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

Revised Edition—December 1983

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

(Revised Edition - December 1983)

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I. INTRODUCTION

In 1978 the Legislative Commission on Minnesota Resources (LCMR) considered the issue of providing adequate access to Minnesota lakes and rivers. One recommendation from the Commission was to coordinate efforts of all public agencies which were providing funding, technical assistance and management of public water access sites. (The term "public access" as used in this report means a site which provides facilities for launching trailered boats into the water.) Staff from the Minnesota Department of Natural Resources, State Planning Agency* and the Metropolitan Council established the Metropolitan Water Access Task Force to implement LCMR recommendations in the metropolitan area. A planning document entitled "A Cooperative Program for Providing Public Access Sites on Metropolitan Area Lakes" was adopted by all three agencies in May, 1979. This report is a revised-updated version of that document. Changes made reflect experience gained in five years of implementing the program. A companion report on the status of river access in the metropolitan area is still in the planning stages.

II. BACKGROUND

The popularity of Minnesota lakes and the affinity that Minnesotans have for water-based recreation is borne out by statistics. Currently, Minnesota ranks second in the nation (behind Michigan) with more than 593,400 registered recreational boats in the state. In 1980, approximately 1.1 million--one out of every four residents--purchased a fishing license. An additional 375,000 non-state resident fishing licenses were purchased that year as well, ranking the state first in the sale of non-resident licenses. Also, thousands of people are drawn to the state's lakes and rivers for picnics, swimming and other forms of outdoor recreation.

Minnesota is fortunate in having its water resources well distributed. Most citizens live fairly close to lakes or streams which provide a diversity of high quality recreation opportunities. This is certainly true in the seven county Twin Cities area where roughly one-half of the state's population lives within a short travel distance of 81,000 acres of prime recreation water. There are about 100 lakes in the region which are 100 acres or more in size, the largest being Lake Minnetonka, the state's tenth largest inland lake with more than 14,000 acres.

* In May, 1981, the State Planning Agency was combined with three other state agencies to form the Department of Energy, Planning and Development (DEPD). In June, 1983, the Department of Energy and Economic Development was formed to replace DEPD. A new State Planning Agency was also created, but the Parks and Recreation Grant Section remained in the Department of Energy and Economic Development (DEED).

Metropolitan area lakes represent an enormous recreation potential which has been only partially utilized. This has been due partly to the traditional drawing power of out-state lakes and partly because of the lack of adequate public access to many lakes in the region.

Increased costs of transportation have resulted in metropolitan area residents depending more and more on the region's lakes and streams for outdoor recreation activities. This increased demand can create water surface use conflicts (e.g., between water skiing and fishing) and may reduce water quality if not adequately managed. Of the 593,400 registered boats in the state, approximately 43 percent are registered to residents of the region.

In recent years providing public access to the region's surface waters, especially lakes, has received increased attention from the Minnesota state legislature and a number of public agencies. Examples of this increased emphasis are:

A. Since 1965, more than half of the park and recreation grants from the Land and Water Conservation Fund (LAWCON) and from the Legislative Commission on Minnesota Resources (LCMR) have been for water-related projects.

B. In 1974, the Metropolitan Council adopted a Regional Recreation Open Space System Plan based on acquiring and developing large (200+ acres) tracts of land adjoining the lakes, rivers and streams of the region which "because of their natural environment character, offer recreational opportunities that attract large numbers of people irrespective of political boundaries."

   Regional park and park reserve locations were determined to a great degree by the availability of land tracts adjacent to water bodies that could provide for swimming, boating, picnicing, trails, camping and fishing. Of the 52 existing and proposed regional parks and park reserves planned for the regional park system, all but three provide access to water resources. Of the 46 regional park and park reserves acquired as of January 1, 1983, 40 are located on a major lake or river. Nineteen of these parks and park reserves have access facilities today serving 27 lakes and the Mississippi River.

C. The Minnesota Department of Natural Resources (DNR) is authorized by Minnesota Statutes, Chapter 97.48 Subd. 15 (amended 1976) to acquire, develop and manage water access sites. DNR's policy is to acquire, develop and manage these sites either as individual units or enter into cooperative agreements with local governments. In addition, the DNR is authorized by Minn. Statutes Chapter 85.32 to mark, acquire, develop and/or maintain canoe and boating routes.

Since the adoption of the first "Cooperative Program for Providing Public Access Sites on Metropolitan Area Lakes" in May, 1979, the agencies, through funds provided by the Legislative Commission on Minnesota Resources (LCMR), have:

- Invested approximately $2.3 million in acquiring 21 new access sites and improving 16 existing sites, bringing the region's total number of sites to 118.

- Designed, published and distributed a directory of public access sites entitled "Public Boat Launch Guide - Twin Cities Metropolitan Area." Fifty-three thousand copies were distributed in 1981; forty thousand copies of updated 1982 and 1983 versions.

- Established lake-specific task forces to deal with problem areas, e.g., Lake Minnetonka, Medicine Lake and Prior Lake.

More details of the accomplishments of the three agencies are found in the 1979, 1980, 1981, 1982 and 1983 editions of Public Water Access on Twin Cities Metropolitan Area Lakes - Annual Report. The remainder of this document deals with the issues of classifying lakes by physical characteristics, responsibilities for public management of access sites and water bodies, financing and program coordination. The term "task force" refers to the Metropolitan Water Access Task Force--staff representing the DNR, Minnesota Department of Energy and Economic Development (DEED), and the Metropolitan Council.

III. CLASSIFYING METRO AREA LAKES BY PHYSICAL CHARACTERISTICS

A. Physical Characteristics of Metro Lakes

The task force considers the physical characteristics of lakes to be important factors in determining the type and amount of recreational use a lake or access site will receive.

Physical characteristics of metro lakes are defined by size and shape, fish type, and 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 then 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. 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.

Lakes Are Classed As:	Depth of Secchi* Disc Reading	Depth to Which Rooted Aquatic Plants Grow
a) very clear	10 ft & greater	20 ft & greater
b) clear	6-10 ft	12-20 ft
c) intermediate	2-6 ft	4-12 ft
d) turbid	2 ft and less	4 ft and less

*A black and white metal plate, 20 cm. in diameter, used to determine water clarity.

B. Lake Classifications

Each of the 95 metro area lakes over 100 acres in size and over 10 feet in depth was evaluated 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 are evaluated according to their current characteristics and that some characteristics can be changed through management. Lakes were also evaluated as to the adequacy of access in 1979 and have been reevaluated in 1983. Lakes having "adequate" public access had boat launch(s) with one car/trailer parking space for 20 acres of lake surface. (See III.D - Reasons for one parking space per 20 acres of water) This information is also shown on Table A.

"Group one" lakes were 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.

"Group two" lakes were 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 clear water, but is smaller in size.

"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.

"Group four" lakes range in size from 100 to 500 acres, but rank lower than others in water clarity and fish type. 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.

IV. 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 (one car/trailer space per 20 acres of lake surface). For instance, 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 identified 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 providing funds for all access site acquisition and development on a given lake and for assuring that various interests are considered.

The Task Force recommends that one public agency have responsibility for overall coordination of the metro lake access program. After reviewing events since the implementation of the original cooperative agreement, it was determined that this responsibility should be assumed by the Department of Natural Resources for the following reasons:

1. The state, through DNR, is responsible for setting statewide policy relative to public water management.

2. The DNR is the only Task Force Agency that has access acquisition, development, operations and maintenance authority.

3. Since the adoption of the original cooperative program it has become apparent that the majority of the access development in the Metropolitan Area has been instigated by the DNR.

4. DNR's activity has frequently been in concert with regional, county and municipal authorities and as a result, the agency is in a unique position to integrate the plans and policies of the various sub-state jurisdictions with state policy.

B. Procedure For Program Coordination

The Task Force recommends the following procedure for program coordination:

1. In October of each year, staff from one member agency will analyze the status of water access in the Metropolitan area. The Task Force will confer 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 prepared by the Metropolitan Council will be distributed to DEED, DNR, LCMR, and reviewed by the Metropolitan Parks and Open Space Commission and Metropolitan Council. The report will include a summary of accomplishments by task force agencies in providing access sites during the year; a status report on access conditions of all lakes larger than 100 acres in size in the Metropolitan area; and a work program for new projects with a recreation plan. In addition, the report will include two year and five year capital improvement programs. Review and approval by all three agencies will insure coordination of projects, and increased efficiency in resolving problems. Any disagreement between agencies as to program, priority, etc. shall be resolved prior to agency action. Once acted on by the Metropolitan Council, the agencies will proceed with implementation.

2. On-going coordination will also be accomplished through Task Force review of applications for LAWCON/LCMR funds administered by DEED.

3. DEED and the Metropolitan Council will encourage park grant applications from local units of government which provide access, especially if the DNR and local government have a cooperative agreement regarding access development and operation.

4. Each agency will advise the others when action is taken to facilitate timely communications regarding actual acquisition or development of access sites. To facilitate these communications, agencies will meet on a monthly basis or as needed.

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 proper steps are taken.

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 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.

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 the size, topography and other physical characteristics of the access site itself.

2. Site Selection Criteria

In the metro area where many lakes are heavily developed and opportunities for acquiring access sites are scarce, there may be a temptation to buy any available parcel. It is the intent of the three Metro Water Access Task Force implementing agencies to be as sensitive as possible to selecting the best site on a given lake in order to serve the public, minimize environmental impacts and diminish local opposition. The first consideration is given to assessing existing public property for access potential. While it is extremely rare to identify a site which is without problems, the Task Force recognizes the need to carefully assess a number of factors before arriving at a final determination. Unfortunately, the ever increasing demand for lakeshore in the metro area makes it impossible to establish hard and fast site selection criteria. However, factors to be seriously considered include: 1) proximity to major highways; 2) relationship to residential and commercial neighborhoods; 3) financial feasibility in terms of both acquisition and development;

4) proximity to existing accesses; 5) past use practices of the parcel under consideration, i.e., is it currently in public ownership; 6) protection from wind/ice; 7) development considerations, i.e., dredging, water depth; 8) potential for multiple use.

3. Local Involvement

Local communities and area property owners are provided information and given an opportunity to participate in the planning process as soon as possible. By law (M.S. 84.0274) the implementing agency is prohibited from disclosing some details of a purchase during the acquisition process. While there is no requirement to hold a public hearing, it is often practical and helpful to hold a public information meeting about a particular project. It is not at all unusual for some opposition to occur. However, this should not preclude the opportunity for valuable information to be exchanged. Conceptual designs are often modified based on local input. Landscaping and fencing are other flexible variables. Details of maintaining and enforcing a site are often worked out with local communities.

Questions are frequently raised regarding compliance with local ordinances. While implementing agencies will attempt to take local regulations and/or restrictions into consideration, there may be times when the "greater public good" will be served by proceeding to develop a site which local ordinances would prohibit.

4. Parking Space Formula

The standards for parking set by the task force assume that the public should have free access and parking to use up to one half of the available water space on a body of water.

The task force has further defined parking as free off-street and contiguous to the access ramp.

Department of Natural Resource sponsored studies have shown that on lakes with no surface water regulation, motorboat user self regulation occurs when in use boat densities reach one boat per ten acres of water. Aerial surveys have shown that boaters will pull over and wait for the density to decrease rather than go out.

Therefore, a policy to have one boat trailer parking space per 20 acres of water assumes the public has the access to one-half the available water space of a lake in an unregulated condition.

If a government body enacts surface management regulations such as slow, no wake zones or direction of travel rules, active boat use densities can exceed one boat per ten acres without creating "crowded" conditions. These density figures do not include anchored or stored boats.

5. Access Site Design

The Department of Natural Resources has typical designs for access and ramp construction which the task force has adopted as guidelines for access construction. These are found in Appendix 1 and provide a recommended plan for ideal access construction. Features to emphasize are:

a) Circulation pattern: The entrance road and turn-around is used as a waiting area to launch or retrieve boats. The launch area provides an opportunity for the vehicle and trailer to straighten out before backing up.

b) Parking lot: The size of each parking space is 12 feet wide and 50 feet long for a trailer with "pull-through" capability.

c) Launch ramp: Note that each ramp is 12 feet wide. There should not be more than 25 parking places per ramp and water depth should be at least 2.0 feet, within 20 feet from shore, at the end of the ramp.

d) Buffer: There should be adequate buffer for the purpose of screening the access from adjacent development.

6. Access Site Regulations

Currently local government has the prerogative of regulating the use of public access sites as it sees fit. Some localities charge launching fees that discriminate against non-residents or close the launch site at prime times for fishing or other uses. In other cases, municipalities restrict the size of the boat or horsepower of the motor that can be launched from a public access site but place no size or horsepower restrictions 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 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 adequate access. Most DNR administered public access sites are open 24 hours a day without launching fees.

The Task Force recommends that its three member agencies adopt the following standards as 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.

Group one, two, three and four lakes.

a) Open at least 16 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

7. Water Surface Regulations

Currently the power to regulate the use of a lake's water surface rests with the governmental units within which the lake lies. If a lake spans two municipalities which cannot agree on controls, the cities may petition the county to adopt regulations. While many metro area lakes currently receive levels of use that create undesirable conditions, few municipalities have enacted surface regulations. Often, lakeshore owners have used the lake in an unrestricted manner and feel their rights as property owners transcend the rights of the general public in using an access site. Consequently, restrictions sometimes have the intent of controlling the public boater for the convenience of the lakeshore owner.

*The Task Force recognizes that there are a few specialized situations which make adherence to this standard extremely difficult. Boat launch ramps located within state, county and/or regional parks, which have established opening and closing hours, are a case in point. While the 16-hour minimum is still the desired goal, the Task Force recognizes problems agencies might have in staffing contact stations earlier and later than the normal operating hours. However, it is the Task Force's understanding that where such circumstances exist, the responsible agency will be flexible enough to respond, should the public demand an extension of launching hours. The Task Force policy is to negotiate the most reasonable opening and closing time possible with cooperating agencies. Access hour negotiations which result in less than the recommended 16-hour minimum will be accepted, providing that all other criteria are met. However, these sites will be considered inadequate, allowing for the establishment of another site on the affected bodies of water to provide additional hours of use where deemed necessary.

The lack of restrictions may also result in discrimination against certain users. Currently about 75 percent of all licensed boats in Minnesota have motors smaller than 20 horsepower or are not motorized.

Without surface use management, the 25 percent of boats having larger motors can "consume" the entire lake surface. In fact, the present policy of non-management results in the 25 percent accounting for 75 percent 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 unsafe boating conditions which prompt boating 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 recommends that public agencies not depend solely on the judgment of the user. Rather it proposes 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 and is directed by law to promulgate regulations for the management of surface use. The Task Force urges the DNR 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) 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.

6 MCAR 1.0220 - 1.0223, adopted in December 1980, provides guidelines to local governments 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 eliminating all boats with motors; and

f. Establishing mandatory traffic circulation patterns.

8. 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 area residents are satisfied with the maintenance of a site. Site maintenance and the enforcement of regulations are two of the most important considerations for riparian owners and access site users alike.

A coordinated, multiagency approach to maintenance is required in order to take advantage of the operational capabilities and location of each of the involved units. In some cases, the DNR has contracted with a variety of agencies including counties and municipalities for the maintenance of State access sites. Maintenance of additional metropolitan public accesses has been handled by the agency owning and/or administering the access. Enforcement efforts, too, should be approached on a coordinated multi-agency basis.

9. 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 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 $267,000, DNR conducts various fish management activities on metro lakes. Fisheries 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 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.

Fish stocking is a management tool which is restricted by state law. According to law, DNR cannot stock fish in any lake to which the public is denied free access and use. Furthermore, in the seven county Metropolitan Region the demand for stocking lakes exceeds the supply of fish available. In cases where stocking is considered, priority is given to lakes based on public access conditions. Lakes with adequate access, or where progress is being made, receive priority over those with inadequate access and no progress towards solving the problem.

The system used to classify 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 desirable fish populations in lakes currently served by public access;

b) Improving gamefish opportunities where possible, improve fish populations where new sites are developed in order to provide additional fishing; 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.

10. 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 lakes.

All municipalities are required by the 1976 Metropolitan Land Planning Act to incorporate water quality protection measures into their comprehensive plans. Most of these plans have been reviewed by the Metropolitan Council 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. To date most cities are still without ordinances.

The Metropolitan Council has adopted a two-part policy plan on water resources management. Part 1 deals exclusively with controlling point sources of water pollution through wastewater and management. Part 2 of the document focuses on nonpoint sources of pollution and storm water runoff. Legislation passed in 1982 requires local units of government in the Metropolitan area to prepare storm water plans to protect the quality of lakes and streams.

The water quality of metro area lakes should continue to 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 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 directly, 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 are financed primarily with funds generated from a statewide base. The DNR sources of funds for financing the statewide public access program are from the LCMR, Resource 2000 program, bonding programs of the state legislature and the unrefunded gas tax fund. The Metropolitan Council has from the legislature state bond funds to acquire and develop regional parks and 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 state LCMR funding through DEED which can cover up to 50% of the costs. The remaining 50 percent will come from local revenue sources.

Operation and maintenance costs for access sites operated by local governments will be shared between them and the state (through DNR). The DNR will make annual payments for services to the extent funds are available. Access sites in regional parks are not eligible for DNR funds.

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.

TABLE A
CLASSIFICATION 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 (1983) access utilizing the 1983 Public Boat Launch Guide and current access information. Access is deemed adequate if the site:

a. provides parking for a minimum of one car-trailer unit per 20 acres of lake surface;
b. is publicly owned; and
c. has no discriminatory fees.
d. open at least 16 hours a day* (see p. 10)

KEY:
A adequate access
I inadequate access
O no designated access

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

1. GROUP ONE LAKES (high in three characteristics)

Lakes	Adequacy of Current Access	Lakes	Adequacy of Current Access
Big Marine (W)	I	Prior (S)	I
Minnetonka (H)	I	St. Croix (W)	O
Minnewashta (C)	I	White Bear (W/R)	I

2. GROUP TWO LAKES (high in two characteristics)

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

TABLE A (Contd.)

3. GROUP THREE LAKES (high in one characteristic)

Lakes	Adequacy of Current Access	Lakes	Adequacy of Current Access
Bryant (H)	A	Orchard (D)	A
Byllesby (D)	A	Otter (R)	0
Cedar (S)	I	Owasso (R)	A
Coon (A)	A	Phalen (R)	I
Crystal (D)	A	Pleasant (R)	0
Gervais (R)	I	Randeau (A)	0
Ham (A)	A	Rebecca (H)	A
Hydes (C)	A	Schutz (C)	0
Independence (H)	A	Steiger (C)	A
Lake of the Isles (H)	0	Vadnais (R)	0
Marion (D)	A	Whaletail (H)	I

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

Lakes	Adequacy of Current Access	Lakes	Adequacy of Current Access
Ann (C)	I	Martin (A)	A
Auburn (C)	I	McMahon (S)	A
Bass (H)	0	Miller (C)	0
Bone (W)	I	Mitchell (H)	0
Burandt (C)	0	Netta (A)	0
Centerville (A)	I	Nokomis (H)	A
Clear (W)	I	O'Dowd (S)	A
Crooked (A)	A	Olson (W)	I
Demontreville (W)	I	Parley (C)	0
Dutch (H)	I	Peltier (A)	A
Eagle (C)	0	Pine Tree (W)	0
Fish (H)	0	Reitz (C)	A
Fish (S)	I	Riley (H/C)	A
Glen (H)	0	Starring (H)	I
Josephine (R)	0	Sunset (W)	0
Langdon (H)	0	Thole (S)	0
Long (H)	0	Upper Twin (H)	0
Long (R)	I	Virginia (C)	A
Lotus (C)	0	Wasserman (C)	A
Lucy (C)	0		

TABLE B

LEAD RESPONSIBILITY FOR
PUBLIC ACCESS ACQUISITION/DEVELOPMENT

	Lake Acreage	*Lead Agency Responsibility		
		DNR	Metro	Local/DNR
1. Group One Lakes				
Big Marine (W)	1,577		X	
Minnetonka (H)	14,310		X	
Minnewashta (C)	763		X	
Prior (S)	1,146	X		
St. Croix (W)	3,990	X		
White Bear (R)	2,410	X		
2. Group Two Lakes				
Bald Eagle (R)	1,046		X	
Big Carnelian (W)	444	X		
Calhoun (H)	416		X	
Cedar (H)	167			X
Christmas (C)	274	X		
Eagle (H)	470		X	
Elmo (W)	317		X	
Forest (W)	2,206	X		
George (A)	542		X	
Island (A)	100		X	
Linwood (A)	567		X	
Little Long (H)	104			X
Sarah (H)	586		X	
Turtle (R)	444	X		
Waconia (C)	3,196		X	
3. Group Three Lakes				
Cedar (S)	749	X		
Lake of the Isles (H)	157	X		
Otter (R)	338		X	
Phalen (R)	193		X	
Pleasant (R)	585	X		
Randeau (A)	594			X
Schutz (C)	140		X	
Vadnais (R)	477		X	

TABLE B (Contd.)

	Lake Acreage	Lead Agency Responsibility		
		DNR	Metro	Local/DNR
4. Group Four Lakes				
Ann (C)	120			X
Auburn (C)	356		X	
Bass (H)	175			X
Bone (W)	206			X
Burandt (C)	138			X
Clear (W)	400			X
Demontreville (W)	156			X
Dutch (H)	170			X
Eagle (C)	230		X	
Fish (H)	221		X	
Glen (H)	180			X
Josephine (R)	110			X
Langdon (H)	168			X
Long (H)	279			X
Long (R)	184		X	
Lotus (C)	254			X
Lucy (C)	137			X
Miller (C)	245			X
Mitchell (H)	116			X
Netta (A)	162			X
Olson (W)	100			X
Parley (C)	470			X
Pine Tree (W)	174			X
Sunset (W)	124			X
Thole (S)	131			X
Twin (Upper)(H)	201			X

*Lead agency designates responsibility for coordinating efforts to establish a lake access.

NOTE: The 55 metro area lakes listed above are over 100 acres in size and 10 feet in depth. (Lake acreages are taken from the DNR Divison of Waters bulletin 25, "An Inventory of Minnesota Lakes").

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.

TABLE C. METRO WATER ACCESS TASK FORCE ACCOMPLISHMENTS 1979-1983

1. Site development at lakes previously without access:

Group Two Lakes	Group Four Lakes
Elmo (W)	Demontreville/ Olson (W)
Jane (W)	Virginia (C)
Medicine (H)	
Waconia (C)	
Zumbra (C)	

2. Improved facilities at existing access sites:

Group One Lakes	Group Two Lakes
Prior (S)	Big Carnelian (W)
White Bear (W/R)	Forest (W) (2 sites)
	Waconia (C)
	Weaver (H)

Group Three Lakes	Group Four Lakes
Coon (A)	Centerville (A)
Orchard (D)	Crooked (A)
Whaletail (H)	Martin (A)
	O'Dowd (S)
	Peltier (A)
	Riley (H/C)
	Starring (H)
	Virginia (C)

TABLE D. LAKES HAVING NO DESIGNATED PUBLIC ACCESS
AS OF DECEMBER, 1983

Group Two Lakes

Cedar (H)
Christmas (C/H)
Island (A)
Little Long (H)
Sarah (H)
Turtle (R)

Group Three Lakes

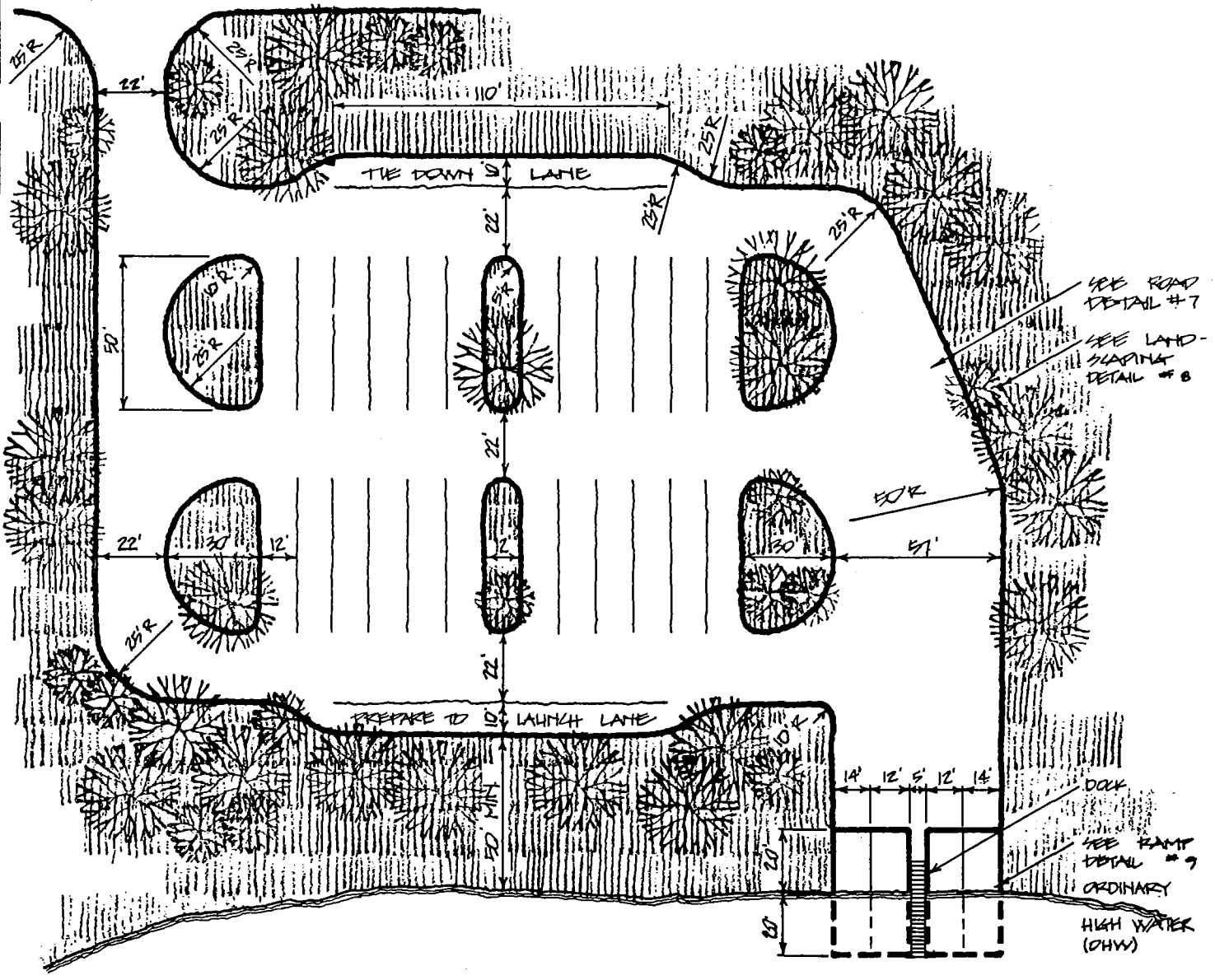
Otter (R)
Pleasant (R)
Randeau (A)
Schutz (C)
Vadnais (R)

Group Four Lakes

Bass (H)
Clear (W)
Fish (H)
Glen (H)
Josephine (R)
Langdon (H)
Long (R)
Lotus (C)
Lucy (C)
Miller (C)
Mitchell (H)
Netta (A)
Olson (W)
Pine Tree (W)
Sunset (W)
Thole (S)
Upper Twin (H)

APPENDIX 1
WATER ACCESS SITE DESIGN TYPICALS

The following water access site design typicals are excerpts from the Minnesota Department of Natural Resources policy manual on water access sites (Commissioner Orders #1828). They are shown here to illustrate how good quality water access sites should be designed. Modifications to these design guidelines will be necessary to take into account specific site characteristics. But a site should be designed to provide adequate parking and maneuvering space for car-boat trailer units.



ACCESS - CLASS I

- A MINIMUM OF 25 PARKING SPACES WITH TWO RAMPS. FOR EACH INCREASE OF 25 SPACES, ONE ADDITIONAL RAMP SHALL BE CONSTRUCTED UP TO A MAXIMUM OF 4 RAMPS.
- PRECAST PLANK OR REINFORCED CONCRETE RAMPS TO BE USED.

- PARKING LOTS TO BE PAVED WITH PARKING SPACES MARKED.
- DOCKS OPTIONAL AND QUANTITY DETERMINED BY NEED.

SCALE: 1"=50'-0"

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

SECTION OF ENGINEERING		STATEWIDE
Designed BRACKE 9-79	Drawn BRACKE 9-79	LAYOUT TYPICAL
Survey	Checked LISKA 9-79	ACCESS - CLASS I
Datum	Revised 9-82 BRACKE	

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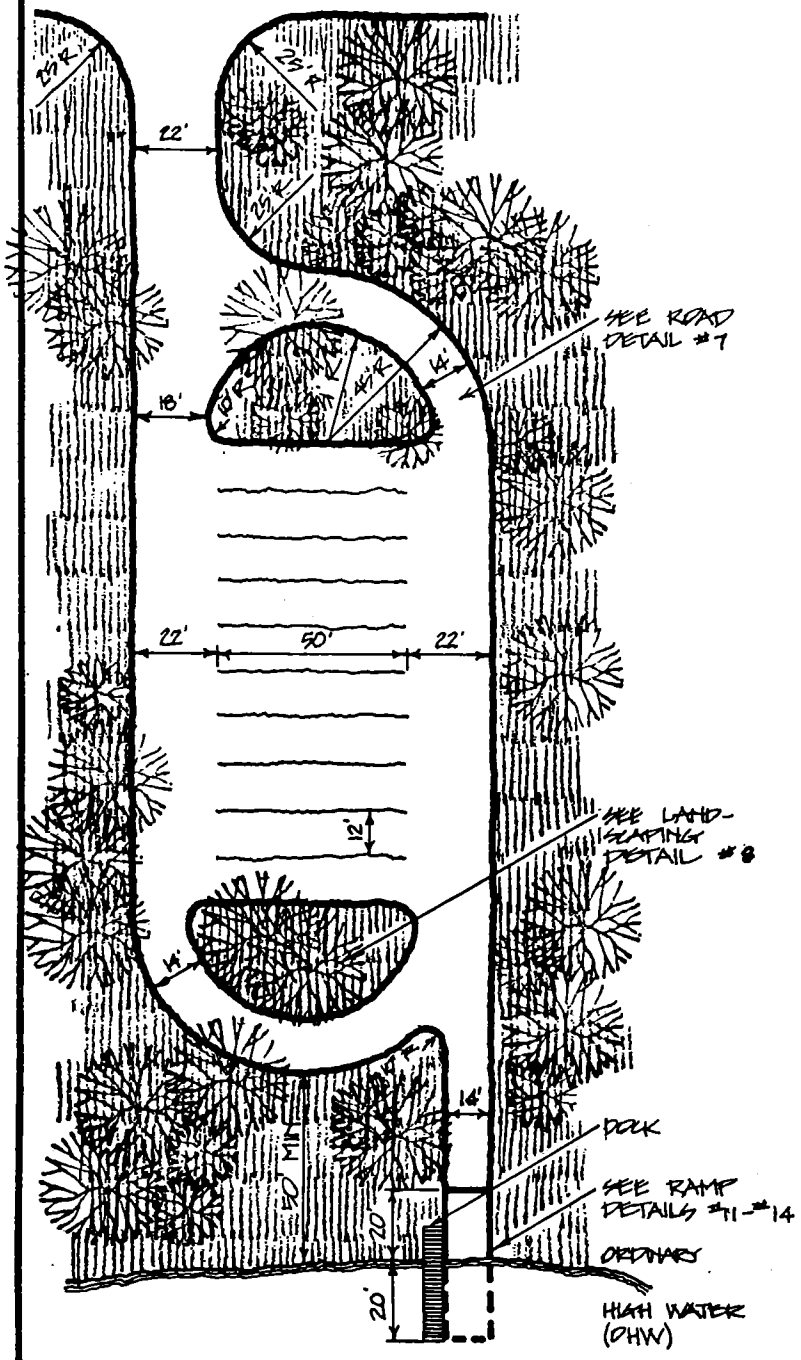

ACCESS - CLASS II

- FROM 5 TO 25 PARKING SPACES WITH ONE RAMP.
- PRE-CAST PLANK OR POURED CONCRETE RAMPS TO BE USED.

- PAVED PARKING LOT WITH UNMARKED SPACES.
- DOCK INSTALLATION OPTIONAL

SCALE: 1"=50'-0"

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

SECTION OF ENGINEERING		STATEWIDE LAYOUT TYPICAL
Designed BRACKE 9-79	Drawn BRACKE 9-79	
Survey	Checked LISKA 9-79	ACCESS - CLASS II
Datum	Revised 9-82 BRACKE	

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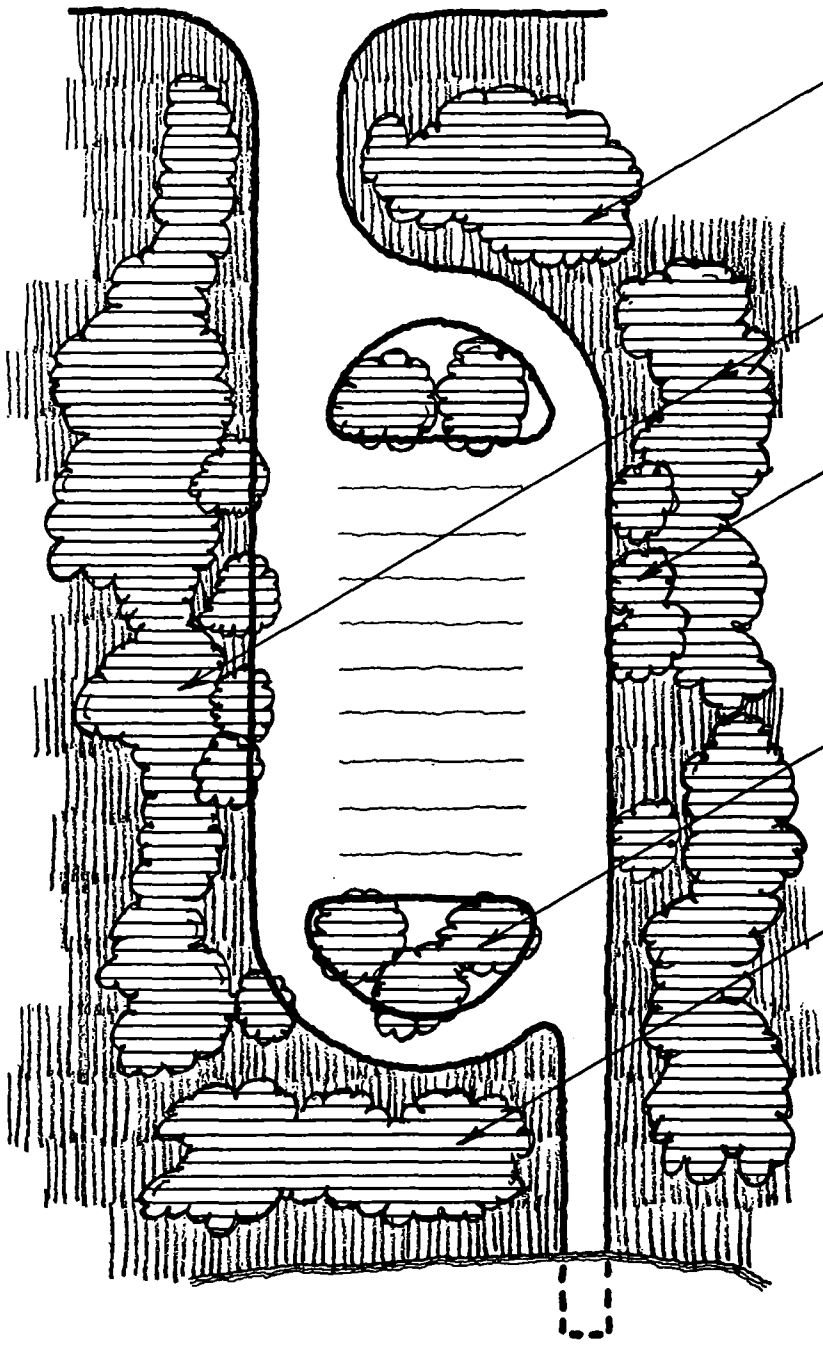

SCREEN FROM ROAD OR HIGHWAY - PRIMARILY UNDERSTORY WITH SOME OVERSTORY.

SCREEN FROM ADJACENT PROPERTY OWNERS - PRIMARILY UNDERSTORY WITH SOME OVERSTORY.

LARGE SHADE TREES - BOTH SIDES OF PARKING AREA.

PLANT ISLANDS WITH LARGE TREES FOR SHADE AND UNDERSTORY TO VISUALLY BREAK UP PARKING AREA.

SCREEN FROM LAKE - PRIMARILY UNDERSTORY WITH SOME OVERSTORY

NOTES:
MATCH PLANT MATERIAL WITH SPECIES THAT EXIST ON OR NEAR THE ACCESS SITE.

SEE PLANT MATERIAL INSTALLATION TYPICALS, T-011, SHEETS 1, 2, 3, & 4.

SCALE 1" = 50'-0"

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

BUREAU OF ENGINEERING		STATEWIDE SCREENING TYPICAL
Designed BRACKE 9-79	Drawn BRACKE 9-79	
Survey	Checked LISKA 9-79	LANDSCAPE PLAN
Datum	Revised 9-82 BRACKE	

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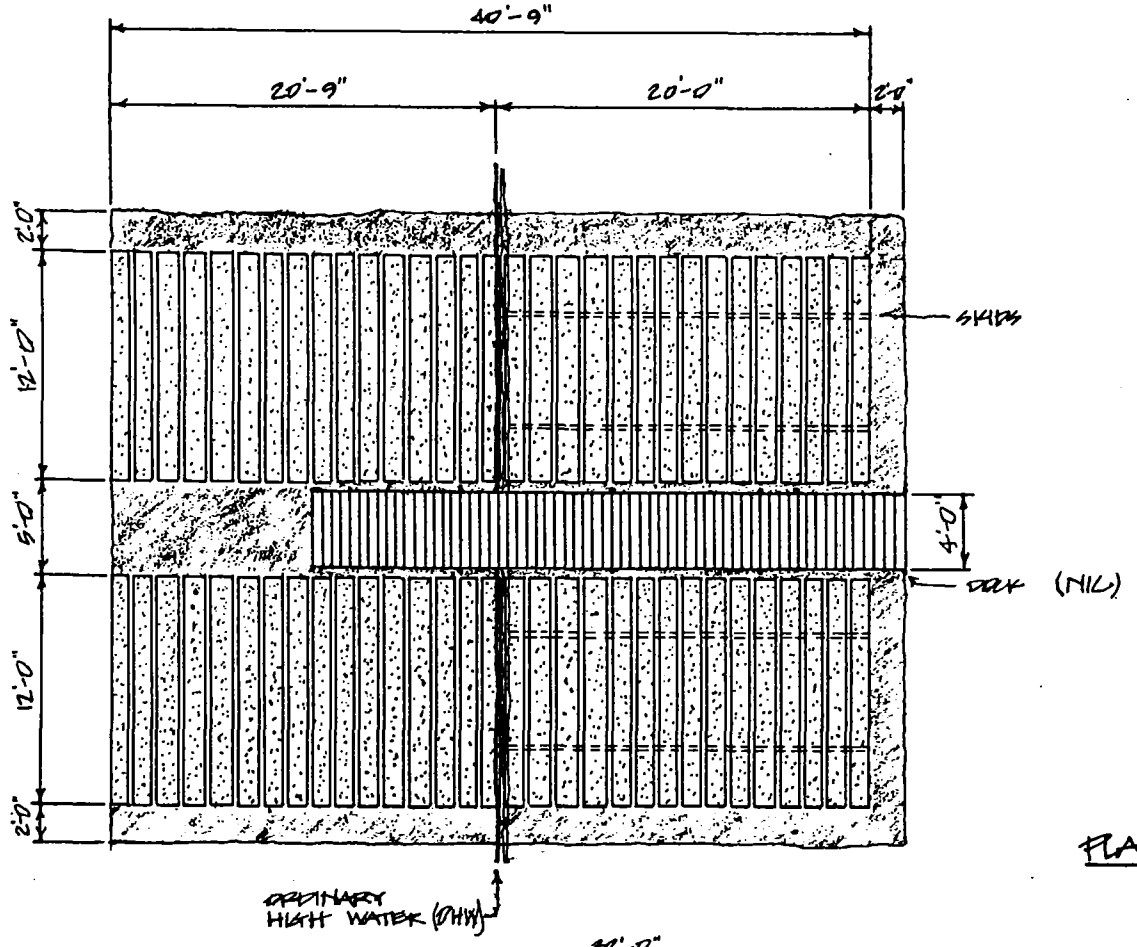

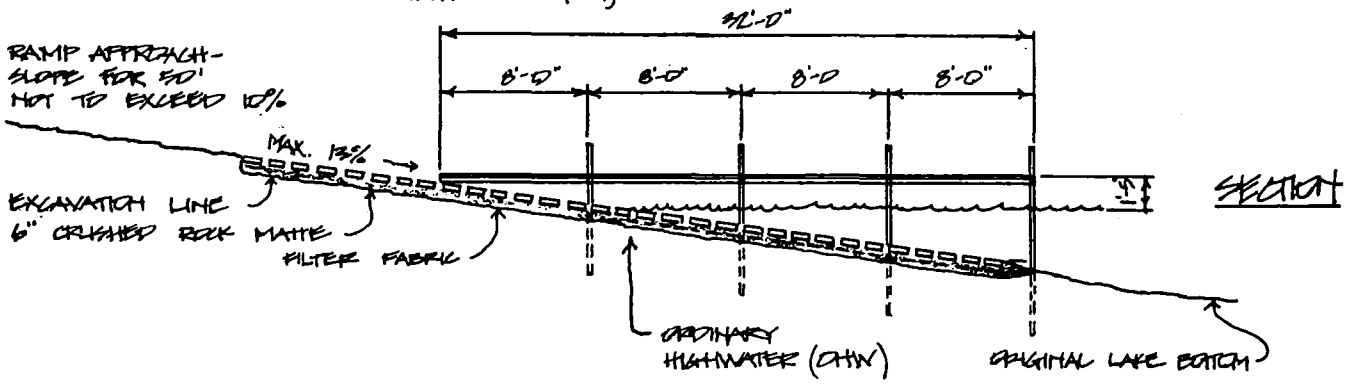

NOTES:

- REINFORCED PRECAST CONCRETE PLANKS - 12 FEET LONG, 12 INCHES WIDE, AND 5 INCHES THICK. (SEE DESIGNATED DETAIL #16)
- SKIDS: 2 - 4"x4"x10' TIMBERS LAID END TO END AND EXTEND SLIGHTLY ABOVE THE 6" CRUSH ROCK MATTE.
- 1½" - 2" CRUSHED ROCK TO BE USED FOR THE RAMP SHOULDER, MATTE, AND TO FILL THE SPACE BETWEEN PLANKS.
- USE 2' GRAVEL SHOULDER ONLY IN CRITICAL SITUATIONS FOR STABILIZATION.
- PLACE FILTER FABRIC UNDER CRUSHED ROCK MATTE.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

BUREAU OF ENGINEERING		STATEWIDE
Designed BRACKE 9-79	Drawn BRACKE 9-79	CONSTRUCTION TYPICAL
Survey	Checked LISKA 9-79	CONCRETE PLANK
Datum	Revised 7-82 BRACKE	SEPARATED DOUBLE RAMP

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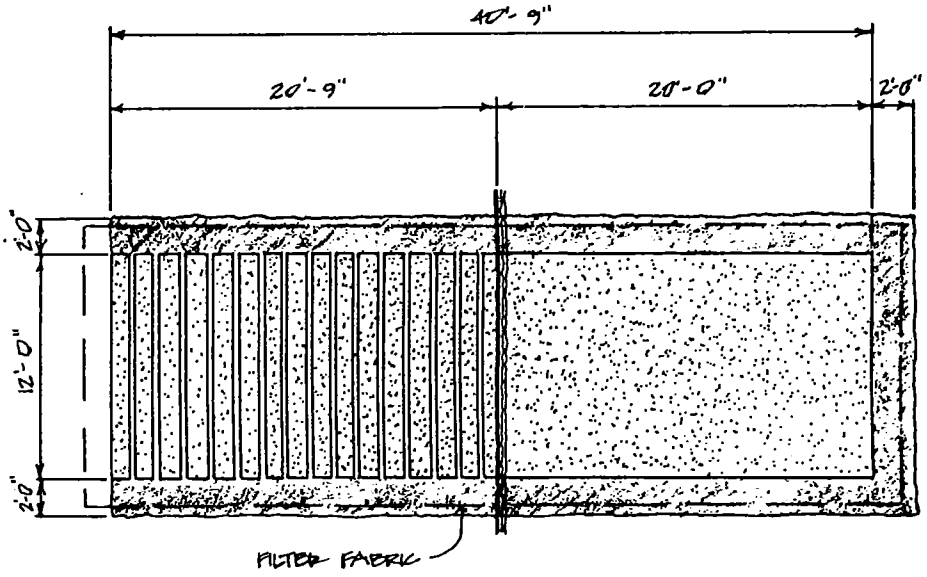
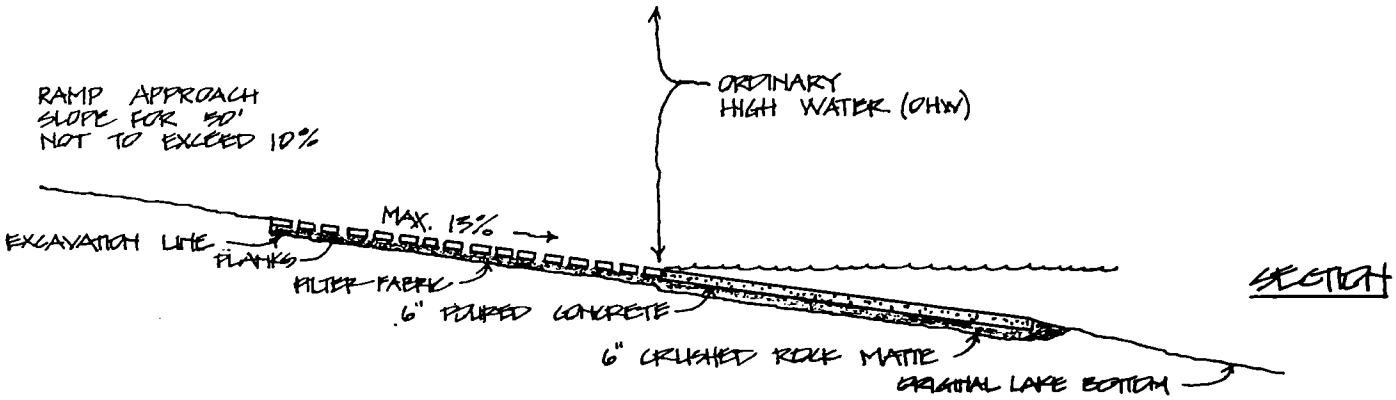


PLAN



SECTION

NOTES:

- REINFORCED PRECAST CONCRETE PLANKS - 12 FEET LONG, 12 INCHES WIDE, AND 5 INCHES THICK (SEE DESIGNATED DETAIL # 16)
- POURED CONCRETE PORTION OF THE RAMP MAY BE CONSTRUCTED BY DIFFERENT METHODS; THE RAMP MAY BE POURED ON DRY LAND AND PUSHED INTO POSITION BY BULLDOZER OR ALTERNATIVE METHOD WOULD BE TO DE-WATER AND POUR THE RAMP DIRECTLY INTO ITS FINAL LOCATION. (SKIDS OPTIONAL)
- 1½"- 2" CRUSHED ROCK TO BE USED FOR THE RAMP SHOULDERS, MATTE, AND TO FILL THE SPACE BETWEEN THE PLANKS.
- PLACE FILTER FABRIC UNDER CRUSHED ROCK MATTE.
- THIS RAMP STYLE MAY BE APPLIED WITH PLANKS IN THE WATER AND THE SLAB OUT OF THE WATER.

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

BUREAU OF ENGINEERING		STATEWIDE CONSTRUCTION TYPICAL
Designed ERACKE 9-79	Drawn ERACKE 9-79	PLANK AND POURED CONCRETE SINGLE RAMP
Survey	Checked LISKA 9-79	
Datum	Revised 7-81 ERACKE	

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