

# STATE OF MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Number 31 October 2004

# Manistique River Assessment Appendix

George Madison and Roger N. Lockwood

#### MICHIGAN DEPARTMENT OF NATURAL RESOURCES FISHERIES DIVISION

Special Report 31 October 2004

#### Manistique River Assessment Appendix

George Madison and Roger N. Lockwood



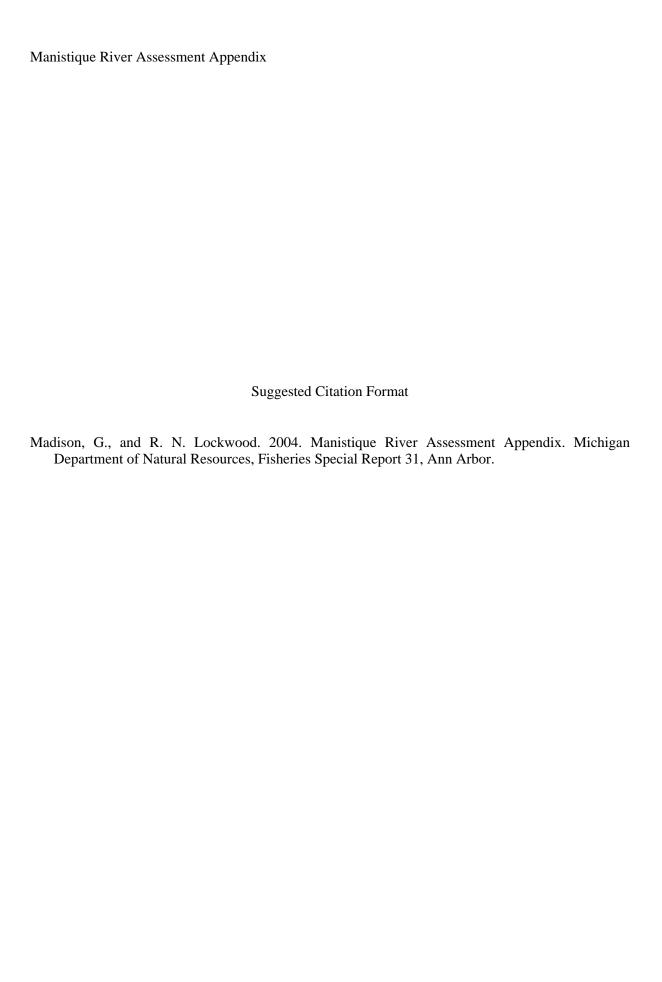
The Michigan Department of Natural Resources (MDNR), provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the Civil Rights Acts of 1964, as amended, (1976 MI P.A. 453 and 1976 MI P.A. 220, Title V of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act). If you believe that you have been discriminated against in any program, activity or facility, or if you desire additional information, please write the MDNR Office of Legal Services, P.O. Box 30028, Lansing, MI 48909; or the Michigan Department of Civil Rights, State of Michigan, Plaza Building, 1200 6th Ave., Detroit, MI 48226 or the Office of Human Resources, U. S. Fish and Wildlife Service, Office for Diversity and Civil Rights Programs, 4040 North Fairfax Drive, Arlington, VA. 22203.

For information or assistance on this publication, contact the Michigan Department of Natural Resources, Fisheries Division, Box 30446, Lansing, MI 48909, or call 517-373-1280.

This publication is available in alternative formats.







# **TABLE OF CONTENTS**

APPENDIX 1			
APPENDIX 2			
APPENDIX 3			13
Distribution Maps	of Fish Spe	ecies (listed alphabetically)	
Alewife	20	Lake trout	55
American brook lamprey	17	Largemouth bass	66
Blackchin shiner	28	Least darter	70
Blacknose shiner	29	Longnose dace	38
Blackside darter	74	Mimic shiner	32
Black crappie	67	Mottled sculpin	60
Bluegill	64	Muskellunge	45
Bluntnose minnow	35	Northern brook lamprey	15
Brassy minnow	22	Northern logperch	73
Brook stickleback	59	Northern pearl dace	24
Brook trout	54	Northern pike	
Brown trout	53	Northern redbelly dace	33
Bullhead spp	42	Pink salmon	49
Burbot	57	Pumpkinseed sunfish	63
Central mudminnow	47	Rainbow trout	
Channel catfish	43	Rock bass	61
Chinook salmon	52	Sand shiner	31
Coho salmon	50	Sea lamprey	18
Common carp	21	Shorthead redhorse	41
Common shiner	23	Silver lamprey	16
Creek chub	39	Smallmouth bass	65
Emerald shiner	27	Splake	56
Fathead minnow	36	Spottail shiner	30
Finescale dace	34	Striped fantail darter	69
Golden shiner	26	Tiger muskellunge	46
Green sunfish	62	Walleye	75
Hornyhead chub	25	Western banded killifish	
Iowa darter		Western blacknose dace	37
Johnny darter	71	White sucker	40
Lake herring {Cisco}		Yellow perch	72
Lake sturgeon		•	
APPENDIX 4			77

# **APPENDIX 1**

Development standards for the Fox River system under authority of Wild-Scenic River Act 23, P.A. 1970.

#### **FOX RIVER NATURAL RIVER**

#### Development Standards

<u>Natural River District</u>—(the area within which the following standards apply) - 400 feet either side of the ordinary high water mark ("river's edge").

	Mainstream	Tributaries
Building Setback	100'	100'
Minimum Lot Width	330'	330'
Minimum Lot Size	5 acres	5 acres
Natural Vegetation Strip (200 feet on public land)	100'	100'
Septic System Setback	150'	150'

- No new commercial or industrial structures or uses are permitted within the 400' Natural River District, except campgrounds, canoe liveries and rental cabins may be permitted if they meet specific development standards.
- New development, exploration, or production of oil, gas, salt brine, sand and gravel, or other minerals is prohibited within 300' of the designated river.
- Grading, dredging, or filling are permitted if applicable laws are followed and the activity is outside the floodplain and the natural vegetation strip.
- Trees and shrubs may be selectively pruned in the natural vegetation strip for such things as timber harvest, habitat improvement and public utility maintenance if these activities do not degrade water quality.
- Docks may be constructed not to exceed 4'x 12' nor protrude more than 4' into the stream.
- Stream alteration such as damming, dredging, filling or channelization of the stream channel is prohibited unless approved by the MDNR and MDEQ.
- Use of watercraft and size of watercraft motors is regulated on portions of the Fox River system. See Natural River Plan for details.
- The use of natural materials for bank stabilization, such as wood and fieldstone, is required.

This is a brief summary of the Fox River development standards.

For details or more information contact: Department of Natural Resources

Fisheries Division Natural Rivers Program

P.O. Box 667 Gaylord, MI 49735 Phone: 989-732-3541

# **APPENDIX 2**

Development recommendations for the Indian River system, a Federally designated Wild and Scenic River.

#### INDIAN NATIONAL SCENIC AND RECREATIONAL RIVER

#### **Zoning Recommendations**

An effective method of providing protection for the "outstandingly remarkable values" of the Indian Wild and Scenic River on private lands is through local zoning ordinances.

Through Section 6 of the Wild and Scenic Rivers Act (P.L. 90-542), Congress requires the Secretary of Agriculture (the Forest Service as the managing agency) to "issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of this Act" and work with local units of government to implement the guidelines. The Forest Service's role is to represent the federal interest in protection of the river corridor, promote recreational use of the river, and to administer the National Forest land within the designated river corridor. It is not to supercede the role of state or local governments, or to impose regulations on them. Rather, the Federal role is a cooperative one, working with state and local governments.

#### Zoning Recommendations and Rationale

#### 1. Type of zoning district

Ideally a separate river zoning district would be desirable.

#### 2. Width of corridor for river zoning district

For rivers with no special designation a minimum of 400 feet on each side of ordinary high water mark (OHWM) would be the recommended corridor width. For rivers designated under the Wild and Scenic Rivers Act the recommended corridor would be the area included in the final boundary delineation in the river management plan, but not less than 400 feet on each side of OHWM. For rivers designated for study under the WSR act, the recommended corridor would be the interim ½ mile on each side of the OHWM.

The 400-foot on each side of OHWM is a standard that the State of Michigan uses when considering overlay districts for Natural River zoning. Adopting this standard will be consistent with other river zoning standards throughout the state and the U.P. Adoption of the Wild and Scenic River (WSR) boundary as the zoning district boundary for designated rivers allows for consistent management of the river corridor to protect river values. Until a final decision as to the suitability on whether study segments should be designated as Wild and Scenic segments the legislated ½ mile on each side of OHWM should also be the zoning boundary in an effort to protect river values and provide consistency.

#### 3. Minimum lot size

#### Unincorporated Townsites, Townsites and Rural Development Areas

Five (5) acres is the minimum recommended lot size along WSR segments designated "Scenic". One (1) acre with 150 feet of frontage is the minimum lot size along WSR segments designated "Recreational".

"Scenic" segments are indicative of the level of development, the setting, and the character of the river corridor. To protect this setting larger lot sizes are warranted. One (1) acre lot size along

"recreational" segments will provide for more intensive development, while protecting the values of a "recreational" setting.

#### Undeveloped Areas

In areas where large parcels of relatively undeveloped property (35 acres or more) or development at low density occurs and subdivision is contemplated, 10 acres with a minimum of 330 feet of frontage is the minimum recommended lot size within both recreational and scenic segments.

#### 4. Minimum structure setback

Recommended structure setback is 100 feet from OHWM for both scenic and recreational WSR segments.

These recommendations are consistent with State Natural Rivers recommendations and recommendations for other WSR corridors. These setbacks will act as a partial screen between the river and the building, protect against erosion, and preserve the natural shoreline and the "natural" setting of the riverine area.

#### 5. Vegetative buffer zone

Recommended vegetative buffer zone within the setback is 30 feet for recreational WSR segments and 75 feet in scenic WSR segments. This area may have some vegetative manipulation (e.g. tree cutting, pruning, etc.) to provide for filter views to the river. Cutting grass, etc. would not be appropriate in this zone.

The natural vegetation buffer along the shore enhances the natural setting of the river, provides privacy, and protects water resource values. Natural vegetation also provides for erosion control, shoreline habitat for wildlife and fish, and shade for stream temperature control.

#### 6. Bluff setback

Recommended bluff setback requirement would be 20 feet, except for stairways, landings, and "rustic" fences.

Generally a bluff could be defined as a 20-foot change in elevation above OHWM with a slope greater than 30 percent. Bluff setbacks provide for protection of the bluff from erosion and maintain the natural setting of the riverine area.

#### 7. Permitted uses

Recommended primary use would be single family dwellings and seasonal cottages. The Forest Service recommendation would be to maintain any commercial developments in areas where they may already exist. When considering zoning variances or conditional uses, it is recommended that the planning commission consider the river values and river designation under the WSR Act.

The seasonal cottage and single family dwelling is the dominant current use on most all rivers. This type of development and light commercial such as small campgrounds, stores, liveries, etc. are compatible uses. Other type of commercial uses may degrade river values and water quality.

#### 8. Building materials

The Forest Service recommends that there is language in the zoning ordinance that encourages the use of materials and tones that blend with the natural setting: dark roof areas, muted earth tone paints, low silhouette, and simple forms.

Use of these types of materials and colors will help retain the natural setting in the river area. In concert with setbacks and vegetative buffers, development in the river corridor can be unobtrusive while retaining the scenic river values.

#### 9. Building size

Building size should generally be compatible with what would normally be expected for a single family dwelling. Recommended height of buildings would be a maximum of 25 feet.

Large, tall buildings are not compatible with WSR designation or the natural riverine setting.

#### 10. Decks

It is recommended that for new construction that decks would meet the same setback requirements as new buildings. For existing structures it is recommended that deck encroachment not exceed 15% of the existing shoreline setback from OHWM or does not encroach closer than 30 feet. Decks should be made of wood and not roofed or screened.

Decks encroaching into the setback zone can defeat the purpose of the setback and negatively affect the scenic river values and the river setting.

#### 11. Accessory structures

It is recommended that accessory structures (e.g. storage shed, saunas, etc.) less than 120 square feet maintain a minimum setback of 30 feet from the OHWM. Natural materials and earth tone colors should be recommended for these structures also. It is recommended that not more than two accessory structures per lot be allowed within the setback.

This requirement would be consistent with other county ordinances and other WSR recommendations. Natural materials and earth tones retain the natural setting.

#### 12. Private sewage systems

It is recommended that the minimum setback for private sewage systems (drainfields) be not less than 100 feet from OHWM.

This will provide for protection of river water quality. This recommendation is also consistent with other setback requirements and is consistent with the recommendation of other zoning ordinances and WSR plans. LAMS Health Department currently has a 50 to 100 foot setback requirement depending on site and soil characteristics, but defers to local regulation if it is more restrictive.

#### 13. Timber production

It is recommended that the ordinance reference adopt the recommendations in the "Water Quality Management Practices on Forest Land" published by the Michigan Department of Natural Resources with respect to timber harvest on private lands within the corridor.

This manual provides guidelines which are known to be effective in controlling erosion and minimizing impacts on the quality of surface and ground water on forest land. The manual was developed in cooperation with private timber associations, state and federal agencies, and universities.

#### 14. Non-conforming uses

- The storage or processing of materials that are pollutants, flammable, poisonous, or explosive, or could be injurious to human, animal, and fish and aquatic life.
- Garbage and waste disposal facilities including any further encroachment toward the shoreline of existing sites.
- No removal or dredging of riverine materials, except as allowed by the State of Michigan.
- Sanitary landfills, hazardous waste treatment sites and incinerators, or other solid waste disposal facilities.
- Automobile junk or salvage yards.
- Underground fuel storage tanks.
- Storage for resale or heating fuels, including but not limited to oil, gas and coal.
- Mining of land, removal of sand and gravel, and quarrying of raw materials.
- Open storage of rad salt or other de-icing chemicals.
- Disposal of snow which has been brought in from outside the zoning district.
- Gasoline stations, car washes, auto repair or auto body shops.
- Commercial metal plating, finishing and polishing.
- Chemical, medical and bacteriological laboratories or manufacturing facilities.
- Dry cleaning establishments.
- Manufacturing facilities which produce any of the following: electrical equipment, pharmaceuticals, plastic, fiberglass, rubber goods and textiles.
- Commercial food processing, photographic processing or wood processing facilities.
- Concrete plants.
- Machine shops.
- Any other uses that involve, as the principle activity, the generation, storage, use, treatment, transportation or disposal of hazardous materials.
- All other uses not specifically permitted or allowed within the protection district, unless the Zoning Board determines that the use does not threaten the biological integrity of the river and adjacent wetlands.

#### **Existing Regulations**

There are several existing state regulations that can be effective for protecting river resources and values. The Forest Service recommends that the county work to actively enforce the provisions of these regulations.

- Inland Lakes and Streams Act (PA 346, 1972). This Act regulates certain activities in inland lakes and streams and protects riparian rights and the public trust. Under Act 346, a permit must be obtained from the MDNR prior to dredging, filling, or construction below OHWM, interfering with natural flows, etc.
- Soil Erosion and Sedimentation Control Act (PA 347, 1972). The purpose of this Act is to control soil erosion and to protect the waters of the state from sedimentation. With respect to rivers, any landowner or developer who undertakes any earth disturbing activity or change in the natural cover or topography within 500 feet of a stream, must obtain a permit from the appropriate enforcing agency. The Forest Service recommends that the county actively enforce the provisions of this Act.
- Wetlands Protection Act (PA 203, 1979). This Act requires that a permit be obtained from the MDNR for road construction, fill placement and drainage ditches located in wetlands, swamps, marshes and bogs contiguous to lakes and streams.
- Federal Water Pollution Control Act: Section 404 (PL 92-500). This Act duplicates the state PA 346 by requiring permits for dredging and filling all streams.

#### **General Recommendations**

The Forest Service would like to be included in the Planning Commission's review process when any variance or conditional use is requested on any zoning provisions on private land within designated Wild and Scenic River corridors or interim corridors on designated "Study" segments.

Consideration should be given in the zoning ordinance with respect to change of use, discontinuance, or abandonment of nonconforming uses or substandard uses.

The Forest Service recommends that a zoning permit be required prior to any activity taking place. It is recommended that the following accompany each application for permit: 1) a site plan; 2) evidence of ownership of all property; 3) copies of all required federal, state and local permits; 4) other information as the zoning administrator may require due to special conditions of the site or complexity of the proposed development. The site plan should show but not be limited to:

- Lot lines and dimensions of the lot.
- Location and size of all existing and proposed structures on the lot, including accessory structures.
- Existing or intended uses of the structure(s).
- Type and extent of vegetative cover and location of vegetative buffer zones.
- Elevation and slope of the property where each lot line intersects the river's edge, the landward side of natural vegetation strip, the riverfront setback line, and the front lot line.
- Locations of existing watercourses, drainageways, rock outcrops, bluff line and unusual natural features creating any development constraints or opportunities for sensitive site development.
- Existing public and/or private roads, streets, easements, or other reservations of land.
- The extent of the floodplain, OHWM, and the proposed elevation of the structure(s).
- Location of all existing and proposed utilities.

The Forest Service is willing to work with the County Planning Commission regarding any proposed project within the river corridor that may have an effect on the outstandingly remarkable values of the Indian River or any of the "study rivers".