely affect water resource benefits within the district or create problems requiring costly public investment to rectify.

It is recommended that local units of government consider such measures as regulating changes in surface water runoff from specific locations through use of the site plan review process, and protecting sensitive areas outside the Natural River District through use of conditional use permit procedures.

On private lands adjacent to and within ¼ mile of the Natural River District, it is recommended that the local Soil Conservation Districts, local soil erosion and sedimentation control agencies, Cooperative Extension Service and the Department of Natural Resources cooperate with landowners to ensure that timber harvest, agricultural practices, housing, road building, or other land use activities are compatible with the wild-scenic designation of the river and with maintaining the water quality of the river.

Further, local governmental units are urged to adopt building setbacks, vegetation management and septic system controls for other streams under their jurisdiction not within the natural river designation, particularly the Black and Sturgeon rivers.

J. Assistance Available from the Department of Natural Resources

The following department procedures reflect adopted Commission policy and describe the commitment of the Department of Natural Resources to aid riverfront property owners and local governments along a designated river:

1. To Riverfront Property Owners – Upon Request
 - a. The Fisheries Division, Natural Rivers Program will assist riverfront property owners in selection of the best sites on an individual's property for the location of buildings and appurtenances and with design and location of docks, pathways and riverbank protection.
 - b. Forest Management Division, through its local area foresters, will advise riverfront property owners on planting stock to be used to stabilize riverbanks or to screen existing structures. When available at state nurseries, recommended planting materials will be supplied to property owners at cost.
 - c. The Fisheries Division, Natural Rivers Program will provide technical assistance to riverfront property owners on programs of other agencies which provide information and assistance in the areas of water or septic systems location and design, soils information and management, pond development and management, and cooperative fencing.
 - d. The Fisheries Division, Natural Rivers Program will provide technical advice on erosion problems and streambank stabilization, including reference to programs of other agencies.
 - e. The Division of Land Resources will assume responsibility for coordination of periodic river cleanups.
 - f. The Fisheries Division, Natural Rivers Program will assist riverfront property owners, local governmental units, and other interested citizens in organization of watershed councils, property owners' associations, or other river protective groups.
 - g. The Fisheries Division, Natural Rivers Program will provide assistance to riverfront property owners in applying for property tax benefits available under the Farmland and Open Space Preservation Act (Part 361, P.A. 451 of 1994, as amended) and other relevant state statutes.

B. To Local Units of Government – Upon Request

- a. The Fisheries Division, Natural Rivers Program will provide technical assistance in development and processing of local zoning and other controls designed to protect and enhance the natural qualities of the river and adjoining lands.
- b. The Fisheries Division, Natural Rivers Program will provide assistance to local governments in administration of its zoning ordinance relating to the Natural Rivers Program by reviewing special exception or variance requests, and by providing available data.
- c. Upon specific written request of a local governmental unit along a designated natural river, the Fisheries Division, Natural Rivers Program will delineate the “ordinary high water mark”.
- d. The Land and Water Management Division, Department of Environmental Quality will give high priority to floodplain delineation studies for river stretches designated under Part 305, P.A. 451 of 1994 (Natural River Act) where heavy development activity in the floodplain is expected in the future and where recommendations for local zoning deal with setbacks in relation to lands subject to flooding.
- e. When an adopted river management plan identifies the need for administrative rules for watercraft under authority Part 801, Marine Safety, of 1994 PA 451, Law Enforcement Division will cooperate with the appropriate local units of government in the promulgation of such rules as soon as possible following river designation.

APPENDIX A

PART 305 NATURAL RIVERS

324.30501 Definitions.

Sec. 30501. As used in this part:

- (a) "Free flowing" means existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification.
- (b) "Natural river" means a river that has been designated by the department for inclusion in the wild, scenic, and recreational rivers system.
- (c) "River" means a flowing body of water or a portion or tributary of a flowing body of water, including streams, creeks, or impoundments and small lakes thereon.
- (d) "System" means all of those rivers or portions of rivers designated under this part.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30502 Natural river; designation; purpose; long-range plans; publicity; cooperation.

Sec. 30502. The department, in the interest of the people of the state and future generations, may designate a river or portion of a river as a natural river area for the purpose of preserving and enhancing its values for water conservation, its free flowing condition, and its fish, wildlife, boating, scenic, aesthetic, floodplain, ecologic, historic, and recreational values and uses. The area shall include adjoining or related lands as appropriate to the purposes of the designation. The department shall prepare and adopt a long-range comprehensive plan for a designated natural river area that sets forth the purposes of the designation, proposed uses of lands and waters, and management measures designed to accomplish the purposes. State land within the designated area shall be administered and managed in accordance with the plan, and state management of fisheries, streams, waters, wildlife, and boating shall take cognizance of the plan. The department shall publicize and inform private and public landowners or agencies as to the plan and its purposes, so as to encourage their cooperation in the management and use of their land in a manner consistent with the plan and the purposes of the designation. The department shall cooperate with federal agencies administering any federal program concerning natural river areas, and with any watershed council established under part 311, when such cooperation furthers the interest of the state.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30503 Qualifications for designation; categories of rivers.

Sec. 30503. A river qualifying for designation as a natural river area shall possess 1 or more of the natural or outstanding existing values cited in section 30502 and shall be permanently managed for the preservation or enhancement of such values. Categories of natural rivers shall be defined and established by the department, based on the characteristics of the waters and the adjoining lands and their uses, both as existing and as proposed, including such categories as wild, scenic, and recreational. The categories shall be specified in the designation and the long-range comprehensive plan.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30504 Land acquisition; purpose; interest acquired; consent.

Sec. 30504. The department may acquire lands or interests in lands adjacent to a designated natural river for the purpose of maintaining or improving the river and its environment in conformance with the purposes of the designation and the plan. Interests that may be acquired include, but are not limited to, easements designed to provide for preservation and to limit development, without providing public access and use. Lands or interests in lands shall be acquired under this part only with the consent of the owner.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30505 Federal financial assistance programs; leases; expenditures; purposes.

Sec. 30505. (1) The department may administer federal financial assistance programs for natural river areas.

(2) The department may enter into a lease or agreement with any person or political subdivision to administer all or part of their lands in a natural river area.

(3) The department may expend funds for works designed to preserve and enhance the values and uses of a natural river area and for construction, management, maintenance, and administration of facilities in a natural river area conforming to the purposes of the designation, if the funds are appropriated by the legislature.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30506 Public hearings; notice.

Sec. 30506. Before designating a river as a natural river area, the department shall conduct public hearings in the county seat of any county in which a portion of the designated natural river area is located. Notices of the hearings shall be advertised at least twice, not less than 30 days before the hearing, in a newspaper having general circulation in each such county and in at least 1 newspaper having general circulation in the state and 1 newspaper published in the Upper Peninsula.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30507 Land uses; zoning; local ordinances; state rule.

Sec. 30507. After designation of a river or portion of a river as a natural river area and following the preparation of the long-range comprehensive plan, the department may determine that the uses of land along the river, except within the limits of an incorporated municipality, shall be controlled by zoning contributing to accomplishment of the purposes of this part and the natural river plan. County and township governments are encouraged to establish these zoning controls and additional controls as may be appropriate, including, but not limited to, building and subdivision controls. The department may provide advisory, planning, and cooperative assistance in the drafting of ordinances to establish these controls. If the local unit does not, within 1 year after notice from the department, have in full force and effect a zoning ordinance or interim zoning ordinance established under authority of the acts cited in section 30510, the department, on its own motion, may promulgate a zoning rule in accordance with section 30512. A zoning rule may also be promulgated if the department finds that an adopted or existing zoning ordinance fails to meet adequately guidelines consistent with this part as provided by the department and transmitted to the local units concerned, does not take full cognizance of the purposes and objectives of this part, or is not in accord with the purposes of designation of the river as established by the department.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30508 Zoning ordinance or rule; purpose.

Sec. 30508. A zoning ordinance adopted by a local unit of government or a zoning rule promulgated by the department shall provide for the protection of the river and its related land resources consistent with the preservation and enhancement of their values and the objectives set forth in section 30502. The ordinance or rule shall protect the interest of the people of the state as a whole. It shall take cognizance of the characteristics of the land and water concerned, surrounding development, and existing uses and provide for conservation of soil, water, streambed and banks, floodplains, and adjoining uplands.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30509 Zoning ordinance or rule; establishment of districts; powers; distance.

Sec. 30509. The ordinance or rule shall establish zoning districts within which such uses of land as for agriculture, forestry, recreation, residence, industry, commerce, and additional uses may be encouraged, regulated, or prohibited. It may limit or prohibit the placement of structures of any class or designate their location with relation to the water's edge, to property or subdivision lines, and to flood flows and may limit the subdivision of lands for platting purposes. It may control the location and design of highways and roads and of public utility transmission and distribution lines, except on lands or other interests in real property owned by the utility on January 1, 1971. It may prohibit or limit the cutting of trees or other vegetation, but such limits shall not apply for a distance of more than 100 feet from the river's edge. It may specifically prohibit or limit mining and drilling for oil and gas, but such limits shall not apply for a distance of more than 300 feet from the river's edge. It may contain other provisions necessary to accomplish the objectives of this part. A zoning rule promulgated by the department shall not control lands more than 400 feet from the river's edge.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30510 Local zoning ordinance; conformance with applicable law; construction.

Sec. 30510. A local unit of government, in establishing a zoning ordinance, in addition to the authority and requirements of this part, shall conform to the township zoning act, 1943 PA 184, MCL 125.271 to 125.310, or the county zoning act, 1943 PA 183, MCL 125.201 to 125.240, including, but not limited to, the variance provisions of those acts. Any conflict shall be resolved in favor of the provisions of this part. The powers granted under this part shall be liberally construed in favor of the local unit or the department exercising them, in such manner as to promote the orderly preservation or enhancement of the values of the rivers and related land resources and their use in accordance with a long-range comprehensive general plan to ensure the greatest benefit to the state as a whole.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995;--Am. 2000, Act 17, Imd. Eff. Mar. 8, 2000.

324.30511 Districts; valuation for tax purposes.

Sec. 30511. Upon adoption of a zoning ordinance or rule, certified copies of the maps showing districts shall be filed with the local tax assessing officer and the state tax commission. In establishing true cash value of property within the districts zoned, the assessing officer shall take cognizance of the effect of limits on use established by the ordinance or rule.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30512 Rules; enforcement; promulgation; variance; existing use.

Sec. 30512. (1) The department shall prescribe administrative procedures and rules and provide personnel as it considers necessary for the enforcement of a zoning ordinance or rule enacted in accordance with this part. A circuit court, upon petition and a showing by the department that there exists a violation of a rule properly promulgated under this part, shall issue any necessary order to the defendant to correct the violation or to restrain the defendant from further violation of the rule.

(2) The department shall promulgate a zoning rule to implement this part. The rule shall include procedures for receiving and acting upon applications from local units of government or landowners for change of boundaries or change in permitted uses in accordance with chapter 4 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.271 to 24.287. An aggrieved party may seek judicial review under chapter 6 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.301 to 24.306.

(3) A variance from a zoning rule promulgated by the department to implement this part may be applied for and granted pursuant to section 4 of the uniform condemnation procedures act, 1980 PA 87, MCL 213.54, and the variance provisions of the zoning rule.

(4) The lawful use of any building or structure and of any land or premise as existing and lawful at the time of enactment of a zoning ordinance or rule or of an amendment of a zoning ordinance or rule may be continued although the use does not conform with the ordinance, rule, or amendment. The ordinance or rule shall provide for the completion, restoration, reconstruction, extension, or substitution of nonconforming uses upon reasonable terms as set forth in the zoning ordinance or rule.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995;--Am. 2000, Act 17, Imd. Eff. Mar. 8, 2000.

324.30513 National wild and scenic river system; administration.

Sec. 30513. This part does not preclude a component of the system from becoming a part of the national wild and scenic river system under the wild and scenic rivers act, Public Law 90-542, 16 U.S.C. 1271 to 1287. The department may enter into written cooperative agreements for joint federal-state administration of rivers that may be designated under the wild and scenic rivers act.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30514 Area plans; approval; rules.

Sec. 30514. The department shall approve preliminary and final plans for site or route location, construction, or enlargement of utility transmission lines, publicly provided recreation facilities, access sites, highways, roads, bridges, or other structures and for publicly developed water management projects, within a designated natural river area, except within the limits of a city or incorporated village. The department may require any measure necessary to control damaging erosion or flow alteration during or in consequence of construction. The department shall promulgate rules concerning the approvals and requirements provided for in this section.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

324.30515 Construction of part.

Sec. 30515. This part does not prohibit a reasonable and lawful use of any other natural resource that benefits the general welfare of the people of this state and that is not inconsistent with the purpose of this part.

History: Add. 1995, Act 59, Imd. Eff. May 24, 1995.

Appendix B

Natural Resources Commission Policy and Procedures Regarding the Natural River Act of 1970

subject NATURAL RIVERS

PREAMBLE:

Michigan's rivers and streams, and their adjoining lands represent some of the State's most important natural resources. These areas are important for their recreational, scenic, historic, cultural, economic, scientific and environmental values. However, the beauty and quality of rivers is fragile and the existence of unspoiled, free-flowing stretches is diminishing. A program for identification, designation and protection of these free-flowing natural rivers is in the public interest. The responsibility for developing Michigan's state-wide system of designated natural rivers has been delegated to the Department of Natural Resources under authority of the Natural Rivers Act (Act 231, Public Acts of 1970). This task involves two entities often in conflict: private ownership of river frontage and protection of publicly-owned natural resources. Because of the impact on private land rights, the program must maintain high visibility in the minds of the public, private river front landowners, and local governmental officials.

General Policy:

Selection of free-flowing rivers or river segments for inclusion in Michigan's natural river system will be based upon the specific qualities outlined in Section 3 of the Natural Rivers Act--water conservation, free-flowing condition, and fish, wildlife, boating, scenic, aesthetic, floodplain, ecologic, historic and recreational values and uses. Priorities for study and designation will be based upon the quality of the resource, the impending and anticipated threats to those qualities, and local initiative and support.

Prior to designation as a natural river, the Department will develop a long-range plan for the river and adjoining lands. The plan's objective will be the strong protection and enhancement of natural river values for the use and enjoyment of present and future generations. The plan will recognize the right and the need of the public to use and enjoy designated rivers, and if necessary, will contain a program for protection of the resource from overuse, including efforts to relieve public pressures on private lands. Zoning controls will be the chief means of controlling development and use on adjacent or affected lands. These zoning controls must be reasonable, yet sufficient to ensure a high level of protection to the natural and aesthetic qualities of the designated public resource and adjoining lands. Development of natural river plans shall include a high level of citizen and local government involvement. Local governmental officials, river front property owners and other citizens will be approached at an early stage in an earnest effort to enlist their knowledge and opinion on the river resource and its protection.

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In administration of designated natural rivers, great emphasis will be placed on local control of protective zoning ordinances. Local governmental units will be strongly encouraged to adopt and enforce appropriate zoning controls. Every effort shall be made to re-enforce the idea that this is a program to protect a resource of great value to the citizens of the State, not a program to merely prevent development.

SPECIFIC POLICIES:


1. State land within the designated area shall be administered and managed in accordance with the plan, and State management of fisheries, streams, waters, wildlife and boating shall take cognizance of the plan. Emphasis will be placed on Department programs which affect designated rivers, in line with the adopted river management plans, including: design, development, relocation or screening of Departmental facilities; acquisition of critical lands to provide recreational facilities, disperse use or relieve trespass on private lands; and implementation of other land, water and resource management programs which serve to protect and enhance the qualities of the natural river area.
2. Where a proposed Departmental use or facility on a designated natural river appears to contravene the purposes and objectives of the natural river designation, the project will be modified to conform to the objectives of the designation and the Natural Rivers Act or will be cancelled. If a project is essential to the operation of other programs, but does not conform to the river management plan of a designated river, it must be submitted to the Natural Resources Commission for approval.
3. The Department shall provide technical assistance in drafting, processing and enforcement of local zoning for natural rivers protection.
4. The Department shall, upon request, provide technical advice to local river front property owners as to location and design of structures, management of private lands, planting and management of vegetation, river clean-up, and property tax benefits available under Act 116, Public Acts of 1974, as amended, or other relevant State statutes.
5. Recommended planting materials will be supplied at cost to property owners by the Department on designated natural rivers when available.
6. The Department shall conduct an on-going public information program to explain the values and importance of a natural rivers system, describe the pressures which pose a threat to rivers and to outline steps which river front property owners, local governments, State agencies and others may take to protect this State's outstanding river environments.

* * *

Supported by Commission Action March 9, 1978.

Procedure No. 2703.3.

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 DEPARTMENT PROCEDURES department of natural resources	effective date March 9, 1978	number 2703.3
	supersedes Number _____ Date _____	
subject NATURAL RIVERS		
I. <u>LOCAL ASSISTANCE ON DESIGNATED NATURAL RIVERS</u>		
A. To Riverfront Property Owners - Upon Request:		
1. The Division of Land Resource Programs will assist riverfront property owners in selection of the best sites on an individual's property for the location of buildings and appurtenances and with design and location of docks, pathways and riverbank protection.		
2. Forest Management Division, through its local area foresters, will advise riverfront property owners on planting stock to be used to stabilize riverbanks or to screen existing structures. When available at state nurseries, recommended planting materials will be supplied to property owners at cost.		
3. The Division of Land Resource Programs will provide technical assistance to riverfront property owners on programs of other agencies which provide information and assistance in the areas of water or septic systems location and design, soils information and management, pond development and management, and cooperative fencing.		
4. The Division of Land Resource Programs and Fisheries Division will provide technical advice on erosion problems and streambank stabilization, including reference to programs of other agencies.		
5. The Division of Land Resource Programs will assume responsibility for coordination of periodic river clean-ups.		
6. The Division of Land Resource Programs will assist riverfront property owners, local governmental units, and other interested citizens in organization of watershed councils, property owners' associations, or other river protective groups.		

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7. The Division of Land Resource Programs will provide assistance to riverfront property owners in applying for property tax benefits available under the Farmland and Open Space Preservation Act (Act No. 116 of the Public Acts of 1974, as amended) and other relevant state statutes.

B. To Local Units of Government - Upon Request:

1. The Division of Land Resource Programs will provide technical assistance in development and processing of local zoning and other controls designed to protect and enhance the natural qualities of the river and adjoining lands.
2. The Division of Land Resource Programs will provide assistance to local governments in administration of its zoning ordinance relating to the Natural Rivers Program by reviewing special exception or variance requests, and by providing available data.
3. Upon specific written request of a local governmental unit along a designated natural river, the Division of Land Resource Programs will delineate the "ordinary high water mark"
4. The Water Management Division will give high priority to floodplain delineation studies for river stretches designated under Act No. 231 of the Public Acts of 1970 (Natural River Act) where heavy development activity in the floodplain is expected in the future and where recommendations for local zoning deal with setbacks in relation to lands subject to flooding.
5. When an adopted river management plan identifies the need for administrative rules for watercraft under authority of Act No. 303 of the Public Acts of 1967, Law Enforcement Division will cooperate with the appropriate local units of government in the promulgation of such rules as soon as possible following river designation.

II. STATE LANDS AND PROGRAMS MANAGEMENT ON DESIGNATED NATURAL RIVERS

- A. The river management plan for each proposed natural river will address state lands and programs, including the following:
 1. Management and administration of state land.
 2. Fisheries management.
 3. Wildlife management.
 4. Camping facilities - number, location, proximity to the water's edge.

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<p>5. Access sites, number, location, vegetative screening.</p> <p>6. Need for facilities to relieve pressures on private lands.</p> <p>7. Signing for access, of facilities, respect for private lands.</p> <p>8. Water quality management.</p> <p>9. Water management - impoundments, dredging, filling.</p> <p>10. Watercraft control and uses.</p> <p>B. A Departmental sign plan will be developed for each designated river. This plan will be submitted to the Department Sign Committee for approval, and will be implemented as soon as possible following designation of a river. Signs will be designated and located in such a manner as to enhance the purposes of the designation, but without detracting from the natural qualities of the stream environment, and to accomplish the following:</p> <ol style="list-style-type: none"> 1. Advise the public of the intent of the natural rivers designation. 2. Indicate that adjacent lands are not all public, and emphasize respect for private property. 3. Advise the public of special management regulations. 4. Advise the public of available public facilities to discourage trespass on private lands. 5. Advise the public of watercraft controls and uses in effect. <p>C. A fisheries management plan will be made a part of the natural rivers plan to address problems and needs for the maintenance and enhancement of the fisheries values found in the rivers.</p> <p>D. Management recommendations for streambank stabilization and habitat improvement plans will be developed by Fisheries Division for designated natural rivers. Fisheries Division will make every effort to place priority on these plans within its fisheries program.</p> <p>E. Streambank stabilization and habitat improvement structures will be constructed of materials which will harmonize with the natural characteristics of the stream environment on a designated natural river.</p> <p>F. Baseline water quality will be determined, both chemically and biologically, at the time of natural river designation.</p> <p>G. River stretches designated under Act No. 231 of the Public Acts of 1970 will be governed by the "nondegradation" rule of the Water Resources Commission's water quality standards.</p>			

identification	effective date	number	
Natural Rivers	March 9, 1978	2703.3	page <u>4</u> of <u>4</u>
<p>H. A program for water quality monitoring shall be carried out on designated natural rivers.</p> <p>I. Where land acquisition is needed to implement the recommendations presented in an adopted river management plan, these needs will receive priority consideration by appropriate divisions.</p> <p>J. Recommendations in an adopted river management plan for new campgrounds or removal or relocation of existing nonconforming facilities will be implemented as soon as possible.</p> <p>K. Needed screening plantings between a designated river and existing Departmental facilities will be initiated as soon as planting stock becomes available.</p> <p>L. Management of state lands, vegetation, recreational use and repair of resource damage along designated natural rivers will be done in line with the adopted river management plan.</p> <p>M. The Department will implement a solid waste management and litter control program for the natural river area as soon as possible following designation.</p>			
<p>Policy No. <u>2703.</u></p>			

APPENDIX C

“ALTERATION OF RIVERS” LAWS

Construction on Streams (Act 156, 1951): Authorizes county commissioners to permit or prohibit the construction of dams or bridges on navigable streams. They can also provide for the removal of obstructions.

Construction of Dams in Streams (Act 184, 1963): Prohibits dam building on a stream or river impounding more than five acres without a permit from the Department of Natural Resources.

Inland Lakes and Streams Act of 1972 (Act 346, 1972): Authorizes the Department of Natural Resources to regulate structures, fills, dredgings and other such actions on waterfronts.

Soil Erosion and Sedimentation Control Act of 1972 (Act 347, 1972): Control of soil erosion for the identified land uses of an area to prevent sedimentation of the waters of this state.

Regulate Alteration of Floodplain and Floodways (Act 167, 1968): Authorizes the Water Resources Commission to control alteration of the water courses and the floodplains of all rivers and streams, and to prohibit the obstruction of the floodways of rivers and streams of the state.

Goemaere-Andreson Wetland Protection Act (Act 203, 1979): Authorizes the Department of Natural Resources to regulate dredging, filling, draining and other such actions to wetlands, including those contiguous to Michigan rivers (effective October 1, 1980).

RIVER USE LAWS

Marine Safety Act (Act 303, 1967): Sets forth general regulations for the use of vessels on waters of the state. Department of Natural Resources may, via hearings and adoption of rules by local governments, further regulate the use of such waters by special regulation.

Pending Canoe Registration Act: Would require registering of canoes that are intended for use in public waters of the state.

POLLUTION LAWS AND PROGRAMS

Water Resources Commission (Act 245, 1929): Commission must establish “pollution standards for waters of the state in relation to the use to which they are or may be put.” Has the authority to make regulations and issue orders and permits restricting the polluting content of discharges into state surface and ground waters. Act prohibits discharges of any substance into water which are or may become injurious to public health, safety, welfare; domestic, commercial, industrial, agricultural, recreational or other uses of water; value or utility of riparian lands; to livestock,

wild animals, birds, fish, aquatic life or plants, etc. Prohibits structures that will unduly restrict the capacity of the floodway.

Environmental Protection Act (Act 127, 1970): Allows the Attorney General, any public body, and private body or person to sue to enjoin the pollution or likely pollution of any natural resource or obtain relief with respect to such actions.

Clean Water Boding Act (Act 76, 1968 implemented by Act 329, 1966, as amended): For sewage treatment facilities eligible for federal aid, the Water Resources Commission may grant up to 25 percent of the project cost providing that the sum of state and federal aid shall not exceed 80 percent of the project cost.

RELATED & GENERAL LAWS APPLICABLE TO NATURAL RIVERS PROGRAM

Shorelands Protection and Management Act (Act 245, 1970): The Great Lakes counterpart of the Natural River Act.

Farmland and Open Space Preservation Act (Act 116, 1974): Provides tax relief for certain property owners signing nondevelopment agreements with the state.

Subdivision Control Act (Act 288, 1967): Regulates the subdivision of land; requires that the land be suitable for building sites and public improvements, and that there be adequate drainage thereof; to control residential building development within floodplain areas, etc.

State Constitution (Act IV, s.52): Legislature must provide for the protection of natural resources.

Department of Conservation (Act 17, 1921): Department must protect and conserve the natural resources of the State of Michigan.

Natural Beauty Roads (Act 150, 1970): Such roads may be established by county road commission upon local petition. After establishment, commission may enact regulations to preserve native vegetation in the road right-of-way.

Safety Zones (Act 61, 1968): Prohibits discharge of firearms within 150 yards of an occupied dwelling.

Reckless Use of Firearms Act (Act 45, 1952):

Recreational Trespass Act (Act 323, 1976): Must have written permission to be on an individual's property, and prohibits possession or discharge of a firearm within the limits of a right-of-way on certain public roads.

RIVER PLANNING & DEVELOPMENT

ORGANIZATIONS

Local River Management Act (Act 253, 1964): Authority to establish both a watershed council (like a planning or advisory board) and a river management district and board (planning a development agency).

Intermunicipality Study Committee (Act 200, 1957): Two or more municipalities may establish an intermunicipality study committee to study area problems and formulate recommendations to their governing bodies.

APPENDIX D
PIGEON RIVER
DESIGNATED STREAM MILEAGE

<u>TOWNSHIP</u>	<u>LINEAR MILES</u>			<u>FRONTAGE</u>		
	<u>Public</u>	<u>Private</u>	<u>Total</u>	<u>Public</u>	<u>Private</u>	<u>Total</u>
OTSEGO COUNTY						
Dover	.5	24.0	24.5	1.0	48.0	49.0
Corwith	6.5	3.0	9.5	13.0	12.0	25.0
sub-total	<u>7.0</u>	<u>27.0</u>	<u>34.0</u>	<u>14.0</u>	<u>60.0</u>	<u>74.0</u>
CHEBOYGAN COUNTY						
Nunda	11.0	12.5	23.5	14.0	27.0	41.0
Walker	6.0	4.0	10.0	12.0	8.0	20.0
Ellis	-	7.0	7.0	-	14.0	14.0
Koehler	.5	5.0	5.5	1.0	10.0	11.0
sub-total	<u>17.5</u>	<u>28.5</u>	<u>46.0</u>	<u>27.0</u>	<u>59.0</u>	<u>86.0</u>
TOTALS	24.5	55.5	80.0	41.0	119.0	160.0

Appendix E

log-sod covered docks

LOG-SOD COVER

The log-sod covers must abutt the dock to avoid holes. Remember the basic dock frame is built several inches above the normal water level, while the frame of the cover is placed just below the water level. By layering the logs on the frame, the level of each should be about the same.

The log-sod cover is anchored to the bottom by jettling several posts into the stream bottom along the edges of the structure. Whaler logs are fastened to the posts just below the normal water level using 8" to 10" spikes. Green (freshly cut) logs and poles about 6" to 8" in diameter are spiked to the whalers with the bottom row partially submerged into the water so the logs will remain water soaked to prevent decay. A larger log is added to the outer edge and the structure is tapered up the bank by making the cover thicker next to the bank. All logs should be firmly spiked in place. The top of the log-sod cover is then sodded.

