

EXISTING USES AND RECREATIONAL OPPORTUNITIES

A. Land Use

Distribution of land in the Kalamazoo River watershed by major use shows cropland and pasture account for the greatest share, 57.0 percent. Forest land is the second most important land use, utilizing 21.0 percent of available lands. The remaining 22.0 percent is composed of wetlands (three percent), water (two percent), urban areas (eight percent), and other (nine percent). Agricultural enterprises within the watershed vary from general farming to production of specialty crops, such as grapes, apples and blueberries. Those areas in the eastern half of the watershed produce the major share of row crops and small gains, while the western counties produce the greatest share of fruits and vegetables.

Land use within the study area varies only slightly from the watershed figures. Sixty percent of the land is in cropland and pasture, and 27 percent is in forest land. Most of the lands classed as other and portions of the agricultural lands classed as idle are used as recreational lands. The upland areas and the adjacent wetlands and water areas are used for camping, hunting, wildlife production, fishing and boating.

B. Private Recreation Facilities

Private sources provide a wide range of recreational activities and uses within the ten counties making up the Kalamazoo River watershed. There are 55 private campgrounds which provide roughly 5,000 campsites. These sites range from the rustic tent campers to modern trailer or recreation vehicle sites. In addition, many of the camps provide swimming, boating and picnicking. Within the study area, 12 private campgrounds provide 877 campsites.

Other recreational activities provided by private sources include golf courses, archery ranges, horseback riding, boat and canoe rentals, marinas, charter boats for Great Lakes fishing and fishing ponds and lakes.

C. Public Recreation Facilities

Public recreation facilities are limited within the Kalamazoo River watershed. Fort Custer Recreation Area, Allegan State Game Area and Yankee Springs Recreation Area offer a wide variety of recreation opportunities. Only Allegan Game Area and Yankee Springs provide camping. Six camp areas provide 540 campsites, while one organization camp provides for another 50 persons. Within a short drive of the study area, two state parks (Van Buren and Holland), provide an additional 545 campsites and a variety of day-use facilities.

In addition, 26 county, township or municipal parks within the watershed provide additional camping (250 sites) and day-use facilities for recreationists.

D. Fishing

The Kalamazoo River system is conducive to a warmwater fishery, although a number of tributaries are cool enough to support a quality trout fishery. Warm water species generally include northern pike, large mouth bass, panfish, carp and suckers. Cold water species consist of brown and rainbow trout.

An anadromous fish-stocking program was initiated on the lower Kalamazoo River in 1969. The stream has received large plants of chinook and coho salmon, steelhead and domestic rainbow trout, and brown trout in recent years. Although coho plants were discontinued in 1973 because of poor returns, the chinook fishery in the fall and the steelhead fishery throughout the winter and early spring are productive. Also, brown trout are taken during the fall and winter at the Allegan Dam and in the lower river areas.

There is an excellent fishery for northern pike in Silver Lake and the mainstream below New Richmond in the winter and spring. Fishing is also good for largemouth bass, panfish, catfish, carp and suckers in the lower river. Walleyes have made a substantial comeback in the Kalamazoo River during the past five years. Fishing for warm water fish in the lower Kalamazoo River would be much more popular if water quality were improved. The Michigan Department of Public Health has issued an advisory warning against eating fish from the Kalamazoo River (Kalamazoo to Saugatuck) because of high PCB levels.

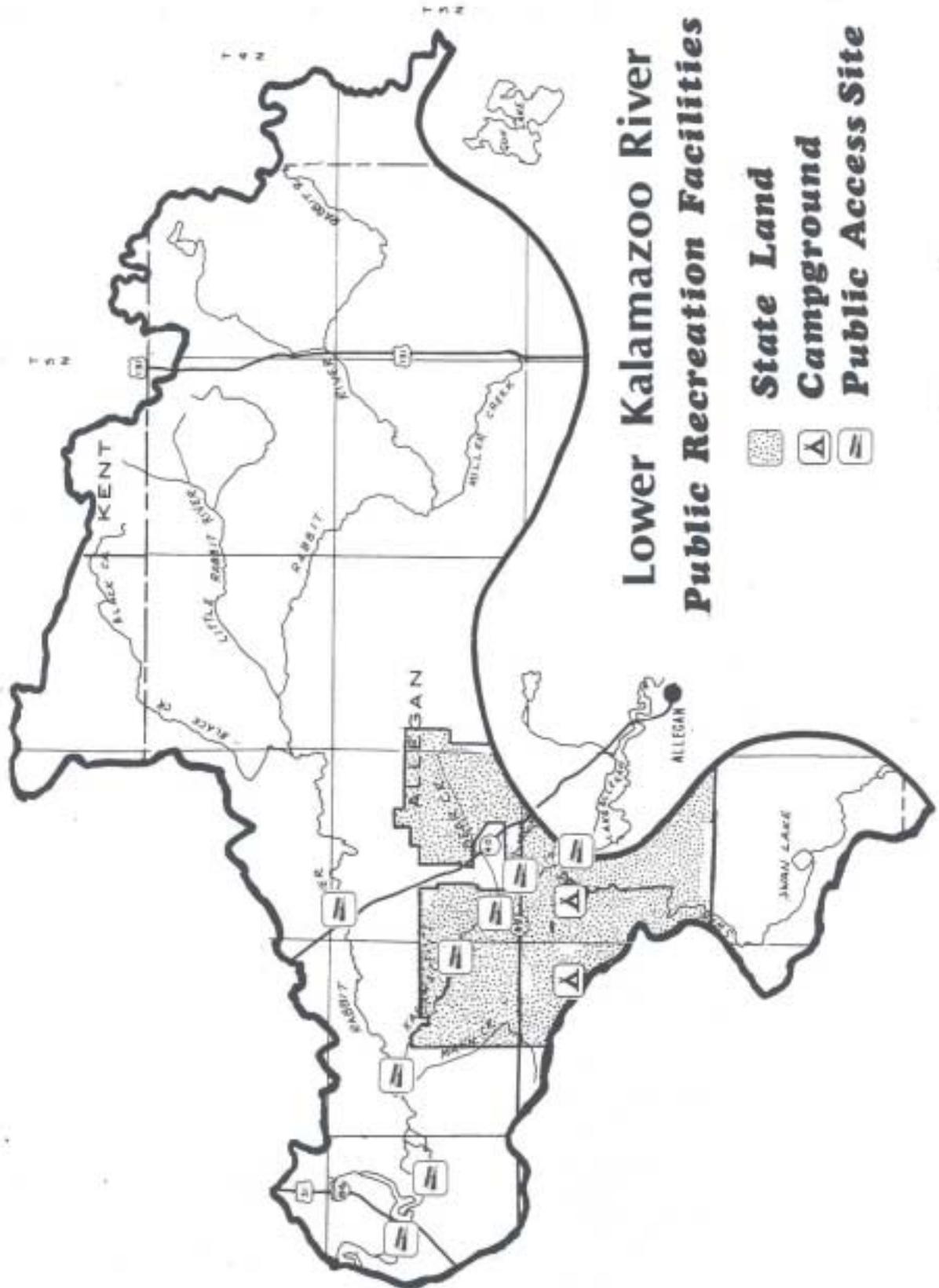


The major gamefish in the Rabbit River are pike, smallmouth bass and rock bass. Also, the annual spring run of white suckers is heavily fished. In addition to these resident fish, the Rabbit River has been stocked with steelhead and domestic rainbow trout since 1972. These fish have provided a very good winter and spring fishery, particularly at the Hamilton Dam. Also, there have been significant stray runs of salmon in the streams during the fall in recent years. Some of the anadromous fish ascending the Rabbit River have passed over the Hamilton Dam, since steelhead and salmon have been observed in the Diamond Springs to Hopkins area.



The upstream portions of the Rabbit River, primarily in Wayland Township, are managed for brown trout. A chemical treatment project was conducted on this segment of the stream in 1971. Brown trout survival and growth was excellent after the project and a good trout fishery has developed.

Below 109th Avenue, Swan Creek is designated a second quality cold water stream. Brown trout have been stocked in Swan Creek since at least the early 1930's. Rainbow trout were also stocked until the mid 1960's. The stream has a history of providing a good brown trout fishery throughout the years. Since the stream's bottom is comprised almost entirely of sand, natural reproduction of trout is minimal. During the early 1970's, an extensive habitat development program was completed on the portions of the stream in state ownership. Two hundred and sixteen log fish cover structures were installed in the stream. Also, gravel and stone spawning areas were installed in eight locations.



Northern pike, largemouth bass, bluegills and other panfish are available in the Swan Creek Impoundment. This small impoundment and the creek immediately downstream receive considerable fishing pressure, since the popular Pine Point Campground is adjacent to the pond. Anadromous trout and salmon ascend Swan Creek in the fall and spring, and provide a fishery. The upstream end of these anadromous fish runs is the Swan Creek Impoundment.

Three small tributary streams to the lower Kalamazoo River (Mann, Bear and Sand creeks) are also classed as top or second quality cold water. Mann and Sand creeks are primarily brook trout streams and Bear contains predominantly brown trout. In addition to natural reproduction, Bear Creek also receives annual supplementary plants of brown trout.

Anadromous trout and salmon spawn successfully in these streams. Coho salmon, brown trout, brook trout and rainbow trout reproduction have been documented in Sand and Bear creeks. Although Mann Creek has not been surveyed to document natural reproduction, brook trout reproduction obviously occurs and rainbow and coho reproduction is likely.

Bear Creek is the most heavily fished of the three streams. Since much of the stream is in the Allegan State Game Area, access is not a problem. Also, the stocking program is attractive to trout anglers. Sand Creek does not receive heavy angling pressure because of its small size. Mann Creek receives only moderate fishing pressure primarily because of its very brushy banks which make fishing difficult.

E. Wildlife Observation and Hunting

The wildlife resources of the Kalamazoo River Basin are as varied as the habitat through which the river flows. From the rich farmlands of Calhoun and Kalamazoo counties to the oak-pine sand barrens of Allegan County, the make-up of the local fauna changes rather dramatically.

Throughout the river basin, the forest species of fox, squirrel, cottontail rabbit and whitetailed deer can be found, while species such as the ring-necked pheasant, bobwhite quail and wild turkey require more specific habitat requirements.

Both resident and migratory species are important to the Kalamazoo River valley. Important resident species of game animals include the white-tailed deer, cottontail rabbit, fox squirrel, grey squirrel, raccoon, ring-necked pheasant, ruffed grouse, bobwhite quail and wild turkey. Furbearing mammals common to the river valley are the mink, muskrat, red fox, skunk, opossum, weasels and woodchuck. Less common mammals are the gray fox, badger and beaver. Many small mammal species also occur including the red squirrel, northern flying squirrel, chipmunk, ground squirrel, plus several species of voles, mice and bats. The list of songbirds and raptors number in the hundreds. Migratory species present range from the often seen and studied Canada goose to the seldom seen prothonotary warbler. Individual Canada geese can be found 12 months of the year in various areas of the valley. Several hundred other species of both migratory songbirds and waterfowl also occur.



Important species of waterfowl which commonly take up summer residence in the Kalamazoo valley include mallard duck, black duck, wood duck, Canada goose, blue-winged teal, and American coot. Other species common, usually only during spring and fall migration, include the blue goose, whistling swan, redhead duck, canvasback, goldeneye, American merganser, bufflehead, lesser scaup, American gallinule, Wilson's snipe, baldpate, pintail, gadwall and green-winged teal.

The American woodcock is an important migratory forest species. Nongame species seldom receive attention from the general public because they are not hunted and often are inconspicuous. However, they make up the larger portion of the wildlife resource and their involvement in the physical well being of the total environment is no less important than that of game species. Species densities of most nongame mammals and birds, amphibians and reptiles are relatively unknown.

Limited information is available on population estimates of endangered, rare or threatened species (with the exception of the sandhill crane). The only endangered amphibian or reptile in the basin is the Kirtland's water snake. An endangered species is one in danger of extinction through all or is a significant part of its range. Some birds and mammal species that formerly occurred in the region have long since been extirpated locally.

There are 13 threatened species known to occur in the Kalamazoo River valley, including the cooperbellied water snake, the barn owl, the Cooper's hawk and the pine vole. A threatened species is one likely to become endangered within the foreseeable future.

There are 49 known rare or scarce species in the basin, including the badger, coyote, river otter, sandhill crane, upland sandpiper, the great blue heron, the prothonotary warbler and the pileated woodpecker. Rare or scarce species are not known to be endangered or threatened but are uncommon and deserve continued monitoring of their status.

The State of Michigan is an important landowner in the lower Kalamazoo River valley with over 48,000 acres in Kalamazoo and Allegan counties. Ownership includes approximately 23 miles of Kalamazoo River frontage. Management of the lands adjacent to the river are very dependent upon the river as a source of water and wildlife habitat. A great deal of furtrapping and waterfowl hunting occur on the Kalamazoo River and its adjacent marshes. Three specially managed waterfowl management units are in existence downstream from the Allegan Dam – the Koopman, Swan Creek and Ottawa marshes. These three units provide thousands of hunter days of recreation each fall as hunters seek out Canada geese, mallards, wood ducks and other waterfowl. Development and improvement projects planned for these three units will create additional quality habitat for waterfowl and waterfowl hunting. Possible future marsh management techniques which include diking, water control, diversions and ditching will provide many more acres of quality wetland habitat.

Four species of birds seldom seen in southern Michigan which are listed as endangered or rare are the American bald eagle, golden eagle, osprey and pileated woodpecker. Individuals of each of these species are usually spotted in or near the Ottawa marsh during the year.

The lands of the Allegan State Game Area which straddle the Kalamazoo River form the nucleus of the home range for southern Michigan's only flock of wild turkeys. The river and its tributaries are an important part of habitat needed for the continuance of this flock of 300 to 400 birds. A limited spring hunting season for approximately 300 hunters has produced 25 to 30 turkey dinners for successful hunters each year from 1975 through 1979.

F. Canoeing and Boating

The North Branch of the Kalamazoo River is generally small and not considered canoe water. Much of the South Branch, from the vicinity of Mosherville downstream, is canoeable and except for the urban areas is quite attractive for canoeing. The river becomes quite large below Battle Creek and will accommodate small fishing boats.



Below Allegan Dam, the mainstream is wide and deep and has a moderate current. These factors coupled with very little development makes it an enjoyable stretch of river to canoe or boat. Boaters should be careful when using motors since the river has numerous snags and logs not visible from the surface.

Most of the tributaries entering the mainstream in the study area are not considered canoeable. The Rabbit, however, is smaller but similar in character to the Kalamazoo River and provides an enjoyable experience for canoeists who don't mind an occasional carry over a logjam.

G. Historic and Archaeological Sites

Historic and archaeological resources in the Kalamazoo River watershed are numerous. There are 105 numbered or marked historic sites in the watershed area (Table 1). Of these, about half are registered as local sites and half as state sites. Twenty-one of these sites are also listed on one of the National Registers. All of the sites receive some protection under Michigan law.

Archaeological sites are scattered throughout the watershed (Table 2) and probably represent only a small percentage of the actual sites which exist.

TABLE 1

RECOGNIZED HISTORIC SITES

County	Homes	Gov't and Business	Education Schools	Church	Other	Total
Allegan	2	1		4	3	10
Barry					3	3
Calhoun	12	9	5	4	12	42
Eaton	2	2	1	1	1	7
Hillsdale	1					1
Jackson			1			1
Kalamazoo	3	5	6		12	26
Ottawa			1	5	4	10
Van Buren		3	1	1	1	5
BASIN	20	20	15	14	36	105

TABLE 2
IDENTIFIED ARCHAEOLOGICAL SITES IN THE WATERSHED

County	Number
Van Buren	0
Allegan	98
Ottawa	0
Kent	0
Barry	7
Kalamazoo	34
Calhoun	18
Eaton	12
Jackson	1
Hillsdale	6
BASIN	176

The Lower Kalamazoo valley in Allegan County is one of the areas in the state best known to archaeologists. Professional archaeologists have surveyed about one third of the region between the Calkins Dam in Valley Township and the mouth of the river. Thus far, 83 archaeological sites have been recorded on the bluffs and terraces along this stretch of the Kalamazoo.

Few of the 83 reported sites have been investigated in enough detail to determine their time period or function, or whether enough scientific information has been preserved to qualify them for listing on the National Register of Historic Places.

Artifacts representing all cultural periods known in southwestern Michigan have been found along the lower Kalamazoo River. These periods include:

Paleo-Indian (10000-8000 BC): Hunters of Pleistocene game such as mastodon and musk oxen entered Michigan as the Ice Age glaciers retreated. They left behind small campsites and butchering stations, identified by the presence of distinctive fluted lance points.

Archaic (8000-1000 BC): Human adaptations changed with the long transition from Pleistocene to modern climatic conditions, lake shore and drainage patterns, and vegetation. Hunting and gathering peoples developed annual cycles of camp location and group size to take advantage of a variety of natural resources, each in season. The spearthrower ground stone axes and woodworking tools, and copper tools came into use, and burial practices became more elaborate. This period is subdivided into the Early Archaic (8000-6000 BC), Middle Archaic (6000-3000 BC), and Late Archaic (3000-1000 BC).

Woodland (1000 BC-AD 1500): Ceramics, the bow and arrow, and horticulture were major innovations of the Woodland period. During the Early (1000-200 BC) and Middle (200 BC-AD 700) Woodland periods, burial ritual became increasingly complex, and

burial mounds were often built. Horticulture did not become a major factor until the villages were built, sometimes protected by circular earthworks supporting stockades.

Upper Mississippian (AD 1500-1700): People with strong cultural ties to those in Indiana and Illinois lived in southwestern Michigan during late prehistoric times. They were probably the ancestors of the Potawatomi and Miami. They lived in large stockaded villages in the summer, and moved inland as a group to hunt in the winter. They depended more heavily on crops than did the Woodland peoples, tended to live in larger settlements, and made distinctive, well made artifacts.

Historic (AD 1700-present): The increasing dominance of European culture, first through trade, and then by white settlement characterizes this period. The Potawatomi and Ottawa both hunted in Allegan County in the winter, and some of the Ottawa both hunted in Allegan County in the winter, and some of the Ottawa stayed year round. Trading posts were built, and by the 1830's white settlement was underway. The area was ceded to the U.S. in the Treaty of Chicago, 1821. Mills were built, and towns grew up around them.