



Management Directions
Common to all Alternatives

Land & Water Use Alternatives

Management Structure Options

INTRODUCTION

FRAMEWORK FOR THE ALTERNATIVES

This chapter describes a range of alternatives for use and management of the Lower St. Croix National Scenic Riverway. The alternatives and the assessment of the potential environmental consequences of the alternatives, which is presented in the “Environmental Consequences” chapter, form the core of the *Draft Cooperative Management Plan / Environmental Impact Statement*. Alternatives in this plan describe different general concepts or visions for the future of the lower riverway over the next 15 to 20 years. They are intended to enable managers, users, neighbors, and the public to consider different approaches to managing users and resources, directing development, and resolving conflicts.

The chapter is divided into several parts. First, there is a discussion of how the alternatives were developed. A number of common management directions and associated strategies that would be implemented under all alternatives are then described. The land and water management areas that would be applied in most of the alternatives follows that discussion. Next, the preferred alternative is presented — the plan the riverway managing agencies are proposing to implement on the Lower St. Croix — followed by four other alternatives for managing the land and water in the lower riverway. The “no action” alternative is also presented, which describes how the lower riverway is currently managed and would be managed in the future if no major changes occurred. Each alternative includes a description of the management concept and its intent, and a discussion of how the land and water in the

riverway would be managed. Each of the action alternatives have a map showing where different land and water management areas would be designated, a discussion of several key topics that vary between the alternatives (e.g., river crossings, vegetative management), and a discussion of what would be needed to implement the alternative. Following these alternatives are other alternatives that were originally considered but not analyzed further.

After the six land use/water use management alternatives, a set of options is presented that identifies different organizational structures for the future management of the lower riverway along with a preferred option. Any of the management structure options could be combined with any of the land and water use management alternatives.

Implementation costs for each alternative are presented at the end of the chapter. Tables summarizing the key differences between the land use and water use alternatives and the impacts of implementing the alternatives as well as tables summarizing the management structure options and their impacts follow the discussion.

The preferred alternative and common management directions suggest guidelines for new state regulations governing land uses and water-based recreational (see appendixes A and B). Additional regulations of some riverway uses might be needed in the future. However, the managing agencies would solicit additional public input before implementing any regulations that would alter use patterns or levels on the riverway, change land use, etc. This would include any new regulations pro-

posed as the result of the *Cooperative Management Plan* and any other possible future regulations not specifically identified in this plan. If new federal regulations were needed, the National Park Service would print the proposed regulations in the *Federal Register* to solicit public comment.

DEVELOPMENT OF THE ALTERNATIVES

In developing the common management directions and the alternatives, several elements were considered: the lower riverway's resources and uses, its purposes and significance, the overall vision for what the riverway ideally would look like in 20 years, the managing agencies' missions, mandates, and constraints, and the major riverway issues that reflect differing desired futures.

A series of potential management areas were identified to describe desired user experiences and resource conditions that could be provided. Then different concepts were developed for managing the land uses and water surface uses within the riverway boundary. Five concepts were initially identified for land use management and five concepts for water surface management. When combined, these concepts could result in 25 possible alternatives. However, not all combinations were viable, reasonable alternatives, and from a practical standpoint it was too time-consuming and costly to assess the implications of these alternatives.

Five alternatives were selected for managing the Lower St. Croix, plus a "no action" alternative. After an alternatives

workbook was published, one of these alternatives —alternative E — was subsequently dismissed from further consideration. A series of additional meetings were then held to further refine the alternatives and the common management directions.

These five alternatives represent a full range of reasonable alternatives for managing the lower riverway. They address different desired futures while remaining consistent with the riverway principles, planning assumptions, purposes and significance, legislative mandates (e.g., the Wild and Scenic Rivers Act and the Endangered Species Act), and the lower riverway managing agencies' missions.

The next major step was to develop a preferred alternative. A public workshop was held using a caucus/negotiation process to develop the preferred alternative. Individuals divided into caucus groups that were closest to their desired future for the riverway and determined what positions to take where there were different viewpoints. Representatives from these groups then met and negotiated to reach consensus where possible. Unresolved issues were discussed at subsequent workshops. Of 106 decision points in development of a preferred alternative, consensus was reached on 79 issues (75%) and forwarded 27 issues for resolution by the management commission.

It should be remembered that the preferred alternative could still change. Following public review of this draft document, more changes could be made to the preferred alternative, or a different alternative could be selected as the preferred alternative.

**MANAGEMENT DIRECTIONS COMMON TO
ALL ALTERNATIVES**

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MANAGEMENT ACTIONS

Several management actions need to be taken on the lower riverway regardless of which alternative is approved by the National Park Service and the Minnesota and Wisconsin Departments of Natural Resources. These management actions would be taken under all of the alternatives. Most of these actions are based on existing state and federal laws, cooperating agency policies, and general planning principles, all of which support the purposes and significance of the lower riverway.

COORDINATION AND COOPERATION AMONG MANAGING PARTNERS AND BETWEEN GOVERNMENTAL AND PRIVATE ENTITIES

The National Park Service, Minnesota Department of Natural Resources, and Wisconsin Department of Natural Resources have a long history of working together as managing partners on the lower riverway. The managing agencies would continue to work together to guide activities and management within the riverway consistent with the approved management plan.

Because Minnesota and Wisconsin also manage lands that are adjacent but not within the riverway boundaries, the managing agencies would encourage management of both states' lands (state parks, wildlife management areas, and natural areas) in a manner that would be consistent with the cooperative management plan.

The enabling legislation for the riverway specifies that the National Park Service will

have primary management responsibility north of Stillwater and that the states will be the primary managers from Stillwater south. In practice however, there is significant overlap in jurisdictions. The states have the same on-water law enforcement authority and the same oversight over private land use both north and south of Stillwater. Despite jurisdictions that sometimes overlap and sometimes do not, the three managing agencies would strive to manage the entire riverway holistically.

Although there are alternatives for certain approaches to management activities (see the "Introduction"), the managing agencies would coordinate management activities and responses to riverway issues and concerns to facilitate an integrated and consistent management approach. Whenever possible, the agencies would actively pursue and support cooperative studies and planning for land and water resources management in areas of mutual interest.

Many other agencies and organizations within and outside the riverway also affect the management and use of the Lower St. Croix National Scenic Riverway. These include many private businesses, five counties, numerous municipalities and townships, the U.S. Fish and Wildlife Service, U.S. Coast Guard, U.S. Army Corps of Engineers, the Minnesota-Wisconsin Boundary Area Commission, the Environmental Protection Agency, other state agencies, and private groups and individuals. The cooperation of these organizations is essential to the effective and efficient management of the lower riverway. The managing agencies would work cooperatively with all levels of government

and the private sector to ensure the protection of the riverway's resources and maintain quality experiences for all users; manage land use, water surface use, vegetation, wildlife, and fisheries; and deal with other issues of mutual concern. Cooperative relationships would be fostered through regular communication and establishment of informal and formal partnerships or agreements such as implementation of the *Zebra Mussel Task Force Action Plan*. The managing agencies would coordinate enforcement of laws and regulations with local governments and other state and federal agencies (e.g., Minnesota Pollution Control Agency, U.S. Army Corps of Engineers, U.S. Coast Guard, U.S. Environmental Protection Agency). Optional riverway administrative and management frameworks for achieving a cooperative and coordinated management approach are presented later in this chapter.

LAND USE MANAGEMENT

Management of private land use is a partnership between the states and local governments. Local governments enact and enforce zoning ordinances based on state standards. Under no circumstances would state standards adopted for the riverway be less restrictive than statewide shoreland management standards. These standards apply to the lands within the riverway boundary (as published in the *Federal Register*) between the dam at St. Croix Falls / Taylors Falls and the confluence of the Mississippi River .

AMERICAN INDIAN TREATY RIGHTS

Eight Anishinaabe, or Chippewa bands, the Mille Lacs, Fond du Lac, St. Croix, Bad River, Lac du Flambeau, Lac Court Oreilles, Sokagon, and Red Cliff, have had off-reservation treaty rights reaffirmed within the riverway. In the treaty signed in 1837, the Chippewa ceded lands to the U.S. government, but retained the rights to hunt, fish, and gather on these lands, including those along the St. Croix north of Cedar Bend (river mile 41, south of Osceola). All American Indian treaty rights would be respected. The managing partners would work with the affected tribes to ensure that tribal subsistence hunting, fishing, and gathering rights within the riverway were available to and appropriately exercised by tribal members. The National Park Service and state authorities recognize these treaty rights and would work with the tribes, individual bands, and the Great Lakes Indian Fish and Wildlife Commission to ensure that the rights would be honored and that issues of common interest would be addressed.

Bands of the Sioux, or Dakota, nation at one time also occupied lands in the St. Croix valley. Although the Dakota have no treaty rights in the riverway, they retain historic and cultural ties to the area which must be respected. The managing partners would consult with representatives of the Dakota nation to identify significant sites associated with the tribe's history and ensure proper interpretation of the Dakota's historic use of the riverway.

RIVERWAY STEWARDSHIP

On the Lower St. Croix, stewardship would involve ensuring the rights of the current generation to use and enjoy the riverway without interfering with the rights of future generations to use and enjoy the same high-quality resource.

The managing agencies would strongly encourage landowners, local governments, and riverway users to adopt, with a cooperative spirit, the riverway's philosophy of preservation and protection of its significant resources and values. Building a stewardship commitment among river landowners, local officials, and users would be essential because the state and federal governments could not achieve the long-term riverway protection goals alone.

The managing agencies would work to build public stewardship and support for riverway protection. They would promote awareness, understanding, and support for protection of the riverway's natural, cultural, scenic, and recreational values, and the rules, regulations, and policies that guide riverway activities and uses. This would be done in a variety of ways, such as interpretive exhibits, educational outreach programs, newsletters, and presentations to local governments and publics. Land and recreational use practices (e.g., soil erosion prevention, minimum impact camping) that protect and enhance riverway resources and values would also be encouraged, as would involvement by volunteer groups and individuals in organized river protection programs such as Adopt-a-River and Riverwatch. The Minnesota-Wisconsin Boundary Area Commission and private organizations, such as land trusts and the Wisconsin Farmland Conservancy, are actively involved in a variety of efforts to

promote private land stewardship in the riverway, and their roles are expected to continue in the future.

The riverway is strongly influenced by what happens in the greater watershed. Locally initiated stewardship efforts would be integral to managing and protecting environmental resources (e. g., wildlife habitat, remnant plant communities, scenic areas) not only within the riverway but within the greater watershed, which frequently extends outside the riverway boundary and watershed. Local government programs and policies that would promote voluntary means to help protect and preserve the riverway's resources would be encouraged. Local initiatives within the watershed would complement the protective efforts within the riverway. Innovative and cooperative efforts, such as the land stewardship program initiated by Washington and Chisago Counties in collaboration with their local units of government and citizens to create a protected green corridor, is an example of one such effort. Other ongoing programs by the Natural Resources Conservation Service, county conservation departments, and watershed districts would also continue to promote stewardship and use of best management practices. Forest stewardship programs are another example of landowner assistance with broad implications for watershed management.

A Watershed Stewardship Initiative is in progress to address broader watershed issues facing the riverway. Work has begun to further engage citizens, interest groups, and governmental agencies into crafting an overall stewardship framework to identify and compile key issues, concerns, and opportunities within the larger St. Croix watershed area (totaling approximately 7,760 square miles in Wisconsin and

Minnesota). Efforts are currently underway to identify the scope of the stewardship initiative, setting a common vision/mission direction and organizing the wide variety of “stakeholder” groups in the St. Croix area. Since this initiative extends to the entire watershed and far beyond the regulatory boundary of the riverway, it depends entirely on the voluntary actions of citizens and local governments (additional description of the initiative is found on page 19).

NATURAL RESOURCES MANAGEMENT

Under all of the alternatives the lower riverway’s natural resources would continue to be managed in accordance with NPS and Minnesota and Wisconsin state policies and regulations. The managing agencies would strive to maintain all the components and processes of the riverway’s naturally evolving ecosystems, including the natural diversity and ecological integrity of the riverway’s plants and animals.

The managing agencies would pursue resource inventory, monitoring, and research programs to enhance knowledge of vegetative communities, wildlife populations, and natural processes and to evaluate trends and threats. This information would provide the basis for the preparation and periodic updating of specific management plans (e.g., fisheries management plan, water resources management plan).

Cooperative management of resources would be encouraged by conducting joint/cofunded programs and preparing comprehensive, interagency management plans where appropriate.

Water Quality and Quantity

The water quality of the Lower St. Croix is relatively good and is one of the riverway’s most important assets, but the quality of the river’s water is slowly degrading from a variety of point and nonpoint sources. The managing agencies and the Minnesota Pollution Control Agency (MPCA) would work to protect and improve the water quality of the lower riverway. Recognizing that the water quality management programs of both states are not identical, effective water quality protection and improvement would be enhanced by establishing uniform water quality goals for the lower river. The states would implement their planning, regulatory, and assistance programs to achieve agreed to water quality goals. This approach would apply to both point source and nonpoint source water quality management programs.

The managing agencies and the MPCA, Minnesota-Wisconsin Boundary Area Commission, Environmental Protection Agency, and U.S. Geological Survey would continue to develop and implement water quality protection measures. Current activities are underway to complete a St. Croix Water Quality Management Plan. As established, this plan will be a compilation of current, ongoing, and projected technical water resources studies related to the St. Croix River and its’ 7,760 square-mile basin area. Included in the analysis are water quality monitoring programs, nutrient loading issues, impoundment affects, and other subjects relative to water quality impacts. This planning effort will address protection and improvement of both surface and groundwater resources within the entire St. Croix river drainage. Interagency development of a whole basin strategy for the St. Croix River would provide a more compre-

hensive and integrated effort to establish uniform water quality goals and protect water resources. Studies and data collection needed to obtain information to determine specific water-quality goals and priorities has been initiated and will continue.

Surveys of resource conditions and major pollutants and ground water contaminants, determination of the sources of pollutants both within and outside the riverway, identification of impacts from land- and water-based uses, and establishment of a long-term monitoring program would be pursued. Based on this information, specific goals, projects, and mitigating measures would be developed and implemented. Interagency partnerships with local governments would be used to focus financial resources and expertise on issues of common concern. Development and implementation of the basin water quality management plan would also be coordinated and integrated with other related basin area activities. Examples of these activities include the Upper Mississippi National Water Quality Assessment Program, Wisconsin Department of Natural Resources, Minnesota Pollution Control Agency basin plans, local watershed plans, as well as other local programs by the Natural Resources Conservation Service, county conservation departments, and watershed districts.

Floods occur on a regular basis on the St. Croix. Damage to managing agencies' lands and facilities from floods is usually related to deposition of sediment or erosion of shorelines. In the event of a large-magnitude flood with severe damage, restoration of facilities would be evaluated on a case-by-case basis. The managing agencies might choose to close damaged facilities and restore the location to natural conditions. Where there was damage, such

as bank erosion, that was not associated with managing agency facilities, natural forces would be allowed to take their course.

As dams on the St. Croix River and its tributaries age, their removal may become a reasonable and even desirable option. As part of the water basin planning effort and other ongoing resource studies, the effects of the hydropower and nonhydropower impoundments and their operations on the St. Croix River and its tributaries would be investigated. Both the positive and negative changes to river morphology, water quality, biological communities, recreation, and aesthetics would be evaluated. Potential benefits to the long-term natural hydrologic and ecological conditions of the river and watershed from dam removal or operational flow modification would be identified.

Air Quality

The managing agencies monitor air quality-related values of the riverway from adverse air pollution impacts. Air quality related values include visibility, water quality, vegetation, wildlife, historic and prehistoric structures and objects, and other resources that could be degraded by air pollution. Air quality within the riverway and the effects of air pollutants upon the riverway's resources is difficult to evaluate without adequate information. State air quality management programs would continue to be a primary mechanism for addressing air quality monitoring and pollutant prevention and control. In addition, air quality indicators within the riverway, such as pollution-sensitive lichen species, would be identified and monitored to evaluate air quality trends.

Mussel Management

A cooperative interagency approach is underway and would continue to protect and conserve the native freshwater mussel assemblage and habitat found within the St. Croix watershed. Mechanisms to increase coordination and information exchange among all agencies, organizations, and institutions that study, manage, conserve, or recover native freshwater mussels in the St. Croix watershed would be identified and developed. Fundamental knowledge about the mussel fauna and habitat is critical to effectively managing and conserving this resource. Studies would be initiated to enhance knowledge on the basic biology and habitat requirements, status and trends, and threats and impacts from various sources and activities to native mussel populations and their habitats. Management strategies would be developed to protect and reverse the decline of quality mussel habitat and to minimize or eliminate threats from zebra mussels and other non-native species. The *Zebra Mussel Task Force Action Plan* would continue to be fully implemented. Regulations prohibiting the harvesting or taking of mussels would continue to be strictly enforced in the federally administered zone.

The future of the freshwater mussel fauna as well as other aquatic and aquatic-dependent species of the riverway would depend a great deal on the degree of public and other agency support for aquatic ecosystem protection and recovery programs. An information and education program would be developed and implemented to increase public awareness of the plight of mussels and the benefits of maintaining the ecological integrity of aquatic ecosystems and to develop support for protection efforts.

Two mussel species, the winged mapleleaf and Higgins' eye, are listed as federally endangered species. The managing agencies would continue to support the successful implementation of the U.S. Fish and Wildlife Service's recovery plans for these species. Habitat protection actions such as retrofitting bridges for spills containment and run-of-the-river hydropower generation at the NSP dam should be evaluated for implementation.

Fisheries Management

The managing agencies, in cooperation with the Chippewa tribes, would manage the lower riverway's fisheries to maintain the diversity and abundance of the riverway's native fisheries and maintain and restore their aquatic habitat. Fish harvests would be managed to be sustainable and consistent with sound resource management principles. Resource inventory, monitoring, and research programs would be pursued to enhance knowledge of fish populations and their habitats to determine and evaluate changes in response to habitat dynamics, recreational fishing, land use, and management actions. The managing agencies completed a Memorandum of Understanding related to fisheries management in the spring of 1998. One key element of the MOU is preparation of an interagency cooperative fisheries management plan for the entire riverway. The plan should be completed in 2000 and should include recommendations specific to the lower riverway.

Exotic Species

A number of invasive exotic plant species are already present in the Lower St. Croix

National Scenic Riverway. Some of these plants, such as purple loosestrife, Eurasian water milfoil, spotted knapweed, and buckthorn are threats to the riverway's natural ecosystems. The managing partners would survey and monitor the riverway for the presence of exotic plant species. They would control as best they can those exotic species that are a hazard to public safety, damage historic or archeological resources, interfere with natural processes and the perpetuation of natural features or native species, or significantly hamper the management of the riverway or adjacent lands. High priority would be given to controlling exotic species that have a substantial impact on the riverway's resources and that could reasonably be expected to be successfully controlled.

The Lower St. Croix is currently free of zebra mussel infestation, although they have been found attached to recreational boats on the river. A zebra mussel action plan has been prepared by the interagency Zebra Mussel Task Force and is updated annually (see appendix G). The managing agencies would implement the recommendations of the Zebra Mussel Task Force, as identified in the current action plan and any future revisions, that were within the authority of the agencies to carry out. The Zebra Mussel Task Force would continue to monitor for the presence of the zebra mussel, inform and educate the public about the mussel and the threat it poses, and take actions including regulations and enforcement to prevent zebra mussels from becoming established. In addition, the states have received funds from the National Aquatic Nuisance Species Task Force to implement the *St. Croix National Scenic Riverway Comprehensive Interstate Management Plan for the Prevention and Control of Nonindigenous Aquatic Nuisance Species*. This plan focuses

much of its attention on the zebra mussel but also addresses the rusty crayfish, a snail of the genus *Cipangopaludina*, and the Asiatic clam, all of which have been in the St. Croix River. The plan also covers several species that are found in the Mississippi River watershed that potentially threaten the St. Croix, including the spiny water flea, grass carp, bighead carp, rudd, ruffe, round goby, and white perch.

Threatened and Endangered Species

The federal Endangered Species Act provides special protection to all federally listed threatened and endangered species and their critical habitats. Plants and animals appearing on state lists of endangered, threatened, and special concern species also have special status. The riverway contains a number of plants and animals that appear on federal and/or state lists and therefore are provided special protection under state and federal laws. The National Park Service and the two departments of natural resources have special responsibilities to protect these species and their habitats. In addition, the three agencies will work with the U.S. Fish and Wildlife Service and the Great Lakes Indian Fish and Wildlife Commission to inventory, monitor, protect, and perpetuate the natural distribution and abundance of special status species. The agencies would implement their respective components of the recovery plans developed for threatened and endangered species (see appendixes D and E).

MANAGEMENT OF HUNTING, FISHING, AND TRAPPING

The management of hunting and fishing as recreational activities would continue to be

primarily the responsibility of the respective states. The two state departments of natural resources will set quotas and bag limits to maintain balanced game and non-game populations. The National Park Service would continue to cooperate with the state departments of natural resources and the affected Chippewa bands in regulating sport hunting, fishing, and subsistence harvesting of wildlife and fish within the riverway. The Chippewa view hunting, fishing, and gathering as traditional subsistence activities. Their off-reservation treaty rights allow them under certain circumstances to trap furbearing animals and to spear and net fish in the riverway north from Cedar Bend.

Chippewa hunting, fishing, and trapping rights along a portion of the riverway were reserved in the Treaty of 1837. Tribal members exercising these rights are regulated by tribal codes that must be no more liberal (but that may be more restrictive) than the model off-reservation Conservation Code that the various bands sharing these off-reservation harvesting rights have adopted. Any licenses, permits, or tags that tribal members require are obtained from their tribe or from the Great Lakes Fish and Wildlife Commission, which was formed to assist its member tribes in the exercise of these rights. The commission also works with the tribes and other state and federal natural resource agencies to ensure that all harvests are sustainable and consistent with sound resource management principles.

Other groups who have recently moved into the region have different cultural approaches to fishing. Some might not be entirely familiar with state regulations governing fishing in the riverway and federal regulations prohibiting the taking of mussels. The manag-

ing agencies would devise new or use existing outreach programs that would communicate natural resource regulations to these groups.

The safety of recreationists and the general public would be of primary concern, especially in areas of increasing development and human encroachment. The managing agencies might also limit access based on wildlife management and safety considerations.

Trapping would continue to be managed on all lands and waters on NPS fee lands as established by past federal court decision. Outside NPS jurisdiction, trapping would continue to be regulated by the two state departments of natural resources. There is an exception for qualified Native Americans exercising their treaty rights.

RECREATIONAL USE MANAGEMENT

General Types of Uses

Recreational use management has some aspects that vary by alternative, however, there are some aspects that are common to all of the alternatives, which are discussed in this section. The cooperating managers would work to promote uses and behaviors that ensure high-quality and safe experiences for all users and help maintain and protect the riverway's resources. Under all of the alternatives a variety of water uses would continue, including nonmotorized and motorized activities. However, some alternatives place greater emphasis on slow, nonmotorized boating while others emphasize less restricted boating. With regard to terrestrial recreational uses, in all of the alternatives, existing uses (e.g., biking, hiking, and the use of motorized vehicles) would continue on designated roads and trails within the riverway. Other than

existing state regulations pertaining to trail uses, no additional regulations would be imposed unless they were needed for safety or resource protection, or to address conflicts that might arise from increased use or new types of uses. Camping would also continue; however, restrictions such as designation of sites or closures of some islands to camping would vary under the alternatives. In general, recreational uses would continue unless it is demonstrated that unacceptable resource impacts, user conflicts, or conflicts with adjacent private landowners are occurring.

State, county, and city parks and nongovernmental nature centers in both Wisconsin and Minnesota would continue to provide recreational opportunities (e.g., swimming beaches, picnic areas, campgrounds, trails) within or close to the riverway. Additional overlooks, picnic areas, and other opportunities to enjoy the river from the land would be encouraged in accordance with the riverway's management area scheme and would most likely be accomplished through public/private partnerships. The five state parks that abut the lower river, while technically not within the official riverway boundary, would be managed in a way that is consistent with this plan.

Many miles of trails offer hiking, bicycling, horseback riding, skiing, snowmobiling, snowshoeing, and other activities. A number of private groups and communities in the St. Croix Valley are working to expand the network of existing trails. For example, a trail is proposed from William O'Brien State Park to Taylors Falls. The riverway managing agencies would work in partnership with user groups, communities, local agencies, and others in development of a comprehensive regional trail network to provide trail connections to link trails along

or near the river and with other areas outside the river corridor. Trail development would be coordinated with state trail plans, county comprehensive plans, and other pertinent plans. Assistance of user groups and other trail supporters would continue to be integral to the development and maintenance of trails.

Existing railway rights-of-way might offer the potential to expand trails and river access for the nonboating public within the lower riverway. Abandoned railway rights-of-way, if and when available, would be pursued for conversion to trails consistent with the National Rail to Trails Act. Also, when roads along the river were improved, the addition of bicycle lanes would be encouraged.

The amount of recreational use in the winter is far less than that which takes place during other seasons. Winter recreational uses that are consistent with the purposes of the riverway and that do not require major new facilities would continue to be allowed. New regulations would be instituted only as necessary for safety or to address conflicts or resource protection needs that might arise from increased use or new types of use. The managing agencies would work to resolve inconsistencies in existing winter use regulations governing icehouse use and licensing.

The frozen river surface between Osceola and St. Croix Falls/Taylors Falls is closed to snowmobile use under 36 *Code of Federal Regulations* 7.9. Snowmobiles are allowed on the frozen river surface of the St. Croix south of Osceola and designated trails that traverse the riverway, and snowmobile use would continue in accordance with state and/or federal snowmobile use policy and regulations. This use would be restricted if

there were unacceptable resource impacts, user conflicts, safety considerations, or conflicts with adjacent private landowners.

Cross-country skiers would continue to be permitted to use the frozen river or other unmarked, unofficial routes in the riverway. Although activities on the frozen river surface (e.g., cross-country skiing, snowshoeing, snowmobiling, ice fishing) would be permitted, the managing agencies would not encourage such use because of the inherent danger.

Any new activity within the riverway which would draw large gatherings of people and would likely cause the pollution, impairment, or destruction of the air, water, land, or other natural resources in the riverway should be prohibited.

Where there is no feasible and prudent alternative and the gathering is consistent with and reasonable and required for the promotion of the public health, welfare, and safety, the gathering may be permitted. Economic considerations alone will not constitute reason for approval by any agency or authority over the matter.

User Carrying Capacity

To properly administer areas designated as national wild and scenic rivers, managing agencies are required as part of the long-term planning process to address the issue of resource protection in relation to user carrying capacity. There are several processes for accomplishing this social science research, but each tries to answer the same question – at what level does use begin to degrade natural and cultural resources, aesthetic values, and user

experiences? In other words, carrying capacity is not strictly interpreted as an absolute number of people (except in the case of health and safety) but as a prescription of user experience (social) and resource conditions.

To fully address the lower riverway's carrying capacity, after this plan is implemented additional work would be needed to set indicators and standards (which are minimum acceptable conditions) in the land and water management areas and to develop a variety of monitoring strategies. In addition, the managing agencies would continue to undertake water surface use monitoring studies conducted biennially since 1977.

User Safety

Although users assume a certain degree of responsibility for their own safety when visiting the lower riverway, the managing partners would reduce hazards where practical and might limit access to certain areas at certain times based on safety considerations. Actions to prevent known hazards would not conflict with the managing partners' mandates to preserve the riverway's resources. Safe conditions would be maintained.

Commercial Services and Concession Operations

A large number of people using canoe livery operators on the lower riverway has the potential to significantly affect the recreational experiences on the riverway as well as the riverway's resources. Therefore, the National Park Service and state departments

of natural resources would evaluate the need to place canoe livery operators under a permit system. The purposes of this permit system would be to ensure that opportunities for a quality experience were maximized, to encourage the highest degree of safety and interpretation of the resources, and to ensure that riverway resources were protected. To determine the impacts of these operations on the resources, the permit system would also gather information to use in future planning efforts to ensure that the authorized services would not have an adverse impact on park resources.

The Minnesota Department of Natural Resources currently authorizes one concessioner that operates the canoe rentals at Minnesota Interstate Park and William O'Brien State Park. There does not seem to be a large demand for additional types of goods and services that could be provided through concessioner operations. A policy for providing additional goods and services via concessioner operations within the lower riverway would be developed if demand warranted. The managing agencies would only consider contracting for additional concessioner services if such services were necessary and appropriate for public use and enjoyment of the riverway and if they were consistent with the preservation and conservation of the areas. If such services were provided, additional staff and staff time would be required to manage and monitor concession contracts.

There are several commercial public excursion boat operations on the river. They provide river access for large numbers of people who might otherwise not be able to use the river. Excursion boat operations are acceptable if they operate from existing facilities and offer regular public cruises.

Transient docks available to the public provide opportunities for boaters to leave the river for brief periods to visit local businesses and public facilities. Transient docks are acceptable in existing facilities, providing dockage for more than 24 hours is prohibited.

Accessibility for Individuals with Disabilities

The managing partners would strive to provide the highest level of accessibility possible to buildings, facilities, programs, and services, consistent with the nature and limitations of the area, the conservation of riverway resources, and the mandate to provide a quality experience for everyone. Any new developed user or employee facility and any alterations to existing facilities would be evaluated in accordance with the Americans with Disabilities Act (42 USC 12101) and *Uniform Federal Accessibility Standards* (49 FR 31528) to provide full accessibility to all users. Wherever possible, information about facilities and programs for people with sensory and mental disabilities would be available.

INTERPRETATION AND EDUCATION

Interpretation within the riverway would focus on four primary goals:

- increase public awareness of the lower riverway as a component of the National Wild and Scenic Rivers system
- increase appreciation and understanding of the riverway's resources and values

- provide information to visitors to ensure a safe and enjoyable visit
- promote visitor interaction with riverway resources that supports preservation of those resources for future generations

In support of these goals, there would be an increased emphasis placed on coordination of interpretive activities among the primary providers of interpretive services within the riverway, the National Park Service, Minnesota and Wisconsin state parks, and nongovernmental nature centers. The St. Croix Valley Interpreter's Association, an informal alliance of interpreters in the area, would continue to serve as the principal forum for coordination of interpretation, including the development of interpretive programs and activities (which are key ideas or stories that should be imparted to riverway users). The National Park Service visitor centers, state parks, and nongovernmental nature centers could focus on the same interpretive topic at the same time, offering complementary programs and activities.

Other cooperative efforts could also be pursued, such as development of a clearinghouse for information on programs and activities at the various interpretive facilities along the riverway, joint publication of information on facilities, programs, and activities, and development of common signage to be used on the riverway. Riverway interpretive programs could also be coordinated with the Mississippi National River and Recreation Area interpretive

programs to expand the scope and outreach of both programs.

Cooperative partnerships with private interests (e.g., marinas, chambers of commerce, tourism organizations) could also be important to maintain and improve high-quality user services. This could include riverway orientation for employees of private sector groups.

Education efforts for both the Lower St. Croix riverway and the larger St. Croix watershed would be a major element in the implementation activities of this plan. Increased programs for the awareness of riverway water and land resources planning issues would be incorporated in educational pamphlets, public information sessions, and riverway public access signage (i.e., amended and revised boating rules, exotic species bulletins, camping guidelines, etc.). Agencies would host the St. Croix Expo, develop a St. Croix information website, and develop a St. Croix watershed stewardship guidebook.

Coordination and partnerships with the National Park Service, Minnesota Department of Natural Resources, Wisconsin Department of Natural Resources, and the Minnesota-Wisconsin Boundary Area Commission would continue and become more active in terms of educational programs and public involvement relating to the riverway and surrounding watershed area.

MANAGEMENT AREAS

INTRODUCTION

In developing management alternatives for the lower riverway, decisions needed to be made on what resource conditions, experiences/uses, and developments would be appropriate in different parts of the riverway. To do this, a series of management areas were developed, which were the primary building blocks for the management alternatives. The management areas identify how different portions of the riverway could be managed to achieve desired resource and social conditions, consistent with the riverway's purposes. Different types and levels of water surface uses and developments would be applied by the riverway managing agencies in different management areas.

Each alternative has different management areas and/or varying arrangements of the management areas, depending on the direction of the alternative.

Seven distinct land management areas and five distinct water management areas were originally developed for the lower riverway. These management areas were part of all the action alternatives described in the draft plan. Following public comment on the draft plan, the managing agencies combined three land management areas into a single, new land management area and eliminated one water management area. By shifting from two land-use management areas in the 1976 *Master Plan* to five, local governments would be provided with greater flexibility in administering land use

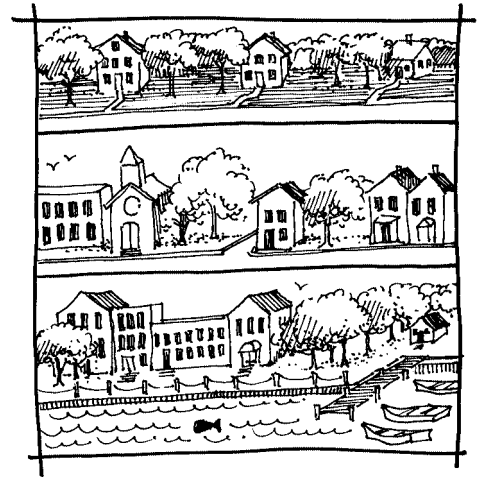
controls and would be better able to target management to meet specific goals. The rural landscape would be divided into two management areas to ensure continuation of its diverse character, while three management areas would provide flexibility for managing land use in the municipalities.

Similarly, increasing surface water management areas from two in the *Master Plan* to four would provide greater flexibility in managing water uses and ensuring that the diversity of water uses on the lower riverway is maintained.

The original seven land management areas (and the one new one) and five water management areas are described on the following pages, including tables 1 and 2, which summarize the features, facilities, and types of experiences for each area. (Generalized sketches and photographs are included with the written descriptions to further illustrate the characteristics of each management area.)

Within each alternative, the boundaries between management areas are sometimes delineated by political boundaries of communities. These management area boundaries are intended to remain static over time and would not change if a community annexes adjacent land. Thus, when corporate limits are used as a line between management areas, the boundary of the management area should be interpreted to mean the corporate limit as it was in 1999.

RIVER TOWN

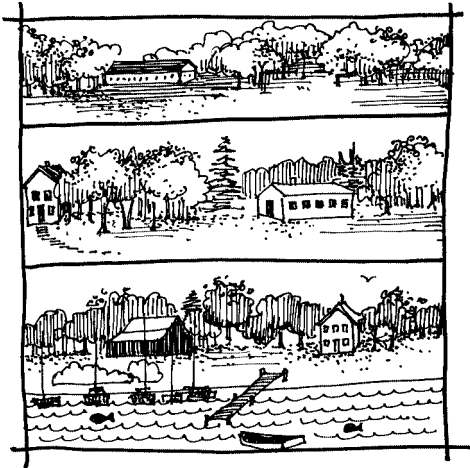


This management area would provide a feeling of being on a river flowing through or next to a small city. A mixture of commercial, park, and residential developments could be within the riverway; however, the historic character of the river towns would be maintained. Dense, intensive development also might be adjacent to the riverway, including utilities, multistory structures, and nonresidential buildings (e.g., shops, offices, apartments, factories, community centers). Thus, the built environment would dominate the riverine landscape and shape the riverway experience to a significant degree.

Although most of the developments in the area would not be recreation-oriented, there would

be private or public facilities to support river recreation (e.g., marinas, docks, launches, ramps, interpretive kiosks); some of these facilities would be relatively large. Large numbers of people and crowds often would be present. Noise levels from users and adjacent areas (e.g., business traffic) might be high. One would not expect to see many natural features other than the river. Most of the shoreline would be developed, although some natural vegetation might screen adjacent buildings. However, these natural features would be scattered and limited in area. There would be relatively few opportunities to view wildlife, but people would still find places to fish from shore.



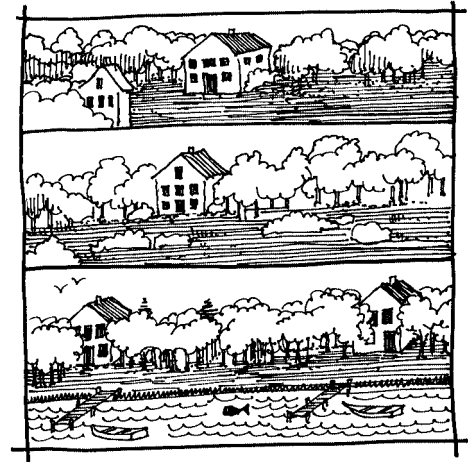


SMALL TOWN

This management area would be similar to the small town historic management area, except the predominant character of the landscape would be large-lot, single-family residences. Encounters with other people would be common, and noise levels might be moderate. Natural vegetation and landscaped environments would be interspersed with the built environ-

ment, which would be mostly residential in character. Shoreline areas generally would be a mix of natural vegetation and residential lawns, with some portions being largely undisturbed. Public and private recreational support structures, primarily small docks and boat ramps, would be scattered along the river.





SMALL TOWN HISTORIC

This landscape would be developed but would be almost exclusively single-family residences and be primarily historic in character. While some dwellings would be obviously newer, the predominant character of the community would be that of a late 19th or early 20th century residential area. A combination of the river, man-made features, and natural landscape elements would shape the riverway experience in this area. Encounters with other people would be common, although one would not see the large crowds found in the river town management areas. Noise levels within the riverway bound-

ary could be moderate, typical of those found in a residential area. Natural vegetation and landscaped environments would be interspersed with the built environment, which would be mostly residential in character. Shoreline areas generally would be a mix of natural vegetation and residential lawns; however, portions of the shoreline would be largely undisturbed. Opportunities for fishing and viewing wildlife would be limited. Public and private recreational support structures, primarily small docks and boat ramps, would be scattered along the river.





RURAL RESIDENTIAL

This area would provide a feeling of being on a river in a sparsely developed landscape. As in the small town management areas, the river, natural features, and man-made features would shape the riverway experience. Users would encounter no large concentrations of development or people — small numbers of people would be the rule in this area, with little or no commercial development. Residential settings would be limited to large lot development scattered along the shore and/or bluffs at a lower

density than the small town or river town management areas. Natural vegetation would cover significant portions of the shoreline, with some stretches being largely undisturbed. Riverway users could anticipate moderate noise levels. The area would offer abundant opportunities to fish and view wildlife. There might be a few small public recreational support facilities (e.g., docks and launches) and some private docks.



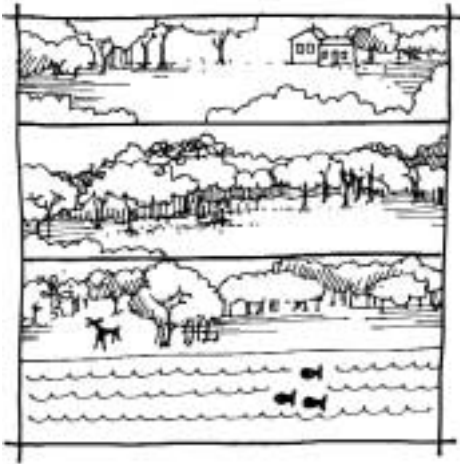


PARK

This area would include a concentration of cultural and/or natural features of special interest, as well as highly scenic and relatively undisturbed natural areas. As viewed from the river, the vast majority of this area would appear very natural, but there would be nodes of recreational support facilities that would often be the focus of relatively intense human activity. The nodes could have many recreational support facilities and services, both on and off the river, such as campsites, visitor centers, landings, picnic

tables, restrooms, and trails. Future development of additional recreational support facilities would be concentrated at existing development nodes. Noise levels would be moderate near activity nodes but low elsewhere. This management area would provide many opportunities to view wildlife with abundant opportunities for angling. Users might encounter large numbers of people near activity nodes, but away from those areas users would have many opportunities to find a sense of peace and quiet.





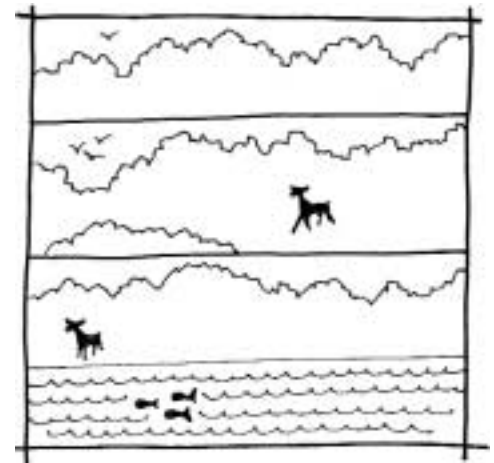
NATURAL

This management area would provide users with a sense of being in a natural setting. Relatively few signs of development, such as homes, bridges, or agricultural fields, would intrude on this largely natural scene. The vegetation along the shoreline would be largely undisturbed — natural vegetation (e.g., boreal hardwood and northern hardwood forests, lowland riparian forests, and oak savannahs) would cover most of the area and would be a key element of the user experience. Forest management would emphasize the undisturbed appearance.

This area would provide many opportunities to view wildlife, and there would be abundant

opportunities for angling. Access to the river would be limited to a few designated public carry-in and small craft access points, and possibly some riparian landowner private docks. Only a few recreational support facilities, such as primitive campsites and trails, would be present. Noise levels would be low, relatively small numbers of people would be present, and there would be a low probability of people encountering one another. Because few people would use the area, there would be ample opportunity to find a sense of peace and quiet within the management area.





MINIMALLY DISTURBED

Minimally disturbed management areas would be similar to natural management areas but contain even fewer signs of people and developments. The river and surrounding biological communities would dominate the user experience. The shoreline would not be disturbed by the few visible signs of development. Forest management would emphasize the undisturbed appearance. Access to the river would be limited to a few public carry-in and small craft access

points and possibly a few riparian landowner private docks. Recreational support facilities (e.g., primitive campsites, trails) would be small, limited in number, and screened by natural vegetation. With few or no river access points, small numbers of people, and infrequent encounters, there would be ample opportunity for quiet and solitude.





CONSERVATION

This management area would provide users with a sense of being in a natural setting. Very few signs of development, such as homes, bridges, or agricultural fields, would intrude on this largely natural scene. The river and surrounding biological communities would dominate the user experience. The shoreline would not be disturbed by the few visible signs of development. Forest management would emphasize the undisturbed appearance. This area would provide many opportunities to view wildlife, and there

would be abundant opportunities for angling. Access to the river would be limited to a few public carry-in and small craft access points and a very few riparian landowner private docks. Recreational support facilities (e.g., primitive campsites, trails) would be small, limited in number, and largely screened by natural vegetation. With few access points, small numbers of people and infrequent encounters, there would be ample opportunity for quiet and solitude.

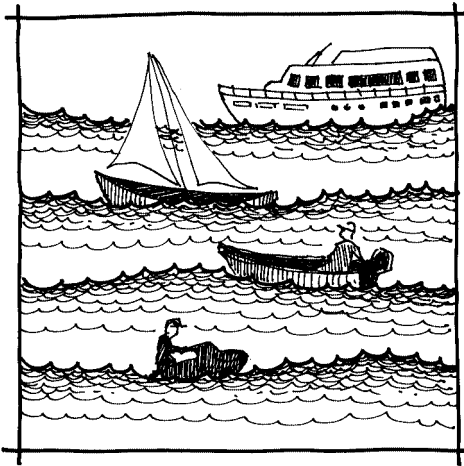


TABLE 1: SUMMARY OF LAND MANAGEMENT AREAS

LAND MANAGEMENT AREAS	Natural and man-made features	Landscape and shoreline	River access and support facilities	Number of people / encounter rate	Wildlife viewing opportunities	Noise levels
River Town	some natural features, scattered and limited in area, mostly manmade features	dominated by urban development, including shops, offices, historic, and residential structures	private and/or public river access and support facilities including marinas, docks, ramps (some of which may be large)	large numbers of people are often present, very high encounter rate	limited	may be high
Small Town	combination	developed, but less than river town, primarily large lot single family residential historic in character, portions of the shoreline would be largely undisturbed	public and private river access and support facilities, primarily small docks and ramps scattered along the river	although large crowds are unlikely, large numbers of people may be encountered	limited	moderate, typical of residential areas
Small Town Historic	combination	developed, but less than river town, primarily single family residential historic in character, portions of the shoreline would be largely undisturbed	public and private river access and support facilities, primarily small docks and ramps scattered along the river	although large crowds are unlikely, large numbers of people may be encountered	limited	moderate, typical of residential areas
Rural Residential	combination	sparsely developed, scattered farms and residences, little or no commercial development, no large concentrations of development, shoreline largely undisturbed	a few public and private river access and support facilities, primarily small docks and launches	small numbers, no large crowds, low encounter rate	abundant	moderate
Park	predominantly native vegetation, (includes natural features of special interest)	may have scattered concentrations of recreational support facilities (campsites, landings, trails, restrooms, picnic facilities, visitor centers), shoreline largely undisturbed	numerous opportunities for public access with support facilities	Large numbers of people may be present, likely very high encounter rate	abundant	moderate
Natural	largely undisturbed natural scene, variety of biological communities may be present	few signs of development (homes, agricultural fields, primitive campsites, trails) shoreline largely undisturbed	limited public and private access to the river, only a few primitive support facilities, public carry-in and small craft access	small number of users, low chance of encountering others	abundant	low
Minimally Disturbed	dominated by an undisturbed natural scene, variety of biological communities may be present	very few signs of development (homes, agricultural fields, primitive campsites, trails) shoreline almost totally undisturbed, support facilities screened by vegetation	very few public and private access points to the river and limited to primitive support facilities, public carry-in only	very limited number of users, very low chance of encountering others	greatest opportunities	very low
Conservation	sense of being in a natural setting; combination of park, natural, and minimally disturbed descriptions.	dominated by river and surrounding biological communities; shoreline would not be disturbed by few visible signs of development; forest management would emphasize undisturbed appearance	access limited to a few public carry-in and small craft access points and a few riparian landowner docks	small numbers of people and infrequent encounters; ample opportunity for quiet and solitude	abundant to greatest opportunities	moderate to very low

TABLE 2: SUMMARY OF WATER MANAGEMENT AREAS

Water Management Area	Number of people	Opportunities for Solitude	Watercraft number	Watercraft type	Boat speeds	Boat speed controls	Water surface	Fishing opportunities	Noise levels
Active Social—peak times	high	low	high	variety, primarily motorized, including sailboats	vary significantly, including the river’s highest allowable boat speeds	strictly controlled in some areas	commonly agitated; possibility of relatively large wakes/ waves	limited, especially during high use periods	likely to be high
Active Social—off peak times	moderate	Moderate	moderate				moderately agitated	ample/abundant	moderate
Moderate Recreation	moderate	moderate	moderate	variety, primarily motorized	vary, tending towards slower speeds	may be strictly controlled in some areas	moderately agitated	ample/ abundant	moderate
Quiet Waters—peak times	high	low	high	motorized and nonmotorized	low	restricted	largely undisturbed	abundant	consistently low
Quiet Waters—off peak times	low	high	low						
Natural Waters	low	high	low	variety, primarily human powered, nonmotorized	low	restricted	undisturbed	abundant	consistently low
Silent Boating	low	high	low	only nonmotorized	low to very low	no controls	undisturbed	abundant	consistently low



ACTIVE SOCIAL RECREATION

The user experiences and user management in this area would vary between peak times (i.e., summer weekends) and nonpeak times. During peak times on this section of the river people often would encounter large numbers of both people and watercraft; opportunities for solitude would be low. Users may experience high noise levels from sources on the water. The surface of the water would more commonly be agitated, with the possibility of relatively large wakes/waves. Human activity on the river surface would, at times, limit opportunities to fish in this area.

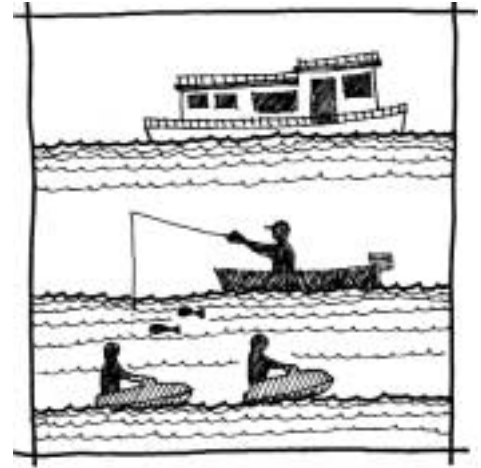
During nonpeak times users would encounter moderate numbers of people and boats; there

would be moderate opportunities for solitude. Users may experience moderate levels of noise. The surface of the water would be commonly moderately agitated. However, during nonpeak times the area would offer abundant opportunities for angling.

The types of boats found in this area would vary widely during peak and nonpeak times: while most would be motorized, nonmotorized watercraft may be present. Boat speeds would also vary significantly; they would be strictly controlled in some limited areas, but the river's highest boat speeds would be allowed in this management area.



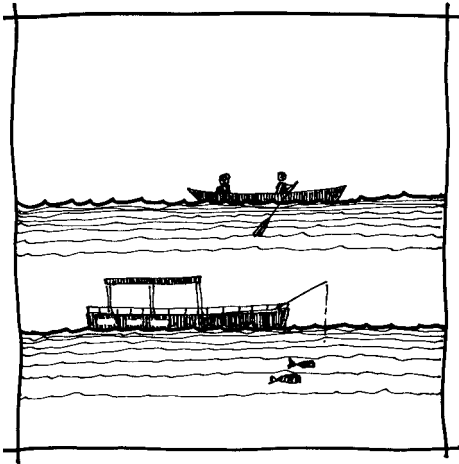
MODERATE RECREATION



Users in this area would encounter moderate numbers of people and watercraft on the water. A variety of boat types, primarily motorized watercraft, might be present. Boats might travel at different speeds, but tend toward slower

speeds. Boat speeds might be strictly controlled in certain places. Noise levels from sources on the water generally would be moderate. The area would offer abundant opportunities for angling.





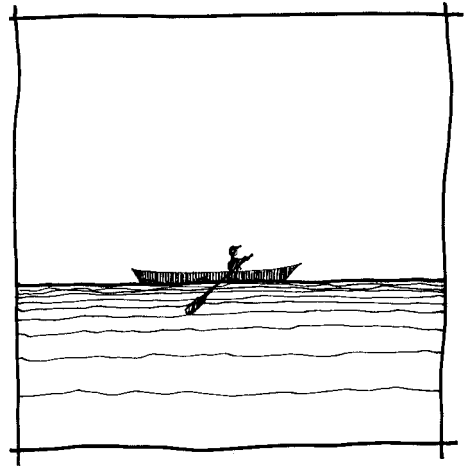
QUIET WATERS

Users in this area usually would encounter a small number of other people engaged in "low-impact" activities during nonpeak times, but during peak use periods (i.e., summer weekends) large numbers of other users and boats could be encountered. Opportunities for solitude consequently would vary from low opportunities during peak times to moderate opportunities during nonpeak times. Management would be

directed toward recreational uses that leave the surface of the river largely undisturbed. Both motorized and nonmotorized watercraft would be able to use these areas. Watercraft speeds would be kept low to preserve the river's tranquil quality. Noise levels would be consistently low. Abundant opportunities for fishing would be available.



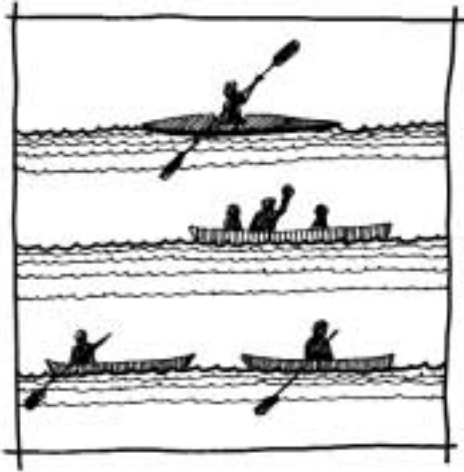
NATURAL WATERS



Users in this area would experience a sense of peace and quiet and could anticipate opportunities for solitude. The numbers of both users and watercraft would be low - users could anticipate a low probability of encountering other people on the water. Most watercraft would be human-

powered. Watercraft speeds would be kept low to preserve the sense of a remote, backwater experience. Noise levels would be consistently low. There would be abundant opportunities for fishing.





SILENT BOATING

This management area would provide opportunities for users seeking silent, nonmotorized experiences where contact with the riverway's natural features would be maximized. Electric trolling motors would be permitted, but other motors could not be used in this area. Most use

of this area would likely be by canoe, kayak, or inflatable boats. Users would encounter low numbers of other people, and noise levels would be minimal. There would be abundant opportunities for angling and viewing wildlife.



