USDA

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Forest Service

Eastern Region

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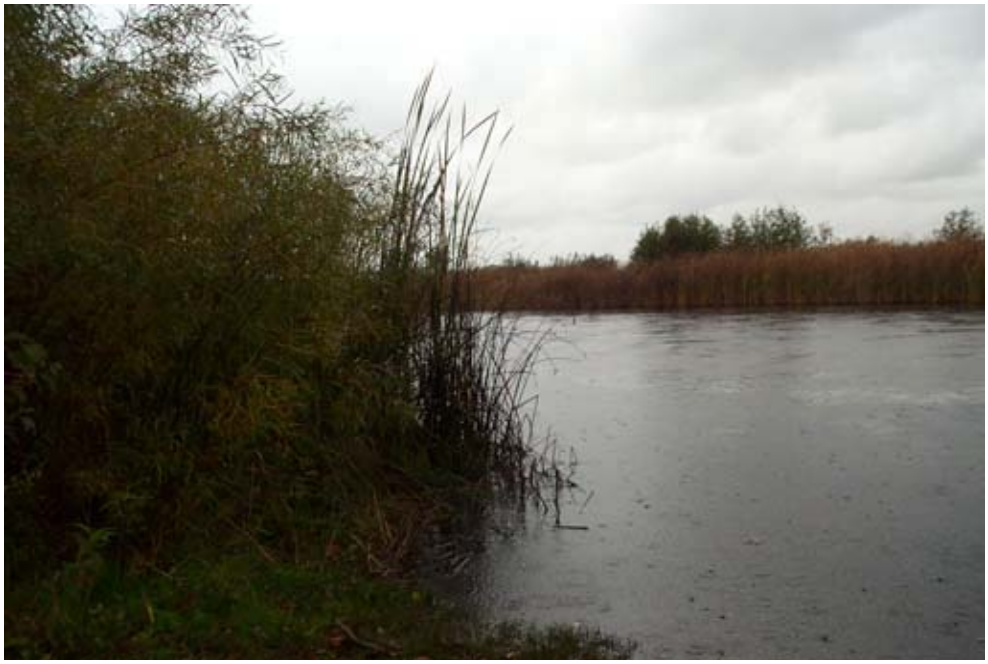
Comprehensive River Management Plan

Pere Marquette National Scenic River

Huron-Manistee National Forests



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Acronyms

BE/BA	Biological Evaluation/Biological Assessment
CFR	Code of Federal Regulations
CRMP*	Comprehensive River Management Plan
DEQ	Michigan Department of Environmental Quality
DNR	Michigan Department of Natural Resources
E	Endangered (Species)
EA	Environmental Assessment
IDT	Interdisciplinary Team
LAC	Limits of Acceptable Change
LWM	Large Woody Material
MA 8.1	Management Area 8.1, Huron-Manistee National Forests' Plan (2006) designation for Wild and Scenic River areas
MCRC	Mason County Road Commission
MINT	May Impact but is Not likely to Trend
MIS	Management Indicator Species
MOU	Memorandum Of Understanding
NEPA	National Environmental Policy Act
NNIS	Non-native Invasive Species
ORV	Outstandingly Remarkable Value
PAOT	Persons At One Time
RFSS	Regional Forester's Sensitive Species
ROS	Recreation Opportunity Spectrum
RN	Roaded Natural
SHPO	State Historic Preservation Office
SIO	Scenic Integrity Objectives
SMS	Scenery Management System
SPM	Semi Primitive Motorized
T	Threatened (Species)
USFWS	U.S. Fish and Wildlife Service
VMS	Visual Management System
WSR	Wild and Scenic River
WSR Act	Wild and Scenic Rivers Act, 1968 (P.L. 90-542) as amended

*1983 Pere Marquette CRMP refers to the CRMP written in 1983 and amended in 1990.

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CHAPTER 1

Introduction

The Pere Marquette River is located in Michigan's Lower Peninsula, partially within the Huron-Manistee National Forests. The river system begins east of Baldwin and empties into Lake Michigan at Ludington.

In 1968, under the initial Wild and Scenic Rivers Act (PL 90-542), the Pere Marquette was designated as a study river. The Forest Service developed a final environmental impact statement and proposed designation for a 66.4 mile segment of the main stream between the junction of the Middle and Little South Branches east of Baldwin and the Old Highway 31 Bridge. On November 10, 1978, this portion of the Pere Marquette River was classified as a National Scenic River and management responsibilities were delegated to the USDA Forest Service (PL 95-625).

In July 1978, the entire Pere Marquette River and major tributaries were designated a Michigan Natural River by the State of Michigan (State Act 231, PA 1970). The conservation of Michigan Natural Rivers and their outstanding natural, cultural, and recreational values is important to the heritage, tourism, outdoor recreation, and long-term economic development of Michigan. As a result of this designation, zoning regulations that restrict development adjacent to the river were implemented to protect environmental and aesthetic values. Approximately 70 percent of the river corridor is privately owned and the development and vegetation management on these lands is regulated through these ordinances.

The Pere Marquette National Scenic River corridor is comprised of 13,100 total acres (Table 1).

Table 1. Pere Marquette National Scenic River Corridor Land Ownership[1]

	Private	Federal	Other Public Land
Acres	9,178	2,292	1,630
Percent of Total	70.1%	17.5%	12.4%
Average Corridor Acres per River Mile	138 acres/mi	34.5 acres/mi	24.6 acres/mi

The Pere Marquette River is a free flowing, high quality stream maintaining large populations of resident trout and potamodromous steelhead and salmon. It is a nationally known fishing destination.

Wild and Scenic Rivers Act

Congress enacted and President Johnson signed into law the Wild and Scenic Rivers Act (Public Law 90-542, 1968; amended PL 95-625, 1978) to provide for a National Wild

[1] Data Source: Huron-Manistee National Forest GIS Database 2007. Private and other public land acres are estimates.

and Scenic Rivers System (WSR). Eligible rivers must be free-flowing and have one or more "outstandingly remarkable" scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values. A river area is classified, designated, and managed as wild, scenic, or recreation, depending upon the level of development, access, and water quality at the time of designation. The Pere Marquette River was designated a National Scenic River, defined as "those rivers or sections of rivers that are free of impoundments and accessible in places by roads with shorelines or watersheds still largely primitive and shorelines largely undeveloped (Wild and Scenic Rivers Act 1978)."

Rivers in the Wild and Scenic River system must be managed to protect and enhance the "outstandingly remarkable values" (ORV) but not limit other uses that do not substantially interfere with public use and enjoyment of these values. The Wild and Scenic Rivers Act requires that the managing agency, or agencies, develop a comprehensive river management plan (CRMP) to provide for the protection of river values. The Pere Marquette is managed under the 1983 Pere Marquette National Scenic River Management Plan, as amended in 1990. As directed by the 2006 Huron-Manistee National Forests' Plan (Forest Plan), this updated Pere Marquette National Scenic Comprehensive River Management Plan would implement Forest Plan direction.

The objectives of this CRMP are to ensure that free-flow, water quality, and the outstandingly remarkable values for which the river was designated under the Wild and Scenic Rivers Act are maintained. The ORVs and the management objectives for the Pere Marquette National Scenic River are:

- Outdoor recreation – Visitors to the river experience a predominantly natural environment with moderate evidence of the sights and sounds of humans. Visitors easily differentiate between public land and private land. Visitors have a positive experience without impacting river resources or private property.
- Fisheries – High quality fish habitat is maintained and improved upon, including protection of threatened, endangered, and special concern species.
- Visual and aesthetic attributes – The shoreline and riverbed is maintained and enhanced to reflect the landscape character of the river corridor.
- Historic or archeological resources – Areas of historic or archeological significance receive special management attention.

Planning Process

The Comprehensive River Management Plan was developed from the Pere Marquette National Scenic River Environmental Assessment (EA). The EA evaluated a range of five alternative management scenarios. The EA weighed the environmental consequences of each management scenario. Based on that analysis, along with input from the public and a variety of agencies and tribal governments, the management direction in this plan was identified as the Selected Alternative in the Decision Notice.

This CRMP prescribes the desired conditions for the river-related values of the Pere Marquette, along with the necessary management actions and standards and guidelines designed to maintain or move resource conditions towards the desired conditions. Standards and guidelines for the Pere Marquette National Scenic River corridor are found in Chapter 3. The standards and guidelines are organized by the Forest Service resource area file designations for easy cross-reference with the 2006 Huron-Manistee National Forests' Plan. If the CRMP is silent on any issue or resource, management

direction defaults to the Huron-Manistee National Forests' Plan (2006). Monitoring data collected over the life of this document would allow the development of additional standards and guidelines, if needed, in the future.

This plan also includes a list of actions that may be undertaken within the WSR corridor, and a monitoring framework. Specific project proposals will be developed following National Environmental Policy Act (NEPA) procedures and stay within the bounds of management direction standards and guidelines. Implementation of any identified management actions or projects is dependent on available funding.

Agency Jurisdiction

The Forest Service has primary management responsibilities within the Pere Marquette National Scenic River corridor. The Pere Marquette is also a Michigan Natural River. The objectives of the Michigan Natural Rivers Act are similar and complement those of the National Wild and Scenic Rivers program. The Pere Marquette is managed cooperatively by the State and Federal government for the common good of the river resources and its users.

To establish consistent management within the river corridor, a Memorandum of Understanding (MOU) between the State of Michigan and the Forest Service was signed in 1980. This allows for cooperation in the enforcement of State and Federal regulations pertaining to the Pere Marquette River.

State zoning regulations are in effect within the Michigan Natural River Zone (the river and land within 400 feet of the river). From1985 to 2006, the Forest Service representative on the Pere Marquette Zoning Board was a voting member. Today, the Forest Service maintains a liaison position (advisory, non-voting) that monitors the effectiveness of natural river zoning, ensures Federal projects comply with zoning, and works closely with local and State officials to strengthen controls and regulation enforcement.

USDA Forest Service

The Huron-Manistee National Forests manage approximately 2,292 acres of National Forest System land within the Pere Marquette National Scenic River corridor. Management of the Huron-Manistee National Forests is guided by the 2006 Land and Resource Management Plan, which includes goals, objectives, and standards and guidelines for managing natural resources and the social and economic environment. The goals and objectives outlined in the 2006 Land and Resource Management Plan for Wild and Scenic Rivers, Management Area 8.1, (III-1.1-2) are as follows:

> *Maintain the outstandingly remarkable values of each river for which they were designated under the Wild and Scenic Rivers Act.*
>
> *Management direction is established by each river's management plan.*

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) enforces Federal wildlife laws, oversees the protection of endangered species and migratory birds, restores nationally significant fisheries, and conserves and restores wildlife habitat such as wetlands. It also oversees the Federal aid program that annually distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to State fish and wildlife agencies.

The Endangered Species Act requires that the Forest Service enter into consultation with the USFWS and agree on critical habitat and anticipated effects to federally listed or proposed species within the national forests. Portions of the river corridor provide habitat for bald eagle (delisted in 2007) and potential habitat for the Karner blue butterfly and Indiana bat, both federally listed threatened species.

The USFWS also manages the Sea Lamprey Control Program in cooperation with the Great Lakes Fisheries Commission and Michigan Department of Natural Resources (DNR). Active sea lamprey control measures are used on the Pere Marquette River.

State of Michigan

The State of Michigan is responsible for the enforcement of State laws and regulations in the river zone, including those related to water quality standards, water use, Natural River District land use and development, hunting, fishing, and boating. A Memorandum of Understanding between the Forest Service and State of Michigan was signed in 1980 that emphasizes cooperative management of the river.

Michigan Department of Natural Resources (DNR) is responsible for managing and protecting Michigan's fish and wildlife resources. The DNR sets fish and wildlife harvest levels and oversees fishing and hunting regulations and seasons on all lands.

The DNR also provides recreational opportunities on State land and administers the Michigan Natural Rivers program. The Pere Marquette River is designated a Michigan Natural River with a 400 foot river district on each side of the stream.

Michigan State Historic Preservation Office (SHPO) is a federally mandated office under Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations at 36 CFR 800. Federal agencies are required to consult with SHPO regarding the eligibility of historic and cultural properties for nomination to the National Register of Historic Places, and on determinations of effect from Federal undertakings and management decisions.

Michigan's Department of Environmental Quality (DEQ) is responsible for protecting public health and the environment by administering the State's environmental quality laws and delegated Federal programs to prevent, control, and abate pollution of air, water, and land resources.

Lake and Mason County Planning Departments

Mason County had previously adopted a natural river zoning ordinance but rescinded it in April, 2005. Lake County has chosen not to adopt a natural river zoning ordinance. Therefore, Michigan Natural River zoning rules apply to all private lands within 400 feet of the river in those two counties. One Natural River Zoning Review Board, which includes representatives from township and county governments as well as private citizens, serves both counties in reviewing applications for variance and special use permits.

Townships

Townships are statutory units of government in Michigan, having those powers expressly provided by State law. The river corridor traverses eight Townships: Pleasant Plains, Lake, and Sweetwater Townships in Lake County, and Branch, Custer, Amber, Riverton,

and Pere Marquette Townships in Mason County. The townships have all chosen to defer implementation of natural river zoning to the DNR.

Ceded Territories (or Tribal Relations)

The Huron-Manistee National Forests honor the U.S. government trust responsibility and treaty obligations towards Native American tribes with a government to government relationship. This relationship is outlined in the Memorandum of Understanding (MOU) between the Forest Service and the Little River Band of Ottawa Indians, the Grand Traverse Band of Ottawa and Chippewa Indians, the Little Traverse Bay Band of Odawa Indians, and the Sault Ste. Marie Tribe of Chippewa Indians (May 2006). The MOU is in regards to Tribal – Forest Service relations on National Forest System lands within the territory ceded in the Washington Treaty of 1836 and any National Forest lands located within the exterior boundaries of the reservation of any signatory Tribe.

The Pere Marquette River lies within the ceded territories under the Treaty of 1836. Section VI.B. of the MOU deals with National Forest Planning and decision making. Specifically, “The Tribes and Forest Service agree that they shall consult, on a government-to-government basis, on all Forest Service decisions that affect the abundance, distribution, or access to the natural resources on lands administered by the Forest Service. In addition, the parties agree that the goal of such consultation shall be that any such Forest Service decision shall recognize and shall accommodate the Tribes’ treaty-reserved rights, shall protect and enhance treaty-reserved natural resources, and shall accommodate the exercise of treaty-reserved rights by Tribal members under Tribal regulations.”

CHAPTER 2 – RIVER VALUES AND DESIRED CONDITIONS

Introduction

River values are the foundation of this comprehensive river management plan (CRMP). The purpose of the CRMP is to protect and enhance river values and to resolve issues related to management of the river's resources. The Wild and Scenic Rivers Act, Section 1(b), identifies **free-flow, water quality,** and **"outstandingly remarkable values"** as river values to be protected and enhanced.

The suite of resources listed by Congress for the Pere Marquette River and the eligibility assessment (USDA-FS December 1973) noted that there was at least one ORV present. Outstandingly Remarkable Values are river related and river dependent values that are rare, unique, or exemplary at a regional or national scale (Interagency WSR Coordinating Council 1996).

An ORV Resource Assessment was completed to confirm which river-related resources were considered outstandingly remarkable and address resource conditions at the time of designation, resource conditions today, and desired resource conditions. The complete ORV River Resource Assessment can be found in the project file.

Water quality, a trout fishery, and lack of streamside development were among the dominating characteristics that qualified this stream for consideration as a Wild and Scenic River during the river study in 1973 (USDA-FS December 1973). The ORVs for the Pere Marquette River are

Heritage Resources

Scenery

Recreation

Fisheries

This section of the document provides a brief description of the ORV (tiered to the ORV Resource Assessment), identifies the ORV desired condition and discusses how the desired condition relates to the existing condition. Indicators have been selected for free-flow, water quality, and each ORV in order to evaluate protection and enhancement of river values, issue resolution, attainment of goals, and monitoring results (Table 8; Chapter 5). Where possible, the indicators are quantified.

Free-flow and Water Quality River Values

Free-flow

The Pere Marquette River is spring fed with stable streamflows (USDA-FS December 1973). At the time of designation, free-flow was influenced by nonconforming private land practices, roads, and road crossings. However, the eligibility study found the river met the free-flowing criteria, making the Pere Marquette eligible for WSR designation (USDA-FS December 1973).

The Pere Marquette River is the longest unregulated (no dams or impoundments) river system in the Lower Peninsula. The river is spring fed. A watershed assessment completed in 1999 by Northern Ecological Services concludes that the hydrological characteristics of the river system are stable, but not as stable as other streams in Michigan (Northern Ecological Services 1999). Annual flow has increased gradually since 1939, but the cause is unknown (Northern Ecological Services 1999). There is a USGS streamflow gauge at Scottville.

Occasional inclusions of consolidated clay soils occur that are highly resistant to erosion and act as hydraulic controls, creating riffles below them. Mean gradient of the mainstem is 4.1 feet per mile (Northern Ecological Services 1999). Mean annual flow is 713 cubic feet per second (cfs) based on the USGS gauge at Scottville. The mean monthly flow ranges from 497 to 1,030 cfs based on the 67-year period of record from 1939 through 2006. Thus, the ratio of the maximum monthly average to the minimum monthly average flow is 2.1, indicative of the stable flow regime. The stable flow regime and low gradient result in relatively low stream power and limited ability to move bedload.

Today, free-flowing condition is influenced by the sea lamprey control barrier in addition to any nonconforming private land practices, as well as, roads and road crossings that existed at the time of designation. The WSR act, Section 3(a)(16), specifically mentions the control of the sea lamprey; “control of the lamprey eel [sea lamprey] shall be permitted subject to such restrictions and conditions as the Secretary of Agriculture may prescribe … (Wild and Scenic Rivers Act, Section 3 (a)(16)).”

The risk of surface water diversion for irrigation or commercial use is low in the watershed. There is no risk of surface water diversion on the mainstem. The commercial consumptive use of groundwater is an emerging issue in north central Michigan. Currently, there are no commercial consumptive wells pumping groundwater in the Pere Marquette watershed.

Section 7(a) of the Wild and Scenic Rivers Act protects designated rivers from water resource development projects. This provision protects the existing free-flowing nature of the Pere Marquette River.

Desired Condition for Free-flow

- The Pere Marquette River is free-flowing with a range of flows that provide optimum conditions for fish, wildlife, natural processes, and channel integrity.

The existing condition is the desired condition for free-flow. Section 7 of the Wild and Scenic Rivers Act requires analysis be conducted for any water resource development project. The existing nonconforming private land practices, utility corridor crossings, roads and road crossings would remain. All projects would be analyzed on a proposal-specific basis.

Free-flow Indicators

- No new dams, diversions, or obstructions to free-flow.

Water Quality

Water quality was considered “excellent” at the time of designation (USDA-FS December 1973). In 1973, the Pere Marquette River met or exceeded State of Michigan

Water Quality Standards for "Total Body Contact" and "Intolerant Fish, Cold Water Species." No headwater pollution problems were identified in the 1973 study report.

Based on water chemistry and macroinvertebrate sampling conducted by the Michigan DEQ, water quality in the Pere Marquette mainstem is meeting the established water quality standards for a coldwater stream. The data indicate that the mainstem system has high quality waters in almost all locations (Michigan DEQ 2002). Water quality parameters meet the criteria for total body contact, recreation, and aquatic life. The river has mildly alkaline hard water. It has adequate mineral and nutrients for aquatic life, yet no indication of enrichment due to organic loading. This is consistent with Northern Ecological Service's (1999) finding that "Water quality parameters reported for the Pere Marquette River system suggest water quality is unimpaired."

Given the predominance of sandy soils within the Pere Marquette River watershed, streambank erosion has the potential to contribute significantly to the sand bedload level. While erosion itself is a natural process, streambank erosion on systems such as the Pere Marquette River has been accelerated by historical land uses and current day recreation. Another source of sediment delivery that contributes to the elevated sand bedload is poorly designed road-stream crossings, especially when viewed from a cumulative perspective across the entire watershed. Sand in the river (sand bedload) continues to impair fish habitat.

Desired Condition for Water Quality

- The Pere Marquette River has excellent water quality that supports diverse aquatic communities.
- State of Michigan water quality standards for total body contact and cold water fisheries are met.

Desired Condition for Erosion and Sediment Regimes

- The Pere Marquette River corridor is maintained in a state of dynamic equilibrium with natural erosional and depositional processes occurring at local scales. Changes in stream channel characteristics and valley walls occur at normal rates and extent.
- Riparian habitat management and stabilization of human caused or accelerated erosion are designed to allow natural processes to continue and to blend with the natural landscape.
- Severe and moderately eroding stream banks are stabilized.
- The cumulative amount of hardened streamside stabilization, over time, does not exceed five percent of the river segment (Chapter 3).

The existing condition is at the desired condition for water quality with the exception of sand bedload levels. A watershed assessment completed in 1999 for the Pere Marquette River system concluded that water quality is unimpaired. Most parameters were typical for a northern Michigan hardwater stream (dissolved oxygen, nutrients, alkalinity, hardness, turbidity, etc.) and no elevated parameters were reported (Northern Ecological Services 1999). This was further corroborated by the Michigan Department of Environmental Quality (2002). Water temperature for this coldwater system is maintained by the groundwater-dominated hydrology.

Stabilization of eroding streambanks has addressed the contribution from this source to sediment delivery. The cumulative amount of hardened stabilization done under the Pere Marquette River Restoration is 7.3 percent of the waterline over the 40 river miles between the Forks and Walhalla. It is 4.4 percent when viewed from the 66-mile designated Scenic corridor. Sediment delivery contributing to elevated sand bedload levels from transportation systems is being addressed through ongoing watershed restoration partnerships.

Water Quality Indicators

- Water quality meets Michigan DEQ water quality standards.
- Best Management Practices (BMPs) are implemented at all road crossings.
- Change in bank and terrace erosion through change to existing facilities or development of new facilities.
- Amount and management of large wood within the river corridor related to navigation and aquatic habitat.

Outstandingly Remarkable River Values

Heritage Resources

Heritage resources are an outstandingly remarkable value along the Pere Marquette River. At present, a large majority of the Pere Marquette's known heritage resources are archaeological. They include Native American settlements, logging industry related sites, Euro-American pioneer homesteads, and even former villages and towns. All heritage resources possess some degree of importance because each can help reveal the patterns and details of past life ways.

More than 500 heritage resource archaeological sites spanning more than 10,000 years of human history have been recorded within the Pere Marquette watershed. The earliest archaeological sites date to the time following the recession of glacial ice. The cultures of many peoples from ancient Paleo-Indian hunters through Woodland farmers to the period of written history represented by Euro-American traders, loggers, and settlers are found in the watershed and designated corridor. This rich historical and archaeological record offers a wide and fertile array of interpretive and educational opportunities.

Historic log drive on a northern Michigan river

Because the Pere Marquette is both free-flowing and includes public ownership, the historic record of the lands along the river is likely to be both well preserved and well represented, and thus, exemplary of their contexts. This record is also unique in the sense that the historical record, the mix of physical resources and their specific characteristics could not be duplicated elsewhere because of geographic, environmental and cultural variables.

Desired Condition for Heritage Resources

- Information and understanding of the historic record within the scenic river corridor has significantly progressed through a scheduled, comprehensive program of site survey, analysis, and historic context development.
- All Federal undertakings are in compliance with the provisions of the National Historic Preservation Act.
- Site condition is assessed and regularly monitored.
- Mitigation measures to preserve needed integrity are implemented.
- A comprehensive interpretive plan for the scenic river corridor is formulated and projects are carried out.

The trend for Heritage Resources related to the desired condition is not known. Few of the pre-historic or historic sites have been studied.

Heritage Resource ORV Indicators

- Percent of public lands within the designated corridor surveyed to Huron-Manistee National Forests standards.
- Site condition monitoring benchmarks are met.
- A corridor interpretive plan is formulated and approved.
- Number of Heritage Resource properties where site integrity is maintained or enhanced.

Scenery

The Pere Marquette River is distinguished by exemplary characteristics that define outstandingly remarkable scenic values (USDA-FS December 1973). The Pere Marquette watershed has “north country appeal” with a mixture of public and private land, rivers and lakes, and wooded hillsides. The variety of topography, vegetation, and the river’s clear water and sinuous alignment were the characteristics cited as scenic features in the designating 1973 Study Report. These continue to be the primary scenic features. River features such as rocks, logs, pools, and eddies make the river interesting and challenging to canoeists and anglers. In addition, the change of river character from open marshes and broad valleys near Lake Michigan to the confined reaches above Walhalla Bridge adds to the scenic value.

Contemporary culture along the river encompasses a mix of five communities, private property and public land. This cultural aspect is an integral element in the function of the river in the community making the scenery often more rural than expected in a National Scenic River. Yet the setting enfolds these structures as a kind of built environment rhythm along the river banks. The checkered layout of Federal, State and private lands bands the river corridor so that the ownership alters

intermittently along the way. Nodes of intense development are evident at community locations and these developments are inconsistent with the recreation opportunity spectrum designation as well as with the scenic integrity objective of "high." Nevertheless the long, stretched out natural river banks balance these intrusions of aesthetic anomaly and by the standard of other rivers in the region it is not considered to be highly developed. This is the reason the drafters of the WSR designation determined that scenery was an outstandingly remarkable value based on the "lack of development."

Desired Condition for Scenery

- The landscape character and unique scenic features are maintained or enhanced by meeting the scenic integrity objective of high.

The existing condition for the majority of the river is at the scenic integrity objective of high. Approximately 80 percent of the river corridor meets the scenic integrity objective.

Table 2. Summary of Scenic Integrity Objectives (SIO) by River Segment

Segment	Existing Scenic Integrity Objective of the Segment	Comments
Forks to M-37 Bridge	Meets SIO – 100%	Little Development
M-37 Bridge to Bowman Bridge	Meets SIO – 80%	Development could be altered to reduce visual impacts
Bowman Bridge to Upper Branch Bridge	Meets SIO – 85%	Development could be altered to reduce visual impacts
Upper Branch Bridge to Walhalla	Meets SIO – 75%	Development could be altered to reduce visual impacts although the ability to meet the SIO of high at 100% is limited
Walhalla to Old Highway 31 Bridge	Meets SIO – 90%	The 10% that does not meet the SIO consists of highly developed land and would be difficult to modify

Scenery ORV Indicators

- Scenic integrity objective of high is met.
- Number of existing facilities and access points at development level 3 or greater.
- Number of new streamside developments tracked through the number of approved variances issued under Michigan Natural River zoning.

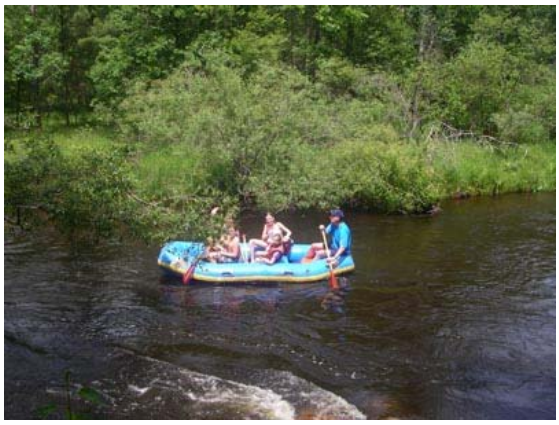
Recreation

Recreation opportunities along the Pere Marquette River are outstandingly remarkable. The river is a major recreational attraction for northwest Michigan and is within a 2-hour drive of over one million people. The river provides a significant contribution to the regional economy and draws national and international attention for its high quality fisheries.

Reviewing public comments and the research studies brought forward two key issues related to recreation; River Access and Facilities and Recreation Use and Capacity.

These issues are key to this river management plan because the management of people and their behavior in turn affects other river users and ORVs. Use and enjoyment of the river and its environment by the public must not change the Pere Marquette's classification from Scenic to Recreational, nor can it diminish the protection and enhancement of river values.

Desired Condition for the Recreation Experience and Facilities



- The Pere Marquette River corridor provides opportunities for a variety of river-related recreation experiences that attract visitors from outside this geographic region.
- Recreation related conflicts are minimal and resolved on a case by case basis without further management actions taken by the Forest Service.
- Overall visitor satisfaction levels continue to be reported and overall satisfaction with the recreational experience continues to be high.
- Private and commercial watercraft permits are within established allocations.
- Developed recreation facilities are managed to protect and enhance the rivers' resources while providing access at appropriate locations. The facility development level is generally at a level 3 or less.
- Dispersed recreation sites are compatible with river values.

The existing condition is close to the desired condition for recreation facilities.

The existing condition is close to the desired condition for the recreation experience with a majority of satisfied users. Currently, canoe livery and general public summer use is restricted through the watercraft permit system. This system applies between May 15 and September 10; there are no use restrictions during the spring or fall.

Desired Condition for Visitor Education

- The Pere Marquette River corridor provides outstanding opportunities for visitor education.
- Interpretive efforts are designed to enhance recreational experiences, influence proper stewardship behaviors, and protect river resources.

The existing condition for visitor education is provided through a brochure which includes some resource and regulatory information and a map. Information and regulatory signs are present in the recreation sites. Limited interpretive signs or exhibits are present.

Recreation ORV Indicators

Recreation Availability

- Number of general/private and canoe livery watercraft permits.
- Number of outfitter and guide permits.
- Number of parking spaces.

Recreation Experience

- Change in the number of complaints regarding the river corridor.
- River Recreation Visitor Experience Surveys.
- Number of violation notices issued.
- Social Indicators.

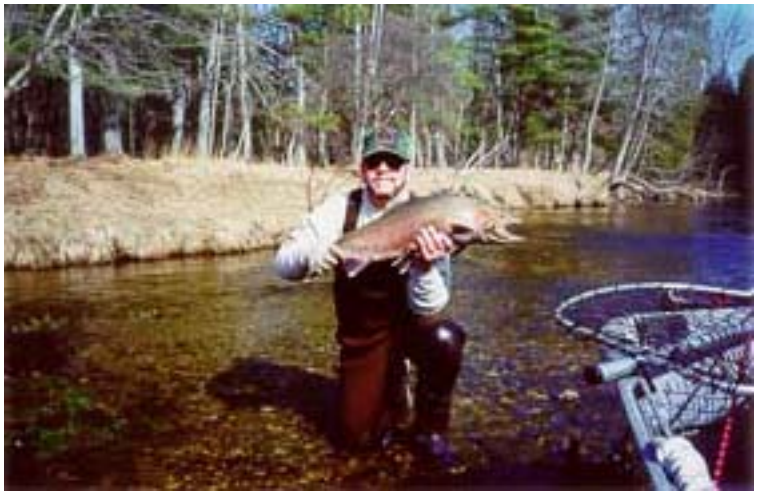
River Access and Facilities

- Meeting Recreation Opportunity Spectrum (ROS) guidelines and facility development level.
- Number of parking spaces.
- Number of social trails or human induced bank erosion per river segment.
- Number of user-created campsites per river segment.
- Number of user-created fire rings per river segment.

River Recreation Use and Capacity

- Number of general/private and canoe livery watercraft permits.
- Number of outfitter and guide permits.
- Social Indicators.
- Number of violation notices issued.
- Change in the number of complaints regarding the river corridor.
- River Recreation Visitor Experience Surveys.

Fisheries



At the time of designation, the Pere Marquette River was recognized as one of the few high quality fishing rivers remaining in the nation (USDA-FS December 1973). Today, as in the past, the river nurtures populations of resident brown trout. It also provides world-class fishing opportunities for steelhead and salmon.

Most of the Pere Marquette River mainstem is designated as trout waters (i.e., coldwater) and the system supports a renowned coldwater fishery. It is a designated "Blue Ribbon" trout stream from Reek Road upstream to Switzer Bridge on the Middle Branch (above the designated National Scenic River portion). It has a self-sustaining resident fishery (primarily brown trout) and also supports runs of salmon and steelhead from Lake Michigan that attract thousands of anglers to the river each year.

Most notably, the Pere Marquette River was the location of the first brown trout introduction in the United States (1884). Rainbow trout were planted in 1885 and these early introductions developed into a self-sustaining potamodromous steelhead population. Coho and chinook salmon were introduced into Lake Michigan in 1966. The only fish stocking of salmon within the Pere Marquette River system occurred in Ruby Creek in 1967. However, a naturally reproducing salmon population is now established in the river.

Fish stocking as a management tool in the Pere Marquette River has changed over the years, shifting away from the planting of large numbers of legal sized fish (mostly brown trout) to higher numbers of yearlings and fingerlings. All stocking of trout above Gleason's Landing ceased in 1999 as natural production is adequate to support self-sustaining fisheries. Brown trout yearlings are stocked annually between Bowman Bridge and Indian Bridge. No salmon or steelhead are stocked in the mainstem of the Pere Marquette River.

In terms of fish communities, 66 different species were documented to occur between 1925 and 1998. Fifty-nine are considered native and seven are introduced (common carp, redear sunfish and five salmonids: coho and chinook salmon, Atlantic salmon, brown and rainbow trout) and one that colonized the Great Lakes, the sea lamprey. A complete listing of species is found in Table 15 of Northern Ecological Service's (1999) assessment.

To date there are no documented occurrences of any federally listed aquatic endangered or threatened species in the Pere Marquette National Scenic River corridor. However, there have been documented occurrences of two Regional Forester's aquatic sensitive species (greater redhorse sucker and lake sturgeon) in the river corridor and one species (creek heelsplitter mussel) in the Big South Branch which is a major tributary of the Pere Marquette River.

Today, much of the fisheries concerns focus on increasing pressure by recreational anglers. A recreational use survey conducted in 1997 indicated that 59 percent of the users of the Pere Marquette River fished (Nelson et al. 1998). In some areas of the river, high levels of use have degraded riparian habitat warranting the construction of stairways, boardwalks, and other remedial measures to provide access while protecting sensitive riparian habitat.

In general, the trend in Michigan trout fishing regulations has been toward more restrictive and complex laws. The same holds true for the Pere Marquette River. One of the first "flies only" water in Michigan was established on the Pere Marquette River in 1970 (M-37 to Gleason's Landing). This ten mile stretch of water is extremely popular as it contains a great deal of spawning habitat (gravel) attracting large numbers of salmon and steelhead and is quite wadable. Over the years, the daily bag limit has been reduced from five (> 10 in) to one (> 16 in) to its present "no kill (2000)." One unanticipated result of the "no-kill" regulation has been a shift in angling use, especially during the spring and fall potamodromous fish runs, to downstream areas such as the Maple Leaf site where it is legal to harvest fish. Use at these downstream sites, especially during the fall salmon season, reaches levels where some riparian habitat degradation is occurring.

Currently, the State has four types of fishing regulations for the mainstem Pere Marquette River, each pertaining to a particular river segment. Specifics can be obtained at the Michigan DNR web site (http://www.michigan.gov/documents/stream-regs_151765_7.pdf).

The emphasis for current fisheries management on the Pere Marquette River is on habitat protection and restoration. Much of this effort has focused on reducing sources of sediment delivery to lower sand bedload levels (e.g., the Pere Marquette River Watershed Restoration Partnership). Maintenance of large wood in the river is also being done through the collaborative clearing of navigation hazards by river users and resource agency personnel. Another important facet of current fisheries management is "people management"; that being providing adequate access while protecting sensitive riparian habitat.

Desired Condition for Fish and Aquatic Habitat

- Aquatic habitat conditions support a diverse, productive, and stable aquatic community.
- Sand bedload has been reduced, resulting in increased aquatic invertebrate production, more gravel spawning areas, deeper pools, and greater habitat diversity.
- Structural cover from large wood strikes a good balance between maintaining aquatic habitat needs with watercraft safety.
- High quality salmonid habitat is maintained and special emphasis is given to the restoration of sensitive aquatic species such as the greater redhorse sucker.
- High levels of fishing for salmon and steelhead are managed to protect sensitive riparian habitat.
- Native and desirable non-native species are self-sustaining.

- Work cooperatively with USFWS and Michigan DNR to manage aquatic Non-native Invasive Species (NNIS).

The existing condition is moving towards the desired condition for fish and aquatic habitat. Currently, the State manages for wild, self-sustaining fish populations under a variety of protective regulations to provide a diversity of quality angling experiences on the Pere Marquette River. However, the foundation for these fish populations in the river is habitat management. The Pere Marquette River Restoration Partnership addressed the majority of severe and moderately eroding streambanks, thereby reducing sediment delivery from this source. Riparian areas that have been impacted from high levels of use are being addressed through remedial measures such as boardwalks and stairways that blend in with the natural river setting in most instances. Large wood that forms navigation hazards is being collaboratively managed by river interest groups and resource agency personnel.

Fisheries ORV Indicators

- Fish species composition and self-sustaining fish populations.
- Stream wood per mile.
- Channel width/depth ratios.
- Effectiveness of aquatic Non-native Invasive Species (NNIS) control programs.

CHAPTER 3 – MANAGEMENT DIRECTION

The intent of this management direction is to protect and enhance water quality, free-flow, and the outstandingly remarkable values of the Pere Marquette. This management direction applies only to the Pere Marquette National Scenic River Corridor.

This CRMP is incorporated, by reference, into the Huron-Manistee National Forests' Plan (2006). The Forest Plan intends for the CRMP to be a stand alone document. Once incorporated by reference, the Pere Marquette CRMP can be updated without a Forest Plan amendment.

The Huron-Manistee National Forests' Plan (2006) contains Forest-wide and Management Area Standards and Guidelines (MA 8.1 for Wild and Scenic Rivers). The river planning process and development of a CRMP provided a forum to modify these Forest-wide and Management Area Standards and Guidelines to make them specific to the Pere Marquette National Scenic River Corridor, if needed, to protect the ORVs, water quality, or free-flow. If the Pere Marquette National Scenic River CRMP is silent on any issue, goal, resource, standard, or guideline, the Huron-Manistee National Forests' Plan (2006) becomes the guiding document.

Interagency Cooperation

- Continue Forest Service support of the State of Michigan Natural River designation. The Forest Service continues in an advisory role on the Natural Rivers Zoning Board.
- The Forest Service will continue to work with the townships and State of Michigan to ensure that existing zoning regulations are in place, implemented, and effective at protecting the ORVs. Where existing regulations do not protect the river corridor and ORVs, work with the townships and State to strengthen zoning and development regulations.
- Michigan Department of Natural Resources will continue to manage fish and wildlife populations.
- Federally listed species; Karner blue butterfly, and Indiana bat, will continue to be managed under approved recovery plans.
- The Forest Service and DNR will work towards unified management of the facilities and lands within the river corridor. This may be accomplished using a variety of processes, including but not limited to, a Memorandum of Understanding (MOU), land exchange (about 1,300 acres of State land would become part of the National Forest System within the river corridor), or the lease of State access sites by the Forest Service (FSM 2354.03 (5)). Negotiations between the State of Michigan and Forest Service for unified management are complex. A timeline for implementation of unified management has not been determined.
- Under unified management, all access sites and the watercraft and commercial permitting system would be managed under one set of regulations.

- Under unified management, outfitters and guides permitted by the DNR would be allowed to operate on the Pere Marquette River. The Forest Service would issue a special use permit based on their existing State permits.
- Any State sites managed by the Forest Service would be added to the Forest Service Recreation Enhancement Fee Program as permitted under the enabling legislation (REA, 2004).
- Work with Lake and Mason County Road Commissions to close parking along county roads adjacent to access sites.

Tribal Relations

- Forest Service recognizes and accommodates the Tribes' treaty-reserved rights, protects and enhances treaty-reserved natural resources, and accommodates the exercise of treaty-reserved rights by Tribal members under Tribal regulations.
- The Forest Service ensures that tribal members be allowed unimpeded access to the Pere Marquette for all 1836 Treaty rights including tribal regulated hunting, fishing, and gathering activities.
- Tribal members using the river for purely recreational purposes are required to obtain watercraft and other parking or use permits similar to the general public.

Law Enforcement

- Rules or regulations to protect the river corridor can be written by the Forest Supervisor under Section 36 of Code of Federal Regulations (CFR), Part 261.
- All roads and trails on National Forest System lands are closed to off-road vehicles unless posted open by the Forest Service.
- Enforce all existing rules and laws with special emphasis on violations related to litter, trash dumping, open fires on Forest Service land outside of designated campgrounds, operating watercraft under the influence, camping, and illegal parking.
- The Forest Service will continue to work with local and State law enforcement agencies towards the desired condition of eliminating illegal behavior within the river corridor. These behaviors include, but are not limited to; trespassing, vandalism, littering, trash dumping, illegal fishing (e.g., illegal methods such as snagging, harvest in no kill zones, etc.), animal leash laws, and human and pet sanitation.
- Use of motorized watercraft will continue to be prohibited upstream from Indian Bridge.
- Camping will be restricted to designated sites within the river corridor.
- Close National Forest System lands in the river corridor to fires except at designated campsites.

Information and Education

- Information and education will be emphasized through multiple venues: interpretive exhibits and programs, presentations to non-profit organizations such as the Pere Marquette Watershed Council, brochures, web sites, informal contacts by Forest Service employees with recreationists and adjacent landowners in the course of their duties, special events, and volunteer launch hosts and river rangers. The use of volunteer launch hosts and river rangers would depend on the level of public support and participation (FSM 2354.03 (4)).
- Coordinate with the State, cities, and townships to develop signs, information brochures, and education opportunities.
- Coordinate with the State, cities and townships to develop common bulletin boards and ensure relevant and current information is posted.
- The current Pere Marquette Sign Plan will be updated using the sign management recommendations found in Appendix G of the Environmental Assessment.
- Develop tools and products (e.g., a short video) for use with the public to educate visitors on river use ethics.

Land Exchange and Acquisition

- Land exchange and acquisition will follow the guidance provided in Section 6 of the Wild and Scenic Rivers Act.
- Land exchanges, acquisition, and conservation easements would occur through a willing seller and depend on available funding.
- The priorities of land acquisition are:
    - First: The purchase of lands or interest in land needed for development of public facilities identified in the plan or needed to protect areas of special significance.
    - Second: The purchase of lands or interests in lands adjoining existing or planned public facilities for a buffer between those facilities and private land.
    - Third: The purchase of lands to assure the protection of the river resources from development. This would normally involve large tracts with potential for subdivision or commercial development. This will include land identified as having valuable wetland or riparian resources.

Forest Service Acquisition of State Land within the River Corridor

- Negotiations between the Forest Service and the DNR regarding the unified management of Federal and State access sites between the Forks and Indian Bridge access site may result in Forest Service acquisition of State land. As

stated in Section 6(a)(1) of the WSR Act Federal acquisition of State land may only occur through donation or exchange.

- If land acquisition occurs, the Forest Service would acquire about 1,300 acres of State land. This acquisition would meet the acre limitations imposed by the WSR Act, Section 6(a)(1), which limits Forest Service fee title acquisition to less than an average of 100 acres per mile (Table 3).

Table 3. Pere Marquette National Scenic River Corridor Land Ownership if Acquisition of State Land Occurs

	Private	Federal	State of Michigan and other Public Land
Acres	9,178	3,592	330
Percent of Total	70.1%	27.4%	2.5%
Average Corridor Acres per River Mile	138 acres/mi	54 acres/mi	5 acres/mi

Aquatic and Riparian Restoration and Stabilization

- USFS, DNR, and river users cooperatively manage navigation hazards.
- Prior to implementing bank stabilization, complete a Wild and Scenic Rivers Act Section 7 free-flow analysis.
- To protect and enhance the ORVs; restoration and site stabilization will continue to be implemented as necessary. Restoration and site stabilization would be compatible with the scenic river designation and harmonize with the surrounding environment (FSM 2354.42c (6)). Additional direction is given in the Standards and Guidelines for the Pere Marquette National Scenic River Corridor and FSM 2354.42, Wild and Scenic River Resource Protection and Management.
- Examples of specific actions that may occur include the installation of durable surfaces (native, nonnative, synthetic) on trails, parking lots, and roads; barriers (rocks, logs, posts, fences) to direct public use; and bank and channel erosion control and habitat structures (FSM 2354.41a – Exhibit 01, Some Techniques to Manage the Character and Intensity of Recreational Use to Achieve Established Objectives). The use of rebar, cable, and anchoring materials is permissible as long as they do not create hazards or interfere with recreation use, are visually acceptable, protect the rivers free-flowing quality, and do not prevent naturally occurring events (Interagency WSR Coordinating Council May 1997).
- Cumulative bank stabilization using hard techniques (e.g., riprap, rock) that fix the river in place will not occur on more than five percent of the total segment shoreline length. Measurement would be by river segment; Forks to Bowman Bridge, Bowman Bridge to Upper Branch Bridge, Upper Branch Bridge to Walhalla, Walhalla to Custer, and Custer to Old Highway 31.

Forest Service Recreation Enhancement Fee Program

- Claybanks, Green Cottage, Gleason's Landing, Bowman Bridge, Rainbow Rapids, Upper Branch Bridge, and Maple Leaf access sites will remain under the Forest Service Recreation Enhancement Fee Program.
- Designated campsites adjacent to Sulak access on National Forest lands will be added to the Forest Service Recreation Enhancement Fee Program.

Recreation Opportunity Spectrum (ROS) Classification

- The river segment between Lower Branch Bridge and Walhalla is classified as Semi Primitive Motorized. This river segment classification will be changed to Roaded Natural. This change in classification acknowledges the existing level of development and recreation experience along this segment of river, as well as, expectations for future development.

Commercial Use

- Fishing guides and canoe liveries are permitted through the Forest Service special use program.
- Permits allow one trip per day per permitted boat.
- Accessibility Guidebook for Outfitters/Guides Operating on Public Lands, USDA – Forest Service, FS-757, March 2004, is used by all commercial guides.
- Any new commercial use must be evaluated for appropriateness and its potential impacts to the river's ORVs.

River Segments

- The Pere Marquette River corridor within the Huron-Manistee National Forests' proclamation boundary has been divided into three non-motorized watercraft segments. These sections were created to allow easier administration of the river corridor and the watercraft permit system (1983 Pere Marquette CRMP):

  Segment 1. The Forks to Bowman Bridge

  Segment 2. Bowman Bridge to Upper Branch Bridge

  Segment 3. Upper Branch Bridge to Walhalla Bridge

- The State of Michigan, under its navigation and fish and game regulatory statutes, has designated the Pere Marquette River downstream of Indian Bridge open to both motorized and non-motorized use. The Forest Service has implemented a Forest Supervisor Order, 36 CFR 261.58(n), which restricts the possession or operation of a watercraft with a motor upstream of Indian Bridge on National Forest System lands.
- From M-37 downstream to Gleason's Landing, the State of Michigan has designated the river as quality fishing water requiring "no kill, catch and release with flies only."

River Seasons

- Seasons are defined as:

  Spring: March 1 thru the Thursday before Memorial Day.

  Summer: Friday before Memorial Day thru Labor Day.

  Fall: Tuesday after Labor Day thru October 31.

  Winter: November 1 thru February 28 (February 29 in Leap Years).

Commercial and Public Watercraft Permits and River Use

Permit Acquisition

- Develop and implement an on-line permit acquisition system.

Summer Season (the Friday before Memorial Day thru Labor Day)

- Watercraft permits are required during the summer season from Forks to Walhalla.
- Watercraft use hours are 9:00 a.m. to 6:00 p.m., except when a watercraft is being used for fishing.
- Watercraft permits apply to specific segments of the river: Forks to Bowman Bridge, Bowman Bridge to Upper Branch Bridge, and Upper Branch Bridge to Walhalla.
- A watercraft is defined to be a tube, canoe, kayak, raft, drift boat, personal float tube, or any other vessel that can carry people down a river.
- One permit equals 1 canoe or, 1 drift boat or, 1 inner tube or, 2 solo kayaks, or 1 of any other type of watercraft EXCEPT rafts. Tandem kayaks would require one permit. Two permits are required for one raft.
- Commercially available inflatable raft numbers are capped at 29 (2006 levels) to protect aquatic habitat by reducing the need for wider large wood clearing for navigation.
- Rafts are limited to no more than a six-person raft, generally less than six feet in width.
- Numbers of summer watercraft permits available are based on the day of the week.
- The total number of public and livery watercraft permits available during the summer season does not change from the current allocation found in Table 4.
- During the summer season, Monday thru Friday (excluding holidays), watercraft permits are pooled between the Forest Service and liveries; however, the total number of available watercraft permits does not change.
- Pooling permits would mean that the general public and the liveries would draw from a combined allocation of permits. This would potentially increase the number of permits available to the general public because historically the

liveries have not utilized all of their permitted capacity on all river segments during the week.

- On weekends and holidays, the watercraft allocation between the public and liveries is shown in Tables 4a and 4b.
- Commercial canoe livery use of Indian Bridge access site will not be permitted.

Table 4. Total Daily Canoe Livery and Public Watercraft Permit Allocation – Summer Season

	Forks to Bowman Bridge	Bowman Bridge to Upper Branch	Upper Branch to Walhalla	Total
Weekdays	82	75	83	240
Saturday	248	196	198	642
Sun/Holidays	223	172	149	544

Table 4a. Daily Public Allocation of Watercraft Permits

	Forks to Bowman Bridge	Bowman Bridge to Upper Branch	Upper Branch to Walhalla	Total / Percent of Total	
Weekdays	12	19	19	50	21%
Saturday	28	56	38	122	19%
Sun/Holidays	25	49	29	103	19%

Table 4b. Daily Canoe Livery Allocation of Permits

	Forks to Bowman Bridge	Bowman Bridge to Upper Branch	Upper Branch to Walhalla	Total / Percent of Total	
Weekdays	70	56	64	190	79%
Saturday	220	140	160	520	81%
Sun/Holidays	198	123	120	441	81%

Spring Season (March 1 thru the Thursday before Memorial Day)

- Allowable use would be based on available parking capacity of approximately 660 spaces within the river corridor; approximately 560 spaces upstream of Indian Bridge (inclusive) once all the proposed facility expansions have occurred.

Fall Season (the Tuesday after Labor Day thru October 31)

- Watercraft permits would be required on Friday, Saturday, Sunday, and holidays from the Forks downstream to Indian Bridge.
- A daily maximum of 150 watercraft permits would be available (Appendix F Pere Marquette EA). This 150 includes a mix of commercial guide and public watercraft permits. The number of commercial guide permits, both Federal and State, would not be increased and are expected to utilize approximately 70 of

the available permits. The number of permits for the fall season is based on the number of available parking spaces, current boat use, and the number of fishing holes.

Winter Season

- Snowplowing will continue at Green Cottage, Gleason's Landing, Bowman Bridge, Rainbow Rapids, Upper Branch Bridge, and Maple Leaf parking lots during the winter. M-37, Sulak, and Walhalla would be added if the Forest Service manages these sites under unified management.

Riparian Landowner Watercraft Permits

- Permits will be available to landowners between the Forks to Indian Bridge access site.
- Permits issued prior to 2007 will be void and landowners will be required to obtain a new landowner watercraft permit.
- Riparian landowner watercraft permits will be issued annually and have an annual use report requirement.
- One permit will be provided to each tax parcel or in the case of property associations, one permit will be provided for each permanent dwelling.
- The permit will be transferable between watercraft. One permit equals 1 canoe or, 1 drift boat or, 1 inner tube or, 2 solo kayaks, or 1 of any other type of watercraft.

Commercial Outfitter and Guide Permits for Fishing

- The two types of commercial watercraft use, one regulated by the Forest Service and one regulated by the State of Michigan will continue. The Forest Service will continue to permit 23 guides with a total of 36 boats to operate from Forest Service administered access sites.
- The State of Michigan will continue to permit 29 guides, however the number of State permitted commercial guides may change in the future depending on State regulations and administration of their permit process.
- Under a unified management scenario, current State of Michigan land use permit holders would be issued a Forest Service special use permit to operate from current State access sites; Forks, M-37 Bridge, Sulak, Walhalla, and Old Highway 31. These permit holders would not be permitted to launch or retrieve boats from existing Forest Service sites.

River Access and Facilities

- At all developed access sites, ensure that best management practices are met and that access site roads, parking lots, and angler trails do not result in erosion, impact on soils, or loss of vegetation.
- At all developed access sites, ensure that guidelines for accessibility are met. References for accessibility include USDA Forest Service, Outdoor Recreation Accessibility Guidelines (FSORAG); USDA Forest Service, Trail Accessibility

Guidelines (FSTAG), and Section 1003. Recreational Boating Facilities from the ADA and ABA Accessibility Guidelines for Buildings and Facilities, Federal Register on July 23, 2004.

- Facilities follow The Built Environment Image Guide, Lake Province direction (USDA-FS December 2001).
- Recommended management actions by access site are listed in Table 5.

Table 5. River Access Sites and Facilities

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
1	**Forks** (Sec. 22, T17N, R13W)	Canoe Access	20	State site Minor canoe access Toilets Development Level 2	
2	**M-37 Bridge** (Sec. 15, T17N, R13W)	Watercraft Access	28	State site Major canoe access Back-in boat access Toilets Development Level 3	Delineate parking (paving and striping)
3	**72nd St.** (Sec. 16, T17N, R13W)	Walk In Access	10	Forest Service site Walk-in fishing access only Development Level 2	No Change
4	**Green Cottage** (Sec. 16/17, T17N, R13W)	Watercraft Access 100 PAOT Canoe Rest Area (persons at one time)	41	Forest Service site Steps that include a slide for watercraft access Canoe rest stop Toilet & trash receptacle Development Level 3	No Change
5	**Claybanks Angler Access and Camp Site** (Sec. 17, T17N, R13W)	Walk In Access	35 +18 @ Campsites	Forest Service site Designated Campground – 9 units Walk-in fishing access with stairs to river No watercraft access Toilets & trash receptacles Development Level 2	No Change

[1] Nelson 2006, Nelson 2007, Walker 2007

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
6	**Jorgenson's Tract** (Sec. 7, T17N. R13W)	Walk In Access	5	Forest Service site Walk-in fishing access No watercraft access Not identified as a designated access point on FS maps Development Level 2	Improve two existing parking areas and provide one new lot for 3-5 vehicles with stairs to river Designate 4 campsites
7	**Gleason's Landing and Campground** (Sec. 13, T17N, R1W)	Watercraft Access Camping 55 PAOT Camp 80 PAOT Rest Stop	28 + 12 @ Campsites	Forest Service site 4 family campsites and 2 group campsites Receives heavy watercraft use canoes (summer) and drift boats (spring and fall) Boat slide boat launch Toilets & trash receptacles, day-use site with tables Major canoe rest stop & wading fishing access site Development Level 3	Develop back down launch Construct a new seasonal 40 car overflow parking for spring and fall use only Maintain the campground and day use
8	**Rosebush Bend Angler Access** (Sec. 12, T17N, R14W)	Walk In Access	10	Forest Service site Walk-in fishing access Development Level 2	No Change
9	**Bowman Bridge Campground and Landing** (Sec. 2, T17N, R14W)	Watercraft Access Camping 175 PAOT	52 + 20 overflow (gated)	Forest Service site Designed to be major canoe launch and take-out point Campground has 16 family drive-in sites, 4 family walk-in sites and 4 walk-in group sites Development Level 4	Develop angler trails on public land downstream from the access site

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
	McDougall's (Sec. 34, T18N, R14W)	Private launch and parking	Unknown		
10	**Rainbow Rapids Landing** (Sec. 27, T17N, R14W)	Watercraft Access	16	Forest Service site Incidental, light canoe use Moderate year-round boat use Back-in boat launch Heavy use boats and fishing in spring and fall fishing season Wading angler Development Level 3	Develop seasonal overflow adjacent to Wingleton Road for 10 vehicles with boat trailers only
	40th Street (Sec. 28, T18N, R14W)	Not Developed	0	Forest Service site No developed parking or walk-in access Development Level – no development provided	Develop 3-5 vehicle parking with trail (1/4 mile) to river
11	**Sulak** (Sec. 29, T18N, R14W)	Watercraft Access - State Camping – FS 60 PAOT Camp 70 PAOT Rest Stop	45 +24 @ Campsites	Back-in watercraft launch Canoe rest stop and access site Receives heavy angler use for both wading and boat access 12 designated campsites Development Level 3	Begin charging fee for camping
12	**Upper Branch Bridge Landing** (Sec. 30, T18N, R14W)	Watercraft Access	50 + 20 overflow (gated)	Forest Service site Separate launches for canoe and back-in boat Toilets & trash receptacles Camping for self contained units in the parking lot during the fall season Development Level 3	No Change

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
13	**Elk** (Sec. 30, T18N, R14W)	Walk In Access Canoe Rest Stop and Camp 20 PAOT Canoe Camp	0	Forest Service site Canoe campground with 4 sites Primitive pit toilet Gated road for administrative use Development Level 2	Replace pit toilet with vault toilet
14	**Lower Branch Bridge** (Sec. 24, T18N, R15W)	Walk In Access	8	Forest Service site Carry-in launch for watercraft Walk-in fishing No facilities except traffic barriers Opening on the high bank south of the river, west of Landon Rd. and north of Barothy Rd. used for illegal dispersed camping, day use parking and motorcycle activity Boat access contributing to safety concerns The current CRMP has an action item to improve access at Lower Branch Bridge; this action item has not been completed Development Level 2	Develop back-in boat access, parking for 10 cars and trailers Provide toilets No camping

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
15	**Logmark** (Sec. 23, T18N, R15W)	Walk In Access 110 PAOT Canoe Rest Stop and Camp	0	Forest Service site Illegal drive-in camping is on high, steep banks overlooking the river. Canoe-in camping is on lower banks close to the river Heavy use during fall salmon fishing Development Level 1	Relocate site in the same area to reduce erosion and provide improved access from the river Install vault toilet Designate 4 campsites
16	**Maple Leaf** (Sec. 23, T18N, R15W)	Walk In Access	22	Forest Service site Heavy use in spring and fall fishing seasons Illegal dispersed camping Development Level 2	Develop 1 new and expand the 2 existing sites for up to 50 vehicles, no trailers Provide toilets No camping Relocate and reconstruct access trails
17	**Walhalla** (Sec. 21, T18N, R15W)	Watercraft Access	20 + 8 overflow	State site Major access for anglers (wading and boating) as well as canoeists exiting the river Provides toilets Provides canoe and back-in boat access Development Level 3	Slope parking lot to drain away from river Delineate parking (signs and wheel stops)

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
18	**Indian Bridge** (Sec. 23, T18N, R16W)	Watercraft Access	12	Forest Service site Receives moderate to heavy use by anglers Other than launch and parking area, site is a wetland Concrete boat launch Bridge obstructs ability for drift boats to pass under bridge, especially during high water, limiting the value of the site as an exit from the river Development Level 3	Modify bridge to accommodate drift boat passage
Total Parking Spaces in Upper River (within the proclamation boundary)			Approx 500		
19	**Custer** (Sec. 21, T18N, R16W)	Watercraft Access	Approx 12	Township site Major boat access for fishing and day use Launch site and adjacent parking is wet (downstream of the weir) even in the summer Site is poorly maintained with evidence of numerous campfires, litter, etc. Site of the lamprey weir that requires a portage to continue downstream Development Level 2	Improve canoe portage around Sea Lamprey Weir Encourage the development of adequate parking, signing, and erosion control

Access Site		Type of Access Site	Available Parking Spaces	Current Situation[1]	Action
20	**Scottville Bridge** (Sec. 19 & 24, T18N, R16W)	Watercraft Access 280 PAOT Campground	Approx 50	Municipal site Two major boat access sites: Scottville City Park which includes a modern campground and many amenities Henry's Landing is a private campground State boat launch and commercial landing, and canoe livery The sites have a significant visual impact upon the river Receives heavy use by anglers, especially during fall fishing Another canoe livery, River Run, is located just north of the river on the west side of Scottville Rd Development Level 5	Encourage City and State to establish and maintain a vegetative screen
21	**Old Highway 31** (Sec. 25, T18N, R18W)	Watercraft Access	Approx 30	State owned Is a major back-in boat access for anglers and waterfowl hunters to Pere Marquette Lake Provides toilets Development Level 2	Slope parking lot to drain away from river Delineate parking (signing and wheel stops)
Total Parking Spaces within Pere Marquette River Corridor			Approx 600		After Implementation ~ 660

Pere Marquette National Scenic River Standards and Guidelines

The Pere Marquette National Scenic River Standards and Guidelines are found in Table 6. These Standards and Guidelines apply to the Pere Marquette National Scenic River corridor only. If the Pere Marquette National Scenic River CRMP is silent on any issue, goal, resource, standard, or guideline, the Huron-Manistee National Forests' Plan (2006) becomes the guiding document.

Table 6. Pere Marquette National Scenic Corridor Standards and Guidelines

Resource	Management Direction
1600 - Information Services	Provide public information regarding permits, regulations, access points, and camping locations. Post Pere Marquette Wild and Scenic River signs at all access points and bridge crossings. Provide interpretative signs. Signs in the river corridor will comply with the Pere Marquette Wild and Scenic River Master Sign Plan which will be updated in the CRMP and include management recommendations as described in Appendix G.
1900 – Land and Resource Management Planning	DNR Pere Marquette River Natural River Plan (July 1978, revised March 2002) applies to private and State lands within the river corridor. Coordinate with the State on a unified management strategy. Forest Service shall recognize and accommodate the Tribes' treaty-reserved rights for all 1836 Treaty rights including tribal regulated hunting, fishing, and gathering activities.
1900 – Land and Resource Management Planning *Old Growth*	The Pere Marquette National Scenic River corridor will be managed as old growth. Forest Plan Standards and Guidelines for old growth management will apply to the river corridor.
2000 - National Forest Resource Management *(Non-native Invasive Species)*	The U.S. Fish and Wildlife Service will coordinate the implementation of effective lamprey control measures with the Great Lakes Fisheries Commission and the DNR to protect the Great Lakes and Pere Marquette River fisheries. Forest Plan Standards and Guidelines for NNIS management will apply to the river corridor.

Resource	Management Direction
2100 - Environmental Management	The Pere Marquette National Scenic River is managed according to the CRMP. Encourage cooperation and coordination with responsible government land and resource management agencies, tribes and partners in program management and application of guidelines in areas such as recreation; Wild and Scenic Rivers, Michigan Natural Rivers; minerals; air quality; law enforcement; fire; water quality; endangered, threatened, and sensitive species; non-native invasive species; and insect and disease.
2200 – Rangeland Management	Grazing allotments will not be permitted within the Pere Marquette River corridor.
2300 – Recreation, Wilderness, and Related Resource Management	Camping is only permitted at designated camp sites 36 CFR 261.58 (e). Campfires are not permitted within the river corridor except at designated sites. Access sites upstream from Indian Bridge will be designed for launching of non-motorized watercraft only. Possessing or operating a watercraft equipped with a motor upstream from Indian Bridge on National Forest Lands is prohibited (36 CFR 261.58 (n)). Below Indian Bridge, access sites will be designed for non-motorized and motorized watercraft. On public land, no new roads will be built within the river corridor except when needed for river management. Roads within the river corridor that are not needed for access to private or public lands or public facilities will be closed. Recreation management will be compatible with the Recreation Opportunity Spectrum objective of the area. State of Michigan Watercraft regulations apply to the river corridor.
2300 – Recreation, Wilderness, and Related Resource Management *Recreation Construction*	New development will be screened to meet Scenic Integrity Objectives and will not exceed a development level greater than is needed for resource protection. No additional access sites will be developed below Lower Branch Bridge.
2300 – Recreation, Wilderness, and Related Resource Management *Operation and Maintenance of Developed Recreation Sites*	Some modification of existing sites will be necessary to meet the assigned Scenic Integrity Objectives. To protect resources from user impacts, site modifications may be needed. Toilets will be maintained at each developed site, rest stop, and camp area.

Resource	Management Direction
2300 – Recreation, Wilderness, and Related Resource Management *Trails*	Anglers will be provided access that: a) Meets the needs of the anglers without conflicting with other policies and actions outlined in this plan. b) Distributes fishing pressure and minimizes conflicts with riparian owners.
2300 – Recreation, Wilderness, and Related Resource Management *Heritage Resources*	Inventory to Forests standards, public lands within the corridor for historic properties. Monitor the condition of 10% of inventoried properties within the corridor per year. Close degraded areas until mitigation measures are implemented.
2300 – Recreation, Wilderness, and Related Resource Management *Scenery Management*	Assigned Scenery Integrity Objective for MA 8.1 is High. All management activities should meet or exceed the Scenic Integrity Objectives (SIO) established for the Forests. Use the Scenery Management System outlined in "Agriculture Handbook 701, Landscape Aesthetics - A Handbook for Scenery Management." as outlined in the Huron-Manistee National Forests' Plan 2006, detailed in appendix A of that document.
2400 - Timber Management *Vegetation Management*	Vegetation within the corridor will be managed as old growth and allowed to evolve through natural processes, except when it is manipulated for the following reasons: a) To maintain critical habitat for threatened or endangered wildlife species. b) To correct severe damage caused by fire, wind, ice, insect and disease, or other catastrophe. c) To screen developments and meet visual quality objectives.
2500 – Soil, Water and Air Soil	Forest Plan Standards and Guidelines for soil management will apply to the river corridor.

Resource	Management Direction
2500 – Soil, Water, and Air *Water*	Water resource projects will be evaluated under the appropriate standard of Section 7 WSR Act. Protection and enhancement of the riparian area, water-dependent ORVs and riverine processes (channel maintenance) afforded through the implementation and effectiveness of Best Management Practices (BMPs), standards and guidelines. Water temperature range will be maintained for indigenous biota. Potential sources of pollution will be prevented from entering the river, if possible, as they are identified. **Aquatic Restoration** Aquatic habitat restoration will consider the needs of all riparian-dependent species. Restoration measures may include, but are not limited to, large wood placement, streambank stabilization, gravel and cobble placement for spawning habitat, and fine sediment removal. The cumulative amount of hardened streamside stabilization, over time, does not exceed 5% of the segments total shoreline length. Measurement will be by river segment with the segments defined as Forks to Bowman Bridge, Bowman Bridge to Upper Branch, Upper Branch to Walhalla, Walhalla to Custer, and Custer to Old Highway 31. In stream channels deficient of wood, placement of trees is a preferred method to fixed structures. Bioengineering is the preferred approach for all restoration projects and should be used where feasible.
2500 – Soil, Water and Air *Air*	The Pere Marquette River corridor is managed as a Class II Airshed.
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *General Management*	Forest Plan Standards and Guidelines for general wildlife management will apply to the river corridor.

Resource	Management Direction
2670 – Wildlife, Fish, and Sensitive Plant Habitat Management *Threatened, and Endangered and Regional Forester's Sensitive Species List*	For all Threatened, Endangered or Regional Forester's Sensitive Species, refer to the guidance and management direction in consultation documents, species management plans, and the Huron-Manistee National Forests' Plan (2006) or biological opinion. If monitoring finds additional species within the river corridor, appropriate protective measures will be taken. The Pere Marquette River corridor provides habitat for: **Wildlife** Bald eagle (RFSS) Seasonal no-stopping areas may be implemented along the river to protect bald eagle nesting from human disturbance. Karner blue butterfly (E) Common loon (RFSS) Eastern Massasauga rattlesnake (RFSS) Northern goshawk (RFSS) Red-shouldered hawk (RFSS) **Plants** Hill's thistle (RFSS) Bog blue grass (RFSS) Alleghany plum (RFSS) **Aquatic Species** Lake sturgeon (RFSS) Greater redhorse (RFSS) Creek heelsplitter mussel (RFSS) Promote stream protection and restoration through conservation practices such as sand trapping, introduction of spawning gravel and cobble, monitoring riparian filters, and lowered levels of non-point source pollution.
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *N0N T&E Management Indicator Species (MIS)*	For all MIS, refer to the guidance and management direction, species management plans, and the Huron-Manistee National Forests' Plan (2006). If monitoring finds additional species within the river corridor, appropriate protective measures will be taken. Habitat is found within the Pere Marquette River Corridor for Ruffed Grouse, Brook Trout, and Mottled Sculpin.
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *Wetlands and Riparian Areas*	Forest Plan Standards and Guidelines for wetland and riparian area management will apply to the river corridor.

Resource	Management Direction
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *Large Wood Management*	In-stream or added wood, will be left undisturbed unless it constitutes a navigational hazard. If watercraft cannot go over, under or around wood, it constitutes a navigational hazard and may be cut only to the extent necessary for navigation. Improving aquatic habitat should be considered when managing navigational hazards. The maximum clearing width will generally be eight feet. The Forest Service and Michigan Department of Natural Resources will work with primary river users to assess potential navigational hazards and determine clearing needs.
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *Habitat Structures*	Structures may be considered on river reaches where in-stream cover is felt to be lacking. Placement of trees is a preferred method to fixed structures. All structures will be constructed with native materials. Stabilization and fish cover structures will be periodically maintained to prevent such structures from becoming visually obtrusive or safety hazards. Existing structures which have fallen into a state of disrepair will either be repaired or removed. Removal or repair will be done in a manner that maintains the scenic character of the river and does not contribute to future streambank erosion.
2600 – Wildlife, Fish, and Sensitive Plant Habitat Management *Fish*	State of Michigan fishing regulations apply to the river corridor. Other resource values will be protected from damage caused from heavy fishing pressure generated by salmon and steelhead fish migration.
2700 - Special Uses Management	Forest Plan Standards and Guidelines for special uses management will apply to the river corridor.
2800 - Minerals and Geology	Federal oil and gas leases within the Scenic River corridor will contain a no-surface-occupancy stipulation. The Forest Service will recommend non-development for the leasing of State of Michigan oil and gas rights under National Forest System lands within the Scenic River Corridor. Land management decisions will not preclude the ability of private mineral owners to make reasonable use of the surface as defined by deed and public law. For reserved or outstanding mineral rights, where reasonable and in cooperation with the mineral owner, no surface occupancy will be permitted within 300 feet, measured at a perpendicular, from the normal high water mark of any river, stream, or lake.
3400 - Forest Pest Management	Forest Plan Standards and Guidelines for forest pest management will apply to the river corridor.

Resource	Management Direction
5100 - Fire Management	Use minimum impact suppression tactics in the river corridor. Minimize the use of tractor plows or other mechanized line-building equipment. The use of retardant is prohibited. Burn areas will be rehabilitated using Best Management Practices which address erosion control, native seeding, and natural soil stabilization practices. Management activities will address high fuel hazards that may occur in the river corridor when public safety and property are at risk.
5300 - Law Enforcement	Cooperative agreements with State and county law enforcement agencies will be sought to enforce State and local regulations within the corridor and on the river. Specific emphasis will be placed on reducing the incidence of operating watercraft under the influence of drugs or alcohol and the illegal use of drugs and alcohol as well as trespass and vandalism within the corridor. Regulations necessary to protect the river area from damage or destruction will be developed under a Forest Supervisor order under Section 36 of CFR Part 261.
5400 - Land Ownership	Land adjustments and acquisition will follow guidance from the WSR Act. The priorities of land acquisition are: o First: Lands or interest in land needed for development of public facilities identified in the plan or needed to protect areas of special significance. o Second: Lands or interests in lands adjoining existing or planned public facilities for a buffer between those facilities and private land. o Third: Lands to assure the protection of the river resources from development. This would normally involve large tracts with potential for subdivision or commercial development. This would include land identified as having valuable wetland or riparian resources.
7400 - Public Health and Pollution Control Activities	The District Ranger will continue to authorize and coordinate all emergency operations within the river corridor with the appropriate county and State agencies.
7700 - Transportation System	On National Forest System land, no new roads will be built within the river corridor except when needed for the management of the river corridor and visitor management.

Monitoring

- Implement the monitoring program described in Chapter 5

CHAPTER 4 - IMPLEMENTATION SCHEDULE

Because funding is unpredictable and it may be necessary to adjust priorities from year to year, it is not possible to set rigorous priorities for expenditures over the long term. Guidelines have been established to help determine priorities and allocation of funding and staff time and include:

- Public health and safety considerations.
- Actions required by the Wild and Scenic Rivers Act such as protection of the Outstandingly Remarkable Values (including WSRA Section 7 determinations).
- Improvements or actions within the corridor that meet the direction of the CRMP.
- Improvements or actions within the watershed that enhance the corridor and meet the direction of the CRMP.

This table is intended to display the Forest Service approximate timing for project completion. Maintenance would occur on an annual basis as needed. This list can be updated as needed without amending the Comprehensive River Management Plan.

Table 7. Implementation Schedule for Proposed Facility Development or Reconstruction

Project - Years 1-5
Develop and implement an on-line permit system for summer and fall watercraft permits.
Custer Bridge, Scottville Bridge, Old Highway 31. Encourage the townships and cities to improve management at these locations.
M-37. Harden sites and delineate parking.
Jorgenson's Walk-in Access. Develop additional vehicle parking with a stairway to the river. Designate 4 dispersed campsites. Needs site-specific analysis.
Gleason's Landing. Develop a back-down launch. Needs site-specific analysis.
Bowman Bridge. Develop angler trails on public land downstream from the access site. Needs site-specific analysis.
Rainbow Rapids. Develop seasonal over-flow parking adjacent to Wingleton Road for vehicles with boat trailers. Needs site-specific analysis.
Elk Walk-in Access. Replace the pit toilet with a composting vault toilet.
Lower Branch Bridge. Develop a boat access and parking facility. Needs site-specific analysis.
Logmark Walk-in Access. Relocate and improve the site. Requires site-specific analysis.
Maple Leaf. Improve management of the site. Requires site-specific analysis.
Walhalla. Reslope the parking lot to drain away from river.
Project - Years 5-10
40th Street Walk-in Access. Develop vehicle parking with a ¼ mile trail to the river. Needs site-specific analysis
Indian Bridge. Raise the bridge to accommodate watercraft passage. Needs site-specific analysis.

CHAPTER 5

Monitoring and Evaluation Plan

Monitoring provides a quality control and adaptive management strategy for the implementation of the CRMP. The monitoring program is designed to be the foundation for the long-term protection and enhancement of the Pere Marquette's river-related values. Objectives of the monitoring program are to:

1. Determine the extent to which the plan is being implemented.
2. Determine if desired conditions are being maintained or achieved.
3. Ensure management direction (standards and guidelines) is being followed.
4. Ensure management direction is effective in protecting and enhancing the outstandingly remarkable river values.
5. Identify the need for adaptive management if the current level of management is not effective in protecting and enhancing the ORVs.

Monitoring criteria outlined in this section is based upon the Limits of Acceptable Change (LAC) process which follows the premise that the "…planning framework is a continuation of the carrying capacity concept that focuses on deciding the amount of change that would be allowed to occur rather than defining how much use is too much (Stankey et al. 1985)." The goal of management is to keep the character and rate of change due to human factors within acceptable levels that are consistent with plan standards. Therefore, this emphasis does not aim to prevent all human-caused change in the corridor, but rather it focuses on specific indicators that reflect the carrying capacity in more practical terms. These limits tie closely with the protection and enhancement of Pere Marquette's Outstandingly Remarkable Values.

For each river value to be monitored, one or more key indicators are selected that would allow managers to keep attuned to changes in the ecosystem or social setting. For each key indicator, a standard or desired condition is described. This is the value that determines the amount of change that is either desired or that would be accepted before river management objectives are no longer being met. In this manner, indicators and standards provide managers with information to determine if the resource values and opportunities they are managing are actually being protected. The standards serve as triggers that cause predetermined management actions to be implemented when the limit is being reached.

For each indicator, a list of management actions is presented, ranging from least restrictive to most restrictive ("Management Actions to be Triggered if Conditions are not Met" column). If monitoring finds that the current level of management is not protecting or enhancing the ORVs more restrictive measures may be instituted by the agency. The column titled "Sampling Procedure and Frequency," provides a description of how the indicator would be measured and the frequency recommended.

Monitoring activities are described in Table 8 and are specific to the Pere Marquette National Scenic River corridor. Implementation of monitoring would be based on the availability of funding. The Huron-Manistee National Forests would make every effort to identify opportunities that would reduce the cost to the government. If adequate funding is not available, some monitoring activities may not take place.

Adaptive Management

Sample methods and management actions can and should be changed if annual review for monitoring indicates repeated instances of unacceptable impacts to the river's Outstandingly Remarkable Values. Sampling methods would change as better techniques become available or if the current monitoring strategy is not providing the needed answers.

It is Forest Service policy, FSM 2354.03 (4) to manage the use of rivers by establishing as few regulations as possible. However, it is also Forest Service policy to manage WSR to protect and enhance the river values for which the river was designated. If monitoring finds that the current level of management is not protecting or enhancing the ORVs, more restrictive measures may be instituted by the agency. The Forest Service may issue closure orders due to resource damage without environmental analysis. Documentation as to the need for change and the action would be placed in the project file.

In addition, the following measures are within the range of alternatives developed and evaluated. As a result of new information and monitoring conducted over the life of the CRMP, a new decision may be issued and include one or more of the following restrictions:

1. Require walk-in anglers to obtain a river corridor use permit.
2. Adjust the watercraft permit system by:
    - Changing the number of watercraft permits allocated per section or per day.
    - Adding restrictions such as group size limits or additional boat launch restrictions (e.g., metered launches).
    - Requiring public watercraft permits over a longer season of use.
    - Issuing watercraft permits based on a lottery system.
3. Restrict the number of walk-in angler permits.
4. Add a required designated campsite permit.
5. Close access sites, trails, and streambank areas to recreation use and completing restoration activities.
6. Implement seasonal night closures of Forest Service access sites (except designated campsites) during Fall fishing season.

Table 8. Monitoring Program – Pere Marquette National Scenic River

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Free-flow	No new dams, diversions, straightening, riprapping or obstruction to free-flow	No obstruction to free-flow "Free-flowing", as applied to any river or section of a river, means existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway. (Wild and Scenic Rivers Act, 1968 (Sec. 15(b))	Count the number of Section 7 Analysis determinations made in a planning cycle Every 5 years	Water resource projects go through a WSR Act, Section 7 analysis (Section 7 analysis is not a "decision document")
Water Quality	Water quality meets Michigan State DEQ Water Quality Standards for "Primary Contact Recreation and Cold Water Fishery" based on measurement of: • fecal coliform • temperature • water clarity • channel substrate • nitrogen • phosphorus	Meets Michigan State DEQ Water Quality Standards for "Primary Contact Recreation and Cold Water Fishery"	Use the Michigan DEQ Procedures for assessing Water Quality parameters. Compare monitoring data to the Michigan State DEQ Water Quality Standards Every 5 years	Identify possible sources of pollutants 1. If non-point sources derived from NFS lands, implement corrective actions to reduce pollutants to levels consistent with water quality standards 2. If pollutant source is on other than NFS lands, work with Michigan DEQ to implement corrective actions or develop corrective plans

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
River Sediment Loads *Streambank Erosion*	Human disturbances are small and localized with no long-term change to channel morphology, sediment regimes, or water quality	The desired condition is an erosion severity index of less than moderate at any site due to human disturbance Actions will be triggered if the severity index moves from less than moderate to moderate or severe The cumulative amount of hardened streamside stabilization over time does not exceed 5% of the total shoreline, by segment.	Evaluate erosion site by determining the severity index Standardized streambank erosion inventory procedure to generate a severity index Visit erosion sites and evaluate the severity index at least every 5 years	Inform and educate users to stay on trails and on stable areas of the bank Redesign trails and provide access to water at heavily used sites, obliterate and restore unnecessary trails Close areas to foot travel if stabilization measures fail. If hardened streamside stabilization exceeds 5%, discontinue hardening and use alternative methods and consider restricting use.
River Sediment Loads *Road-Stream Crossings*	Best management practices (BMPs) are implemented at all road crossings within: (a) river corridor (b) entire watershed	The desired condition is an erosion severity index of less than moderate at any crossing within the watershed	Use standardized crossing inventory data to prioritize implementation, document BMPs, and monitor sites Update inventory every 10 years	Work with watershed restoration partnership to implement corrective actions (BMPs)

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
River Restoration Projects	Past restoration is effective at stabilizing the banks and terraces	The desired condition is that past restoration efforts are functioning Actions will be triggered if past restoration is not stabilizing the banks and reducing sediment input into the river corridor	Use photo points to document past restoration efforts Visit past restoration sites and evaluate their effectiveness and need for maintenance at least every 5 years	Identify source of erosion and fix the source Implement a restoration or maintenance project Close the access point or trail if other measures are not successful
Scenery ORV	Visual Anomalies Present Visual anomalies are: • Line – straight, unnatural • Color – unsuited to setting • Form – unsuited to setting • Frequency • Size – out of scale	Scenery Management Objectives – High – Appears Unaltered	Visual Survey, noting visual anomalies and recommended correction Float survey every 5 years	Implement vegetation treatments to screen and blend improvements with the natural environment New, modified, or reconstructed buildings on private land would trigger a Pere Marquette Zoning Board review and actions that would utilize existing Natural River guidelines to minimize visual intrusions
Recreation *ROS Class*	Facility Development Level	Maintain a facility development level consistent with the ROS and Scenic River Classification The desired facility development level for the Pere Marquette River Corridor is 3 or less	Assess changes to the development level during the planning process for changes at recreation sites	Change the facility to meet the desired condition for development level Change river classification under the WSR act

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Recreation *Resource Conditions*	Recreation Resource Condition Indicators: • Number of violation notices issued • Number of new social trails or human induced bank erosion per river segment • Number of user-created campsites per river segment • Number of new fire rings per river segment	Standards: Number of violation notices issued – 20% increase over 2006 levels Number of new social trails or human induced bank erosion – No net increase in social trails or human induced bank erosion Number of use-created campsites per river segment – No net increase in campsites Number of new fire rings per river segment – No net increase in fire rings	Annual river corridor condition survey for the Recreation Resource Condition Indicators	Require walk-in anglers to obtain a river corridor use permit Adjust the watercraft permit system by: - Changing the number of watercraft permits allocated per section or per day - Adding additional restrictions such as group size limits or additional boat launch restrictions (metered launches) - Requiring public watercraft permits over a longer season - Issuing watercraft permits based on a lottery system - Restricting the number of walk-in anglers - Adding a required designated campsite permit - Closing access sites, trails, and streambank areas to use

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Recreation *Social Conditions*	Social Encounter Conflict Indicators: Change in • Enforcement actions • Complaints regarding the river corridor to local law enforcement and conservation officers Recreation Visitor Experience Surveys: • Complaints • Return visitation • Satisfaction with experience, etc. • Perception of crowding • Comments from riparian landowners, users, and commercial guides	Law enforcement actions are minimal and the inevitable recreation related conflicts are resolved on a day to day basis without further management actions Overall riparian landowner, visitor, and commercial guide satisfaction levels are deemed acceptable	Annually enforcement actions and complaint records Recreation Visitor Experience Surveys – Based on 1996-1997, 1999, and 2004 methods and research objectives (Nelson 2007) Conduct the Recreation Visitor Experience Surveys every 5 years	See items listed under Recreation – Resource Conditions Implement seasonal night closures of Forest Service access sites (except designated campsites) during the Fall fishing season

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Recreation *Watercraft Permits and Parking Use*	Watercraft Use and Permit System • Total watercraft permits issued compared to availability • Commercial guide use for fishing, demand versus allocation • Use reports from riparian landowners and tribal offices Parking Use and Capacity • Availability of parking at the public access sites	Private and commercial watercraft permit allocations do not exceed acceptable use levels Watercraft permits are considered to be exceeded if: Total watercraft use exceeds 90% of the available permits on a seasonal basis Commercial guide use for fishing is considered to be exceeded if: Actual use exceeds permitted use	Review watercraft permit data and use reports from permittees, riparian landowners and tribal offices annually Review commercial guide use reports annually Recreation Visitor Parking Use studies – Based on 1996-1997, 1999, and 2004 methods and research objectives (Nelson 2007) Conduct the Recreation Visitor Parking Use Surveys every 5 years Every 2 years conduct car counts in the spring and fall	Management Actions are similar to those stated under Recreation Resource Conditions

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Non-native Invasive Species	Number of new plant species or populations found in the river corridor Number of existing plant populations treated	No new species or populations found in the river corridor All existing populations treated within the next planning cycle	Every 2 years survey and map non-native invasive plant species	Treat NNIS populations as necessary Areas where new NNIS are found or populations are increasing would be closed to recreation use, if necessary, to prevent spread of the NNIS
Wildlife	ETS Species Viability – Bald Eagle Nest Success	Bald eagle productivity within the WSR continues at or exceeds current levels. Any decline in productivity is related to factors not associated with management of the WSR	Continue annual biological evaluation reproduction surveys in cooperation with the DNR Continue support for volunteers to monitor eagle nests, annually	Designate "No Stopping" zones with signs if recreation and other uses are affecting bald eagle reproduction Implement closure orders where violations of "No Stopping" zones are affecting bald eagle reproduction
Fisheries *Fish Population*	Self-sustaining fish populations	Fish populations show a stable or upward trends	Assist DNR with periodic fish sampling	Work with State, Watershed Council, other agencies, and private citizens to restore populations

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Fisheries *Fishing Pressure*	Level of use that maintains the fishery and other river ORVs	Angler-days, catch rates, and harvest does not exceed the fish populations ability to be self-sustaining	Creel survey every 10 years	Work with State, Watershed Council, other agencies, and private citizens to restore populations
Aquatic Habitat *Large Wood*	Amount of large wood per mile within the river corridor	Meet Forest Plan Standards and Guidelines for large wood	Float Segments 1, 2, and 3 annually, in the spring, with river users to identify and remove navigation hazards Every 5 years inventory the river corridor from the Forks to Walhalla for the amount of large wood	Require a permit for anyone cutting large wood in and adjacent to the river on public land. Large wood would be removed by the Forest Service or DNR Add large woody material to the river
Aquatic Habitat *Channel Morphology*	Channel Width:Depth ratio	Establish baseline Trends in channel width:depth over time	Establish channel cross-sections (“survey grade” permanent transects; Olson-Rutz and Marlow 1992) Every 10 years	Identify channel morphology changes and solutions if river is trending towards a morphology of greater width

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Aquatic Sensitive Species *Fish Species (lake sturgeon, greater redhorse suckers)*	Presence Relative abundance	Sensitive aquatic species presence and abundance show an upward trend Implement Forest Plan conservation measures for lake sturgeon and greater redhorse	Fish data from Custer Weir fish passage ladder Annually	Work with USFWS and DNR to restore populations
Aquatic Sensitive Species *Mussels*	Presence	Sensitive mussel species presence and abundance show an upward trend Implement Forest Plan conservation measures	Fish data from Custer standardized mussel sampling procedure (e.g., Strayer and Smith 2003) Once every 5 years if presence documented	Work with USFWS and DNR to restore populations
Heritage Resources	Percent of public lands within the designated river corridor surveyed to Forest Standards Site condition monitoring benchmarks are met Corridor interpretive plan is formulated and approved Integrity of heritage resource properties is maintained and enhanced	Meet Forest Plan and Pere Marquette National Scenic River Plan Standards and Guidelines for the activity Inventory: Twenty percent of the total public land area within the corridor per year until completion Site Monitoring: Ten percent of known properties on public lands within the corridor per year Interpretation: The trend in implemented interpretive projects is positive	Sampling procedures will follow standardized methods for heritage resources. Annually	Site Integrity: Close degraded areas until mitigation measures are implemented

River-Related Value	Key Indicator	Standard	Sampling Procedure and Frequency	Management Actions Triggered if Conditions are Not Met
Shoreline Development	Number of new streamside developments	Track trends by obtaining the number of zoning variances on mainstem during the planning cycle. Weight the trend against the scenery ORV	Obtain the number of variances from the Pere Marquette Zoning Administrator Annually	Forest Service would suspend any further development on National Forest System lands Work with the State of Michigan Natural River Program to improve shoreline appearance if trends show loss of Scenic ORV
Action Items Completed	Completion of identified projects and actions in the CRMP	All actions with the CRMP are implemented	Track project implementation annually	Revise the CRMP

APPENDIX A - PERE MARQUETTE RIVER CORRIDOR