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Minnesota Statewide Comprehensive Outdoor Recreation Plan

1984-1989

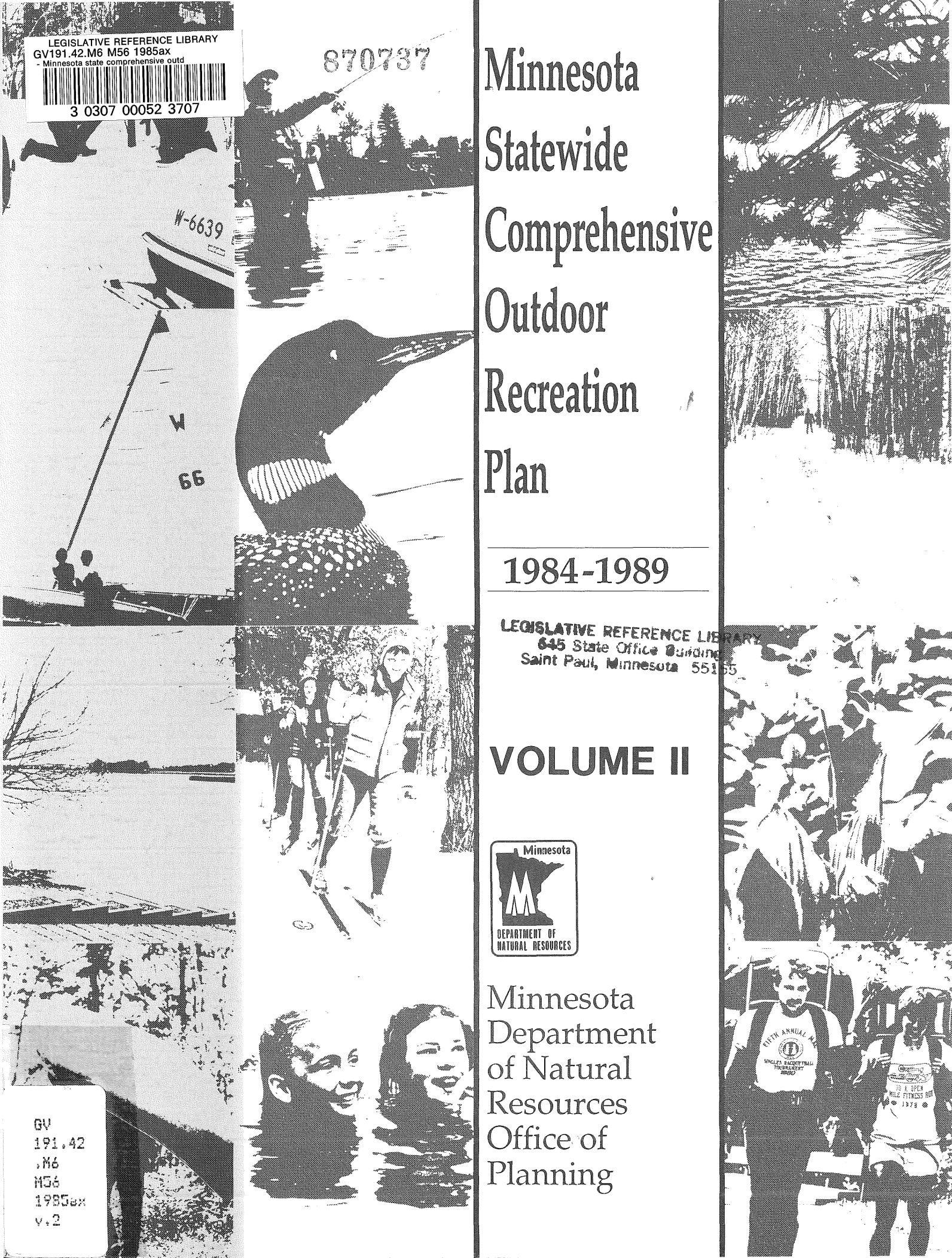
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VOLUME II



Minnesota
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Minnesota State Comprehensive Outdoor Recreation Plan

1984-1989

**Minnesota Department of Natural Resources
Office of Planning and Special Services**

**Volume II
Chapter 5**

Prepared with assistance from:

The Legislative Commission on Minnesota Resources
and the Department of Interior:
National Park Service

Volume II

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Chapter 5
Recreation
Issues
1984-1989



5. Recreation Issues, 1984-1989

Outdoor recreation in Minnesota faces many opportunities and challenges. Pressures on our supply of natural resources increases as growing populations demand more land for housing, industry and agriculture, and as Minnesota tries to broaden its economic base by encouraging new businesses. One government target area for economic growth is the tourism/recreation industry, an industry that depends heavily on the quality of our recreation resources. At the same time, other demands are exerting strong pressures on government budgets. Businesses decry our high taxes and school districts plead for more money to better educate our children. All citizens look to government for repair of our deteriorating sewers, highways and other public works. In the face of this competition for public funds, the state will have to be more efficient and more productive to meet our future recreation resource needs.

This chapter describes areas in which recreation policy and program managers can be more efficient and productive. Developed through public input, research, interagency committees and task forces, these ideas for the future provide a guide by which Minnesota's high quality of life can be maintained. This chapter addresses such areas of concern as recreation resources and economic development, the preservation and interpretation of historic areas, and recreation opportunities for the handicapped and minorities. This chapter suggests ways in which the state can conserve and protect its natural recreation resources, improve management of these resources and improve recreation operations and maintenance. This chapter also discusses the acquisition and development projects the state should pursue in the next five years.

This policy plan is first of three major works in the statewide planning process for recreation acquisition, development and management. This three-step process, known as the SCORP process, was designed by the state under the auspices of the federal government. This policy plan sets out the broad recreation resource areas in which Minnesota will work over the next five years. Every two years, based on this policy plan and public input, the state develops a biennial action plan that shapes the majority of Minnesota's recreation acquisition and development. The action plan provides guidance for state agencies preparing recreation

budgets, for legislative budget review, and for local governments seeking state and federal support for their recreation acquisition and development budgets.

The objectives of the action plan are ranked in importance annually by representatives of the public and are used as criteria in the state's Open Project Selection Process. This process strives to ensure that the funded acquisition and development projects are consistent with the goals and recommendations of the statewide plan, that they best meet the objectives of the action plan, that they implement the recommendations provided through public input and that they are evaluated on a fair and equitable basis.

Issue 1: The State's Role in Tourism, Planning and Development OVERVIEW

Outdoor recreation-related tourism accounts for a major portion of tourism revenues in Minnesota. A study conducted during the summer of 1978 looked at the expenditures of more than 4,000 nonresidents entering or traveling by car through Minnesota for recreation purposes during the months of June, July and August. The results of this study indicate that summer visitors spend an average of \$22.4 million a week. The average weekly expenditure for bait alone was nearly \$65,000. Most expenditures occur in cities, where the goods and services required by tourists are provided and where there are opportunities to spend money on non-essential items (Fig. 4-S.20). Within the broad expenditure pattern, certain locations, such as the Hinckley intersection on Interstate 35, have a comparative advantage in capturing tourist dollars.

Efficiently capturing tourist dollars requires good planning, well-built and -maintained public recreation facilities, well-directed development and marketing. In addition to public investments in building, operating

and maintaining public facilities, investment incentives are required for needed development. What follows in this issue is a discussion of areas in which the state can, over the next five years, work to improve the tourism economy.

Issues 6 and 8 discuss investment in public recreation facilities in the area of private development, public-sector planning efforts. Incentives and subsidies are suggested. The role of public development is assessed, and suggestions are made for resource-management initiatives that will enhance economic development in the recreation/tourism area. Better promotion and information efforts are investigated, primarily from a public-sector perspective. The importance of research also is discussed.

Aiding the Private Sector

Planning for private development is one of the first steps in increasing the long-term performance of the recreation/tourism sector. Maps of public land ownership (Fig. 3-S.14B) and the location of areas heavily used by tourists (Fig. 4-S.19) show that much of the land base in major recreation destination areas is owned by the different levels of government. The direct role of the public sector in controlling recreation resources is further enhanced by public waters, which are the state's principal natural resource for recreation. No doubt, questions will be asked about the future management and disposition of these public resources important to tourism development.

In addition, data indicate that the number of resorts is declining. Some of the small resorts that are going out of business are being converted into seasonal and permanent private homes. Many of these resorts occupy prime lakeshore, that is, parcels on big, clear lakes, close to roads and population centers. Not only are these parcels prime housing locations, but they are prime candidates for public use areas as well.

To address these considerations over the next five years, this plan suggests that annual and biennial work programs and action programs concentrate some effort on private-development planning. For example, the DNR should consider a program to evaluate state-owned resources for their potential as public and private tourism-oriented recreation developments. Resources that qualify should be slated for tourism development programs and plans should be submitted to the legislature for funding during the 1985 to 1989 sessions. At the same time, the DNR and the Department of Energy and Economic Development (DEED) should work together to establish a program to identify failing resorts on prime lakeshore, and to assess completely the recreational significance of these changes in the resort indus-

try. One eventual option may be to selectively help convert these properties to time-share facilities or "resort-o-miniums." If the state opts for such a program, state agencies should work with county officials to develop guidelines for the development and management of these time-share and resort-o-minium projects.

As part of the traditional public role of disseminating information needed for private-sector purposes, DEED, the Department of Transportation and the State Planning Agency should identify key underdeveloped highway intersections and indicate the tourist services missing from these intersections. In a similar effort, the DNR, in cooperation with DEED, should identify locations for development near key state and federal recreation/tourism resources. If public lands suitable for no other public purpose exist near these key developments, they should be leased to private businesses that cater to recreation tourists. For example, these lands could be used for privately developed restaurants, convenience stores, sporting-goods stores and bait shops, as well as lodging accommodations. Leases should contain restrictive covenants on building style, and development corridors should be preplanned and developed as a package rather than piecemeal. Leases of this sort are expensive to administer. The state should provide adequate staff to administer and monitor such leased development.

As a specific example of the preceding, the DNR — through the Long Range Resources and Management Plan for DNR-Administered Lands — should consider leasing state-owned lakeshore to private interests that pledge to develop the lakeshore for public use. Of course, development should conform to shoreland standards and be done in a manner that maintains or adds to the public resource's value and atmosphere.

DEED can play a role by facilitating the establishment of a leisure industry venture capital fund (LIVECAP) to be used to invest in tourism-related businesses. Through LIVECAP and other efforts, the state should encourage the development of private campgrounds in the major tourist-destination areas of the state. LIVECAP could also be used to address the loss of resorts in the state. LIVECAP could provide capital for small-resort consolidation and rebuilding, and for development of time-share facilities or resort-o-miniums on parcels identified through planning efforts.

Besides lodging, tourists need equipment and supplies, groceries and restaurants. DEED should establish a program targeting a portion of small-business development funds to entrepreneurs who are developing businesses to serve tourists and resort owners, for example, convenience stores in tourism areas, sporting-goods stores and restaurants.

Public Facility Development

While private enterprise comes to mind first when one thinks of recreational tourism, the public sector plays an important role in attracting large numbers of tourists. Similar to the key lease in a shopping center, major public facilities generate traffic that benefits private entrepreneurs. Prime Minnesota examples of such "key leases" include our North Shore parks, Itasca State Park and the BWCA (Fig. 4-S.19). Other developments, such as scenic drives, can be less evident but just as productive.

In the upcoming five years, the state can do a great deal through public facility development to increase tourism income. For example, the DNR could designate recreation/tourism regions based on use of the resource for recreation. Acquisition and development efforts should identify existing or needed recreation/tourism facilities in the regions. Where key facilities exist, they should be acquired, developed or upgraded as necessary. Where none exists, development plans should be prepared. Such an approach was used in the most recent Resource 2000 bonding bill. It should continue to be the focus of future Resource 2000 bonding bills as well as other acquisition and development accounts. This kind of effort would ensure that the state fully develops its comparative resource advantages such as the Brainerd lakes area, the North Shore, Park Rapids-Walker and Alexandria's environs.

The state and local units of government should work to enhance the tourist's image of Minnesota through continued development of open space and parks in Minnesota's cities, townships and counties; through development of highway facilities to serve travelers; and through development of roadside rests in the prime tourism areas of the state. Roadside rests should be designed to provide travelers with top-quality views of our resources. In addition, the DNR should continue to lead the state in promoting Minnesota's recreation/tourism image through continued protection of our watersheds, shorelands and public waters, through intensified management of fish populations in major lakes, and through accelerated management of lake-surface use on major recreation lakes. Protection of the public waters includes protection from acid rain, a topic addressed more fully later.

Minnesota's greatest recreation/tourism attraction is its wealth of fine fishing lakes (Table 4-S.04). These are the basic resources on which most of the resort industry depends. It is incumbent upon the DNR to protect and manage these resources. Fisheries personnel should continue the practice of establishing lake-management priorities based on a lake-quality assessment similar to that done for the public access program. Fisheries personnel also should assess the benefit of accelerated

stocking of fingerlings. If it is biologically and economically sound, programs for increased stockings should be initiated. In addition, the department should accelerate its trophy fishery program and other special management efforts designed to enhance fishing opportunities. These policies should be founded on sound long-term fisheries-management principles rather than short-term economic analyses.

Also of great importance is the development of public water accesses and day-use areas on prime recreational lakes. These areas serve boaters, hunters, anglers, and canoeists. Public water accesses should continue to be developed in cooperation with other recreation providers.

Scenic drives and sightseeing routes and major points of historic, cultural or scientific interest can provide a strong tourist draw (Table 4-S.04). Over the next five years, DEED, the Department of Transportation, the DNR, the Historical Society and federal agencies should inventory driving and sightseeing routes that center on areas of historic, scenic, and scientific and natural interest. Designation and promotion of these routes should be coupled with facility development, including waysides, turnouts and interpretive displays, as well as improved access from main travel routes. Major interpretive and educational facilities should be developed at sites identified by agencies such as the Minnesota Historical Society.

Minnesota's abandoned mine pits (iron ore and gravel) are an undeveloped recreation resource. Available sites should be inventoried and given a primary-recreation-use designation, and funding should be sought for development. Some sites might be used for off-road-vehicle scramble areas; others could support fishable populations of game fish. The state could assist local government units not only by studying development feasibility but also by examining the questions which surround legal liability.

Public Policy

Low-cost changes in recreation/tourism operations and resource management policies also can enhance economic development. One example is state encouragement of private investment in outdoor recreation and tourism through noncompetitive state practices. By managing and developing public facilities that private enterprise cannot supply, the public sector would complement, not compete with, the private sector. An often-cited example of the inefficiency of private provision of recreation goods and services is the area of wilderness or primitive camping. Political economists point out that it is difficult for the owners of these areas to limit admittance to paying customers.

Undersupply and overuse results from the inability of these owners to capture the full rent for the use of the property, if it is provided by the private market. On the other hand, when the private owner can strictly limit the consumption of the product, that owner will provide an optimum supply of product. An additional consideration concerns the lack of multiple-use management by private enterprise. Nonmarket values, such as scenery, are often damaged or lost because more attention is paid to the income-generating aspects of the resource. Prime examples are private lakeshore developments that seek to remove vegetation that supports the fish and waterfowl populations. A home on a clean beach sells for more than a cattail-cluttered one, yet the seller does not have to account for the loss of waterfowl resulting from the removal of vegetation. Rather, the hunter and bird watcher pay in the form of diminished experiences.

Fee setting is another area in which state actions could improve the performance of the private sector. The state should not make the state park system and other recreation and tourism-related programs 100 percent user-fee supported. Reliance solely on user fees for maintenance and development encourages public recreation facilities to provide opportunities and services that compete with private-sector opportunities and services. As mentioned earlier, it is more appropriate to favor policies that view public facilities as key elements in the outdoor recreation/tourism infrastructure. As key elements they attract visitors to areas. Visitors spend money locally. Lower fees should attract more people and hold them in the destination areas for a longer time. Of course, longer stays increase expenditures and result in a healthier tourism industry.

In a similar direction, the DNR should undertake steps to increase lengths of stay at Minnesota state recreation facilities. Facilities that don't compete with private suppliers (excepting free public access to water) should be upgraded and programs expanded to meet this goal. Where fees are necessary they should be used as a tool for economic development. Sliding fee structures should be considered to entice longer stays by tourists. These could include lower fees for off-peak days and reduced fees for consecutive-stay days beyond the median length of stay.

The public's resources do play a large, vital role in the tourism economy of the state. They can play a greater role. Investment and reinvestment in these key resources will strengthen the state's comparative resource advantage over other Upper Midwest states. The legislature should support the economy of the state through broad-based financial support of our recreation resources. Methods of support are discussed in Issue 8: Financing Our Outdoor Recreation Resources.

Information and Research

Coordinating Promotional Efforts and Information Distribution

Information on available recreation opportunities is important in increasing the vitality of the recreation/tourism industry. Most important in this effort is providing a coordinated image through the messages of agencies ranging from DEED's Office of Tourism to the Metropolitan Council and the Hennepin County Park Reserve District. DEED should lead the way through the establishment of interagency and intergovernmental agreements coordinating promotion efforts. Among high-priority areas for DEED are agreements that assist the DNR in expanding the scope of interpretation at all DNR recreation units to include discussions of recreation/tourism opportunities near such facilities. The effectiveness of these presentations could be measured by the increases in median length of stay of campers at the facilities. Agreements with the federal government could ensure that federal tourism promotions address the Voyageurs National Park and Grand Portage National Monument. This would require coordination with other major recreation-resource management agencies in the area bordering the BWCA, such as the DNR. Furthermore, all agreements should ensure that promotions/information are not funded with dollars that otherwise would be used for operations and maintenance of facilities serving tourists.

Other agencies should take a wider view of their clientele. Information on recreational opportunities should be disseminated according to the use regions of the people receiving the information, regardless of whether the use region extends beyond the administrative boundaries of the agency providing the information. Facilities accessible to disabled people should be part of the information packages.

Under DEED's auspices, the DNR, the National Park Service and the U.S. Forest Service should jointly provide information on private and public (all government levels) recreation opportunities in Minnesota. Information should be provided at agency offices, at interagency-sponsored information displays located at strategic locations along major highways, in major shopping areas and transportation terminals and at other effective points. Special efforts should be made to guarantee that no facilities are systematically excluded from promotional materials and efforts.

To ensure that information efforts are efficient, the Office of Tourism and the DNR should reduce duplication in brochures and other media messages through consolidation of overlapping materials. Within the DNR, the divisions should pool their information resources and develop promotional messages and information

materials that provide a complete picture of Minnesota's public recreation facilities, including information on the accessibility of facilities to disabled people. The department should authorize a cooperative work group to coordinate divisional brochure and map development. These promotions should be developed and distributed in conjunction with DEED's Office of Tourism.

Marketing Tools

Marketing is more than promotion and Minnesota's outdoor recreation providers should increase their efforts in target marketing, tailoring promotional messages to a particular market segment. The DNR should increase its marketing capabilities, identify target markets and tailor messages to them. Research should include tapping new markets as well as organizing and improving communication with existing market segments. In particular, the DNR should isolate the recreation market segments, and direct its information and promotion efforts accordingly. Through cooperative agreements, the DNR should work closely with DEED's Office of Tourism in selecting targets and designing, producing and distributing messages.

Part and parcel of more effective target marketing is the risk of overuse of resources. But marketing also can be a management tool that helps redistribute use away from damaged or threatened areas. The DNR should develop criteria for determining when a facility is damaged, approaching damage, crowded or used to capacity. These criteria should limit promotion efforts and Office of Tourism efforts, as well as DNR information.

One of the most effective information tools for the recreation/tourism market is the multipurpose recreation map. Maps effectively communicate the opportunities available to the traveler. When properly designed, a map can help increase length of stay in recreation destination areas, meaning more money for the local economy. Well-designed maps also would help send exploring travelers to new or underused recreation areas. To develop this tool, DEED, the DNR, the Department of Transportation and the Historical Society should jointly produce a series of recreation maps. Each map should cover a major recreation region of the state (e.g. Brainerd Lakes) and be sold in vending machines at key locations such as points of entry, highway information centers and major recreation/tourist attractions. The maps should provide data on facilities by season of use and target market. For example, one summer map might be directed toward anglers and show accesses, lake types, public land ownership, campgrounds and boating/fishing-service establishments. Another might be directed toward sightseers and show trails, historic and cultural points of interest,

scenic drives, picnic areas and campgrounds. This effort could partly support itself; map sales could cover printing. The development of the maps could be funded from a portion of the gas tax generated by tourist travel.

A growing tool in information dissemination is the computer. Minnesota is a leader in the use of computers to organize and analyze recreation/tourism information. The state should take advantage of this. The Land Management Information Center should prepare software that allows the display of recreation facility maps showing parks, trails, forests, rivers and lakes, and associated recreation/tourism information that can be operated by tourists at major points of contact, and in their homes, if possible. The Land Management Information Center should provide the software and data base to the Source and Compuserve time-share systems. Properly negotiated, this would increase Minnesota's exposure and provide more information for market planning.

Research

To monitor changes in public demand and react to them, recreation/tourism market research should be continued. DEED should institute a regular series of tourism surveys to gauge the effect of non-Minnesota tourists on Minnesota's economy, recreation facilities and natural resources. These surveys should be patterned after the nonresident recreation/tourism studies funded in 1978 by the Legislative Commission on Minnesota Resources and should include motor-vehicle visitors and airplane, train and bus travelers. The DNR also should attempt to incorporate a standardized en-route-expenditure question into all recreation surveys. DEED and the DNR, with input from the Minnesota State Council for the Handicapped, should research the reasons some Minnesotans do not travel to recreate, and why others make little or no use of existing facilities. This effort could lead to important discoveries about our facility designs, locations, mixes and managements that explain less-than-expected use. The DNR also has a continuing role in providing private enterprise with information it has gathered on recreation and the tourist industry. This information has proven valuable to both the DNR and the private sector; for some corporations DNR information has been a key part of analyses of new ventures.

DEED and the DNR should support the necessary funds to allow data analysis by their research units. Management and analysis of research data is often exploratory. In addition, tourism data collection and analysis is a new field in which many analysis techniques are just now being developed. Where needed, the legislature should increase its commitment to research and data analysis.

Issue 2: Conserving and Protecting Natural Resources for Recreation

Keeping our existing recreation resources in top condition efficiently ensures opportunities for future generations. At the same time, conservation decreases the long-range cost of providing public recreation resources. Sometimes, resources lost to development can never be reclaimed or are virtually impossible to reclaim, as is the case with a viable prairie biome in Minnesota. When reclamation is more possible, costs tend to be high and the results often fall short of expectations. An example of high-cost reclamation is the return of the Twin Cities portion of the Mississippi River to fishable and swimmable conditions, which will require \$600 million in public works projects. Even at that price, government managers are not certain that the objective of fishable and swimmable waters can be reached.

This issue discussion supports existing conservation and protection practices that preserve Minnesota's outdoor recreation resources. In addition, it provides descriptions of new conservation initiatives that hold promise for improved resource protection. This discussion looks at conservation and protection of water-oriented resources, land resources and special resources with outstanding state or national significance.

Water-Oriented Resources

Water Quality

Minnesota's abundance of lakes and streams determines in large measure what Minnesotans do for recreation and why nonresidents select Minnesota for recreation. As evidenced by the state's nation-leading per capita boat ownership—one boat for every six people—Minnesotans spend a great deal of time in, on and around our recreational waters.

To protect water quality Minnesota should continue to forcefully pursue remedies to water-quality problems. Our state must vigorously pursue a solution to the acid-rain problem. The large geographic area involved in the creation and spread of acid rain makes the problem especially difficult to manage. It is an interstate problem requiring a federal commitment to solution, and it is an international problem that requires nations to agree on strategy and take action. Notwithstanding these difficult political problems, there are technical solutions that limit acid-rain-causing emissions. It has been de-

monstrated in Minnesota over the last two decades that substantial reductions in emissions of sulphur dioxide (the primary precursor of acid deposition in the state) can be achieved through fuel switching and scrubbing of flue gases.

More localized sources of water pollution also pose a serious problem. Inadequately treated effluent from factories, poorly designed septic systems and runoff from urban and agricultural areas introduce harmful chemicals and accelerate eutrophication. In eutrophication, silt and sediments fill in a lake or stream bottom, covering valuable fish-spawning habitat. Nutrient levels rise, increasing populations of bacteria which fisheries experts suspect may be harmful to fish eggs. Some industrial chemicals resist biological breakdown to harmless by-products. They accumulate and concentrate as they move up the food chain toward human consumers. Minnesota has experienced too many examples of this process—warnings against eating fish that harbor harmful levels of toxic substances.

To solve these problems the state must press ahead with point- and nonpoint-source pollution abatement programs conducted by the Minnesota Pollution Control Agency. Surface water management in the Twin Cities metropolitan area, for instance, is mandated under Minnesota law. The implementation of this program could solve a major share of the metropolitan surface runoff problems.

Not to be lost in the pursuit of good water quality are preventive programs. For example, wise use and development of floodplains can keep many shoreland pollution problems at a minimum. The state should continue to identify floodplains through the floodplain inventory. As urban areas expand and are redeveloped, public authorities can work to preserve floodplains as recreation areas and open space. This effort should include such initiatives as financial incentives—subsidies, flood-insurance denials and tax breaks—to keep industrial development out of floodplains. Keeping industry out of the floodplain would reduce both long-term industrial pollution and the catastrophic resource degradation which results from flooding. The effort should also include accelerated training for public officials that shows them the risks of floodplain development and the benefits of using floodplains for recreation purposes.

The improper use of shoreland also can have severe effects on the water quality of our recreational lakes and streams. The DNR should continue to work through county and municipal zoning authorities to ensure that existing shoreland ordinances are effectively implemented so that shoreland development does not impair water quality. If necessary, the DNR should strengthen the model shoreland-development

standards and encourage counties and municipalities to adopt and administer stronger standards.

Shorelands

The demand for lakeshore property is decreasing access to lakes and lakeside recreation for those who don't own lakeshore. On our most heavily developed lakes, finding a place to picnic or rest is difficult, if not impossible. The lakes often are ringed with private homes, sometimes located on public property. And there doesn't seem to be much hope for improvement. In fact, demand for lakeshore homes is likely to explode as baby-boomers reach ages at which they can afford to purchase lakeshore property. At the same time, light manufacturing and service industries are relocating in areas that offer water-resource amenities to draw young skilled workers. In preparation for these changes Minnesota must use its computerized lakeshore inventory to delineate where new development is likely to concentrate and to identify key, undeveloped parcels able to serve common public needs for recreation space on lakes that are now, or are likely to become, heavily developed. If those parcels are publicly owned, they should be dedicated to a lakeshore wayside program.

When development occurs on shoreland, developers and landowners frequently alter the character of the shoreland. Bushes are removed, trees are cut and the land is often graded. Yet today, even on some of the most heavily developed lakes, stretches of shoreland exist largely in their original condition. The DNR should develop programs to preserve portions of state shorelands that reflect the natural character of these resources.

Rivershore, like lakeshore, provides both recreation opportunity and attractive building sites. As developers continue to reduce the supply of desirable lakeshore, pressures on rivershore may grow. While lakeshore development problems such as small lot sizes and poor sewage systems were not widely appreciated until well after many of the state's top lakes were developed, rivershore development is relatively new. Good management of rivershore development, starting now, can avoid repetition of lakeshore problems. To prevent rivershore development problems, the DNR should strengthen its existing rivershore protection program. The process to upgrade lakeshore and rivershore model regulations should continue. Counties should be the primary administrators of the program. In addition, the DNR should continue to monitor resource conditions along state wild and scenic rivers to ensure that the natural character of the rivers is maintained. On the state's canoe and boating rivers, the department should continue to monitor resource and facility conditions, and where necessary take steps to improve resources or repair damage. To measure the success of the wild

and scenic river and canoe and boating route acquisition and easement-purchase programs, the DNR should continue to develop purchase priorities. These priorities would direct efforts to protect rivers. Similar systems in the DNR's Trails and Waterways Unit and Division of Parks and Recreation have strengthened the administration and success of their acquisition programs.

Wetlands

Wetlands long have been important resources for recreation. They produce waterfowl, and are effective in the management of water quality and quantity. These multiple roles warrant renewed emphasis on wetland preservation.

In the next five years the state should protect our remaining wetlands because of their overall importance to water quality, flood control, groundwater recharge, wildlife production, and additional recreational concerns. Local governments should actively pursue wetland conservation as part of their overall development planning, including recreation planning.

The federal government should continue to expand programs for wetland creation and reestablishment. Any such efforts should involve and heavily rely on state and national waterfowl and wetland preservation organizations such as the Minnesota Waterfowl Association and Ducks Unlimited.

The next five years promise a rapid increase in hunting pressure on waterfowl. Increasing populations (and hunters) in the Sunbelt, the southern end of the North American waterfowl migration routes, may be as damaging to waterfowl populations as the draining of the northern pot-hole regions. Federal waterfowl specialists should closely examine the effects on migratory waterfowl of explosive Sunbelt population growth, and draining and filling for agricultural, industrial, and urban development. Federal intervention may be necessary to ensure that wetland conservation and preservation efforts in Minnesota result in expanded waterfowl production.

Land Resources

Both urban and rural lands provide outdoor recreation opportunities. Conservation and protection of these lands will help maintain the quality of life that is one of Minnesota's advantages. Urban recreation-resource conservation should concentrate on several target areas. Local, state and federal governments should continue to provide open space and land for future recreation development in expanding urban and sub-urban locales. Methods such as zoning and requiring land donation from developers should be used along

with acquisition. In urban areas, parks and open spaces that receive intensive use should be high priorities for conservation. Developments that stabilize resources while maintaining their productivity and usefulness must be encouraged. In addition, developments intended to disperse use should be given consideration. Urban governments should also look at redevelopment areas as prime targets for recreation and open-space development. Within both development and redevelopment areas, local governments should select parcels with the highest potential for recreation or open space and work with developers to ensure that they provide public commons for recreation on high-amenity lands, such as those near urban rivers or lakes. Site factors to be considered include topographic variation, soil types supporting intended use, visual amenity-enhancing vegetative features, water quality, need for water access, wildlife-supporting wetlands, historic/archeological features and multiple-use capabilities. Development should be planned and implemented in a fashion to conserve and enhance these site amenities and minimize environmental intrusions as well as conflicts with adjacent land use.

A comparison of the maps in Chapter 3 showing the location of our wildlife lands (Fig. 3-S.42A) and the maps in Chapter 4 showing the location of upland-game hunting (B-S.12B) suggests that most of the lands managed for wildlife are located away from the upland-game hunter. Furthermore, the bulk of other huntable public lands is distant from upland-game hunters. This problem should be addressed through the acquisition of as many uplands as possible near urban areas. These lands should be managed for upland game. At the same time, the public and private sectors should work to bring together landowners and hunters to develop mutually beneficial programs to conserve and protect upland-game habitat and hunting opportunities.

As an example of habitat management, the DNR is using proceeds from the pheasant stamp to implement management within pheasant priority zones for the betterment of species populations. The state also should continue to inventory and monitor the extent and condition of important upland-game resources.

Both large and small game would benefit from expanded programs designed to encourage the establishment and preservation of woodlots and shelterbelts in agricultural areas. Acceleration of the state's Private Forest Management Program in Minnesota's prairie and transitional lands would help increase large- and small-game populations. In the forested regions of the state, public landowners, especially the DNR, should retain lands with wildlife potential. Even marginally productive lands should be retained if they have little value for other commercial or public purposes. A major objective in the DNR's forest management efforts should

be wildlife habitat enhancement. In addition, private forest management should continue to stress improved wildlife productivity along with wood-fiber production.

Outstanding State and National Resources

The Boundary Waters Canoe Area is unrivaled in Minnesota as a nationally significant recreation resource. A comprehensive study of nonresidents who come by car to Minnesota for recreation shows that 35 percent of their recreation occurs in or at the edge of the BWCA (see Fig. 4-S.19 for distribution of nonresident recreation). Without a doubt, the unique wilderness quality of the area deserves preservation. This should be accomplished by continued limitations on motorized use and the existing permit entry system. If necessary, campsite closures and fewer permits should be used to retain or enhance the BWCA wilderness character. Providing desirable alternatives to heavily used resources is a proven conservation tactic. State and federal land managers should consider development of public lands immediately south of the BWCA to provide additional, less primitive, recreation areas, including areas more physically accessible to the disabled. In addition, the promotion of nearby Voyageurs National Park as a place for motorized recreation can reduce pressure on the BWCA.

Nearly as famous as the BWCA, the North Shore of Lake Superior will probably see increases in fishing use and in family driving, sightseeing and camping. State and local governments should prepare for this increase by initiating management programs to identify and preserve important recreation resources along the North Shore. These programs should continue to provide public use areas, including areas that are physically accessible, while preserving scenic vistas and areas with special significance as wildlife habitat.

Two unique areas should be managed with caution. The first is the Minnesota Valley Wildlife and Recreation Area along the Minnesota River in the Twin Cities metropolitan area. A premier asset to residents of the metropolitan area, this valley is largely isolated from surrounding development by high bluffs. The state and local governments should maintain this buffer by preserving the bluffs in an undeveloped condition.

The second area is the fragile, erodable region of southeast Minnesota, which includes the Richard J. Dorer Memorial State Forest. The state should continue to assess the need for the acquisition and technical soil-stabilization assistance programs which now protect this resource. When and where appropriate, in the next five years, the state should accelerate these programs.

Other Special Resources

Many other areas in Minnesota are of state or national significance and require ongoing protection efforts. The state's Scientific and Natural Areas and Natural Heritage programs should continue conservation actions and data collection. Over the next five years the programs should continue to look for resources of special scientific importance and important elements of our natural heritage. Development pressure on these resources should be assessed and a protection schedule set. An example of a resource with both development potential and scientific and natural heritage importance is the state's peatlands.

A biennial action plan should address each special resource site under threat of immediate development and should include recommendations for acquiring land. As necessary, the protection of these resources should become part of the DNR's legislative agenda. The DNR also should determine protection priorities to allocate funds when dollars for protection are limited. Where land within existing facilities can be restored to presettlement vegetation appropriate steps should be taken.

To foster public acceptance of conservation measures, the DNR should continue to develop interpretive materials and programs designed to engender a feeling of stewardship toward our unique natural resources. These materials, describing our natural history and the diverse Minnesota landscape, should be developed for use in parks and schools, and many should be suitable for persons with mobility, auditory or visual impairments. These programs would require high-quality teaching aids, such as brochures and films, and a unified theme of presentation.

Issue 3: Preserving and Managing Natural and Cultural Heritage Resources for Recreation

Over the centuries Minnesota has undergone natural and man-made changes that have produced the landforms, wildlife, vegetation, cities and people we see in the state today. Each ice age and each wave of settlement has left its mark. Each era has left a few remnants of what once existed. Preserving these remnants provides significant benefits to society. The tangible link with the past formed through preservation and communication of our cultural, archaeological and natural

heritage gives today's society a storehouse of ideas, methods and materials that helps us understand who we are and where we live. Most importantly, it gives us a foundation on which to build the future.

Visiting natural, archaeological and cultural sites is quite popular with Minnesotans and visitors to the state. Recreation participation data show that resident trips to historic sites will be among the fastest-growing recreation activities in the next 10 years (Table 4-S.01). Data on typical nonresident recreation/tourist trips to Minnesota show that visiting historic sites is one of the largest activities (Table 4-S.04). This activity is expected to become even more important to our tourism product in the near future.

To meet the increasing burden that very likely will be placed on these resources and facilities, as well as to take advantage of history's attraction for tourists, state and local agencies must increase our state's inventory of heritage sites and provide historical information to the public. This should be coordinated through a statewide historic preservation and interpretation plan. The plan could be divided into assessment, preservation, development of support facilities and interpretation and promotion.

As part of the overall heritage effort, the new local-government Open Project Selection Process provides additional ranking points to projects that preserve and interpret historical/archaeological resources.

Two state agencies and three federal agencies play primary roles in assessment and preservation of the state's history. The Minnesota Historical Society concentrates its efforts in the area of cultural and archaeological history. The DNR works in the area of natural heritage. The National Park Service manages the major historic resources of Voyageurs National Park and Grand Portage and Pipestone national monuments. The U.S. Fish and Wildlife Service, in concert with the Minnesota Historical Society, preserves archaeological and historic sites as part of its conservation mandate. The U.S. Forest Service manages over 2000 historic and archaeological sites in the Superior and Chippewa National Forest.

The state agencies involved should accelerate a targeted preservation program. The Historical Society should accelerate its identification of cultural and historic sites of national, state and local significance. Likewise, the DNR Natural Heritage and Scientific and Natural Areas programs should accelerate their research and inventory of sites containing examples of our natural heritage. In the revival of an old role, the State Geological Survey should be funded to work with the Historical Society to identify geologic points of statewide significance.

To coordinate this effort, the Historical Society should develop a long-range plan to preserve, reconstruct and interpret enough sites of cultural, natural and archaeological interest to systematically portray our past. Historic themes should be developed to provide a focus for outdoor recreation resources and facilities that communicate our heritage. Themes should include, but not be limited to, geological history, immigration and settlement, Indian history, prehistoric life, and historic travel routes. An example of this thematic approach is that being conducted by Superior National Forest personnel for the historic logging period in northeastern Minnesota.

The historical themes should be selected jointly by the Minnesota Historical Society, the Geological Survey, the DNR, the Office of Tourism and interested federal agencies. Priority for preservation and interpretation should be given to historic resources in prime tourist areas, in urban areas and along major travel routes. Priority ranking should also contain criteria on relic historic sites in their natural setting. Public lands should be dedicated or acquired to allow preservation and interpretation of these features. For example, one historic theme long forwarded is the voyageur fur-trade era that was so important to the development of extreme northern Minnesota. Presentation of this theme could be coordinated among the managers of Voyageurs National Park, Superior National Forest and Grand Portage National Monument. Within theme areas, the agencies charged with development of facilities could undertake to provide the support facilities necessary to serve campers, picnickers and sightseers interested in Minnesota's heritage. Efforts should be made to make the facilities accessible to the disabled and interpretable to persons with sensory impairments.

The interpretation of these areas will have to be based on an increase in the production of background material on items of historic interest in Minnesota. The agencies charged with inventorying the state should continue to integrate the development of background research into the inventory process. Using these data, the agencies could provide technical assistance to managers of facilities and communities interested in improving and enhancing historic preservation and interpretation. Cooperating in this effort, DEED's Office of Tourism should help provide promotional information that explains historical sites. DEED's help could accelerate the production of maps, brochures and other media that communicate our heritage to the visiting public. The Minnesota Department of Transportation also could cooperate in this effort by erecting signs for highway travelers.

Issue 4: Improving Recreation Resources Through Policy, Management and Intergovernmental Cooperation

Policy

Within any organization policy ensures coordination between operating units. Policies guide management and development, providing the rules the units should follow. A policy implementation and monitoring program ensures that the rules are followed, and that the policies are accomplishing what was intended.

This issue discussion looks at priorities for policy development in the next five years. One priority is an investigation of the effectiveness of existing policy. As a result of the investigation, work should be undertaken where necessary to improve policy effectiveness.

Coordinating Policy

To help coordinate the DNR's several divisions, the commissioner of natural resources should establish strong interdisciplinary recreation management within the department. As recommended in the DNR's response to the Department of Administration's study (Management Study of the Regional and Subregional Structure of the Department of Natural Resources, Department of Administration Management Analysis Division, January 1984) a commissioner's order should formally establish the now ad hoc Outdoor Recreation Coordinating Committee (ORCC). This committee should review and coordinate recreation policy, program design, research, development budgets and operation and maintenance budgets. Final decisions would be made by the commissioner. ORCC would be a forum for serious discussion and analysis of such ideas as the sharing of staff to provide operations and maintenance support for the department's recreational areas. The committee could help generate internal and external support for program initiatives, budgets and legislation.

Many DNR divisional responsibilities converge at the state's lakes. These responsibilities are prime candidates for interdivisional coordination. Efforts must be made to ensure that program managers are not working at cross-purposes.

The DNR should develop policies to coordinate its ac-

tivities in the major recreation lake regions of the state. These policies should include the standardized definition of a public access and include the integration of hydrologic, fisheries, timber, mineral, wildlife and recreation resource management objectives, and should address the enforcement needs generated by lake and shoreland regulation, and the issue of water-surface use regulation. Specific responsibilities should remain within the appropriate divisions, but policy should identify those responsibilities which should be addressed by interdivisional decision-making bodies in the department.

Interdivisional conflicts often result when new programs are developed without adequate consideration of enforcement overhead, the amount of additional work the program will require if it is to be enforced. Policies should ensure that adequate enforcement and management resources are in place before a facility is opened or a new recreation program is instituted. These policies should outline the manner in which the additional enforcement and regulatory workload will be estimated. Program workload will be estimated. Program workload assessments should form the base data for enforcement and management budgets in the DNR divisions.

Just as the activities of divisions must be coordinated to efficiently meet department goals, some activities within divisions need coordination. Policies that guide the budgeting for acquisition and development should recognize the interrelationships between the facilities in a single program. To ensure that development dollars are not wasted through duplication, managers must address the effects of development on the larger area, not only on the limited boundaries of a single facility.

Other policies must coordinate budget allocation. Often, a number of management units within a division compete for the same development dollars. The divisions must develop a way to prioritize unit developments. Priorities should be based largely on current use and user demand.

New Policy Directions

New policy guidelines should address significant new outdoor recreation activities, such as off-road-vehicle use and waters/fish and wildlife coordination. For example, the DNR should accelerate the development of rules, regulations, procedures and standards governing off-road vehicles use on DNR-administered lands. Guidelines for new recreation activities should be designed by an interdisciplinary task force which includes central office and field representatives. Guidelines should address the concern over access by disabled people. When the guidelines relate to the role of another agency or unit of government, they should be reviewed by that agency or unit. One area the task

force should address is the development of water-resource-oriented boating, fishing and camping parks.

For a number of years the Statewide Comprehensive Outdoor Recreation Plan has identified problems with the DNR's practice of exclusive leasing of public shoreland to private parties. In the past, SCORPs have recommended that the DNR terminate some leases and return the property to general public use. This objective is especially desirable when the leased shoreland is among the best recreation property managed by the DNR and needed for recreation purposes. Many of these properties are on heavily used lakes that have shortages of public use areas and accesses. Repeated attempts by the DNR to remedy the problem have met with less than acceptable success.

If the state is successful in terminating a lease, there remains an additional hurdle. Most of these leases are on state-owned trust fund land (93% of 1784 statewide shoreland leases). The DNR is charged with managing the school trust fund lands in a manner that generates revenue for the trust. A change in land management through lease termination will need to be consistent with the revenue-generating goals of the trust fund. As the shoreland property once generated revenue, state land management actions shouldn't diminish the flow of funds to the trust. The state should continue to implement the recommendations of the Legislative Auditor's study of school trust lands. In addition, the DNR should complete and implement its studies of the shoreland leasing issue. These studies are currently planned or under way.

Furthermore, the DNR should establish strong policies to tie shoreland lease extensions to compliance with shoreland zoning standards. These policies should ensure that these properties are identified and brought into conformance with state shoreland management standards before leases are extended by the DNR.

Policy-making work groups also should develop policy implementation and monitoring plans which address the need for public input in policy making and include plans for surveying and otherwise communicating with recreationists and the general public. Public input should be acknowledged in the grant evaluation process.

In addition, the DNR should develop policies to restructure the state's program of campground development. Prior to the preparation of development budgets the DNR should conduct a statewide assessment of campground needs. The assessment should look at use projections, current occupancy rates and unused supply of camping. Where unmet demand is found, all public property suitable for recreation should be assessed for its suitability for campground development.

The decision on where to develop camping facilities should be based on the suitability of the alternative properties. The campground should then be developed by the division responsible for the selected property. Operation and management should be a cooperative effort among all divisions, with the best-situated division providing operation and maintenance resources. The state's inventory of campgrounds then would best meet the wide variety of camping opportunities that Minnesotans desire.

Policy Monitoring

Policy implementation and monitoring efforts are needed to ensure that good policy doesn't gather dust on office shelves, and that poor policy is not perpetuated. The DNR should periodically examine its policies to determine whether they are producing the results that the policy makers intended. For example, it has been five years since the first Outdoor Recreation Act unit policies were developed. How have they affected the quality of recreation management and visitors' experiences? The DNR should clarify ambiguous policies, replace ineffective ones with policies more likely to succeed, establish measurable objectives and initiate improved achievement measurement, and institute a better policy distribution system.

Another policy which should be reviewed is the public access policy. Additional information on patterns of water-related activities (see Chapter 4) should be incorporated into the access policy lake priority system to improve that system. Later in the five years covered by this plan, the DNR also should review the effectiveness of forestry/wildlife coordination policies and adjust the policies where necessary. Improving policy implementation and monitoring will require additional DNR staff.

Management

How a recreation facility is managed makes a great deal of difference in the facility's usefulness and life. This is true for our parks, our lakes and our wildlife areas alike. Good management means productive resources. Management may be broken into three steps: planning, action and evaluation.

This plan provides a broad foundation for recreation development in the next five years. To assess this plan's effectiveness the DNR should study levels and patterns of new recreation activities, the environmental and economic impacts of these activities, and public satisfaction with recreation facilities. For example, special studies should be conducted to better understand new and growing activities. New activities such as three-wheeled-vehicle use, light four-wheeled-vehicle use and even nonmotorized trail biking should be the sub-

ject of primary and secondary research. The rate of growth and significance of all activities should be monitored through ongoing studies and surveys, and its benefit to the resource and the user should be studied. Long-standing recreation resources also can use some scrutiny through on-site analysis of use. In addition, barrier-free access designs for disabled people should continue to be evaluated and studied.

In the last 10 years, significant strides have been made in natural resources management theory. Recreation researchers looked at why people recreate and why they select certain places and activities. Borrowing from market researchers, sociologists and psychologists, researchers found that recreation-site characteristics and management practices define user satisfaction. Many recreation agencies took advantage of these studies to target markets and meet user demand. This kind of research was the basis for campground design in the Hennepin County Park System. Rather than catering to primitive campers, Hennepin County targeted modern campers seeking a place to meet new people and spend time with friends.

In other studies recreation researchers found that poor management allowed some user groups to drive out others. For example, in some areas ORVs have driven out hikers, and snowmobilers have displaced skiers. Less easy to understand is the increase in the number of hunters switching to primitive weapons such as the bow and arrow. While some of the increase can be attributed to novelty, much of it also results from hunter's being crowded out of the forests during the modern firearms season. The DNR should determine the range of outdoor recreation opportunities sought by Minnesotans and the demand for each. Recreation providers should use such information to adjust their management practices. In particular, the DNR should evaluate the facilities needed to fulfill dispersed outdoor recreation demand on lands administered by the Division of Forestry. The results should be integrated into forest-recreation-unit management plans that develop measurable objectives and include a means of measuring whether the objectives are met. As an example, the DNR should segment the camping market and determine whether adequate opportunities are being provided for all market segments.

The recreation information researchers have collected thus far reaffirms the great importance of fishing to recreationists and to Minnesota's economy. Given fishing's central place in Minnesota recreation/tourism (Fig. 4-S.16 and Table 4-S.04), strong long-range fish and angler management is called for. The DNR should develop a long-range fish and angler management plan that establishes statewide goals for species management and people management. The biological assessment and planning of lakes with significant value for

both fish and waterfowl should be accelerated. Other lakes with special resource values should be identified and provided for.

The statewide goals of the fish and angler management plan should be broken into measurable regional objectives. Fisheries policies should be updated where necessary to ensure clear responsibility and appropriate authority. For example, in the Arrowhead region of the northeast, the responsibility for water access development by the state and federal government should be determined. A strategy for measuring achievement and adjusting field performance should be included. In addition, each DNR region should develop management plans to address the objectives in the statewide plan.

The DNR should continue to review and update specific fisheries management plans for state lakes (6,000) and warm- and cold-water streams (7,000 miles). These resource plans should be governed by the broad goals of the statewide plan. Specific resource plans that address outstanding lake resources should be administered by regional lake-management teams made up of people with expertise in angler management, wildlife management, and shoreland and watershed management, as well as fish management. Lakes that are the focus of significant fish and wildlife production are an example of this outstanding type of lake. Other lakes where these teams might be used include our foremost fishing lakes, lakes supporting large resort industries, lakes important to our major, heavily used recreation facilities and lakes with high values for fish, waterfowl and furbearers.

Special lake-management teams also could be used in urban fisheries to maximize fishing opportunities near population concentrations and in areas readily accessible to special populations including minorities and disabled people. Special teams also could manage lake rehabilitation efforts in resource-poor areas. The value of these special teams is apparent when the needs of these kinds of resources are examined. Lakes in heavily populated areas will need special angler-control efforts. Marginal lake resources may be very special to wildlife and waterfowl. Here the management teams could emphasize lake rehabilitation and fisheries management while also recognizing the value of waterfowl and furbearer management on these waters.

Intensified fisheries management will require capital expenditures as well as personnel. The state's fish hatcheries must be rehabilitated to improve their productive capacity. The DNR should develop a special capital improvement plan that assesses the potential of each fish hatchery in the state and provides hatchery-by-hatchery objectives and rehabilitation cost estimates. To increase hatchery productivity, the department should expand its production of walleye fingerlings in

winterkill-prone waters, when fingerling production is compatible with other uses of the waters.

Hunting is another important recreational pursuit in Minnesota. Special attention should be paid to management of our wildlife-producing resources. The DNR should develop a long-range wildlife management plan that focuses on primary hunting species. The plan should include accelerated research on wildlife habitat. One area of concern should be management of the furbearer populations. The plan should draw from the Long Range Resources and Management Plan for DNR Lands (Suitability) sponsored by LCMR, and information gathered in the planning efforts should be incorporated into the Suitability data base. The plan should address the issue of coordinating state and federal wildlife management programs on adjacent lands. For example, U.S. Forest Service actions in Superior National Forest should take into account the local wildlife values of the lands under consideration, and actions in Sand Dunes State Forest and Sherburne National Wildlife Area should be undertaken in concert.

Threatened and endangered species also must be addressed through intensified management and planning. These species constitute a valuable component of Minnesota's natural diversity and an important natural resource for industries involved in bioengineering. Policies and program guidelines to protect and enhance these species must be developed in conjunction with the Nongame Wildlife Plan and the Natural Heritage Program. In addition, that plan should explore the potential economic value of these resources to bioengineering research firms and the feasibility of marketing the resource within the bounds of sound preservation practices.

Intergovernmental Cooperation

Often public management of recreation resources by different levels of government results in duplication of effort, conflict between objectives and actions that work at cross-purposes. These inefficiencies also often result in unmet public demand. Problems such as these can be minimized through coordinating the actions of different levels of government. A number of areas offer opportunity for this kind of cooperation.

A first step is agreement among federal, state and local units of government that the unit of government that best represents the majority of the population served by a recreation facility and has the ability to provide the facility should have the responsibility and authority to acquire, develop, operate and maintain the facility. This objective may be facilitated by encouraging joint operation and development agreements. In response to a 1984 SCORP questionnaire, local government (municipal, county) recreation leaders indicated that,

on the average, at least one-half of the demand for a facility should come from within their government unit before the unit should assume responsibility for providing the facility. In this same survey (as discussed in Chapter 4), facilities that rely heavily on natural resources or typically serve large areas should be supplied by broader levels of government (federal and state). City and county governments were assigned greater responsibility for providing developed facilities — such as playgrounds, ballfields and skating rinks — that serve local populations. However, certain facilities (e.g., water accesses and natural park-like areas) were seen to be an important responsibility of all levels of government, presumably varying between the government levels in accordance with the area served by, and the character of, the facility.

Currently, most recreation resources are assigned to the proper level of government. Some exceptions do exist. The DNR Trail Plan recognized that some trails now managed by the state might more properly be under the jurisdiction of local authorities.

Trail provision affects many different levels of government. As was discovered when the Minnesota Valley Trail Plan was developed, government units often fail to address the actions of other government units in their planning. In 1978 the state directed the State Planning Agency to prepare a policy plan defining the role of each trail provider. Today, more than five years later, it is time to assess the progress in achieving the objectives of that plan. The State Planning Agency should make that assessment early in this five-year period, and update the Interagency Minnesota Trails Policy Plan as necessary. Trail providers then should act in accordance with the interagency plan.

In addition, considering the importance of winter recreation to Minnesotans, the interagency trails policy plan should delegate responsibility for research and funding to help local units of government overcome barriers to development of cross-country-ski trail networks in urban areas. The plan also should assist local units of government in their efforts to use undeveloped strips of land in urban centers as trail-network segments. These efforts would help local units meet their goal of forming trail networks through the development of new links connecting existing trails. Where choices exist, linking segments should be ranked based on the quality of the resources of the networks to be linked.

The action programs developed under the SCORP policy plan should delineate more clearly the roles of units of government which develop and manage campgrounds. Campgrounds are one of the most important public recreation facilities, critical to use of our recreation resources.

Provision of campsites must be coordinated to meet the public demand. Future SCORP action programs should call for increases in the number of state park campsites as the need grows for more modern, developed campsites in a social, organized setting. State and federal forest managers should be assigned the role of expanding the number of campgrounds that offer more primitive and dispersed campsites. Future action programs should ensure coordination of campground development between public and private recreation programs. Here, the public access program, wild and scenic rivers program, state trail program, long-range wildlife management program and accelerated fish management program are of great interest.

Intergovernmental cooperation should include the regular review of SCORP policies and practices by the Minnesota State Council for the Handicapped to ensure that resource allocations incorporate the needs of persons with motor and sensory impairments.

An important geographic area of the state that needs intergovernmental cooperation is extreme northern Minnesota, including the federal Boundary Waters Canoe Area, Voyageurs National Park, Grand Portage National Monument and the state and federal forestlands to the south. Special plans that coordinate development and management must be designed for these areas. The DNR and the U.S. Forest Service should develop a joint management and development plan that focuses on serving motorized BWCA users displaced by federal wilderness legislation. This plan should provide for coordinated acquisition, development, management and promotion of resources such as Voyageurs National Park, Grand Portage National Monument, Superior National Forest, Chippewa National Forest, Kabetogama State Forest and George Washington State Forest. The plan should consider the full range of development and management options available to the state and federal governments including the inclusion of new areas in the Outdoor Recreation Act, and private-sector development options. The joint plan's primary management objectives should be provision of opportunities for motorized fishing and camping in the summer and snowmobiling in the winter. The DNR and the Forest Service should study the ownership of prime recreation lands in northern Minnesota. If checkered state and federal ownership occurs on these lands, the two agencies should determine which level of government would best serve the potential users of these prime recreation lands. In addition, the agencies should decide which level of government can afford to develop the recreation resource. If land exchanges, working agreements, gifts, leases or sales seem to be in the best interests of ensuring development, they should be carried out. The potential role for private development also must be considered. If private developers can best design, finance and man-

age planned facilities, a public/private task force should be established to select among potential developers.

At the same time, the U.S. Forest Service should continue to assess the BWCA's progress toward fulfilling the intent of the 1964 Wilderness Act and the 1978 BWCA Act. Adjustments to management and use regulations should be made, as necessary. In general, adjustments that promote voluntary improvements in use patterns or behavior should be implemented and assessed before mandatory rules and regulations are established.

Other important areas require federal/state cooperation. The U.S. Forest Service should coordinate recreation-oriented acquisition and development with other levels of government. The Forest Service should act in accordance with the recommendations of the acquisition and development issue (Issue 6) in this chapter, with the DNR Trail Plan and with the Resource Planning Act process. Forest Service actions should be assessed annually to determine whether they meet the objectives of the state's biennial action program.

Many units of government are involved in managing Minnesota's valuable shoreland. Through the State Shoreland Management Program, federal agencies in urban areas should act in accordance with Executive Order 11988 on Floodplain Management, which directs federal agencies to search for superior alternatives to floodplain development. Mapping of floodplains should be continued to help manage floodplain for recreation.

Management of the state's fisheries is another area which requires cooperation. For example, the DNR Division of Fish and Wildlife manages our state's fisheries. At the federal level, the U.S. Army Corps of Engineers, the U.S. Forest Service, the U.S. Fish and Wildlife Service and the National Park Service manage and claim some jurisdiction over uses that affect our fisheries. At the local level, municipal and county zoning administrators affect our fisheries through their management of shoreland development. Interagency policies that establish agency responsibility, procedures and channels of communication should be developed. Participating agencies should agree on fish and wildlife habitat objectives and the relationship between these objectives and the economy. Then each agency should establish specific policies to achieve these objectives. Examples of agreements might include a guarantee that all state waters would be managed for native vegetation, or agreement that the Corps of Engineers should continue its interagency review of management programs for navigable waters. Agencies such as the DNR, which has a wealth of technical talent, should expand programs which provide local governments

with technical resource planning and management assistance.

In the last five years more and more managers of recreation resources have recognized that promotion is a resource management tool. Poorly coordinated promotion can increase visitorship to already overused and damaged facilities. Properly coordinated promotion can move users from currently overused resources to underused ones. Resource-promoting and resource-managing agencies should work together to develop a promotion plan that enhances rather than impedes good resource management. State and local management could benefit from more sharing of ideas, plans and programs. SCORP, for example, would benefit from increased involvement of local governments in the development of action program objectives. While SCORP goes to great lengths to acquire input from the general public, more effort has to be made to include local government representatives. The DNR and the Department of Energy, Planning and Development must make a concerted effort to take this plan and supporting information to local units of government, and to involve local government in action program development.

Issue 5: Improving People Management

People and recreation are inseparable; people recreate and people provide recreation. The demand data presented in Chapter 4 indicate that more and more people will participate in recreation activities in the future. More sophisticated and effective management of these growing numbers of recreationists will be needed to maintain both the quality of their experience and the quality of our resources.

The people providing recreation activities also have changed. Because of advances in recreation management theory, today's recreation providers are better trained. Ten years ago a state park employee was likely to be part-time summer help. Today, more and more recreation staff have training in public administration, psychology, sociology and personnel management. Some have backgrounds in political science, economics, climatology or statistics. These career people must be managed differently from their predecessors.

Another people resource which needs good management to reach its full potential is the volunteer labor force. Long a source of help for recreation programs, the volunteer labor force is increasing in importance as recreation managers are called upon to provide more personal contact with visitors. A few volunteer pro-

grams, such as the DNR campground host program and nongame wildlife volunteer program, are well organized. More often, because of a lack of planning, opportunities to use volunteers are lost.

Managing Recreationists

One facet of managing recreationists involves distributing resource use across all available areas and times of the year. Agencies should use information about off-peak days and underused recreation resources in promotional efforts. In addition, facility reservation systems should be established or expanded, particularly for the heavily used campgrounds and parks. Reservation systems should be designed to direct users to nearby similar, but less-used, facilities when first-choice facilities reach capacity.

Encouraging an understanding of resource management and fostering responsible resource use are important objectives for recreation providers. As the public becomes more aware, it ceases to be a passive supporter of recreation and begins to initiate resource management action. Evidence of this trend is seen in the activities of the Minnesota Conservation Federation and the Sports Fishing Congress. As long as communication between the public and resource managers is clear, this deeper public involvement can provide benefits. Major resource management agencies should make two investments in ensuring two-way communication. Agencies such as the DNR and the U.S. Department of Interior should enlarge their commitment to public involvement. The DNR, for example, should stress the use of its regional administrators to facilitate public involvement and, when useful, temporarily add staff from divisions and units. These existing resources should be used to assist the existing citizen participation coordinator. Resource management agencies also should recognize that today's recreationists are more sophisticated and require more sophisticated resource information. For more than 10 years anglers have peered at our lake bottoms through depth finders, searched lakes for thermoclines and measured biodegradable oxygen content in an effort to find more fish. Hunters have learned to scout the state for hunting areas with good winter deer habitat and food sources. As they become more knowledgeable, these recreationists need good, in-depth information about the complexities of fish and wildlife management. To be productive co-managers of the resource, recreationists must understand the complex interrelationships between species and their environments. For example, knowledge of the interrelationships between deer and moose enables the public to be a better participant in management decision making. And, anglers' knowledge of the complexities of fisheries management can be as important to their fishing success as it is to the fisheries professional. The resource management agencies should

develop comprehensive education plans to take advantage of citizen interest in the environment.

Despite educational efforts, violations of our resource laws and conflicts between recreationists will surely occur. The state's corps of conservation officers and officials of local units of government must persuade recreationists to behave in an acceptable manner. Agencies with conservation or enforcement officers should prepare for the increased workload that will come with the growing use of fewer resources.

Recreation enforcement is a preventive activity. It should dissuade potential lawbreakers from harming recreation resources. To maximize prevention efforts, enforcement resources should continue to be apportioned on the basis of the recreation resources. Proposals for new fees, licenses and programs should include an analysis of the enforcement resources necessary to ensure reasonable compliance. Alternative ways of providing enforcement staff should be identified, including expansion of enforcement powers, new enforcement personnel, and modification of existing enforcement priorities. For example, as off-road-vehicle use areas are identified in state forests, plans should be made to enforce regulations governing the use of those areas.

Managing Recreation Staff

Recreation management agencies should be provided resources to invest in cost-accounting systems that allow them to estimate the costs of labor incurred in providing recreation. These costs should be tied to measures of recreation use that can be reliably forecasted. Based on these costs and forecasts, agencies should develop personnel plans for each budget cycle. In addition to identifying programs which require more personnel, in decentralized agencies such as the DNR these plans should provide for the rotation of recreation management personnel among facilities and between the central office and field locations. Career employees thus will gain a wider perspective on the recreation resources and people of the state. All agencies should expand the opportunities for lateral movement between recreation management programs. If these strategies were undertaken, career opportunities would improve, personnel would make more knowledgeable decisions, and investments in employee training would pay off.

As recreation resource jobs become more sophisticated, better measures of employee performance should be developed. These measures should be as objective as possible, should be related to the agency's recreation objectives, and should provide continuous feedback to the employee and the organization. The DNR Personnel Bureau's efforts to improve perform-

ance measures should be integrated departmentwide into program objective-setting processes.

Managing Volunteers

Recreation resource agencies have an advantage in attracting volunteers. Working outdoors is attractive to people with the skills and desire to develop, protect and interpret our natural resources. However, without a strategy the volunteer community will not be reached. Therefore, state, local and federal agencies should prepare annual volunteer labor plans. The plans should specify tasks to be performed, volunteer skills needed, paid personnel currently working on those staffs, and should budget for supplies and other expenses.

The management agencies should hire permanent, classified personnel to assist in preparing volunteer plans, recruiting volunteers, teaching program managers how to use volunteers, and measuring the achievements of the volunteer program. These personnel also would work with labor unions and personnel departments to refine volunteer labor guidelines.

The volunteer programs should give the highest priority to long-term volunteer projects to increase the return on the initial investment in designing and staffing volunteer projects. The volunteer programs should rely on computer systems to match volunteer skills to program needs. By the end of this five-year planning period the agencies should consider standardizing and combining their separate systems to increase both recreation resource opportunities for volunteers and the pool of available volunteers.

Issue 6: High-Priority Areas for Acquisition and Development

The acquisition and development decisions that we make today will help determine Minnesota's future quality of life. We who enjoy the benefits of the parks, forest, streams and lakes that are maintained for the common recreation good owe those who follow a life as good, if not better. To fulfill that obligation, we must acquire the land and develop the recreation facilities that our descendants will enjoy.

The factors we must consider in our decision making have been discussed in earlier chapters of this plan. Our population is growing, and it is getting older. Our cities continue to expand. New centers of commerce on the outskirts of existing cities further the expansion of subdivisions into rural areas. Another consideration

is Minnesotans' strong recreation habits. Year after year we continue to travel to lake country for vacations, spending leisure time hunting, fishing and camping. We stay near home for such activities as bicycling, swimming and tennis, as well as for a large proportion of our participation in natural-resource-oriented activities, such as boating and fishing (Table 4-S.02). This issue discussion looks at the acquisition and development steps that federal, state and local government should take in the next five years to provide recreation opportunities for our future citizens.

Responsibilities of all Levels of Government

There are a number of policies that all levels of government should follow as they plan and execute recreation acquisition and development. These policies are based on the fundamental habits and demands of Minnesota's recreating public and on plain good sense. The information in Chapter 4 tells us that Minnesotans participate heavily in water-based recreation and travel longer distances for water-based recreation than for land-based recreation. Given those facts, it is important that acquisition, development and redevelopment focus on our water-oriented facilities, particularly on the facilities in the major lake regions of the state, since these are the primary vacation/tourism areas, and on facilities near extent and expanding population centers. For many land-based activities our citizens recreate mainly close to home. We should continue to provide for such close-to-home activities as urban areas expand.

Our development also should concentrate on the kinds of facilities that people say they need. Chapter 4 provided the results of two recreation polls. One poll revealed the general citizenry's desires for 37 types of facilities. The other poll looked at the kinds of developed facilities community recreation professionals felt their communities needed. The results of both polls agreed that trail-type facilities, followed by water-type, garden-type and hunting-type facilities, are the recreation facilities most desired and needed (see Appendix B). Chapter 4 also shows the areas of the state expecting to see the greatest increases in use over the next 10 years. These areas are described for most of the activities that are covered by the public opinion polls. This information should be used by our state's recreation leaders as they begin preparing plans for recreation development. Based on this research and local demand information, developers should seek to achieve the greatest increase in recreation participation. This can best be achieved by using both sets of data covered in Chapter 4 and the local demand information to rank alternative acquisitions and developments.

In the good-sense category, a number of actions should

be taken by all levels of governments. A high priority should be the redevelopment of publicly owned recreation facilities that are not in compliance with building and zoning codes. Redevelopment efforts should concentrate on facilities that pose health or safety hazards to users, for example, sewage treatment systems in recreation areas that do not comply with health codes. Equally important, acquisition, redevelopment and development funds should be directed toward resources that are being harmed by overuse or where levels of user satisfaction are declining because of crowding. Recreation facilities also must be made accessible to disabled people and promote ease of maintenance and energy conservation. All new development should be accessible and any redevelopment must remove barriers to access.

Coordinating the actions of different levels of government is important. For example, in the northern border area of Minnesota, development proposals at federal sites should consider existing and planned development in other federal border-area facilities. In addition, federal agencies should consider the actions and plans of state and local levels of government. For example, the major public campgrounds in the Voyageurs National Park area are managed by the state in cooperation with the federal government. Plans for further state development in the area should be coordinated with federal acquisition and development actions to avoid shortages or duplication of facilities. In some cases, land exchanges will be needed to fully realize the recreation potential of these areas.

As another example of the need to coordinate actions, local and regional plans which coordinate public service investments with orderly private developments should be consulted in the siting of recreation facilities that require such public services. The Metropolitan Development Guide is an example of such a regional plan. In general, recreation development needs to be consistent with the comprehensive plans of local governments and regional planning agencies.

Federal Government Responsibilities

Chapter 3 points out that the federal government plays an important role in recreation in Minnesota. It manages, through the National Park Service, Voyageurs National Park and the St. Croix Wild and Scenic Riverway, as well as Pipestone and Grand Portage national monuments. The two federally managed national forests in Minnesota are focal points for our wildland recreation. Worthy of special mention is the BWCA and its environs, which support one-third of the recreation activity of nonresident summer visitors. The U.S. Fish and Wildlife Service provides many hours of rec-

reation through its wildlife refuges and wildlife production areas, while the U.S. Army Corps of Engineers serves our lake and river areas. The acquisition and development activities of these agencies are important to our recreation future.

The Army Corps of Engineers' efforts in north-central Minnesota pose special problems and opportunities. This is a primary recreation-travel destination area and acquisition and development should be carefully planned. The Corps of Engineers should make special efforts to coordinate its acquisition and development of facilities, such as campgrounds and public accesses, with the management and development activities of the DNR. For example, public access development should consider DNR fish management efforts. Campground development should consider the state trail program. The Corps' public access program should be closely coordinated with the DNR's access program.

The U. S. Army Corps of Engineers created and manages many of our prime recreation lakes. Their recreation facilities are sought out by many Minnesotans and visitors to Minnesota. Given that importance, the Corps should continue its development of camping and fishing opportunities in the state. In addition, the National Park Service and, to some extent, the U.S. Forest Service should place more emphasis on preserving and interpreting our history. With the notable exception of fish and wildlife habitat acquisition, federal land acquisition should be held to a minimum in Minnesota until the problems of scattered land ownership are worked out. However, The U.S. Fish and Wildlife Service should be encouraged to expand wetland acquisition and easement efforts for migratory bird species. While federal acquisition is held to a minimum the federal agencies should concentrate on the development of land they already own. The National Park Service should accelerate its development efforts in Voyageurs National Park and on the St. Croix National Scenic Riverway. The U.S. Forest Service should accelerate its water-oriented facility development in northern Minnesota.

Responsibilities Shared by Federal and State Government

Fish and wildlife management is the most important area for state and federal sharing of responsibilities. The state and the federal government should use wetland priority zones as a major focus of accelerated acquisition and establishment of new state wildlife management areas and new federal waterfowl production areas. However, the establishment of new areas should not interfere with the complete acquisition of existing areas. In the next five years, state and federal agencies should move to complete public ownership of existing

wildlife management areas and acquire new units in areas of high resource demand or where rapid conversion to other uses is depleting remaining wildlife lands. State and federal agencies also should seek to improve the public's access to these lands. This will require the development of hunter access, for example, primitive roads or trails in large blocks of public land capable of supporting huntable wildlife populations. In addition, state and federal agencies should develop additional hunting facilities such as blinds, parking areas and access roads on selected areas managed for wildlife. Development of these facilities should come second to acquisition of wildlife lands in areas where such lands are undergoing rapid conversion to other uses.

One area merits special concern. The Minnesota Valley National Wildlife and Recreation Area is a unique wildlands facility administered by federal, state and local agencies to serve primarily the Twin Cities population. That population also has the state's largest concentration of special populations. The important hunting, hiking and camping benefits of this area warrant accelerated development in the next five years.

Another area that merits special consideration is the Great River Road. This travel route and the facilities along it could become a significant contributor to our tourism image. The state and federal agencies that manage areas along the Great River Road should, in the next five years, give high priority to acquisition and development outlined in the recommendations of the Great River Environmental Action Team (GREAT).

State Government Responsibilities

Each level of government must make certain that its acquisition and development provide needed resources and facilities. Need is measured through forecasted resource use, resource damage, diminished user satisfaction and facility capacity. This plan provides much of the recreation pressure forecasting that determines need. It is important that the information base for this plan remain up to date. As its highest recreation research priority, the DNR should undertake continuous, statewide, recreation-participation monitoring to guarantee that current data are available for this plan. The department also should continue to update the information in the statewide inventory of recreation facilities. Renewed emphasis should be placed on keeping local-government facility inventories current, for they tend to be the least well maintained of the public facility inventories. The department is committed to managing the facility-inventory data base, but which agency should take lead responsibility in maintaining the local-government portion has yet to be fully determined. In

the metro area, the Metropolitan Council is maintaining these facility data.

To provide more specific user data, state agencies that provide recreation should institute or expand user monitoring systems at their facilities. These efforts should cover trail, state park and forest recreation area users. These data should be used to determine which proposed developments and acquisitions should be recommended for funding. The DNR should continue to rely on use data to assist in the determination of when new facilities should be added. For example, the DNR Division of Parks and Recreation should make park use a factor in its decisions on which proposed park developments to carry out. Decision making also should consider development that will increase overall use of a facility. For example, new trail segments that complete loops or networks or connect two or more isolated trail segments should be funded if they will result in more use of the existing trails.

Recreation land acquisition by the state poses a special problem. Chapter 3 shows that the state manages more Minnesota land than any other level of government (Fig. 3-S.14A). Unfortunately, the value of much of that land for recreation is limited, because the land is mainly of the wrong resource type (e.g., peatland) and is distant from the state's population. The major concentrations of state-owned land are in far northern Minnesota, but the greatest demand for most recreation is farther to the south. The state must continue its measured land acquisition programs, such as Resource 2000, and concentrate its activities as close as possible to the source of recreation demand.

The DNR is currently required by legislation to offer for sale as much state-owned land as is acquired under Resource 2000. Offers for sale must be made within two years of acquisitions. In such land transactions, the department should ensure that recreation benefits are weighed appropriately with other natural resource benefits.

Chapter 4 discussed our population's changing age profile and the major movements of Minnesotans from existing residential areas to new ones. To provide the recreation land needed for our changing and moving population, state recreation acquisition and development should consider both the natural-resource attractiveness of an area and the population accessibility of an area. This will require that higher priority in this five-year period be placed on public recreation facility development in lake areas and near our developing exurban areas. Without impairing the efforts in lake areas, the state should continue to purchase population-oriented land, such as abandoned railroad rights-of-way in or near urban areas. In addition, rights-of-way in the prime recreation areas of the state may be avail-

able in the next five years. These should be purchased and used for the development of multiple-use trails, particularly bicycling, snowmobiling and cross-country ski trails that support the tourism industry of the region.

To further serve the tourist industry and to cultivate a public-private partnership in recreation, other acquisitions should support and enhance private recreation development. The DNR should put special emphasis on developing key facilities that serve as major attractions in tourism areas. These facilities should be multiple-purpose, primarily oriented to water activities and camping. In addition, the DNR should consider expanding its array of lakeshore recreation areas to include a "public shoreland wayside" unit to provide lake day-users with picnic and rest facilities. However, this should not be undertaken in lieu of the state's existing programs for public accesses to lakes and rivers, and for waysides, portages and camping areas on state canoeing and boating routes and wild and scenic rivers. When available, the DNR should use public shoreland for water access. The DNR also should continue its attempts to enhance the quality of the state's fisheries. Where determined to be appropriate by professional fisheries managers, the DNR should develop features that enhance fish habitat.

In general, the state's major lake regions experience strong recreation pressure from both residents and non-residents. To satisfy this demand, land-based facilities in Minnesota also should be targeted toward these areas. In areas which exhibit the highest demand for trails, trails of statewide significance should be developed. These should be designed to portray and interpret significant landscapes and cultural features within highly scenic settings. State parks and state forest recreation areas in these regions should receive higher priority for development of loop and network trails. For example, when feasible, trails should be developed so they contribute to the federal North Country Trail, a premier trail traversing part of our prime lake region. Contributing trails should be identified as priority trail projects.

While continued acquisition and development in the DNR trail programs can do a great deal to enhance the quality of outdoor recreation resources in the state, the Minnesota Department of Transportation (MnDOT) plays a strong role in giving us a complete recreation trail network for bicyclers. Bicycling is the activity that is projected to show the greatest increase in activity occasions between 1980 and 1995. Furthermore, surveys show that Minnesotans feel bicycling facilities are the most needed recreation facilities (Tables B-S.01 to B-S.06). The bulk of this demand is generated by youngsters and the MnDOT program provides many miles of needed bicycle routes in and near the suburban areas where families are raised. MnDOT should con-

tinue its program to identify safe, scenic and convenient bicycle tour routes. In addition, MnDOT should selectively continue the bicycle route program's development of extra-wide road shoulders for bicyclists. New construction should be concentrated primarily in urban areas and in the top recreation-destination areas of the state where land ownership patterns hinder the DNR trail effort.

A significant problem exists when private landowners hold land within the boundaries of state recreation units. In the past five years, limited state funds for acquisition have forced owners willing to sell their land to the state to initiate steps to subdivide land within state recreation units, including state parks. The DNR should give high priority to acquiring private holdings in units of the Minnesota Outdoor Recreation System. Acquisition from willing sellers should be funded. Priority also should be given to the purchase of key tracts that would allow the development or completion of trails, water accesses, wildlife areas, campgrounds and other facilities whose need has been demonstrated. This should not lessen state efforts to properly compensate the school trust fund, as discussed in Issue 4.

The continued demand for hunting opportunities and the willingness of hunters to contribute to the preservation of huntable wildlife populations provide strong support for continued acquisition of wetlands and uplands. Acquisitions should take account of accessibility to the state's hunting population, the need to complete wildlife management areas and protect key habitats. The state should guarantee that the proceeds of state pheasant stamp sales continue to be used for leases and cost-sharing development of pheasant management zones. These actions should be accelerated in the future. Where suitable, the state should purchase abandoned railroad rights-of-way and actively manage them for wildlife cover.

Other issue discussions in this chapter have mentioned the need for and value of perpetuating nongame species and threatened plant and animal communities. Land acquisitions for these purposes should be given priority equal to that of the purchase of private lands in major recreation units. The Scientific and Natural Areas Program should continue to receive or allocate program funds to acquire land for unique scientific and natural areas or wildlife habitats that perpetuate the state's natural diversity.

Local Government Responsibilities

Chapter 4 explained that most recreation, including a large proportion of natural-resource-oriented recreation, occurs within a short travel distance of home

(Table 4-S.02). The greenways and lakeside parks of our cities are stellar examples of the benefits of early purchase and wise development of natural resource lands in our urban areas. During the upcoming five years local governments should continue to invest in the acquisition and development of natural open space in our cities. Areas of above-average population growth should be targeted for local recreation grants, especially acquisition grants. Townships, particularly those experiencing rapid population growth, should be encouraged to take a more active role in providing open space and recreational facilities for their citizens. The primary facilities to be developed, in keeping with public survey results, should include bikeways, walking paths, nature centers and swimming beaches (see Tables B-S.01 to B-S.06 in Appendix B for survey results by facility and region). Access for disabled persons should be considered in facility design. Survey results should be integrated into action plans during the next five years on a regional basis. In addition, they should play a strong role in the allocation of LAWCON grant funds.

The sorts of parks and recreation areas that are needed are exemplified by the facilities in the Twin Cities metropolitan area, where both facilities of local and regional significance are developed. Throughout the state, LAWCON communities should seek lands within or near their boundaries and begin investing in their future park space. To facilitate these investments, local grants for recreation should provide incentives to communities that use land exchange to acquire desirable recreation properties. The grant evaluation process also should reward communities that have and enforce a quality recreation land dedication ordinance. The communities participating in the local grant program should make sure that their recreation plans contain options for acquisition and development of major park projects. Where necessary, regional assistance should be provided to help communities identify and acquire land for regionally significant parks. Development of regional parks should be based on the regional responses to the survey of recreation facility demand (Appendix B). In the Twin Cities metro area, these facilities should include campsites, trails and public water accesses. In rural areas of the state the facilities should serve day-users of lakes and provide for land-oriented facilities such as trails for bicycling and walking. Local units of government should consider floodplains as sites for these developments. Areas of persistent flood damage which have recreation potential should be given high priority for recreation acquisition. In addition, local units should develop these areas in keeping with Executive Order 11988 and its criteria for user safety.

The lake-oriented nature of our population calls for continued work to make all public waters accessible to the general public, including disabled people. Local government, with the assistance of DEED and the DNR,

should cooperate in the acquisition and development of public accesses, especially on high-quality fishing and waterfowl lakes with no public access. DEED should ensure that public accesses funded by local grants are open for winter use by ice fishermen. This should include maintaining open parking areas in the winter. The surveys of public need for recreation facilities also show that fishing piers are in the top 10 facilities requested by Minnesotans (Table B-S.03). Local governments should accelerate efforts to acquire and develop shoreline structures for bank fishermen, especially in urban areas and along the North Shore of Lake Superior. Local governments should provide additional swimming beaches at recreation areas and on the shores of urban or nearby lakes.

Issue 7: Staffing the Operations and Maintenance of Outdoor Recreation Areas

Labor is an important ingredient in the provision of public recreation opportunities. Labor plans recreation development and carries out those plans. Labor, particularly field staff, ensures that an attractive, usable recreation product greets the public upon its arrival.

Over the past five years, most recreation programs have proven to be understaffed. For example, a Department of Administration study (Management Study of the Regional and Subregional Structure of the Department of Natural Resources, Department of Administration Management Analysis Division, January 1984) found a shortage of field staff in the DNR Trails and Waterways Unit. This shortage is largely a result of successful development efforts to meet public demand for trails, water accesses and canoe and boating routes.

While there is no doubt that more staff people are needed, just how many more is still in question. The DNR should determine whether more work could be performed by existing DNR employees who are both qualified and stationed near recreation facilities. In addition, the DNR should adjust the annual operations and maintenance schedules for each facility, so they also can be used to identify areas in which DNR staff from other divisions can assume the operations and maintenance workload. Where staff are unavailable, cooperative agreements with other units of government should be developed. If these measures are insufficient

to fill the labor gap, the DNR should request funding for additional staff positions from the legislature.

All state, county and local recreation facility operators should analyze their current operations and staffing, and project the adjustments that will be necessary as recreation habits change, as facilities are developed, and as facilities age. Based on these analyses, the 1989 SCORP should provide plans to reduce costs for the transition of recreation programs from acquisition and development to operations and maintenance. For example, this type of analysis has been done for the Twin Cities Regional Park System as background for future legislative proposals concerning increased operation and maintenance costs. These proposals should be given full consideration and used as a means of addressing the operation and maintenance funding question on a statewide basis.

Issue 8: Financing Our Outdoor Recreation Facilities

Many states use approaches such as entrance fees, licenses and taxes on equipment to raise money for recreation development, acquisition, maintenance and operation. A few states have dedicated broad-based funds. Missouri's tax on nonreturnable beverage containers is an example. Whether a state chooses to concentrate on user fees or broad-based taxes has major implications for the health of the resource legacy the state will leave to its future generations. It also affects the services provided to today's recreationists.

The traditional user fee employed in Minnesota shortchanges both present and future generations. By the time it is the turn of future generations to pay for recreation resource development, many of the resources may be gone. Our prairies and wetlands are prime examples of diminished resources. Forty years ago there were many more wetlands and prairies than could be supported by user fees. The resources that remain many times need expensive rehabilitation. Unless farsighted public managers invest in resources now, our children will have to pay the high tab tomorrow.

Resource utilization is not measured equitably by the present user-fee approach. Those least able to pay are the first to be rationed by user fees if the base entry fees becomes too high. People who make heavy use of resources but do not pay a fee relative to their resource consumption cause an undersupply of recreation resources. Thus, recreation facilities become overcrowded, overhunted and overfished.

For example, early in this chapter intensified and accelerated fish and wildlife management was called for. Without a doubt, meeting these future management needs of the fisheries and wildlife lands will require significant state commitment over and above today's level. Currently the bulk of management funds is provided directly by the hunting and angling public, the purchase of licenses and special stamps. Unfortunately, the buying power of these fees diminishes quickly. Over the last six years inflation has eaten heavily into the dollar.

While buying power is going down, many citizens benefit directly from state management of fisheries and wildlife lands without paying for their benefits. These "free riders" are the nonconsumptive users such as the bird-watchers, the hikers and bikers who observe wildlife and enjoy good water quality. Boaters and swimmers in many of Minnesota's more than 10,000 lakes owe their enjoyment to resource managers who faithfully watch over our lakes and watersheds. Cross-country skiers who stop to watch a herd of white-tailed deer browse among the aspen have that experience because of these managers. Even the metropolitan urbanite who spends a full afternoon at a park reserve watching a hawk circle above a cattail marsh is in debt to the anglers and hunters who maintain the hawk's habitat. These people don't pay user fees. In fact, collecting fees from them would be quite costly, if not impossible. We should remove the full burden of providing the benefits of fish and wildlife management from the backs of the anglers and hunters. We should distribute it more evenly through supplemental broad-based sources of revenue. Some possible sources include special taxes on equipment, lotteries, general funds, and taxes on broad-based commodities. The state should look toward increasing the tobacco tax and extending it to all kinds of tobacco. The private recreation/tourism industry is another beneficiary of public recreation management that pays less than its share. Public recreation areas generally attract large numbers of people, profiting the tourist industry. So many people visit the North Shore of Lake Superior and its state parks, fishing streams and forests, that tourist traffic impedes commercial truck traffic. Resort owners, guides, restaurateurs and merchants in Duluth, Tofte, Hinckley and Grand Marais all benefit from these public resources—the gross income from North Shore tourists is \$24 million annually.

Acquisition and development financed by user fees cannot anticipate demand. Even if today's fee-paying generation were to double its demand for camping, our supply of campsites would not double. It simply takes too much time to design, contract and build a campground. In the private economy, investors provide funds to build resources in anticipation of demand.

Issue 9: Meeting the Needs of Special Populations

A different financing approach relies on broad-based, and often dedicated, funds. Recreation in Minnesota can be financed through general funds, bonding programs, the Legislative Commission on Minnesota Resources' development account or dedicated, broad-based taxes. This approach, an investment approach, ensures resources for future generations. This approach anticipates growing public demand for public recreation and amasses the resources necessary to meet those needs. It is only through a strong investment approach that Minnesota can serve the future. The state should increase existing broad-based revenue sources and use the increase to provide matching funds to fee-based acquisition and development.

The gasoline tax is one user fee that needs adjustment. Part of the gasoline tax is dedicated to recreation development, but research shows that current estimates of the amount of tax revenue collected through recreational use are probably low. Thus, current recreational users of gasoline are being shortchanged, because an unfair portion of their taxes is going to support our highway program. The Departments of Transportation, Revenue and Natural Resources should continue to revise and update studies that determine the amount of gasoline tax generated through the recreational use of snowmobiles, off-road vehicles and motorboats. The legislature should use the results of these studies to adjust appropriations so that they fairly reflect the contributions of various groups.

In addition there are shortages as well as surpluses of needed public recreation land. The shortages generally occur close to population concentrations and thus are more expensive than surplus land. For the land-buying fund to address the shortages, revenues from surplus-land sales should be supplemented by other sources.

Lastly, our financing of resources should place a strong emphasis on the incentive system. Matching funds provided for recreation development by the LCMR Local Grant Program and the Land and Water Conservation Fund attract investment and should continue to be supported. Matching-fund programs should be expanded into other areas, for example, the fishing license surcharge. A portion of that revenue should be set aside to match county and city efforts to develop shoreline fishing areas (piers and docks), aeration equipment and lake improvement measures.

Our nation is made up of people from many different national origins. Many of us also have limited physical abilities because of age or physical make-up. These special populations are entitled to recreation opportunities. It is the responsibility of recreation providers to ensure that recreation opportunities are available to all.

Minorities—Asians, Blacks, Chicanos and American Indians—tend to live in larger population centers such as the seven-county Twin Cities metropolitan area and Duluth, on reservations, and in farm communities where migrant workers are employed during the agricultural planting and harvest seasons. The largest population of minorities (approximately 72 percent of the state total) lives in the seven-county Twin Cities metropolitan area (Fig. 5-S.01). Minorities also tend to live in proximity to one another; many have established their own communities of national origin.

Greater efforts are needed in providing recreation opportunities to minorities in the seven-county metropolitan area. Many minorities are not aware of the available facilities and opportunities. Recreation providers must improve information dissemination to minority communities on such facilities as the Minnesota Valley Wildlife Area, Fort Snelling State Park, William O'Brien State Park, and the Hennepin County Park Reserve District. Low-cost public transportation to these facilities should be provided by government agencies where the need exists.

In addition, information is needed on recreation interests of minority communities. For example, in the last few years a large number of Asians have arrived in Minnesota. Their recreation interests may differ widely from those of other ethnic groups. Another group with special needs is the Hispanic community in southern Minnesota, most of whom are migrant workers. Government agencies should survey the needs of these special groups and make a concerted effort to meet their needs.

Older Minnesotans are not concentrated in a few areas but live in all communities in our state. Their need for recreation does not end when they become "senior citizens." Recreation programs for the elderly should be implemented by all levels of government, particularly by local government, which is closest to this special population.

Both the public and private sectors have made great

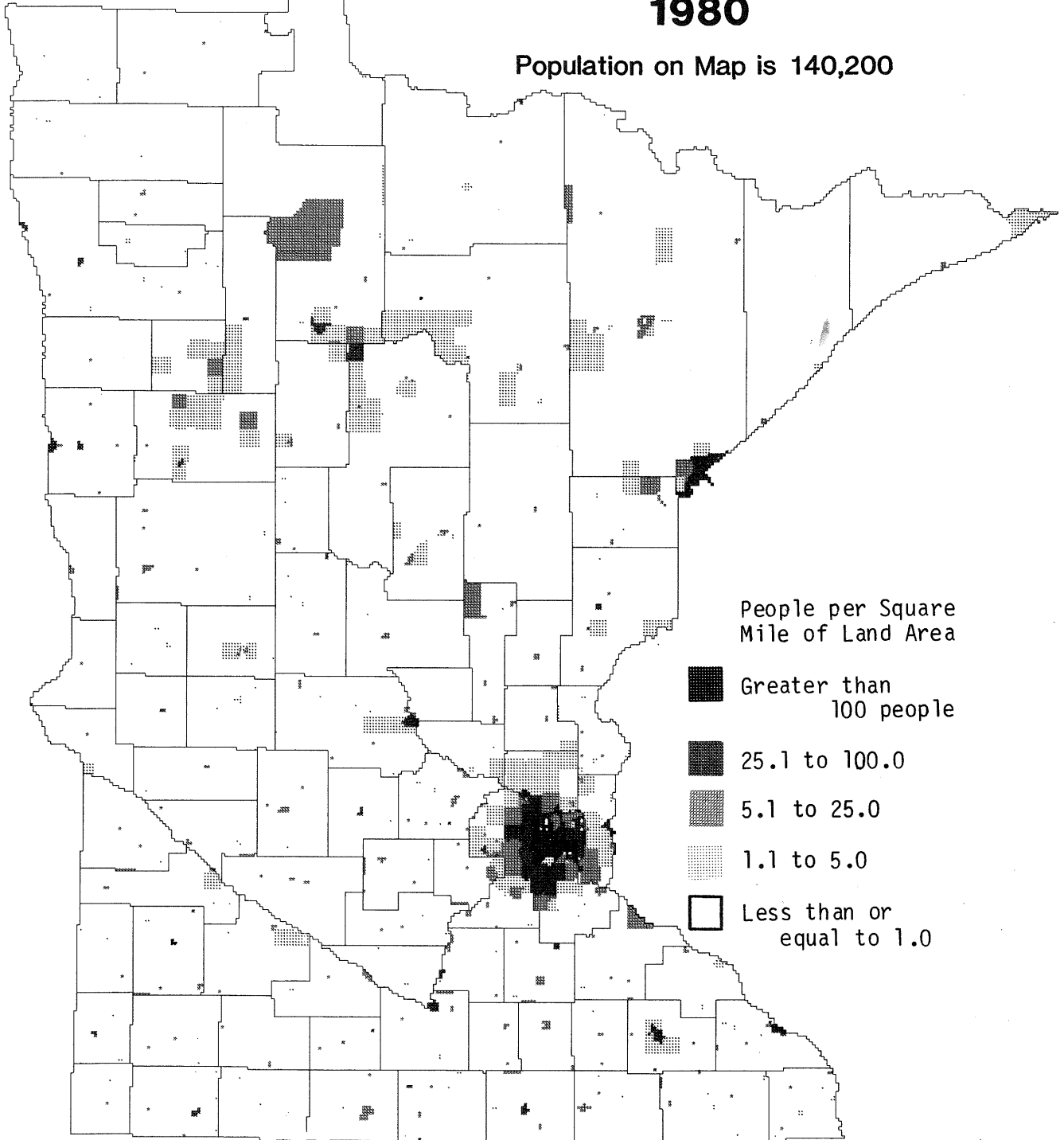
strides in removing physical barriers at recreation facilities; for example, paved trails in state parks suitable for persons in wheelchairs or with limited mobility. Still, much remains to be accomplished. Units of government, especially the local units, can concentrate their investments at sites served by public transportation.

Under the federal LAWCON regulations it is the responsibility of grant recipients to ensure opportunity for and safety of all special populations. Noncompliance with federal guidelines can result in forfeiture of LAWCON dollars.

Figure 5-S.01

MINORITY POPULATION DENSITY, 1980

Population on Map is 140,200



SOURCE: U.S. Department of Commerce, Bureau of the Census. 1981. 1980 Census of Population and Housing.

