

A Cooperative Program
For Providing
Public Access Sites on Metropolitan Area Lakes

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Department of Natural Resources
State Planning Agency

A COOPERATIVE PROGRAM FOR PROVIDING
PUBLIC ACCESS SITES ON METROPOLITAN AREA LAKES

I. BACKGROUND

The popularity of Minnesota lakes and the affinity that Minnesotans have for water-based recreation is borne out by statistics. Currently, Minnesota ranks third in the nation with over 541,000 licensed boats in the state. In 1977, over 1,000,000 resident fishing licenses were sold and Minnesota ranked first in the nation in the sale of non-resident fishing licenses. In addition, thousands of other citizens are drawn to the water for picnics, swimming or other non-licensed forms of outdoor recreation.

The state is fortunate in having its water resources fairly well distributed. Although the various "lake districts" in central and northern Minnesota often receive the greatest notoriety, most citizens live fairly close to lakes and streams which provide a diversity of high quality recreation. This is certainly true in the seven county metropolitan area where roughly one-half of the state's population lives within a short travel distance of lakes and rivers that provide over 81,000 acres of water surface. There are over 100 lakes ranging in size from 100 acres to over 14,000 acres at Lake Minnetonka, the state's 10th largest inland lake. There are another 100 plus lakes under 100 acres in size.

Metro area lakes represent an enormous recreational potential which has not been fully realized. We can speculate that this has been due partly to the drawing power of out-state lakes and partly because of the lack of public access to many metro area lakes. The energy situation could result in metro residents depending more and more on metro area lakes in the future. If this happens, the demand could result in serious safety, recreational and water quality problems. Of all registered boats in the state, 367,113 or 67.8% are registered to residents of the seven county metro area. Metro area users and their diverse recreation interests must be served in a manner which retains the quality of the lakes while maintaining a high quality recreational experience.

In recent years, access to metro area lakes has received increased attention from a number of public agencies. The acquisition and development of public access sites has been given high priority in the State Comprehensive Outdoor Recreation Plan (SCORP). Both the Department of Natural Resources and the State Planning Agency have given priority to municipal and county grant applications for acquiring and developing access sites in the metro area. In fact, over half of the projects funded since 1965 with Federal Land and Water Conservation Funds (LAWCON) and State Natural Resources Acceleration Funds have been water related.

In 1974, the Metropolitan Council adopted a Regional Recreation Open Space System which was based on acquiring and developing large (200+ acres) tracts of land adjoining the water bodies and water courses of the Region which were likely "because of their natural environment character and development to offer recreational opportunities that attract large numbers of people irrespective of political boundaries."

Regional park and park reserve locations have been determined, to a great degree, by the availability of large land tracts riparian to waters capable of providing outdoor recreation opportunities such as swimming, boating, picnicking, trails, camping, and fishing. Of the 56 regional parks and park reserves proposed in the system, all but three provide access to water resources. Of the 32 regional park and park reserves acquired as of January 1, 1979, 26 are located on a major lake or river. Sixteen of these parks and park reserves have access facilities existing today.

The DNR was authorized by law in 1947 (amended 1976) to purchase and manage water access sites. Traditionally, DNR's approach was to acquire these sites and manage them as individual units primarily on out-state lakes. In the metro area, the role of DNR can be one of cooperation with the local units of government to obtain, develop and manage the water access sites. The Department of Natural Resources has placed a higher priority on becoming an active partner with other levels of government in acquiring and developing metro access sites.

Despite these positive efforts, the problem of inadequate access remains. Currently, 60 of the 95 metro area lakes over 100 acres in size and 10 feet deep have inadequate access. Land costs continue to rise and opportunities for site acquisition are becoming fewer.

Against this backdrop, staff from the Metropolitan Council, Department of Natural Resources and State Planning Agency, with encouragement from the Legislative Commission on Minnesota Resources, formed a Task Force to develop a strategy for improving access to metro area lakes. This paper outlines that strategy which deals with the basic issues of lake priorities, responsibilities for public management of access sites and water bodies, financing and program coordination. For purposes of this paper, the term "access site" means a site which provides facilities for launching boats.

II. RANKING METRO AREA LAKES BY PHYSICAL CHARACTERISTICS

A. Physical Characteristics of Metro Area Lakes

In developing a strategy for providing public access to lakes in the metro area, the Task Force considered the physical characteristics of the lakes to be an important factor in influencing the type and amount of recreational use a lake or access site will receive.

The physical characteristics of metro lakes have been defined in 3 ways:

1. size and shape;
2. fish type; and
3. water clarity.

1. The size and shape of a lake is a good indicator of the type and amount of recreation a lake can provide. For example, large, wide lakes provide more open water for powerboating than do lakes which are large and narrow or medium in size.

Categories of lake sizes and shapes are:

- a) extra large, over 500 acres and 10 feet deep;
 - b) wide, large, 200-500 acres and 10 feet deep;
 - c) narrow, large, 200-500 acres and 10 feet deep;
 - d) medium, 100-200 acres and 10 feet deep.
2. The fish type indicates the type of fish found in a lake and, to some extent, the ability of the lake to sustain a fish population. Active fisheries management can change both the type of species (roughfish control) and the size of the fish population (stocking). Some winterkill lakes can be "saved" by installing artificial aeration systems. Fish type lakes are:
- a. gamefish-most desirable
 - b. gamefish/roughfish
 - c. winterkill-least desirable
3. Water clarity is an indication of lake suitability for water sports requiring body emersion such as swimming, water skiing and scuba diving. A lake's water clarity can be improved through management programs.

<u>Lakes are classed as:</u>	<u>Depth of Secchi Disc Reading</u>	<u>Depth to which Rooted Aquatic Plants Grow</u>
a) very clear	10 feet and greater	20 feet and greater
b) clear	6-10 feet	12-20 feet
c) intermediate	2-6 feet	4-12 feet
d) turbid	2 feet and less	4 feet and less

B. Lake Rankings

Each of the 95 metro area lakes over 100 acres in size and over 10 feet in depth were ranked using the characteristics of size/shape, fish type and water clarity. Based on their scores, the lakes were placed in one of four groups as shown in Table A. Remember that lakes were ranked according to their current characteristics and that some characteristics can be changed through management. Lakes were also evaluated as to the adequacy of current access. This information is also shown on Table A.

Group One lakes ranked high in all three characteristics. The six lakes in Group One are extra large in size, have clear water and good gamefish populations. Their characteristics make them highly desirable for recreation. Since none of these lakes have adequate access currently, they are key candidates for future access site development.

Group Two lakes ranked high in two of the three characteristics. Group Two lakes are more diverse than Group One lakes. For example, Forest Lake is large with a good gamefish population, but has lower water quality. Little Long Lake, on the other hand, has good fishing and very clear water, but is smaller in size. Of the 28 lakes in this class, 13 have adequate access and 15 have inadequate access.

TABLE A
RANKINGS OF METRO AREA LAKES

NOTE: This Table shows the rankings of 95 metro area Lakes over 100 acres in size and over 10 feet in depth using the characteristics of:
a) size/shape; b) fish type; and c) water clarity.

The Table also shows the adequacy of current access utilizing the 1977 Department of Natural Resources Public Access Survey and current access information. Access was deemed adequate if the site:

- a. provided access for one trailered boat per 20 acres of water surface;
- b. was publicly owned; and
- c. had no discriminatory fees.

KEY: + adequate access
- inadequate access/no access

A - Anoka	R - Ramsey
C - Carver	S - Scott
D - Dakota	W - Washington
H - Hennepin	

1. GROUP ONE LAKES (high in three characteristics)

<u>Lakes</u>	<u>Adequacy of Current Access</u>	<u>Lakes</u>	<u>Adequacy of Current Access</u>
Big Marine (W)	-	St. Croix (W)	-
Minnetonka (H)	-	White Bear (W/R)	-
Minnewashta (C)	-		
Prior (S)	-		

2. GROUP TWO LAKES (high in two characteristics)

<u>Lakes</u>	<u>Adequacy of Current Access</u>	<u>Lakes</u>	<u>Adequacy of Current Access</u>
Bald Eagle (R)	-	Johanna (R)	+
Bavaria (C)	+	Linwood (A)	-
Big Carnelian (W)	-	Little Long (H)	-
Bush (H)	+	Medicine (H)	-
Calhoun (H)	+	Piersons (C)	+
Cedar (H)	+	Sarah (H)	-
Christmas (C/H)	-	Snail (R)	+
Eagle (H)	-	Spring (S)	+
East Twin (A)	+	Square (W)	+
Elmo (W)	-	Turtle (R)	-
Forest (W)	-	Waconia (C)	-
George (A)	-	Weaver (H)	+
Harriet (H)	+	Zumbra (C)	+
Island (A)	-		
Jane (W)	-		

TABLE A continued

3. GROUP THREE LAKES (high in one characteristic)

<u>Lakes</u>	<u>Adequacy of Current Access</u>	<u>Lakes</u>	<u>Adequacy of Current Access</u>
Bryant (H)	-	Marion (D)	+
Byllesby (D)	-	Orchard (D)	-
Cedar (S)	-	Otter (R)	-
Coon (A)	+	Owasso (R)	+
Crystal (D)	+	Phalen (R)	+
Gervais (R)	+	Pleasant (R)	-
Ham (A)	+	Randeau (A)	-
Hydes (C)	+	Rebecca (H)	+
Independence (H)	+	Schutz (C)	-
Lake of the Isles (H)	+	Steiger (C)	+
		Vadnais (R)	-
		Whaletail (H)	+

4. GROUP FOUR LAKES (not high in any one characteristic)

<u>Lakes</u>	<u>Adequacy of Current Access</u>	<u>Lakes</u>	<u>Adequacy of Current Access</u>
Ann (C)	-	Martin (A)	+
Auburn (C)	-	McMahon (S)	+
Bass (H)	-	Miller (C)	-
Bone (W)	-	Mitchell (H)	-
Burandt (C)	-	Netta (A)	-
Centerville (A)	-	Nokomis (H)	+
Clear (W)	-	O'Dowd (S)	+
Crooked (A)	-	Olson (W)	-
DeMontreville (W)	-	Parley (C)	+
Dutch (H)	-	Peltier (A)	-
Eagle (C)	-	Pine Tree (W)	-
Fish (H)	-	Reitz (C)	+
Fish (S)	+	Riley (H)	-
Glen (H)	-	Starring (H)	+
Josephine (R)	-	Sunset (W)	-
Langdon (H)	-	Thole (S)	-
Long (H)	-	Twin (Upper)(H)	-
Long (R)	-	Virginia (C)	-
Lotus (C)	-	Wasserman (C)	+
Lucy (C)	-		

Group Three lakes ranked high in only one resource characteristic. They are also diverse in nature and contain many lakes that could move to Group One or Two with intensive management. Of the 22 lakes in Group Three, 9 have inadequate access.

Group Four lakes range in size from 100 to 500 acres, but rank lower than others in water clarity and fishtype. However, many of these lakes currently provide water-based recreational experiences and all are capable of providing such experiences. With proper management, these lakes could become Group Two or Group Three lakes.

III. IMPLEMENTING THE METRO AREA LAKE ACCESS PROGRAM

A. Priorities and Responsibilities for Public Access Acquisition

In determining priorities for access site acquisition and development on metro area lakes, the Task Force combined the results of the lake ranking procedure and the current adequacy of lake access. The priorities closely follow the groupings in Part II of this paper. The largest and cleanest lakes with the best fishing generally have the highest priority for access development. These priorities are listed in Table B.

The Task Force also felt it important to indicate the public agency that would have lead responsibility for insuring access on various lakes. The lead agency's role was determined on the basis of legal authority, location of and responsibility for other existing or proposed recreation facilities that would complement access to a given lake, financial resources and the level of significance that a lake resource has for recreation. The lead agency shall have the primary responsibility for all access site acquisition and development on a given lake and for assuring that various interests are considered and best served.

B. Overall Project Coordination Responsibility

The Task Force feels that one public agency ought to have the responsibility for overall coordination of the metro lake access program. After reviewing various possibilities, the Task Force recommends that this responsibility be assumed by the Metropolitan Council.

The state, through DNR, is responsible for setting statewide policy relating to public water management. The Metropolitan Council's role is to incorporate state policy into the Regional Recreation Open Space Plan and to coordinate its implementation at the regional and local service levels. The Metropolitan Parks and Open Space Commission has been established by law to advise the Metropolitan Council on parks and open space matters in the Metropolitan Area. Therefore, the Commission, together with the Metropolitan Council's Parks and Open Space Staff, has current responsibility for coordinating regional and local access site activities in the metropolitan area.

TABLE B
PRIORITIES AND LEAD RESPONSIBILITY FOR PUBLIC ACCESS ACQUISITION

	<u>Lead Agency Responsibility</u>	<u>DNR</u>	<u>Metro</u>	<u>Local/DNR</u>
1. First Priority Lakes				
Big Marine (W)			X	
Minnetonka (H)			X	
Minnewashta (C)			X	
Prior (S)		X		
St. Croix (W)		X		
White Bear (R)		X		
2. Second Priority Lakes				
Bald Eagle (R)			X	
Big Carnelian (W)		X		
Christmas (C)		X		
Eagle (H)			X	
Elmo (W)			X	
Forest (W)		X		
George (A)			X	
Island (A)			X	
Jane (W)				X
Linwood (A)			X	
Little Long (H)				X
Medicine (H)			X	
Sarah (H)			X	
Turtle (R)		X		
Waconia (C)			X	
3. Third Priority Lakes				
Bryant (H)			X	
Byllesby (D)			X	
Cedar (S)			X	
Orchard (D)				X
Otter (R)			X	
Pleasant (R)		X		
Randeau (A)			X	
Schutz (C)			X	
Vadnais (R)			X	

TABLE B continued

	<u>Lead Agency Responsibility</u>		
	<u>DNR</u>	<u>Metro</u>	<u>Local/DNR</u>
4. Fourth Priority Lakes			
Ann (C)			X
Auburn (C)		X	
Bass (H)			X
Bone (W)			X
Burandt (C)			X
Centerville (A)		X	
Clear (W)			X
Crooked (A)			X
Demontreville (W)			X
Dutch (H)			X
Eagle (C)		X	
Fish (H)		X	
Glen (H)			X
Josephine (R)			X
Langdon (H)			X
Long (H)			X
Long (R)		X	
Lotus (C)			X
Lucy (C)			X
Miller (C)			X
Mitchell (H)			X
Netta (A)			X
Olson (W)			X
Peltier (A)		X	
Pine Tree (W)			X
Riley (H)		X	
Sunset (W)			X
Thole (S)			X
Twin (Upper)(H)			X
Virginia (C)			X

NOTE: Priorities listed above deal exclusively with the 95 metro area lakes over 100 acres in size and 10 feet in depth. The Task Force has given these lakes the highest priority because it believes that they provide the greatest recreational potential. The Task Force recognizes that rivers and smaller lakes in the metro area also need to be considered for access. A companion paper will be prepared dealing with access to rivers and streams. The Task Force will also prepare a formal procedure for evaluating and acting on opportunities for access site acquisition and development on smaller lakes.

Through the Metropolitan Land Planning Act, the Metropolitan Council will receive local comprehensive plans from all counties, cities and townships. These plans will include sections dealing with parks and recreation, including the Capital Improvement Program. This information will enable the Council to coordinate local government water access activity with what is being done through the Regional Recreation Open Space System and by DNR.

The Task Force recommends the following procedure for program coordination:

1. In October of each year, the Parks and Open Space staff will analyze the status of water access in the Metropolitan Area. They will confer with DNR and SPA as to changing conditions of existing accesses including extent of use, need for additional access within the priority lake groups, progress in implementing the agency/department program in the preceding year, and agency/department programs proposed for the succeeding year. A summary report will be prepared for distribution to SPA, DNR, LCMR, and review by the Metropolitan Parks and Open Space Commission and Metropolitan Council. The report will include conclusions and recommendations as to the consistency and priority of each program with the Regional Recreation Open Space policy and system plan and the State Comprehensive Outdoor Recreation Plan. In addition, the report will include a relative priority ranking for all projects proposed for the succeeding year so as to integrate the activities of the various agencies into a coordinated program.
2. Any disagreement between agencies as to program, priority, etc. shall be identified at this time and resolved prior to agency action to implement. Once acted on by the Metropolitan Council the agencies will proceed to implementation. If, during any annual program, one of the agencies sees a need to amend or modify the program, they will first submit the proposed change to the Metropolitan Parks and Open Space Commission and the Metropolitan Council for review.
3. On-going coordination will also be accomplished through Metropolitan Council review of applications for LAWCON/LCMR funds administered by SPA. This process will provide for Commission and Council input as to site specific implementation.
4. State Planning Agency and the Metropolitan Council will encourage park grant applications from local units of government which provide access to those lakes for which local government has lead agency responsibility (see Table B). When the Metropolitan Council reviews and ranks these applications, the Council will note which applications are receiving priority because they provide public access. When making its recommendations to SPA, the Council will specify those applications in which the provision of access is essential for funding. The SPA will apply the terms of this document when acting on these applications.

5. Each agency will advise the other two when action is taken to facilitate timely communications regarding actual acquisition or development of access sites.

C. Associated Management Issues

The wise management of public access sites and the lakes on which they are located is key to the success of a metro area access program. While the primary goal of this program may be to provide access to metro area lakes, it is equally important to emphasize the proper management of access sites and lakes to assure a safe, high quality recreational experience. Access sites will place additional demands on metro lakes and conflicts will result unless the proper steps are taken.

Public management issues considered important by the Task Force include:

1. The type of facilities provided at or in conjunction with the access site such as type of ramp and size of parking lot;
2. Regulations governing the use of the launch site including launch fees and hours of operation;
3. Regulations governing the use of the lake including restricted time for particular uses, mandatory traffic patterns and restrictions on size of boat or motor;
4. Quality of access site maintenance including garbage pickup, mowing, patrolling, etc.;
5. Fisheries management programs for the lake;
6. Maintenance or improvement of water quality.

The Task Force feels strongly that the success of a public access program for metro area lakes will depend on the degree to which these public management programs are implemented and coordinated.

1. Access Site Facilities

The range of facilities provided at or in conjunction with the public access sites on metro area lakes will vary considerably. Some access sites will be "free-standing" offering no more than a ramp and parking area. Others will be developed in conjunction with local, regional and state parks where the visitor will find a broad variety of facilities. Generally, those sites offering recreational diversity on large lakes will have the greatest drawing power and present the greatest challenge for management agencies.

The type of facilities to be provided at each access site will be determined by various public agencies and should reflect the lake's recreational potential, the level of service provided at other recreation sites on the lake and on the size, topography and other physical characteristics of the access site itself.

2. Launch Site Regulations.

Currently, local government has the prerogative of regulating the use of public access sites as they see fit. Some localities charge launching fees that discriminate against non-residents or close the launch site (often within a park) at prime fishing times. In other cases, municipalities may restrict the size of the boat or horsepower of the motor that can be launched from an access site when there are no size or horsepower restrictions placed on the boats and motors of lakeshore property owners. More restrictions are likely to occur unless there is an organized approach to limit restrictions to those absolutely necessary to protect the quality of the lake and provide for the safety of the user.

Currently, DNR operates under a law which authorizes the Commissioner to acquire access to any public water not served by free and indiscriminate access. The DNR administered public access sites are open 24 hours a day without launching fees.

The Task Force recommends that the three member agencies adopt the following standards which would become mandatory for all projects using state or federal funds. Local governments should be encouraged to follow these standards when operating public access sites which were not acquired and developed with state or federal funds.

Priority one, two, three and four lakes.

- a. Open at least 18 hours a day between 4 a.m. and 12 midnight.
- b. No fees charged for launching any craft.
- c. Where an access is provided within a park, uniform fees shall be charged all users, regardless of residence.
- d. No special regulations that do not apply equally to the riparian boater.

The Task Force recommends that DNR monitor all access sites in the metro area. In the event the above standards are not adhered to, DNR shall notify the appropriate grants agency (SPA or Metropolitan Council) so that corrective action may be taken.

3. Water Surface Regulations

Currently the power to regulate the use of a lake's water surface rests with the municipality within which the lake lies. If a lake spans two municipalities, the responsibility rests with the county. While many metro area lakes currently receive levels of use that create undesirable conditions, few municipalities have enacted surface regulations because of the potential political ramifications. Usually, lakeshore owners have used the lake in an unrestricted manner and feel that their rights as property owners transcend the rights of the general public who use an access site. Consequently, restrictions sometimes have the effect of controlling the public boater for the convenience of the lakeshore owner.

The lack of restrictions may also result in discrimination against certain users. Currently about 3/4 of the licensed boats in Minnesota have motors smaller than 20 horsepower or are non-motor powered.

In the metro area where many lakes are heavily developed and opportunities for acquiring access are scarce, there may be a temptation to buy anything that's available. While the goal of a metro access program is to provide as much access as possible, there is a minimum level of facilities that must be provided in order to effectively accommodate the intended use of the access site and minimize conflicts with other lake users.

Good boat launching access sites contain a roadway, turn-around, launching ramp, parking area and, in residential areas, a buffer zone to screen the access from adjacent property. The Task Force has developed guidelines for each of these facilities and recommends that they be adopted and used by the member agencies in evaluating, funding and developing future access sites.

The Task Force chose guidelines, as opposed to mandatory standards, because of the need for flexibility in dealing with so many different access site situations. The Task Force recommends that the three agencies designate staff representatives to meet on short notice to review and recommend action on sites which do not conform to these guidelines.

a. Guidelines for access features:

Access Feature	Development Guidelines
1. Parking space for vehicle with trailer	-One space for each 20 acres of lake surface -750 square feet (15' x 50') where parking spaces are unmarked -500 square feet (10' x 50') where parking spaces are marked
2. Boat launch ramp	-Each ramp 13 feet wide -Not more than 20 parking spaces per ramp -Maximum of 4 ramps per access site -Water depth of 2 feet within 20 feet of lake shore
3. Turn-around	-Dimensions - 15' x 50'
4. Roadway	-22 feet wide for two-way traffic -11 feet wide for one-way traffic
5. Buffer zone	-700 square feet per parking space (exclusive of parking space, ramp, turn-around and roadway) for purpose of screening access from residential development

- b. Access site development should not result in major negative environmental impacts. On some lakes, access opportunities may be limited to properties which are low and wet, steep or have other characteristics that make them difficult to develop. Public agencies should try to acquire accesses which do not require excessive dredging, filling, and other shoreland modifications or roadway cuts and fills which may result in erosion or be visually unattractive.

4. Access Site Maintenance

The anticipated heavy use of metro area public access sites and their close proximity to residential areas makes the operation and maintenance of access sites an important consideration. Local support for access sites will depend largely on the degree to which lakeshore property owners feel protected from adverse effects resulting from the access. Site maintenance and the enforcement of regulations are two of the most important considerations for riparian owners and access site users alike.

A coordinated, multi-agency approach to maintenance is required in order to take advantage of the operation capabilities of each of the parties. Financing operations and maintenance costs will be principally the responsibility of the DNR to the extent funds are available and the priority as determined by the DNR and the Met Council as part of the annual program. In most cases, DNR will contract for services with local units of government to actually do the work. In some cases, local governments other than regional park implementing agencies may be responsible for carrying out the operation and maintenance duties.

5. Fisheries Management

Fishing is one of the most popular recreational activities on metro area lakes. An increasing urban population, in tandem with high fuel costs associated with fishing outstate, could combine to exert fishing pressures beyond the natural reproductive capability of area lakes.

The DNR has responsibility for managing fish populations in public waters of the state. Within the seven county metropolitan region there are approximately 200 potential fishing lakes. These lakes along with portions of the Mississippi, Minnesota and St. Croix rivers provide 81,000 acres of public water open space which are the primary fishing and boating waters of the region. With an annual budget of \$230,000, DNR conducts various fish management activities on metro lakes. Fisher lake surveys are conducted at regular intervals. These surveys provide physical, chemical, and biological information on lakes and their fish populations which serve as a basis for assessing changes in water quality, implementing various fish management activities, and determining the status of fish populations. Water recreation use surveys are conducted and used to measure fishing and boating use, as well as the impact of various fisheries and other water management projects. In addition to protecting the natural resource, fisheries managers can also manipulate fish populations within lakes by stocking fish, removing roughfish, rehabilitating lakes by using fish toxicants and authorizing the installation of winter aeration systems. Intensive fish management efforts directed at problem waters can improve fishing recreation and, because of improved water quality, other forms of boating and water recreation uses are often improved as well.

Without surface use management, the 25% of boats having larger motors can "consume" the entire lake surface. In fact, the present policy of non-management results in the 25% accounting for 3/4 of public access use. The greater space consumption of boats with large motors results in lower capacity on a lake. The effect is discrimination against those using small boats such as fishermen and canoeists, resulting in lower use and reduced public benefit.

Metro area lakes will be used heavily enough to result in a certain amount of self-imposed user rationing. This results from the user's perception of overcrowded and, thus, unsafe boating conditions which prompt him to boat elsewhere or at another time. This dramatizes the point that metro lakes will function as a system whereby a change in use on one lake will have an impact on the use of others.

Because of the heavy use expected on most metro area lakes, the Task Force feels that public agencies cannot depend solely on the judgment of the user. We recommend that local units adopt reasonable surface regulations which optimize conditions for promoting public safety, providing high quality recreation for the greatest number of users, and protecting the lake resource. The Department of Natural Resources has statutory authority to work with local governments in designing and enforcing water surface regulations. The DNR is directed by law to promulgate model ordinances for the management of surface use. The Task Force urges the Commissioner to fulfill this directive and actively promote the local adoption of appropriate management techniques for metro area lakes. The DNR and local governments should base their approach on:

- a. The physical characteristics of the lake;
- b. Levels of current use and the additional pressure created by a public access site;
- c. Surface use management techniques preferred by both resident and non-resident users; and
- d. User impacts on other lakes created by the management techniques.

The DNR's model ordinance should provide guidelines to local government covering a range of management approaches including:

- a. Zoning parts of the lake surface for different uses;
- b. Zoning the lake surface for particular uses at particular hours of the day or days of the week;
- c. Limiting motor size or type;
- d. Limiting speed;
- e. Limiting the type and size of watercraft including the consideration of eliminating all boats with motors on certain lakes; and
- f. Establishing mandatory traffic circulation patterns.

The ranking system used to prioritize the 95 lakes covered by this paper used fish type as one criterion. The Task Force recommends that DNR adopt a fisheries management strategy for maintaining a high quality fisheries resource in metro lakes. Generally, the strategy should seek to distribute fishing pressure within the metro lake system by:

- a. Maintaining the fishery in lakes currently served by public access;
- b. Improving the fishery on gamefish lakes where access sites are developed when necessary to offset additional fishing pressure; and
- c. Suggesting steps for implementation by public agencies to minimize the biological disruption from recreational uses on lakes having a particularly high quality fishery.

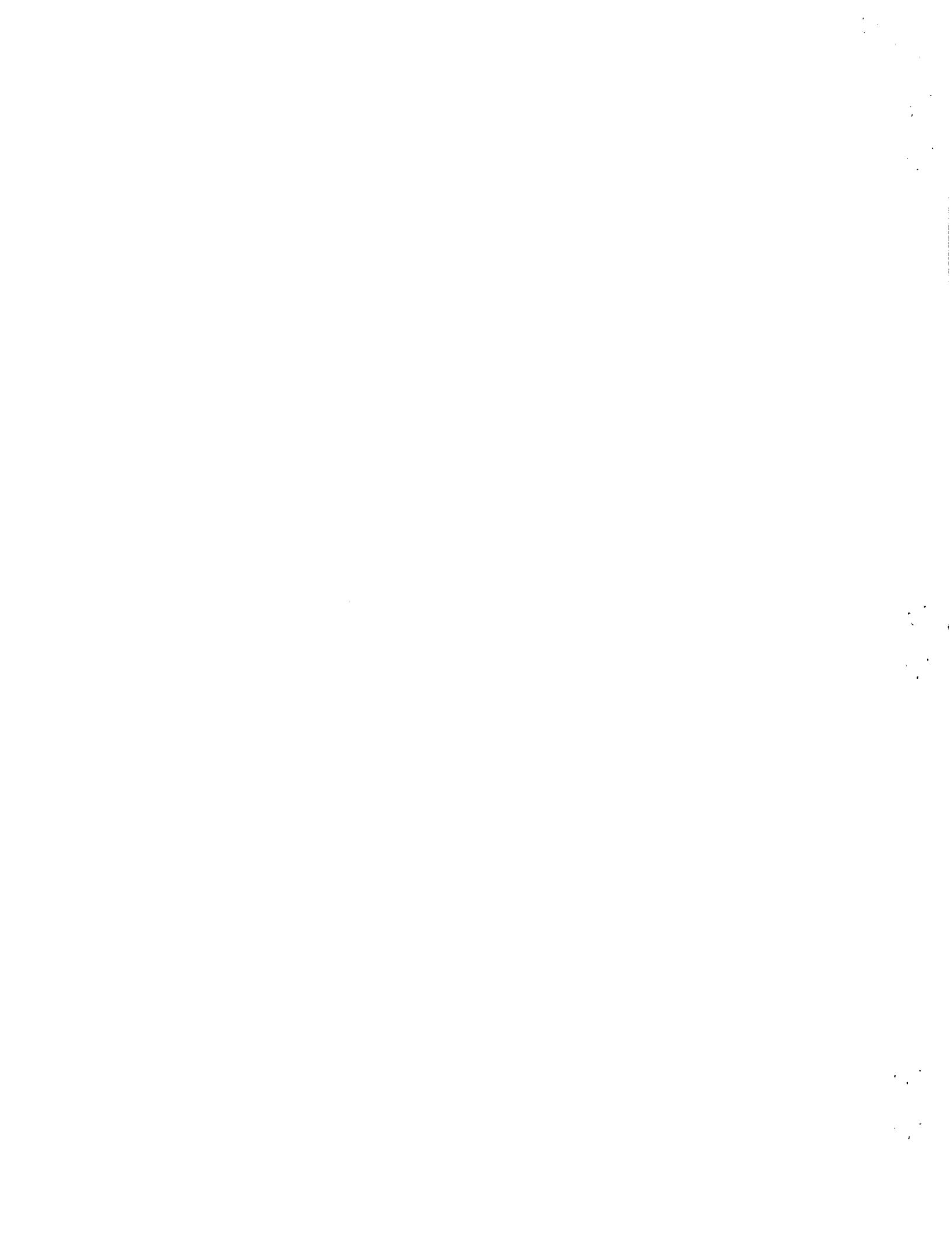
6. Water Quality Maintenance

Twin Cities lakes provide a recreational resource unique among major metropolitan areas. Because of their location, all metro area lake basins are susceptible to development. Many basins are more or less completely developed while others are in various stages of development. Urban development brings the threat of decreased water quality from soil erosion during construction, urban runoff rich in nutrients, gas, oil and other pollutants and in some cases, sewage. In addition, the use of lakes and attendant recreational facilities can contribute to a decrease in water quality through pollution, erosion, and turbidity. Public agencies should use their respective legal authorities to assure that urban development and uncontrolled recreational use do not destroy or impair the quality of the lakes.

All municipalities are required by the Metropolitan Land Planning Act to incorporate water quality protection measures into their comprehensive plans. These plans are subject to Metropolitan Council review for consistency with the Water Resource Policy Plan. In addition, municipalities are required to prepare shoreland ordinances consistent with the Shoreland Management Act and accompanying rules and regulations (NR 82) promulgated in 1976 by the DNR. The Shoreland Act requires DNR review and approval of municipal ordinances and the department should assure that water quality protection measures are incorporated and enforced.

The water quality of metro area lakes should be monitored by appropriate agencies on a regular basis. State permit standards should be reviewed and, if necessary, revised to provide a level of protection commensurate with the public value of metro area lakes. Violators of water quality standards and permit provisions should be promptly prosecuted.

This section has intended to show that a public access program for metro area lakes involves more than the acquisition and development of an access site. There are a number of very important public management issues that must receive attention if the program is to succeed. Some of these issues, such as water surface zoning, will be controversial. But unless these issues are addressed head on, the lake resource we enjoy today may be ruined and made unsafe by the demands of an increasing population.



D. Financing

Acquisition and development of water access sites should be financed primarily out of funds generated from a statewide base. The DNR has requested \$1,000,000 through the LCMR Resource 2000 Program for financing the statewide public access program. The Metropolitan Council has requested from the 1979 Legislature \$600,000 of state bond funds to acquire and develop special recreation use water access sites in the metropolitan area.

Funding for acquisition and development of access sites by local government will be assisted by 50% federal LAWCON and 25% state LCMR funding through SPA. The remaining 25% will come from local revenue sources.

Operation and maintenance costs will be shared between the state (through DNR) and local units of government. The DNR will make annual payments for services to the extent funds are available.

The Metropolitan Council will, in its annual report (as provided for in Section III.B. of this Program), review available funding sources and identify major initiatives needed to provide the financial base necessary to accomplish the annual program. The Metropolitan Council will also forecast the costs of implementing the water access system on a long-term basis, both in terms of acquisition and development and operations and maintenance.