
CHAIN OF LAKES MASTER PLANNING STUDY

SUMMARY REPORT

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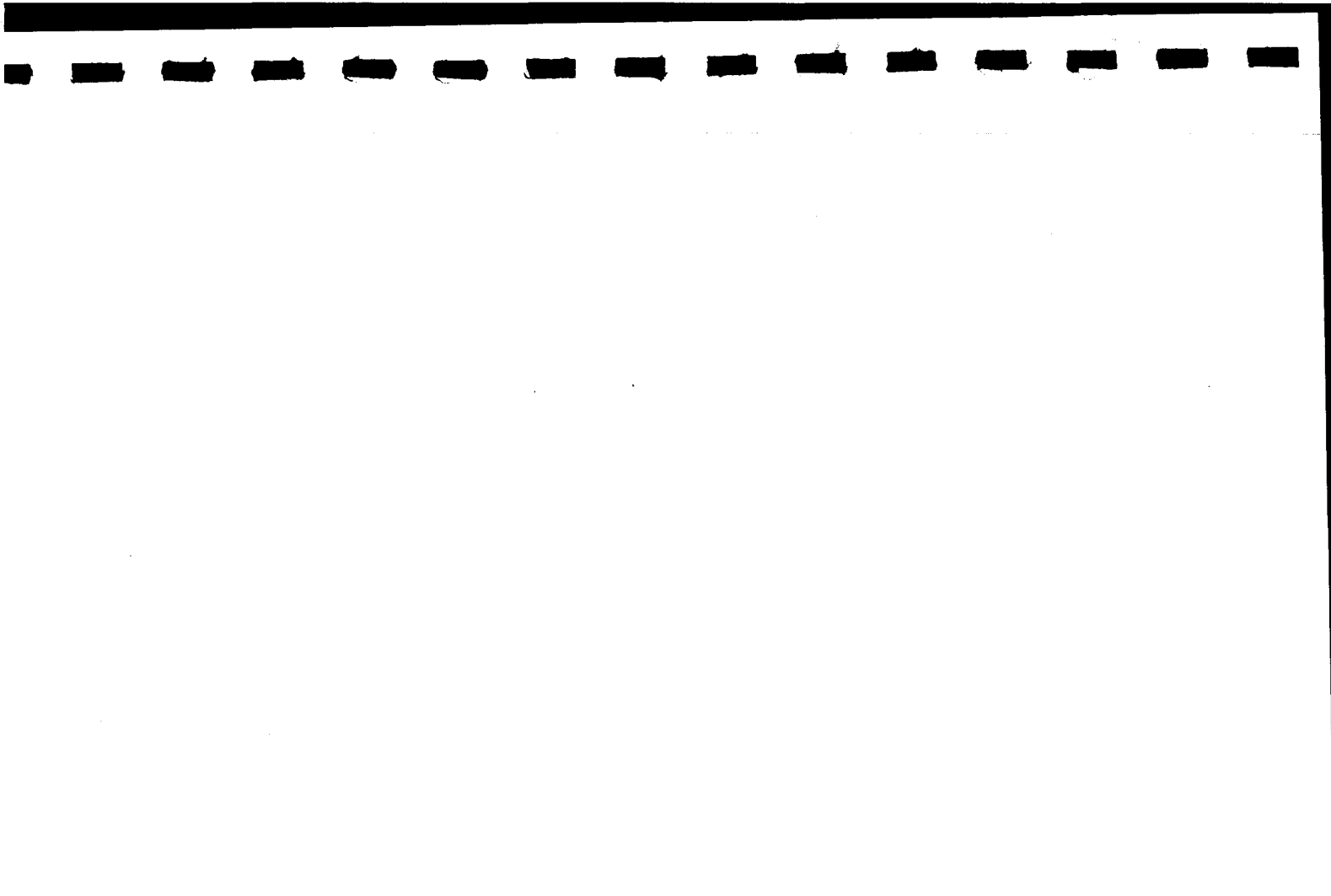
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July, 1997

***membership as of 7/96**



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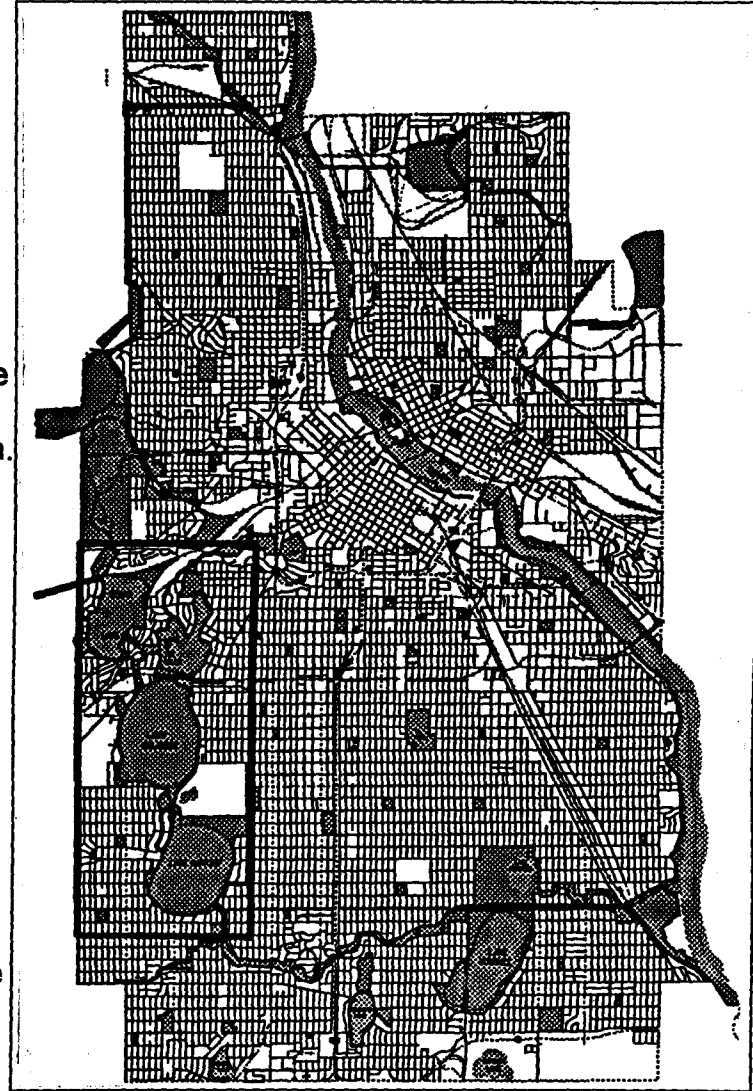
CONTEXT



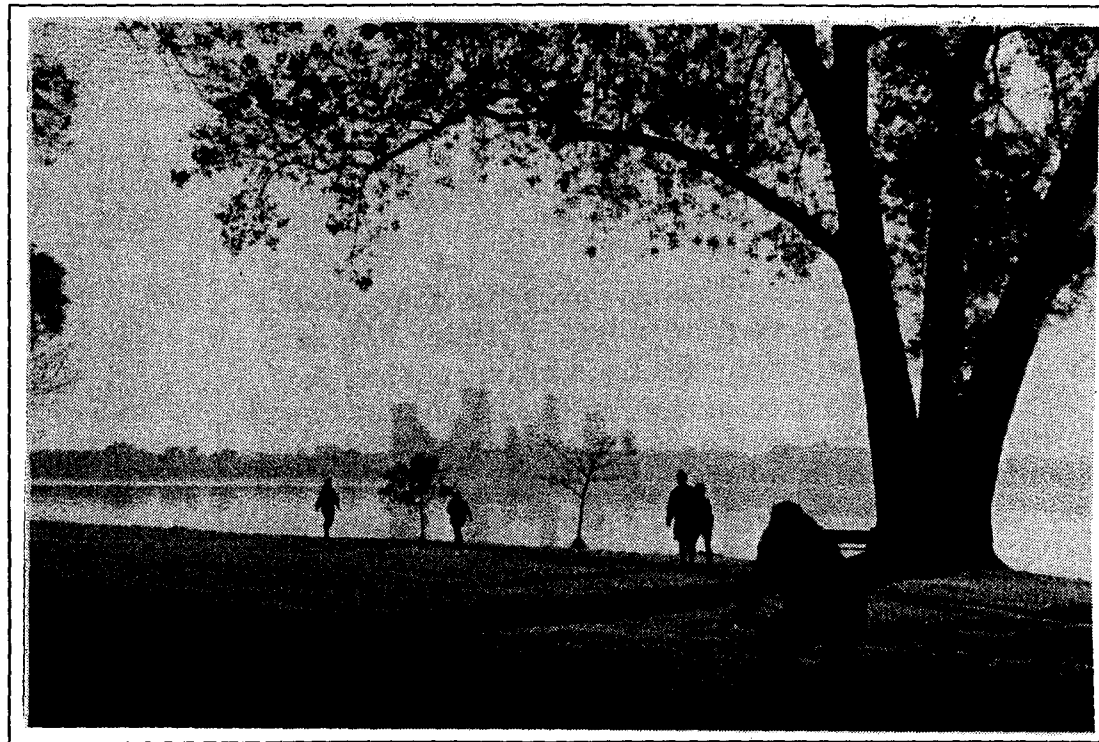
Introduction

Since the late nineteenth century, the area of lakes and parklands known collectively as the Chain of Lakes has been at the emotional heart of the city of Minneapolis. Located in the southwestern section of the city, the 1500-acre site is graced by five lakes (Harriet, Calhoun, Isles, Cedar, and Brownie) which, together, comprise approximately 80% of its area. The water area and shorelines of these lakes are wholly owned by the Minneapolis Park and Recreation Board (MPRB), thus making available for public enjoyment a resource unequaled in any other urban center. The parklands and parkways surrounding and linking these lakes offer a respite from urban congestion and a venue for passive and active recreational activities of all sorts.

The Chain landscape of today is quite unlike that which would have been seen by a mid-nineteenth-century viewer. Massive dredging and filling operations were undertaken between 1889 and 1925 to construct a "picturesque" landscape, in keeping with the tastes of the period, from the existing marshland. Only Lake Harriet retains much of its original configuration, while Lake of the Isles was originally almost entirely a marsh. Over time, navigable water connections were also constructed between the lakes, and shoreline filling permitted the construction of encircling parkways, walking paths, and tree-planted lawns. Thus, the Chain of Lakes is largely a created landscape, in which the original environment has been modified to better meet the needs and preferences of the urban context.



This report is intended to describe and document suggestions for design and procedural improvements to the Chain of Lakes system which were generated throughout a planning process extending from November 1995 through August 1996. While the final recommendations of the consultant team have been separately issued as the *Chain of Lakes Comprehensive Plan With the Future of Water Quality in Mind*, this document is intended to provide a comprehensive compilation of ideas which arose throughout the process. As such, it will serve as a resource for future re-examinations of this system and as a storehouse of proposals which can be re-evaluated and potentially drawn upon at that time. First, a retrospective context will be established through a timeline of events significant in the history of the Chain of Lakes. The structure and dynamics of the planning process will then be described, along with the mission and goals which guided the participants. Issues and areas of concern throughout the system will then be detailed, and solutions suggested by a variety of participants will be presented.





Significant events in the history of the Chain of Lakes

MPRB created; Park Board begins negotiations to acquire Lake Harriet; completed in 1898
 Park Board begins acquisitions at Lake Calhoun; continued in 1889, 1892, 1907; completed in 1909
 Lake of the Isles acquired
 First pavilion erected at Lake Harriet; encircling lakeside road completed
 Kenwood Park constructed
 First Lake of the Isles Parkway completed
 Linden Hills Boulevard land acquired
 Dredging begins at Lake of the Isles
 Bathhouse constructed at Lake Calhoun
 Interlachen (now William Berry Park) acquired and Shady Lane (later Wm. Berry Parkway) constructed
 Folwell committee recommends development of the "Grand Rounds"
 Initial section of Dean Parkway (originally Dean Boulevard) constructed
 Addition construction of Dean Boulevard
 William Berry Parkway trolley overpass constructed
 Park Board purchases a 100-acre area, including part of Brownie Lake
 First Lake Harriet pavilion destroyed by fire; new pavilion built
 Upper road on east side of Lake Harriet established
 First picnic shelter erected at Beard's Plaisance
 Park Board assumes control of lake water levels
 Linden Hills Boulevard trolley bridge constructed
 Creation of Municipal Rose Garden

First parcel of Cedar Lake acquired, including shoreline along south, west, and east sides. Original cedar trees removed, then replaced

Remainder of Brownie Lake acquired

Lake of the Isles Parkway raised and reconstructed

Encircling lakeside road around Lake Calhoun completed

Dredging completed at Lake of the Isles

Dredging and filling of swampy areas around Lake Calhoun begun (through 1915)

Dredging at Cedar and Brownie Lakes begun (through 1917)

Construction of navigable channel between Isles and Calhoun; its opening was marked by a week-long Civic Celebration

Construction of road and railroad bridges over interlake channels

Additional Cedar Lake shoreline acquired

Channel opened between Cedar and Brownie

Extensive paving of parkway system

Additional dredging and filling at Lake Calhoun, including construction of Thomas Beach and lakeside lawn areas and reconstruction of Calhoun Parkway

Second Lake Harriet pavilion destroyed in a windstorm

Rock Gardens constructed

Pavilions built at Lakes Harriet and Calhoun

Pumping of ground- and river-water into Chain system initiated

Construction of Highway 12 separates Brownie Lake from Wirth Park

Resurfacing of Cedar Lake and Lake of the Isles Boulevards

Renovation of bathhouse and construction of new parking lot at Lake Calhoun

Shoreline improvements at Cedar Lake

Expansion of Municipal Rose Garden

Park Board surrenders land adjacent to Brownie Lake to Prudential Insurance Company

1954-1960	Remaining 14 acres of Cedar Lake shoreline acquired, thus securing Park Board control of entire shoreline and water area
1956-1959	Pumping of water from Bassett's Creek through Brownie Lake to Chain initiated to maintain water levels; unsuccessful due to low water in Bassett's Creek
1959	Park Board files suit against Minikahda club to prevent diversion of water from Calhoun for golf course irrigation
1961	Park Board Superintendent Howard Moore highlights Chain as needing maintenance Canada Geese introduced at Lake of the Isles as part of program to bolster species numbers
1964	Pumping of Mississippi River water into Chain system initiated
1968	Park Board prohibits parking on lake side of lake parkways Cedar Lake Boulevard renamed Cedar Lake Parkway Eckbo study recommends construction of islands at Harriet, Calhoun, Isles, and Cedar and of lagoons and earth mounds at Calhoun. Most of these recommendations are not implemented
1971	Final Eckbo report proposes one-way segments at Harriet and Isles, realignment of William Berry and Lake of the Isles Parkways, vacation of sections of Harriet, Calhoun, and Cedar Lake Parkways, and adoption of a narrower parkway section with distinctive surfacing and signage. Most suggestions are endorsed by the Citizens' Parkway Committee
1972	Improvement of Dean and East Calhoun Parkways Addition of bike paths, landscaping, and lighting at Lake Calhoun
1974	Improvement of Cedar Lake, Dean, and West Calhoun Parkways Construction of bike/pedestrian paths at Cedar Lake and through Dean Parkway corridor
1975	Construction of road and paths on east side of Brownie Lake Lower road at south end of Lake Harriet closed; later converted to bike path
1977	Improvements to Lake the Isles, William Berry, and Lake Harriet Parkways Construction of bike and pedestrian paths at Isles and Harriet and through William Berry Park
1981	Tornado destroys trees at Roberts Bird Sanctuary and damages Lake Harriet pavilion and Beard's Plaisance

1982	Regional park committee makes system-wide recommendations and notes problems at individual lakes
1898	Chain of Lakes Clean Water study initiated to address declining water quality
1982	Cedar Lake master planning process initiated; Cedar Lake Park and Trails Citizens' Advisory Committee formed
1983	Chain of Lakes Clean Water Partnership formed to implement measures to improve water quality
1984-1985	Metropolitan Council allocates \$2.1 million for improvements at Lake Harriet
June 1995	Grand Rounds CAC releases system-wide recommendations
Mid 1995	Consultant selection process for Chain of Lakes/Lake Harriet plan
Oct 1995	Park Board approves contract with Michael Van Valkenburgh Associates, Inc.
Nov 1995	Park Board organizes Citizens' Advisory Committees for planning process
Nov 1995	Meetings of Framework and Lake Advisory Committees
July 1996	
Feb 1996	Metropolitan Council amends contract with Park Board to permit expenditures for master planning
July 1996	CACs and consultant team present recommendations to Park Board



Calhoun Boulevard,
east shore, 1914
(source: Wirth 1945)

PLANNING PROCESS

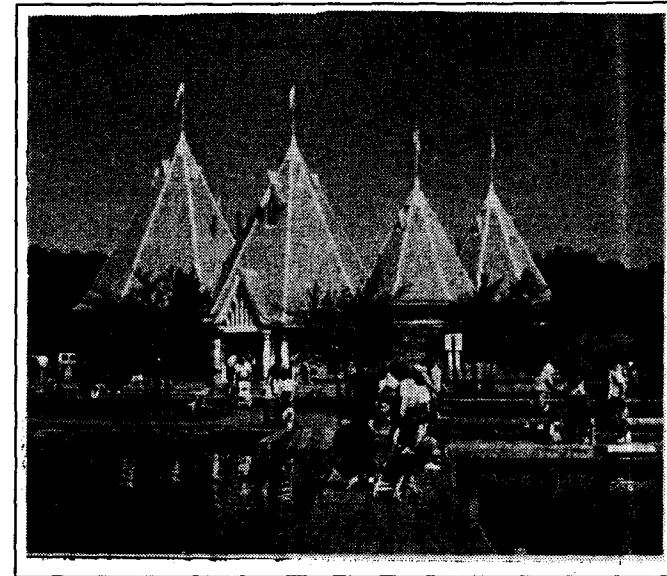


Introduction

Given its urban setting, it is not surprising that the Chain has suffered from significant stresses and from the impact of heavy use. Declining water quality has been a concern since the 1950s, as the lakes receive stormwater runoff heavily loaded with lawn chemicals, animal waste, and deicing salts. Eurasian water-milfoil is now found throughout the system, and bank erosion is a problem in many areas. Increasingly heavy use, as well as changing recreational preferences, have stretched existing physical facilities to the limit.

These issues were first confronted in the early 1970s, when a comprehensive plan developed by the consulting firm of Eckbo Dean Austin and Williams was adopted as the basis for a number of system-wide changes. This plan recognized the need for conservation and recreation areas free from roads and structures. Built features would thus be sited in specified activity areas or in peripheral locations. Continuous driving access was maintained around the lakes, but preference was to be given to a new network of encircling pedestrian and bicycling paths.

Despite improvements made in the 1970s on the basis of this plan, mounting stresses on the Chain have prompted a revisiting of these issues. In 1993, the MPRB appointed a Citizens' Advisory Committee (CAC) to evaluate water quality issues within the Chain as part of the Clean Water Partnership program. To address the deterioration of park infrastructure elements, the MPRB, in 1994, requested Metropolitan Park and Open Space Commission funds for improvements at Lake Harriet, which is of Regional Park status. In order to place this project within a citywide context, a second CAC was appointed to re-examine the 50-mile-long Grand Rounds greenspace network and to develop recommendations that would guide both the Harriet project and future changes to the entire system.



Lake Harriet bandshell and refectory

Recommendations of Grand Rounds Report (1995)

- Maintain and enhance the natural beauty and unique characteristics of the Grand Rounds Parkway System
- Reduce maintenance costs and environmental impacts and improve aesthetic quality and recreational experiences with parkway design standards and quality construction materials
- Maximize the distinct characteristics of each section of the Grand Rounds
- Balance the functional uses of the parkway system with aesthetic quality
- Advocate and implement appropriate environmental change in the areas of use, maintenance, and redesign of the Grand Rounds
- Strengthen existing environmental policies and public stances which protect, enhance, and interpret the natural and cultural resources of the land and adjacent areas
- Provide recreational resources and leisure opportunities in the parkway system throughout the city in an equitable manner
- Maintain and improve ease of access to the Grand Rounds Parkway System for all Minneapolis residents
- Continue to explore creative solutions to problems and issues related to the functional use of the Grand Rounds Parkway System
- Provide the richest variety and quality of recreational experience at the lowest cost and least impact to the environment
- Provide aggressive, vigorous, and timely maintenance
- Continue to pursue new, creative funding sources for the parkway system, in addition to usual governmental income



Structure and staffing

Following the completion of the Grand Rounds study, planning began for improvements at Lake Harriet. It was soon recognized that any proposed alterations to one of the Chain's component lakes should be consonant with goals and design guidelines applicable to the entire Chain. Planning therefore proceeded on two parallel tracks, one intended to develop a Framework Plan for the entire Chain of Lakes and the other involving committees examining issues pertinent to individual lakes.

Input to these two processes was provided by committees representing four stakeholder advisory groups; these were constituted during the second half of 1995.

- **Design Advisory Committee:**

- Minneapolis Park and Recreation Board

- Superintendent

- Community and Physical Planning staff

- Limnologist

- Consultant team

- Michael Van Valkenburgh Associates, Inc., Cambridge, Massachusetts

- BRW, Inc., Minneapolis

- InterFluve, Inc., Hood River, Oregon

- White Mountain Survey Company, Ossipee, New Hampshire

- **Technical Advisory Committee:**

- Army Corps of Engineers

- City of Minneapolis Engineering Department

- City of Minneapolis Planning Department

- Metropolitan Council

- Minnehaha Creek Watershed District

- Minnesota Department of Natural Resources

- Minnesota Pollution Control Agency

- **Staff Advisory Committee (Minneapolis Park and Recreation Board):**

- Community Services
- Environmental Operations
- Forestry
- Recreation
- Maintenance
- Police
- Special Services

- **Citizens' Advisory Committees:**

- Framework Committee (21 members, citywide representation, appointed by MPRB, City Council, and neighborhood groups)

- Lake Harriet Advisory Committee (including representatives from Fulton, Linden Hills, East Harriet, and Lynnhurst neighborhoods, the Spiff the Biff and King Field committees, and the Minnesota Transportation Museum)

- Environmental Subcommittee

- Pathways Subcommittee

- Traffic/Roadway Subcommittee

- Boat Launch Subcommittee

- Lake Calhoun Advisory Committee (including representatives from East Harriet, Lindens Hills, West Calhoun, and East Calhoun neighborhoods)

- Lake of the Isles Advisory Committee (including representatives from Cedar-Isles-Dean, East Isles, Lowry Hill, and Kenwood neighborhoods)

- Cedar/Brownie Lake Advisory Committee (including representatives from Bryn Mawr, Kenwood, and Cedar-Isles-Dean neighborhoods, and the Cedar Lake Park Association)

In assembling its consultant team, MPRB staff solicited statements of interest and qualifications from twelve nationally-known firms. The final selection of Michael Van Valkenburgh Associates, Inc. (MVVA) was particularly influenced by their emphasis on water quality issues and shoreline treatment. MVVA, in turn, involved InterFluve and White Mountain Survey Company as subconsultants with experience in urban water quality restoration and traffic-calming techniques, respectively. BRW, Inc., a local firm with prior involvement with the city parkway system, was included as providing complementary skills and as a resource for on-site analysis and information-gathering.



Dynamics and challenges

These participants were charged with balancing a number of potentially conflicting viewpoints and priorities. The juxtaposition of a sylvan landscape with a highly urban setting is at once the foundation of the system's unique appeal and a source of fundamental challenges. Issues of environmental preservation and water quality exist in some tension with those of visitor safety, accessibility, and inclusiveness. Adjacent neighborhoods value both their proximity to the lakes and their peaceful character, while visitors from other neighborhoods have access and parking needs. Parkways and nearby city streets serve not only as part of the park system but also as potential commuter routes. Issues such as park turf maintenance are fraught with conflicting aesthetic values and implications for water quality. Increasing the attractiveness of the system through improvements in park amenities and a full slate of special events can generate use levels beyond facility capacity. Finally, the park system must accommodate changes in recreational patterns, including the introduction of new activities and a broadened demographic participant group. Clearly, no single plan would both be capable of addressing all these issues and prove fully satisfactory to all participants.

A further level of difficulty was introduced by the need to engage in both specific schematic design (for Lake Harriet) and system-wide concepting at the same time. Ideally, these two phases would be decoupled, as concepting is most effectively pursued in an atmosphere of vast possibilities, while schematic design necessarily has a narrowing and focusing effect. Throughout this process, participants often felt constrained from envisioning long-range solutions, since the imminent nature of funding-driven construction at Lake Harriet raised the specter of sudden and major changes to other, comfortably familiar parts of the system. This report captures a number of proposals of potential long-term merit which were eliminated from consideration for this reason.

Framework and individual lake committee meetings were held on at least a monthly basis from November 28, 1995 through July 8, 1996, with MPRB staff present at all meetings and consultant representatives present at many. Cumulative attendance at these meetings was 2,306. In order to insure that decisions would be based on full information, MPRB staff requested that voting on final recommendations be confined only to those participants who had attended at least two-thirds of all meetings of their particular committee. This stricture was the cause of some controversy, as, for a number of reasons, attendance fluctuated throughout the process.

The planning process soon grew in scope and complexity beyond that originally envisioned, and the time frame involved expanded accordingly. An initial estimate of completion in March was extended several times as additional

issues entered the picture and widely-differing viewpoints made consensus-building difficult. At the initial meeting of the Framework Committee, Assistant Superintendent for Planning Al Wittman charged the members to address the following issues:

- traffic patterns and congestion
- amount of activity in various locations throughout the system
- more efficient and effective use of narrow lakeside corridors
- incorporation of ideas and suggestions forwarded from the four individual lake committees

By early January, 1996, all four lake committees had also met, and these discussions highlighted the need for a more in-depth approach than originally adopted. MPRB staff now directed participants and consultants to develop a broader and more detailed master plan for the Chain of Lakes system, including design and management guidelines which would apply both to Lake Harriet and to any future system alterations. The role of the Framework Committee was to be pivotal in this effort, as it was to maintain a breadth of view which would both incorporate and transcend the more localized concerns expressed by the individual lake committees. At the same time, it was recognized by all participants that the unique and individual characteristics of each lake must be celebrated in the final plan. Any final recommendations must therefore balance system coherence and integrity with a sensitivity to the smaller-scale concerns relevant to each lake.

Arising from physical characteristics, neighborhood context, and historical evolution, the parklands around each lake have developed rather distinct qualities and patterns of use. Lake Harriet, which is surrounded by a neighborhood of largely single-family homes, was characterized by process participants as a "family" lake, offering the opportunity for activities such as boating, fishing, picnicking, and walking. The bandshell complex at the north end offers concerts and other popular entertainment, and a nearby children's play area enhances the family atmosphere. Lake Calhoun, in contrast, is ringed in part by commercial and apartment buildings, and its "urban" quality is reinforced by excellent cross-lake views of the downtown skyline to the north. It is a favorite venue for people-watching, as well as for a variety of active recreational activities, including sailing, canoeing, swimming, biking, and in-line skating. Lake of the Isles, with its romantic landscape of tree-studded lawns, meandering shoreline, and islands, offers a "picturesque" setting for passive recreation. Finally, Cedar Lake is viewed as a bit of wilderness in the city, and recent restorations of adjacent wetland and prairie areas have reinforced its "wild and natural" character.



Goals and objectives

Park Board planning staff offered the following slate of goals and objectives to guide the process:

General goal: Improvements to the Chain of Lakes should be made with consideration of the history, current status, and future usage of the parks and within the overarching goal of safeguarding their legacy and integrity for future generations.

Environment

- Minimize environmental impact and maximize aesthetic quality while developing the Chain of Lakes area
- Stabilize shorelines in environmentally sensitive ways
- Encourage the use of paved surfaces for linear recreational activities
- Identify and further develop the unique characteristics of each individual lake
- Supplement and further develop the objectives of the Clean Water Partnership study
- Enrich and diversify the environmental setting
- Focus park development on conservation of the environmental setting and enhancement of aesthetic qualities

Maintenance

- Handle maintenance operations in a cost-effective and environmentally sensitive manner

Recreation

- Provide a balanced array of recreational activities in the following order of importance:
 - sedentary activities
 - walking
 - jogging
 - bicycling
 - in-line skating and skateboarding
 - commuter biking
 - driving
- Provide recreational activities in an appropriate balance with their impact on the environmental setting, aesthetics, and maintenance costs
- Eliminate activities which do not take advantage of the environmental setting

Traffic

- Reduce impact of the automobile (roadways, parking) on park space and adjacent residential property
- Size and locate parking lots so as to provide convenient and appropriate levels of usage
- Develop more efficient transit service both to and within the park areas (i.e., MCTO and trolley)
- Provide the Grand Rounds driving experience but limit circular movement around lakes
- Provide access to park areas via parkways; recreational driving should be a secondary parkway function. Commuter traffic should be discouraged to a level of minimum impact

The following goals and objectives were adopted by the Framework Committee (wording taken from committee report:

Overall goals:

- Develop unique identities and plans for each lake, which, when taken as a whole, fit within the Grand Rounds Parkway System and meet the many conflicting demands on the Chain of Lakes
- Develop a Chain of Lakes system that promotes water quality and the urban forest, thereby preserving and enriching the ecosystems while enhancing the harmony with the communities that adjoin and use it

Recreation

- Provide recreational opportunities in an appropriate balance with/to their impacts on the environmental setting, aesthetics, and maintenance costs
- Identify and develop "activity areas" throughout the Chain of Lakes and other strategies that improve their usage and interaction with each other
- Ensure that people of all ages and abilities, especially children, have safe places to swim and recreate

Civic Experience

- Enhance the quality of design where people gather for activities, such as at the bandstand, refectories, beaches, and skating rinks, and ensure that these high-intensity uses do not overburden the lakes system as a whole

Maintenance

- Handle maintenance operations in a cost-effective, aesthetically pleasing, and environmentally sensitive manner. (Screening porta-potties, different trash cans, no large maintenance vehicles driving on the grass, etc.)

Traffic

- Reduce the impact of motorized traffic (roadways and parking) on park space and adjacent residential property. Configure the parkways and paths for an effective balance of park users while promoting safe and pleasurable use by all

Neighborhood

- Protect nearby residential neighborhoods from inappropriate noise, light, and significant amounts of motorized traffic and parking not destined for the neighborhood

MASTER PLAN: OPPORTUNITIES & CONSTRAINTS



Existing conditions

see also map, pp. 16-17

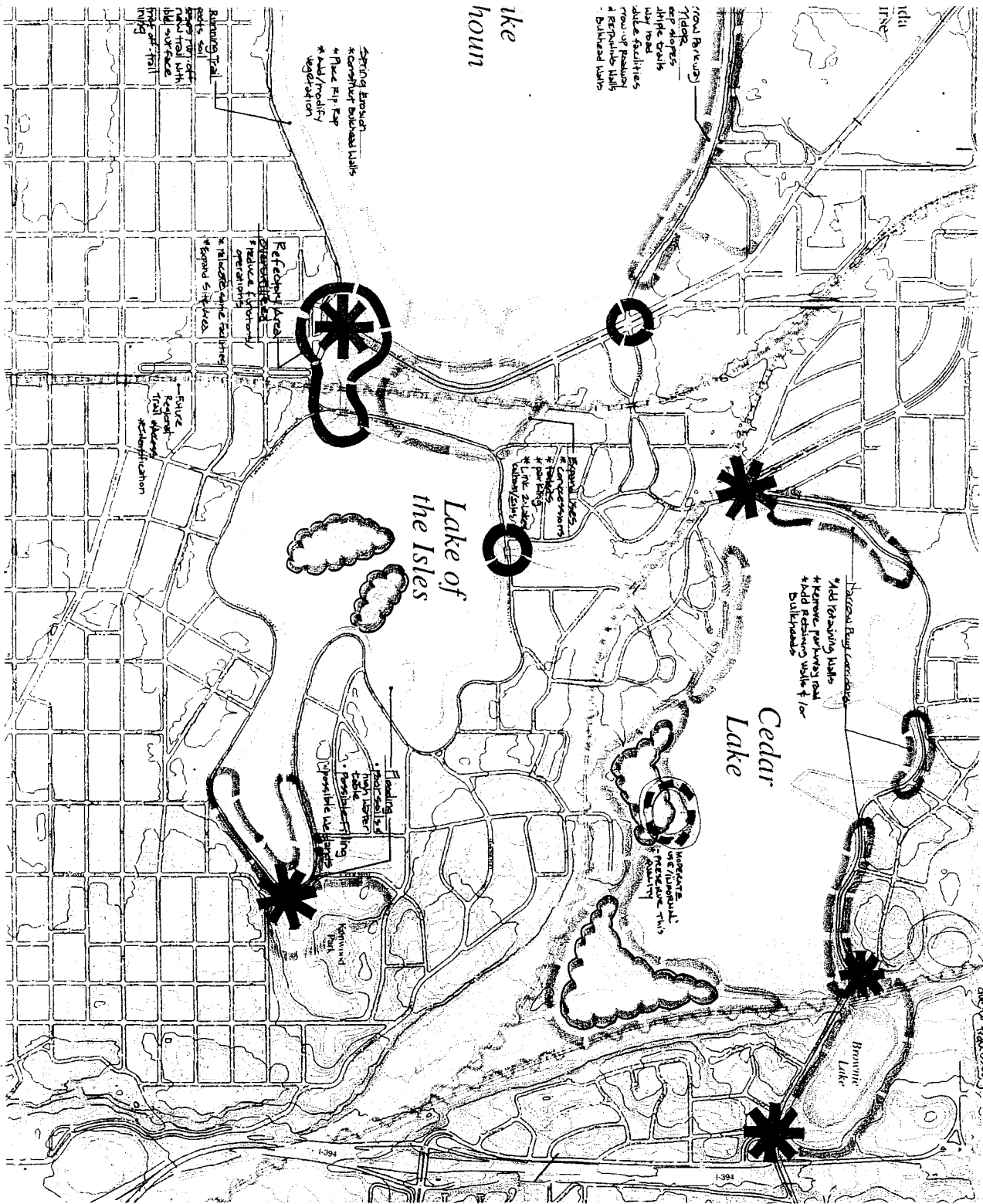
- No picnic tables at refectory
- Garden areas at Rose Garden and Rock Garden
- Difficult pedestrian/bike access from east parking lot to bandshell and from Rose Garden to lake

Lake Harriet: existing conditions

- Glacially-formed round lake, depths to 90'
- Physically diverse edge; buckthorn invasion on slopes
- 50 acres land surface area; 353 acres lake area
- Highest water quality in Chain of Lakes
- Infested with Eurasian water-milfoil
- Originally connected to Calhoun with a creek; water now pumped from Calhoun via underground conduit
- Lake-edge retaining wall on northwest side
- Shoreline erosion caused by wind and ice
- Visual quality of environment is deteriorating
- Aircraft noise
- Worn turf and vegetation; "cow paths"
- Encircling parkway is one-way counterclockwise, with upper and lower paired roads on east side; intermittent parking bays on uphill side
- Boat launch area (west of bandshell) is visually unattractive; traffic conflicts with pedestrian/bike paths
- Concessions at refectory
- Portable toilets at refectory, Rock Garden, and "baby beach" at southeast corner; permanent restrooms at refectory and Beard's Plaisance
- Condition of historic restroom buildings deteriorating

Lake Harriet: current activities

- Walking/jogging on 8' wide paved paths
- Biking, in-line skating on 8' wide paved paths around entire lake perimeter, one-way clockwise
- Special events and concerts at bandshell
- Canoeing, rowing, windsurfing, sailing; boat launch and canoe racks at northwest corner; additional canoe racks on east shore across from West 46th Street
- Sailing regattas on summer Sundays
- Picnicking (tables at Beard's Plaisance and William Berry Park; shelter at Beard's Plaisance)
- Swimming at "baby beach" and east of bandshell
- Fishing (summer/winter); piers near boat launch and at southwest corner near West 47th Street
- Ice skating, cross-country skiing
- Programmed special events
- Children's play activities at tot lots north of bandshell and at Beard's Plaisance
- Nature observation at Roberts Bird Sanctuary
- Tennis (courts at Beard's Plaisance)
- Historic trolley rides; terminus at 42nd Ave. and Queen
- Queen of the Lakes excursion boat, docks near bandshell
- Formal gardens at Rose and Rock Gardens



ike
 houn

Lake Calhoun: existing conditions

- Glacially-formed lake and surrounding marshland was extensively dredged and filled to produce current configuration
- 98 acres land surface area, 421 acres lake surface
- Second best water quality in Chain of Lakes
- Infested with Eurasian water-milfoil
- Lake-edge retaining walls at north end (near Lagoon) and southeast corner
- Shoreline erosion caused by wind and ice
- Lakeside largely mowed turf and deciduous trees
- Steeply sloping east bank retains some natural vegetation, infested with buckthorn
- Excellent cross-lake vista of downtown skyline from south end of lake
- Refectory area with boat ramps/dock and canoe racks at northeast corner is visually unattractive, poor circulation, vehicle-pedestrian conflicts
- Encircling parkway is two-way, 16' wide, with intermittent parking bays on uphill side; concrete medians at east-side intersections prevent turns
- Worn turf and vegetation; "cow paths" caused by off-path running
- Deteriorating visual quality of environment
- Poor pedestrian/bike circulation in William Berry Park and at Richfield Road-Calhoun Parkway intersection
- Poor connection to Lake of the Isles across Lake St.
- Navigable connection to Lake of the Isles (via Lagoon)
- Portable toilets at North Beach, Thomas Beach, West 32nd Street beach; permanent restrooms at refectory and North Beach; concessions at refectory

Lake Calhoun: current activities

- Walking/jogging on 8' wide paved paths
- Biking, in-line skating on 8' wide paved paths
- Sailing club, canoe rentals, boat ramp at refectory
- Windsurfing
- Sailboat races and sailing lessons for children
- Fishing piers on west side (south of Ivy Lane) and at southeast corner (south of West 36th Street)
- Swimming at Thomas Beach (southwest corner), North Beach (northwest corner), and on east side across from West 32nd Street
- Sunbathing near Thomas Beach
- Sand volleyball at Thomas Beach
- Sports at multipurpose field west of North Beach
- Picnicking
- Ice fishing (primarily at north end)
- Ice skating, cross-country skiing
- Archery buttes in William Berry Park
- Tot lot at North Beach
- Special events, particularly Aquatennial-related

Lake of the Isles: existing conditions

- Created by extensive dredging of original wetland
- 98 acres land surface area
- 103 acres lake surface area
- Poorest water quality in Chain of Lakes
- Infested with Eurasian water-milfoil
- Seasonal flooding at north and south ends
- Trees dying due to high water table and flooding, particularly along north arm and west cove
- Shoreline erosion caused by wind and ice
- Meandering, picturesque shoreline
- Lakeside largely mowed turf and deciduous trees
- Lake-edge retaining wall on north side
- Two islands act as wildlife refuges; infested with buckthorn
- Large population of Canada geese
- Encircling parkway is one-way clockwise, with intermittent parking bays on uphill side
- Worn turf and vegetation; "cow paths" caused by off-path running
- Visual quality of environment deteriorating
- Excellent cross-lake vista of downtown skyline
- Historic bridge across Kenilworth Canal
- Canoe racks and dock at south end and west cove
- Seasonal toilets at soccer fields and warming house
- Poor connection to Lake Calhoun across Lake Street
- Future link to Midtown Greenway and Kenilworth Trail
- Navigable connection to Cedar Lake (via Kenilworth Canal)
- Vehicular and bicycle circulation problems in Dean Parkway area

Lake of the Isles: current activities

- Walking/jogging on 8' wide paved paths
- Biking, in-line skating on 8' wide paved paths, one-way clockwise
- Sedentary activities
- Canoeing; canoe racks at north and south ends
- Ice skating and hockey in north arm, with seasonal warming house
- Soccer fields at southwest corner
- Informal picnicking (no tables or grills)
- Fishing
- Cross-country skiing

Cedar Lake: existing conditions

- Created by extensive dredging of original wetland
- 62 acres land surface area; 168 acres lake area
- Most rapidly declining water quality in Chain of Lakes
- Water lowered 8' below natural level
- Infested with Eurasian water-milfoil
- Shoreline erosion caused by wind and ice
- Named for cedar trees on shoreline
- Shoreline wooded, with understory vegetation
- Wetlands at southwest and east sides provide wildlife habitat
- Water flow now north to south; original flow reversed
- Navigable connection to Brownie Lake
- Navigable connection to Lake of the Isles via Kenilworth Canal
- Parkway along south and west sides only, two-way
- No public access path to much of east side of lake
- Combined pedestrian and bicycle path on west side
- Awkward pedestrian/bike connection to Dean Parkway
- Seasonal toilets at lifeguarded beaches, canoe dock
- Potential connection to Cedar Lake Trail (underway), Kenilworth Trail, and Midtown Greenway

Brownie Lake: existing conditions

- Glacial kettle lake; bowl-shaped
- 5 acres land surface area; 18 acres water area
- Maximum water depth 51'
- Water flow now north to south; original flow reversed
- Infested with Eurasian water-milfoil
- Steep, densely wooded slopes

Cedar Lake: current activities

- Walking/jogging on south and west sides
- Biking, in-line skating on south and west sides
- Sedentary activities
- Swimming (lifeguarded beaches at west side and southeast corner, informal "hidden" beach on east shore)
- Canoeing (racks and dock on west side)
- Picnicking (on west side)
- Fishing (dock at southwest side), ice fishing

Brownie Lake: current activities

- Bank fishing
- Canoeing (no dock)
- Informal picnicking and sunbathing
- No pedestrian access to most of shoreline



Critical areas and concerns

Prior to the discussion of potential design changes, participants in the master planning process identified concerns and problematical areas within the existing system. These may be viewed as two interlocking sets of issues, one set dealing with system-wide problems, and the other with concerns related to specific locations within the system.

System-wide issues

System-wide issues were identified by the consultant team as falling under three major headings: water quality, transportation, and recreation. As pointed out by the consultant team, however, this tripartite division should not obscure the essential interconnection among these issues. For example, the degradation in lake water quality can be viewed, in part, as a result of rapid and pollutant-laden stormwater runoff from paved, compacted, or eroded shoreline areas. Therefore, holistic solutions must be sought that integrate approaches to each of these categories of concern.

▪ **Water quality**

Primarily due to pollutant-laden stormwater runoff, water quality throughout the Chain has declined sharply since 1940, reaching a low point in the 1970s, with some improvement since that time. The multi-jurisdictional Clean Water Partnership, initiated in 1990, is intended to effect improvements in the 8000-acre watershed which drains into the Chain of Lakes. The recent construction of the Cedar Meadows wetland at the southwest side of Cedar Lake has been one result of that effort; others underway include additional wetland construction projects, storm sewer improvements, construction of detention ponds, and public education regarding the use of lawn and other chemicals. Nonetheless, water quality in the Chain is currently substandard, and that of Cedar Lake, in particular, is still declining.

A related issue is that of shoreline erosion, which is a problem to varying degrees throughout the system. Wave- and wind-driven erosion is exacerbated by rapid runoff from bank areas compacted or devegetated from excessive use and from areas of impervious surface. Areas of mowed turf produce greater stormwater runoff than do more thickly vegetated zones. Steeply sloping bank areas are particularly prone to erosion. In confronting these issues, all process participants agreed that the health of the lakes themselves, which are at the heart of the park system, is of preeminent importance.

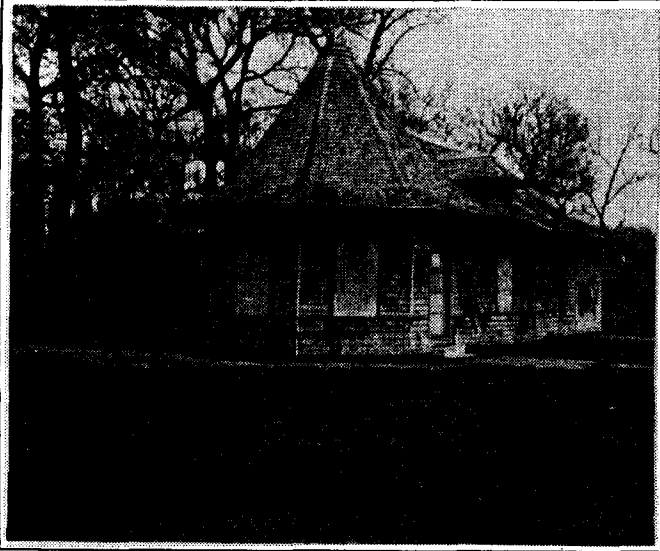
▪ **Transportation**

Our society's current dependence on the automobile for transportation places a particularly heavy burden on narrow park corridors such as those around the lakes. Maintenance of continuous driving access around the lakes necessarily converts land area from greenspace to paved surface. Provision of parking, handicapped access, and the safe interweaving of motorized and non-motorized transportation modes present additional challenges. These challenges come to the fore particularly during the summer months, when lake use is heaviest and most visitors from non-adjacent neighborhoods arrive by car. A subsidiary problem involves the use of lakeside parkways as commuter routes. Residents of adjacent neighborhoods also express concerns about heavy traffic and parking on side streets, as well as noise and illicit activities.

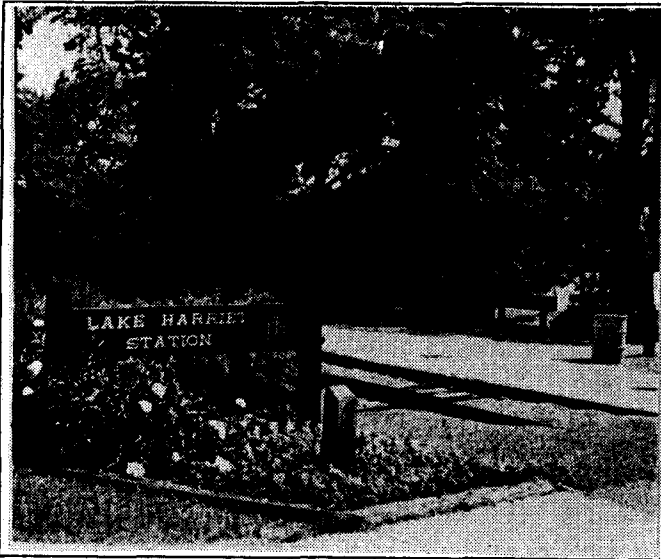
▪ **Recreation**

Changing recreational preferences, including the increasing popularity of biking, jogging, and in-line skating, have resulted in conflicts within a system designed for more traditional and passive recreational activities. Entirely new forms of recreation have emerged since the release of the Eckbo recommendations in 1971. Increasing health-consciousness among the public has had the effect of drawing a broader range of participants into active recreational pursuits. Thus, it has become incumbent upon the park system to accommodate a wide range of demographic groups, including children, the elderly, and individuals with disabilities. Stress placed on the system by heavy and changing use has resulted in a general deterioration of infrastructure condition. In some instances, high-intensity uses may simply be inappropriate in such a relatively delicate environment. In other cases, pressure may be relieved by redesign or relocation of facilities and the use of high-quality materials. In some areas, improvements are needed in amenities such as concession areas, toilets, and drinking water. Safety is also a concern of park users and can be addressed with lighting, good sight lines, the provision of call boxes, and improved policing.

Issues related to specific locations



Historic restrooms at north end of Lake Harriet



Lake Harriet streetcar station

Lake Harriet: general

- Narrow park corridors along most of perimeter
- General overuse
- Extent of special event usage needs to be reconsidered
- Balance among recreational uses needs to be reconsidered
- Inappropriate activities and behavior by some park users
- Excessive use by non-city residents
- Insufficient restrooms
- Fate of historic restrooms needs to be resolved
- Personal safety of park users
- Insufficient family-oriented activities
- Provision of adequate maintenance is difficult and costly
- System gateway at Minnehaha Parkway needs improvement
- Fishing pier at southwest corner is overutilized

Lake Harriet: transportation and pathways

- "Cow path" running trails result in compaction, erosion, are unsightly; need for soft-surfaced running paths
- Pathways are overcrowded
- Traffic and parking problems penetrate adjacent neighborhoods
- Current parkway configuration involves extensive areas of paving
- Some bikers and skaters exceed 10 mph speed limit
- Conflicts between faster and slower bicyclists
- Motorized commuter traffic on parkways
- Pedestrian/bike/car conflict at Sheridan Avenue

Lake Harriet: environmental

- Steep, erosion-prone slopes on south and southeast sides
- Bank erosion along north and northeast shorelines
- Moderately poor water quality
- Turf and vegetation are worn
- Aircraft noise
- Vehicular noise and air pollution
- Dog droppings not removed by owners
- Buckthorn infestation between upper and lower roads on east side

Lake Harriet: Rose Garden area

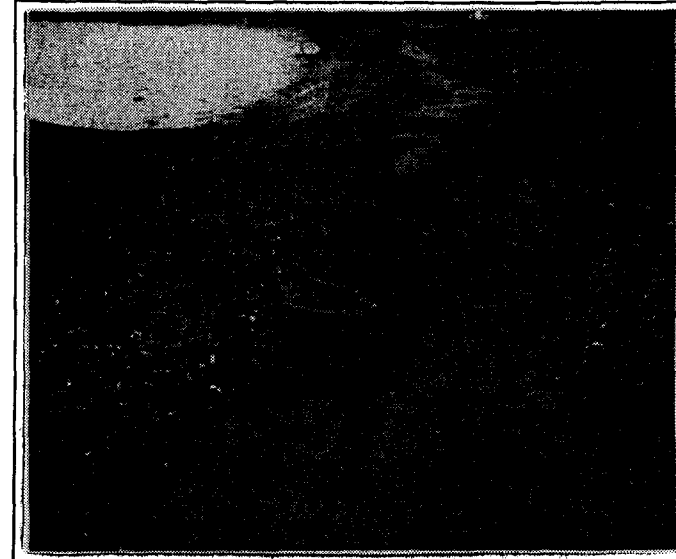
- Adjacent lakeshore area is overutilized
- Poor pedestrian and bike connections across parkway

Lake Harriet: bandshell/refectory area

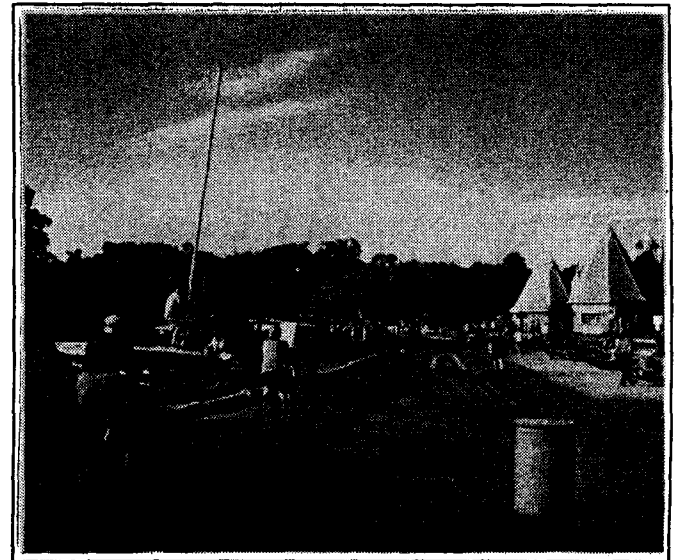
- Poor bike and pedestrian connections from east parking lot to bandshell area
- Insufficient seating area at bandshell
- Landscaping at bandshell needs improvement

Lake Harriet: boat launch

- High-traffic area with pedestrian/bike/vehicle conflicts
- Aesthetically unattractive
- Awkward backing and rigging arrangements



Bank erosion



Lake Harriet boat launch area



Calhoun-Harriet stream, 1944 (source: Wirth 1945)



Intersection of Berry Parkway and Richfield Rd.

William Berry Park

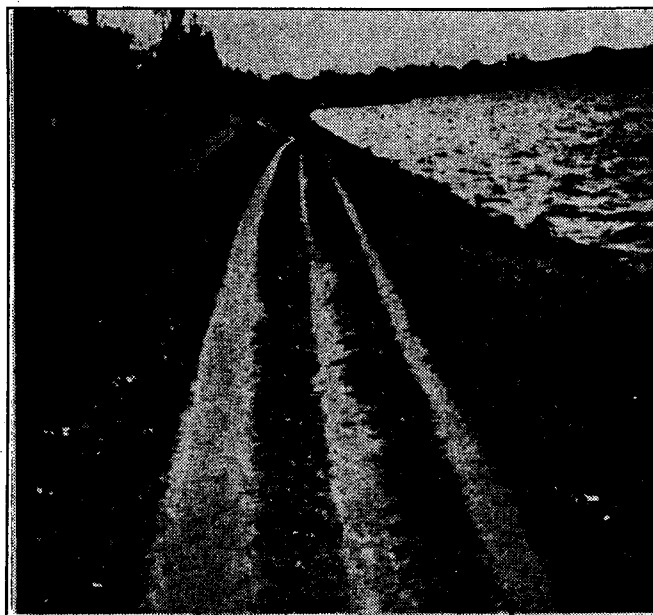
- Park area underutilized
- Area divided by parkway
- Pedestrian/bike/car conflict at William Berry Parkway-Richfield Road intersection
- Pedestrian/bike/car conflict at parkway-trolley overpass
- Stream connection between Lakes Calhoun and Harriet currently flows through underground pipeline

Lake Calhoun: general

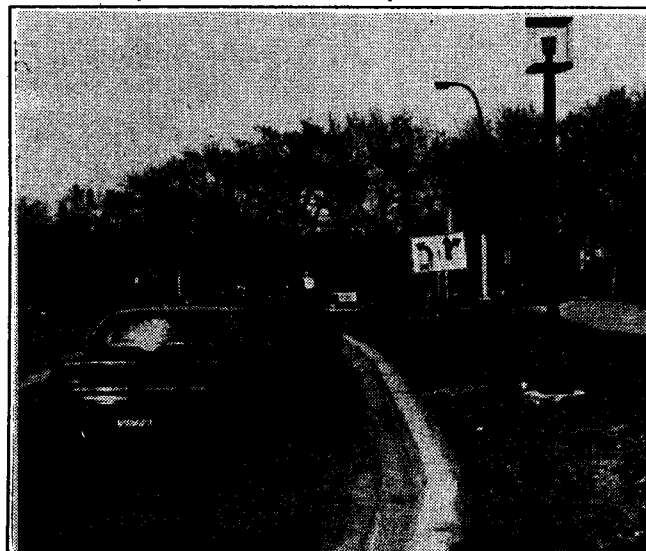
- Narrow park corridors at southwest corner and west side
- General overuse
- Northwest multipurpose field is underutilized
- Inadequate security and lighting
- Insufficient family-oriented activities
- Illicit activities by some park users
- Noise, loitering, drinking by some park users
- Provision of adequate maintenance is difficult and costly
- Conflicting cultural and ethnic use patterns

Lake Calhoun: transportation and pathways

- "Cow path" running trails result in compaction, erosion, are unsightly; need for soft-surfaced running paths
- Traffic conflicts, congestion at intersection of West Calhoun Parkway and Lake Street
- Poor pedestrian/bicycle link across Lake Street
- Lake Street is aesthetically incompatible with park system
- Pathways are overcrowded
- Conflicts between faster and slower bicyclists
- Car and motorcycle racing, cruising on parkways
- Heavy traffic, particularly during the summer
- Commuter traffic on parkways
- Current parkway configuration involves extensive areas of paving
- Traffic and parking problems penetrate adjacent neighborhoods



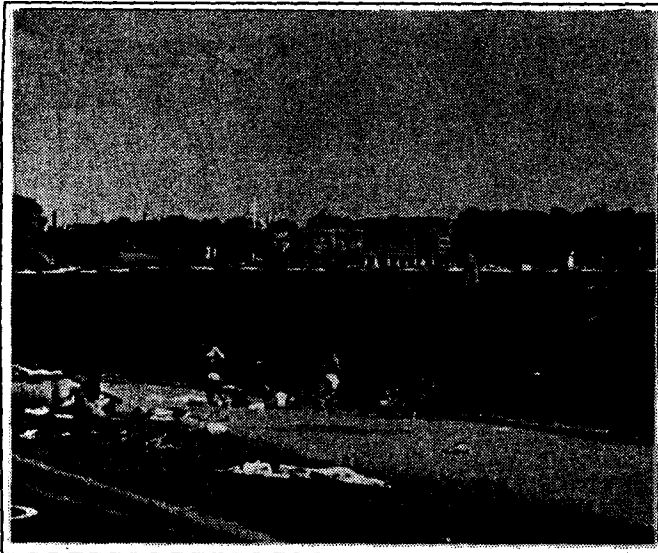
"Cow paths" cause compaction and erosion



Intersection of W. Calhoun Pkwy and Lake Street



Congestion on pathways



Lake Calhoun refectory, viewed from North Beach

Lake Calhoun: environmental

- Steep lakeside slopes on east and west sides
- Bank erosion along east and northeast shorelines
- Compaction between pedestrian paths and waterline
- Poor water quality
- Turf and vegetation are worn
- Vehicular noise and air pollution
- Buckthorn infestation on east-side slopes

Lake Calhoun: refectory and boat launch

- Pedestrian/bike/car conflicts
- Poorly defined pedestrian and bike pathways
- Area overutilized
- Area should be developed as gateway to lake
- Poor connection between refectory and lake
- Canoe racks poorly located
- Dumpsters excessively prominent
- Awkward backing and rigging arrangements
- Sailing school uses refectory for food, phone, toilets
- Landscaping of area needs improvement

Lake Calhoun: North Beach

- Area relatively underutilized (vis-à-vis Thomas Beach)
- Area lacks amenities, including food service and lake overview areas

Lake Calhoun: Thomas Beach

- Area overutilized
- Excessive paved area
- Noise
- Parking lot layout encourages loop driving

Lake of the Isles: general

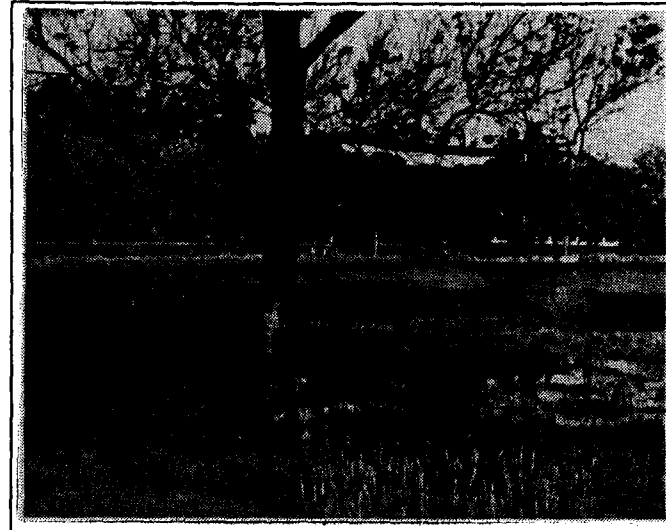
- North end should be improved as system gateway
- South end is underutilized
- Retain picturesque, serene character
- Fenced area for dog exercise is needed in Kenwood Park
- Restroom/phone/food area is needed

Lake of the Isles: transportation and pathways

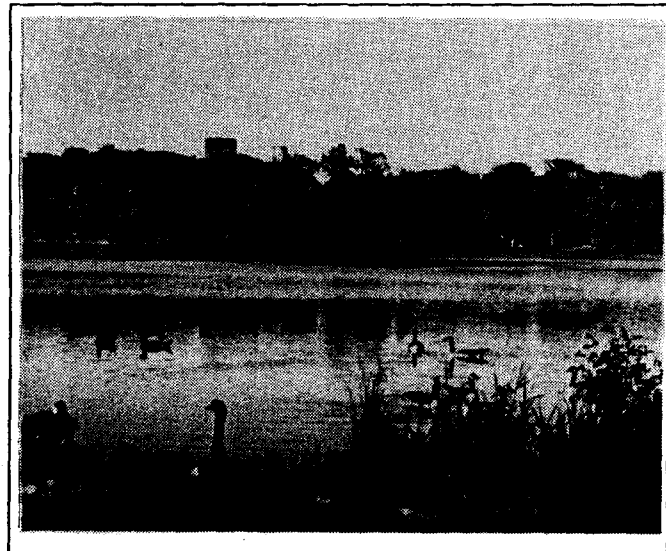
- "Cow path" running trails result in compaction, erosion, are unsightly; need for soft-surfaced running paths
- Congestion, traffic conflicts on West Isles Parkway and Dean Parkway
- Poor pedestrian and bicycle connections to Cedar Lake
- Poor pedestrian and bicycle connections to Lake Calhoun
- Pathways sometimes flooded
- Inadequate signage
- Links should be developed to Midtown Greenway and Kenilworth Trail

Lake of the Isles: environmental

- Flooding, poor soils at north and south ends
- Loss of trees in flooded areas
- Buckthorn infestation on islands
- Poor water quality
- Disagreements regarding appropriateness of mowed turf
- Dog droppings not removed by owners
- Overpopulation of geese on east side



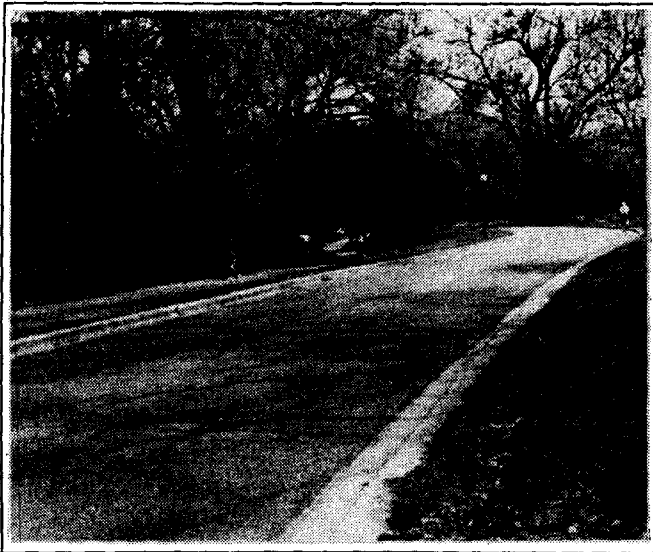
Flooding along north arm of Lake of the Isles



Overpopulation of Canada Geese at Lake of the Isles

Cedar Lake: environmental

- Deteriorating water quality
- Steep lakeside slopes on southeast and northwest sides
- Dog droppings not removed by owners (especially at northeast corner)
- Bank erosion
- Mountain biking on east side causing erosion



Cedar Lake Parkway

Cedar Lake: general

- System gateway should be enhanced at Sunset Boulevard
- Narrow park corridors on south and west sides
- Informal character of Hidden Beach on east side should be retained while access improved
- Wooden retaining walls along Kenilworth Canal have deteriorated
- No walkways along Kenilworth Canal
- Wild quality of lake should be retained
- Excessive use by non-city residents

Cedar Lake: transportation and pathways

- Links should be developed to Cedar Lake Trail, Kenilworth Trail, Midtown Greenway
- Commuter traffic on Cedar Lake Parkway, particularly near Brownie Lake
- Shared pedestrian/bike trails on west side
- Traffic and parking problems penetrate adjacent neighborhoods
- No formal public access to east shoreline
- Insufficient parking
- Poor pedestrian and bicycle connections to Lake of the Isles along Dean Parkway
- Narrow bridge over railroad tracks, with poor pedestrian/bike crossing
- Poor connection to Lake Calhoun
- Poor pedestrian connection to Brownie Lake
- Poor motorized/nonmotorized connections to North Minneapolis neighborhoods

MASTER PLAN: SUGGESTED ALTERNATIVES



Introduction

The following section presents many of the design alternatives which emerged throughout the master planning process. This compilation is intended to serve as a record of the range of ideas which were discussed and as a resource for future planning efforts. Suggestions included below were offered by members of the Citizens' Advisory Committees and the Design Advisory Committee (including MPRB staff and consultants). Participant responses to these proposals ranged from strongly approving to highly negative, reflecting some of the conflicting priorities intrinsic to a complex system. Even those suggestions which did not meet immediate acceptance are included here, as they may prove worthy of reconsideration at some later time. Final CAC and consultant recommendations are summarized at the end of this section. [Note: proposals indicated with ❖ are illustrated graphically in the *Chain of Lakes Comprehensive Plan* as submitted by Michael Van Valkenburgh Associates, Inc.; proposals grouped under a single bullet were presented as a package.]



Water quality proposals

A palette of shoreline treatments intended to improve lakewater quality and stabilize erosion-prone areas is detailed in the *Chain of Lakes Comprehensive Plan*. Narrow wetland zones, termed "vegetative filters," were proposed as a means of capturing stormwater runoff, controlling shoreline erosion, restoring a more natural lakeshore, and filtering outfall from subsurface outlet pipes. These filters would be planted with an appropriate mixture of short emergent wetland grasses and forbes with the capability of capturing heavy metals, sediment, and salts carried by stormwater. As initially proposed by the consultant team, some filter areas would be constructed offshore through dredging and filling along the shoreline edge, with an elevated causeway built on fill on the lake side of the filter. These causeways would act as erosion control buffers and would provide additional surface area for the construction of permeable-surfaced seasonal pedestrian paths.

In other areas, the lake edge would be stabilized through the addition of a stable rock toe planted with riparian vegetation. This vegetative cover prevents erosion through the binding effect of its root mass, slows stormwater sheet

flow, and provides wildlife habitat. In areas with aging and failing retaining bulkheads, gravel and riprap on a geotextile base would be used to create a more gently sloping shoreline.

The concept of offshore vegetative filters, involving dredging, filling, and walkway creation, met with considerable controversy. Minnesota Department of Natural Resources permits would be required for such operations, entailing the creation of compensatory stormwater storage within the same watershed. The DNR also was concerned about the precedent that would be set by allowing filling of a waterbody for the purpose of creating a walkway. As a result, the final design of these filter areas is now exclusively onshore. A narrow, linear area between the lakeshore and pathways is to be excavated, filled with rocks of mixed size, and planted with appropriate wetland species. While the Minnehaha Creek Watershed District has indicated that these filter areas would not be sufficiently extensive to treat stormwater runoff from the entire watershed which drains into the Chain of Lakes, they will provide a valuable service in treating drainage from the immediate park and shoreline area.

These onshore vegetative filters will supplement other actions already undertaken by the Clean Water Partnership. As detailed in their *Water Quality Management* report and subsequent publications, these include:

- Construction of a series of three wetland ponds at the southwest corner of Lake Calhoun, intended to reduce nutrient loading of stormwater runoff from the 800-acre Minneapolis/Edina subwatershed by more than 50%
- Construction of wetlands and detention ponds around Cedar Lake
- Street sweeping
- Installation of grit chambers in storm sewers
- Alum treatment to reduce algae growth
- Regular monitoring of lakewater quality
- Goose removal to reduce phosphorus inflow from goose droppings
- Public education regarding proper management of yard and pet wastes and chemicals



Transportation-related proposals

To address excessive vehicular speeds, the consultant team suggested a tool kit of traffic-calming measures for use throughout the system. These include:

- Introduction of two-way traffic and narrowed lane widths on all parkways; the resulting "friction" will have the effect of reducing driving speeds
- Inclusion of Class A (fast) bicyclists within the main parkway traffic flow
- Addition of vertical roadside elements, including plantings, bollards, and lighting, to create a perception of reduced street width and thus lessen driving speeds
- Use of street banding and crosswalks of contrasting surface material to create a perception of narrower streets and indicate areas of pedestrian priority
- Use of slightly elevated plateaux, humps, or cushions at crosswalks to indicate pedestrian priority and reduce vehicular speeds
- Addition of roundabouts, false roundabouts, traffic "throats," and lane shifts to slow traffic

Also discussed was the addition of on-street bike lanes for Class A bicyclists throughout the system, delineated via a 1' rumble strip within the pavement. Where road section width and parking needs allow, bike lanes could be introduced on both sides of the parkway; elsewhere, they would be added to the lake side of the street. No curb and gutter would be used adjacent to these bike lanes, offering bikes an escape route and also distributing road runoff more evenly. Sections illustrating variations upon this concept are included in the *Chain of Lakes Comprehensive Plan* as prepared by Michael Van Valkenburgh Associates, Inc.

The possibility of permanent or seasonal closure of some parkway sections, particularly in areas of duplicate "upper" and "lower" roads, was a subject of intense debate. On the positive side, such closures would permit the replacement of substantial areas of paved surface with greenspace, particularly desirable in the more narrow lakeside park corridors. There would thus be both aesthetic and water-quality benefits from such a change, and noise and air pollution would also be reduced. Opponents of such closures raised a number of concerns, including increased traffic on neighborhood streets, lack of complete lake accessibility for the elderly and disabled, and the potential of reduced safety in roadless areas.

The reconfiguration of off-road pedestrian and bike/skate ("fast" or 10 mph) paths also involves the balancing of some potentially conflicting priorities. The current 8' width of "fast" paths is in some places inadequate to meet the heavy volume of use, but an increase in width (to 10') would result in a greater total area of impervious surface. The creation of "cow paths" by runners indicates their preference for a soft jogging surface and for separation from slower walkers. One potential solution would involve the addition of a narrow (possibly 4' wide) soft-surfaced running path adjacent to the pedestrian path system. Additional investigation is needed to select a surfacing material which is both satisfactory to runners and has some degree of longevity.

As mentioned previously, the creation of additional, granular-surfaced pedestrian paths on causeways on the lake side of vegetative filters was also suggested. Such paths, bordered on one side by wetland and on the other by the lake, would offer walkers a new and interesting aesthetic experience and would distribute user load over a larger selection of options. Concerns were expressed, however, about the safety of walkers on these causeways.



Lake-specific proposals

The following sections list proposed design and procedural changes suggested for specific locations throughout the Chain of Lakes system. These proposals emerged throughout the master planning process and include ideas offered by all participants in that process. They are detailed here without editorial comment, and all proposals, including those that met with little general approval, are included for the sake of historical completeness.



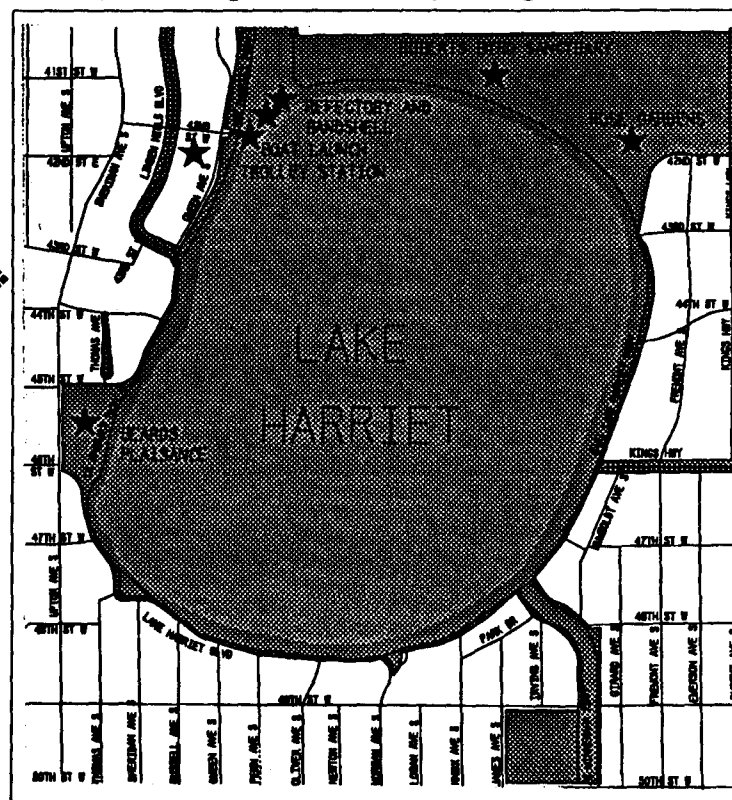
Lake Harriet proposals

Summary

Major topics raised include relocation or redesign of the boat launch; relandscaping and improvement of traffic flow around the bandshell and refectory; improvement of traffic flow in William Berry Park; daylighting the stream connection between Lakes Calhoun and Harriet; shoreline revegetation; bank restoration; water quality improvement; partial or complete closure of some parkway roads; reconfiguring pathway system; improvement of pathway connections around the Rose Garden; and reconfiguring parkway section, including lane widths, parking, and bike lanes.

Lake Harriet bandshell/refectory area

- Enlarge dining/seating plaza around refectory ❖
- Relocate historic men's restroom building adjacent to women's restroom; refurbish ❖
- Plant trees east of bandshell; other landscaping improvements ❖
- Create berms north of bandshell to provide additional casual seating ❖
- Redirect pedestrian path between bandshell/refectory and lakeshore ❖
- Create pedestrian loop path behind bandshell seating area ❖
- Redirect bike path to east side of west parking lot and south of (relocated) restrooms ❖
- Redirect bike path west of west parking lot and south of (relocated) restrooms
- Redirect bike path west of west parking lot, north of (relocated) restrooms, and east of east parking lot
- Reconfigure east parking lot (in one or two sections) ❖
- Reconfigure west parking lot ❖



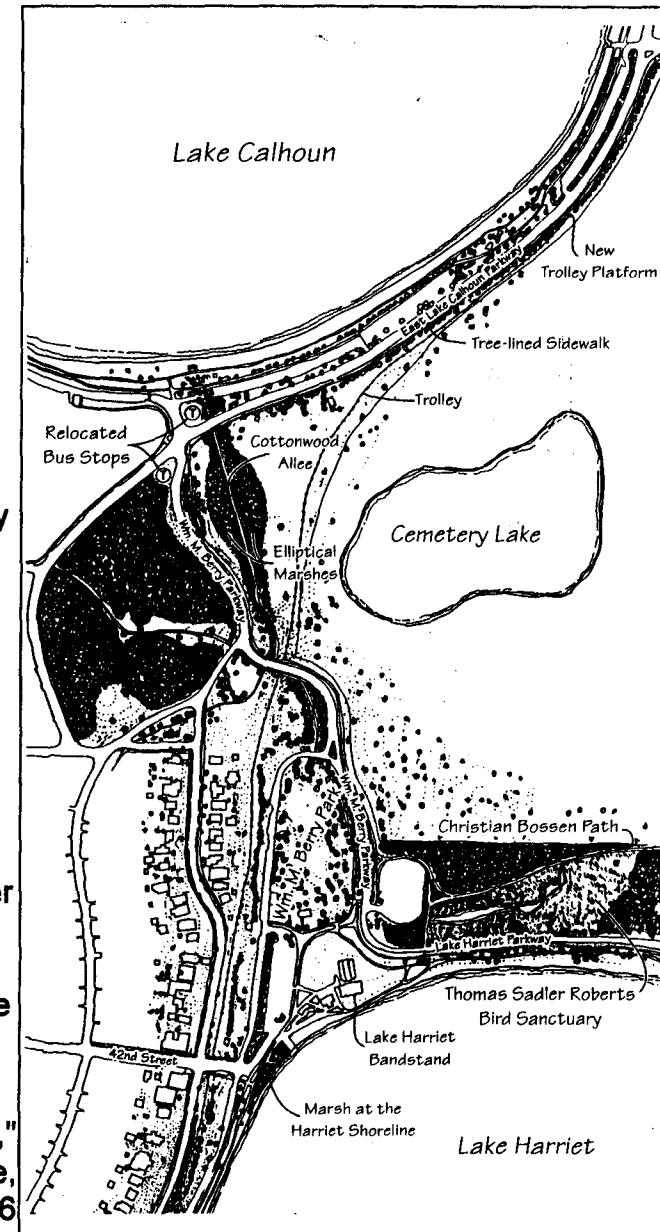
Lake Harriet: existing conditions

- Create shoreline wetland at 42nd Street (extended) to capture runoff from Linden Hills neighborhood (see illustration, right)
- Create wetland vegetative filters along shoreline east of bandshell and just south of 42nd Street (extended) ❖
- Relocate canoe racks to vicinity of east parking lot
- Upgrade Christian Bossen Path through Roberts Bird Sanctuary to provide alternative connection to neighborhoods to the east (see illustration, right)

Lake Harriet Parkway configurations

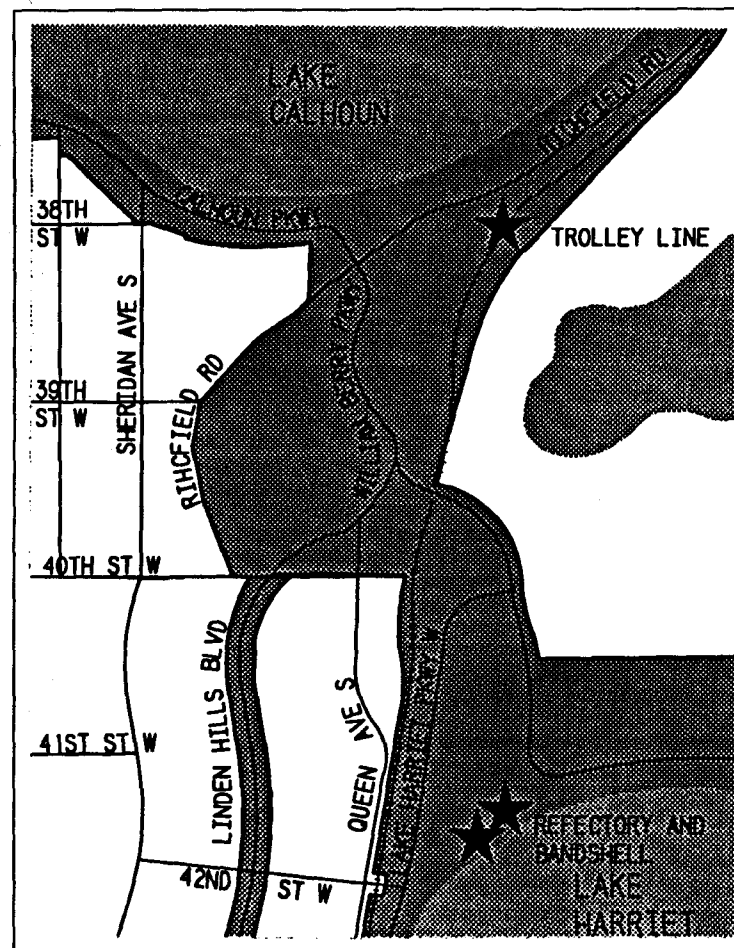
- Close Lake Harriet Parkway between William Berry Parkway and Roseway Road, either seasonally or year-round
Redirect traffic along Roseway Road and around Lakewood Cemetery on Kings Highway and 36th street *or* on a new road between Roberts Bird Sanctuary and Lakewood Cemetery
- Implement temporary parkway closures on selected days, such as summer Sundays
- Close lower East Harriet Parkway
- Close West Harriet Parkway between Linden Hills Blvd. and Queen Avenue; reroute traffic along Queen Avenue
- Change Lake Harriet Parkway to two-way system with traffic-calming measures, 20 mph maximum speed, Class A cyclists on-road
East Harriet Parkway upper/lower roads become one-way pairs (upper road northbound, lower road southbound)
Queen Avenue becomes two-way
- Parkway driving lane narrowed to 9', lakeside curb removed, bike lane added on lake side ❖
- Implement appropriate traffic-calming measures ❖

"A Design Proposal for the Interlachen Area,"
Lance M. Neckar, associate professor of landscape architecture,
University of Minnesota, in *CURA Reporter*, April 1996



William Berry Park and Parkway

- Close connection between Linden Hills Boulevard and William Berry Parkway
Relocate intersection of William Berry and East Calhoun Parkways eastward (east of trolley line), thus creating a large road-free area in William Berry Park
Reconfigure Harriet/Berry Parkway intersection just north of existing bridge: West Harriet Parkway runs parallel to and east of trolley tracks; Berry Parkway forms "T" junction, passes under trolley line, then loops 180° to cross trolley line on existing bridge
- No change to city streets
- Close connection between Linden Hills Boulevard and William Berry Parkway
Relocate intersection of William Berry and East Calhoun parkways eastward (slightly west of trolley line), thus creating a large road-free area in William Berry Park
Relocate south Calhoun parking lot off lakeshore, parallel to and east of relocated Berry Parkway
Remove segment of West Harriet Parkway in William Berry Park
Create a new link from Queen Avenue to West Harriet Parkway just north of 42nd Street
- Retain existing intersection at William Berry Parkway/Calhoun Parkway/Richfield Road, but reconfigure slightly to create 90° alignment ❖
- Create a traffic circle at intersection of William Berry Parkway/Calhoun Parkway/Richfield Road
- Alter signal timing at William Berry Parkway/Calhoun Parkway/Richfield Road intersection to improve pedestrian and bicycle crossing safety
- Create pedestrian/bike underpass at Calhoun Parkway near stream inlet
- Add tree-lined 10-12' median and/or other landscaping to East Calhoun Parkway (south of 36th St.) and Richfield Road



William Berry Park: existing conditions

- Daylight all or part of stream between Lakes Calhoun and Harriet
- Expand existing wetland area in William Berry Park
- Introduce cottonwood allee along route of pipeline connection from Calhoun to Harriet, flanked with elliptical marshes (see illustration, p. 35)
- Narrow driving lanes at William Berry Parkway/trolley overpass to accommodate pedestrian/bike paths
- Realign south end of William Berry Parkway to pass between east parking lot and Roberts Bird Sanctuary ❖
- Create bike/pedestrian overpass over William Berry Parkway just north of parking lot ❖
- Create bike/pedestrian underpass under William Berry Parkway just south of Berry/Harriet Parkway intersection

Lake Harriet boat launch options

- Move West Harriet Parkway out from shoreline at Beard's Plaisance
Add parking lot with rigging area and boat ramp between parkway and lakeshore ❖
- Move boat launch to east side of bandshell; slightly reconfigure existing east parking lot ❖
- Retain boat launch in present location with some changes in configuration ❖

Lake Harriet: east side

- Reconfigure lake edge to express connection to Minnehaha Creek
- Improve pedestrian crossing at Minnehaha Creek
- Create a narrow vegetative filter at each stormwater outfall, with existing trees remaining on islands within filters, create 5' granular pedestrian access path on water side for seasonal access ❖
- Clear buckthorn understory and limb up trees between upper and lower roads to recreate historic crosslake views
- Clear buckthorn understory but retain other undergrowth to control erosion, cleanse and slow stormwater runoff
- Create a new stair connection between levels at 46th Street
- Relocate canoe racks slightly to the south
- Narrow East Harriet Parkway lower road to 9', with bike lane and no lakeside curb ❖
- Close lower East Harriet Parkway
- Have Class A bicyclists use upper roadway, with no designated bike lane
- Widen existing pedestrian path from 8' to 10'; add 4' soft-surfaced running path on outside ❖
- Widen existing bike path from 8' to 10' ❖
- Remove parking bays from lower road; replace with new parking lot at Rock Garden maintenance building site

Lake Harriet: Rose Garden area

- Move East Harriet Parkway back from shoreline, toward Rose Gardens
 - Add new picnic area in space created between road and shoreline
 - Neck down Roseway Road at intersection with East Harriet Parkway from 32' to 18'
 - Relocate sidewalk to north side of Roseway Road, with zebra crossing over East Harriet Parkway
 - Create new pedestrian path connections on lake side of parkway
 - Widen bike path from 8' to 10'; add 4' soft-surfaced path on outside of pedestrian path
 - Create shoreline vegetative filter, with 5' granular pedestrian path on water side for seasonal access
 - Additional tree planting inside parkway; limb up existing trees and remove understory shrubs ❖

Lake Harriet: shoreline treatments

- Suggested vegetative filter locations:
 - East side, from south end to 42nd Street, possibly with granular pedestrian path on causeway on water side ❖
 - West side, just south of 43rd Street
 - West of refectory
 - East of bandstand and relocated boat launch
 - From southwest corner to Beard's Plaisance
- Suggested areas for bank restoration:
 - Across from Rose Garden
 - South shore
 - Beard's Plaisance
 - West shoreline from 43rd St. to parking lot ❖
 - Bandstand/east parking lot area
 - Roberts Bird Sanctuary



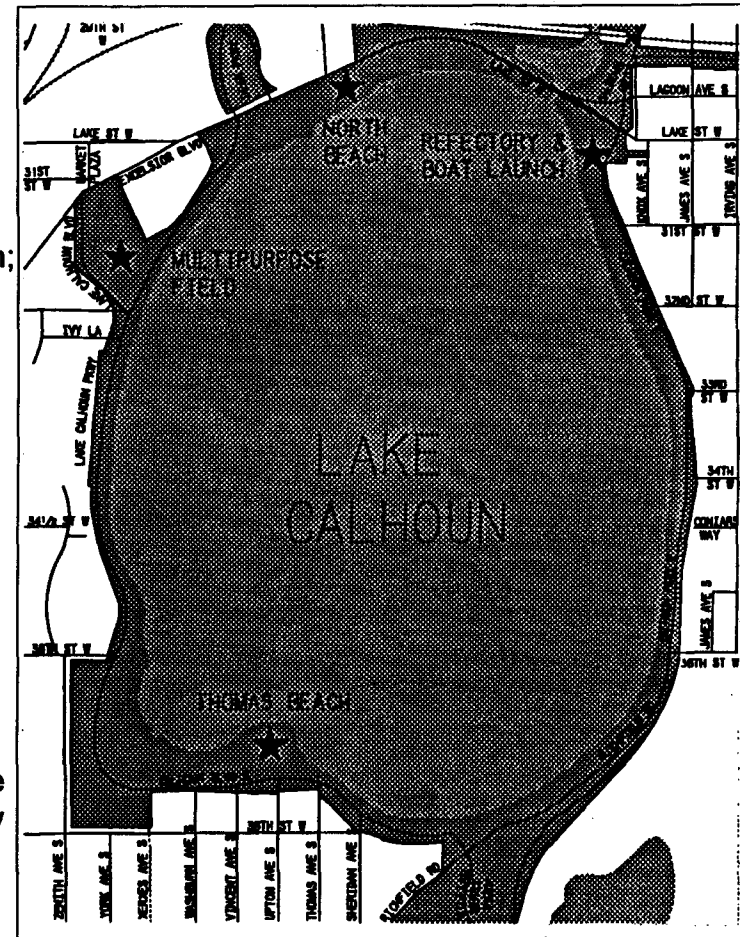
Lake Calhoun proposals

Summary

Major topics raised include relocation or redesign of the boat launch; improvement of traffic flow around the refectory; strengthening connection of refectory to lakeshore; extension of trolley line to refectory; improvements at Thomas and North Beaches; construction of a pavilion at North Beach; shoreline revegetation; bank restoration; water quality improvement; partial or complete closure of some parkway roads; improvement of pedestrian and bicycle connections across Lake Street; reconfiguring pathway system; and reconfiguring parkway section, including lane widths, parking, and bike lanes.

Lake Calhoun Parkway configurations

- Close East Calhoun Parkway from 36th Street to Lake Street
- Change East Calhoun Parkway to one-way southbound from Lake Street to 36th Street; use part of right-of-way to extend trolley line from 36th Street to new terminus south of Lake Street ❖
- Close south end of Calhoun Parkway from Xerxes Avenue to William Berry Parkway
- West Calhoun Parkway options from Calhoun Boulevard north:
 - Retain current configuration
 - Widen road and add bike lanes, remove parking bays
 - Reconfigure as two one-way streets with tree-planted central median and bike lanes (total width 38')
 - Retain current configuration, add bike lane on lake side
- Remove concrete medians which prevent turns between Lake Street and 36th Street
- Retain two-way configuration, incorporate traffic-calming measures, 20 mph max. speed, Class A cyclists on-road



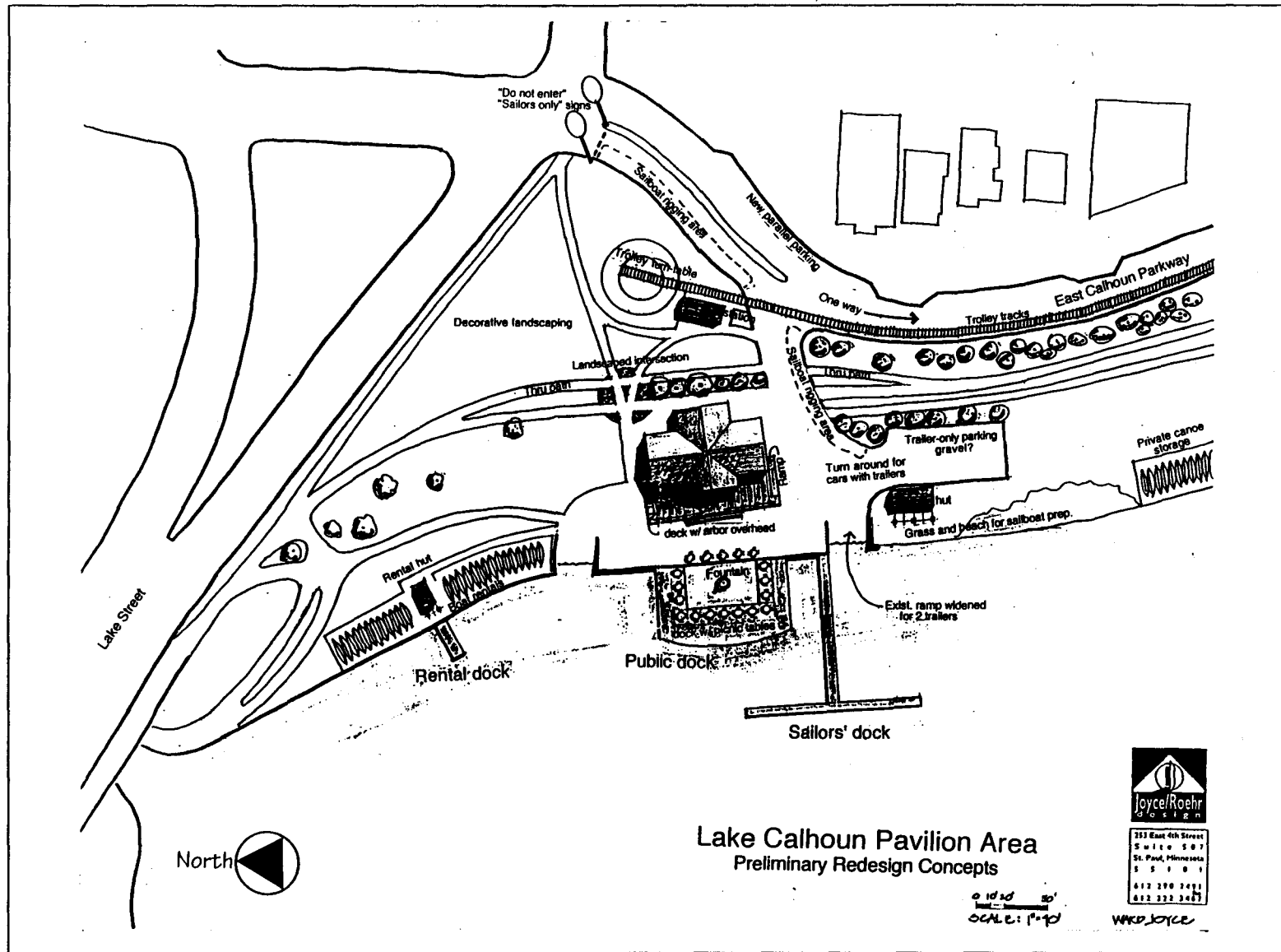
Lake Calhoun: existing conditions

Lake Calhoun refectory/boat launch area

- Relocate canoe rentals to north side of refectory, with small dock and rental hut
Relocate private canoe storage to south side of refectory
Refurbish refectory and add waterside deck/arbor/dining terrace to increase interaction with lake
Widen existing boat ramp; provide vehicle turnaround to south
Create sailboat rigging areas on shoreline, behind refectory, and along parkway
East Calhoun Parkway becomes one-way southbound
Create new parking bays along East Calhoun Parkway
Extend trolley line to new terminus near Lake Street, with turntable and station house
Clearly define pedestrian pathway behind refectory
Remove through pedestrian and bike traffic from lake side of refectory
(see illustration, right)
- Relocate canoe rentals to north and south sides of refectory
Remove private canoe storage area
Refurbish refectory and add waterside deck and dining terrace to increase interaction with lake
Relocate sailboat launch to northwest side of lake
East Calhoun Parkway becomes one-way southbound
Create new parking bays along East Calhoun Parkway
Extend trolley line to new terminus near Lake Street, with turntable and station house
Clearly define pedestrian and bike pathways behind refectory
Remove through pedestrian and bike traffic from lake side of refectory ❖
- Remove dumpsters from plain view

Lake Calhoun: east side

- Add tree-lined sidewalk on east side of East Calhoun Parkway
- Reconfigure or expand south Calhoun parking lot
- Add tot lot on east side, near ECCO neighborhood
- Add trolley platform with on-off capability at current north terminus (36th Street)
- Extend trolley line to new terminus south of Lake Street; line could run on lakeshore or on either side of parkway
- Expand small beach on east side



Lake Calhoun Pavilion Area
Preliminary Redesign Concepts

"Lake Calhoun Pavilion Area: Preliminary Redesign Concepts,"
Ward Joyce, Joyce/Roehr Design

Lake Calhoun: Thomas Beach

- Create vegetative filter areas in and just north of cove, with 5' wide granular path on water side
 - Enhance and expand beach area
 - Retain sand volleyball court
 - Add tennis courts in block west of Xerxes Avenue
 - Widen existing bike path from 8' to 10'; reconfigure bike and pedestrian paths to improve flow and reduce conflicts
 - Reduce parking area on lake side of parkway ❖
- Reconfigure parking lot to prevent through traffic
- Add playground for family use

Lake Calhoun: North Beach area

- Expand beach area westward
- Create vegetative filter areas at west and east ends of beach; east filter wraps behind east end of beach and continues eastward along north shore, possibly with granular pedestrian path on water side of filter
- Construct new pavilion at west end of beach, with restrooms, snack bar, waterside dining terrace ❖
- Relocate bike path northward, behind proposed pavilion ❖
- Relocate Lake Calhoun boat launch to northwest multipurpose field ❖
- Reconfigure Lake Street: three 11' lanes in each direction, 12' tree-planted median; tree plantings along both sides
- Create bike/pedestrian overpass over Lake Street to 29th St. Greenway and park area south of Lake of the Isles ❖
- Realign bike paths at Dean Parkway to improve interlake connections

Lake Calhoun: shoreline treatments

- Suggested vegetative filter locations:
 - Southwest corner, from William Berry Parkway to Thomas Beach
 - Middle of west side, approximately from 34th Street (extended) to 35th Street (extended)
 - Entire west side, from Thomas Beach to North Beach
 - Southeast corner, from 34th Street to 36th Street (wide filter)
 - East and west of North Beach
- Bank restoration along east side, from 36th Street to small beach



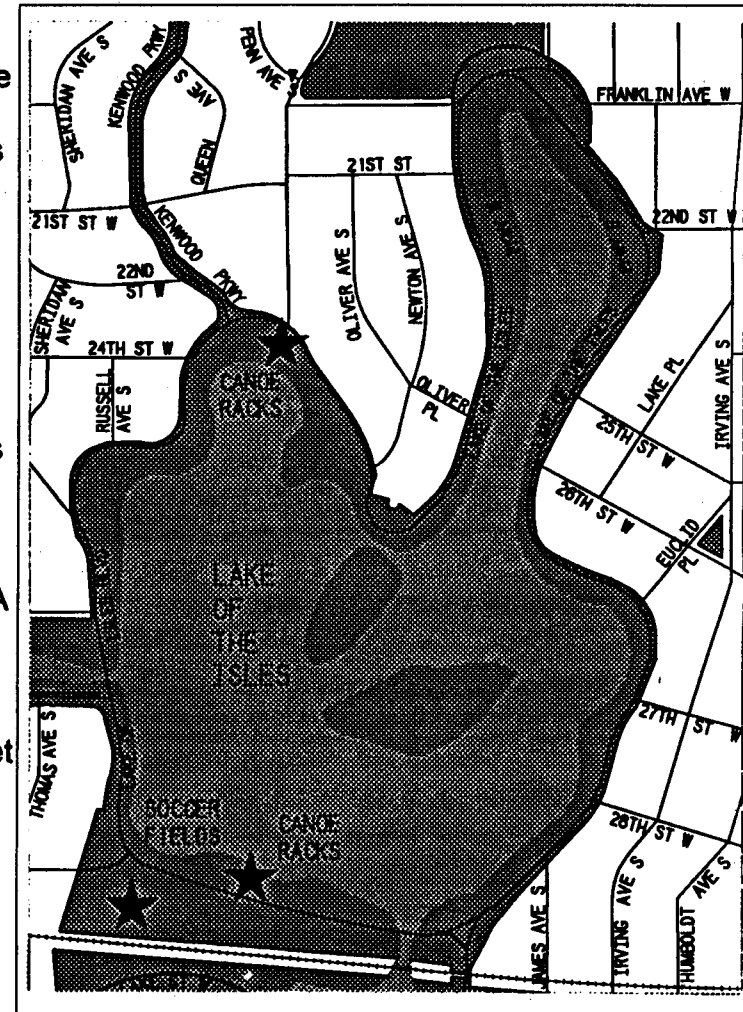
Lake of the Isles proposals

Summary

Major topics raised include flood management and dredging in the north arm; shoreline revegetation; bank restoration; water quality improvement; improvement of pedestrian and bicycle connections in Dean Parkway area; reconfiguration of parkway connections to Franklin Avenue and Lake Street; reconfiguring pathway system; trail system linkage to Cedar Lake Trail; and reconfiguring parkway section, including lane widths, parking, and bike lanes.

Lake of the Isles: general suggestions

- Limb up trees and remove undergrowth to restore historic views
- Clear buckthorn understory but retain other undergrowth to control erosion, cleanse and slow stormwater runoff
- Reconfigure Lake of the Isles Parkway as two-way, incorporate traffic-calming measures, 20 mph maximum speed, Class A cyclists on-road
- Replace paths with boardwalks in flood-prone areas
- Widen bike and pedestrian paths to 10' ❖
- Strengthen connections to Cedar Lake by converting 26th Street and Burnham Road to one-way westbound, Benton Boulevard and Dean Parkway to one-way eastbound



Lake of the Isles: existing conditions

Lake of the Isles: north side

- Relocate canoe dock at north end of west cove away from stormwater outfall
- North arm:
 - Install shoreline vegetative filter on rock foundation with geotextile underlay
 - Realign pedestrian path to lake side of vegetative filter
 - Fill and reconstruct lawn area with integral drainage system; replant with flood-tolerant trees ❖
- Deepen north arm to prevent eutrophication
- Reconfigure north end of Lake of the Isles Parkway to join with Franklin Avenue at north end ❖
- Remove connection to Franklin Avenue at north end
- Create bike path connection through Kenwood Park to Cedar Lake Trail
- Construct pedestrian boardwalk across north arm at 26th Street ❖

Lake of the Isles: south side

- As determined by need, add parking lot on site of existing maintenance facility just west of the lagoon, linked with Lake Calhoun via pedestrian overpass; possible trailhead location for Midtown Greenway
- Deepen Lagoon between Calhoun and Isles
- Remove parkway along south shore; connect west Lake of the Isles Parkway directly with Lake Street

Lake of the Isles: shoreline treatments

- Suggested vegetative filter areas:
 - Southwest side, from west side of Lagoon to north of 26th Street
 - Southeast side, from east side of Lagoon to north of 28th Street
 - North shore of west cove
 - North arm from 26th Street to 26th Street ❖
 - East shore from 28th Street to Euclid Place
- Suggested areas for bank restoration:
 - North shore of west cove (raise and regrade lawn; rebuilt shoreline with integral drainage system)
 - North arm (see above) ❖



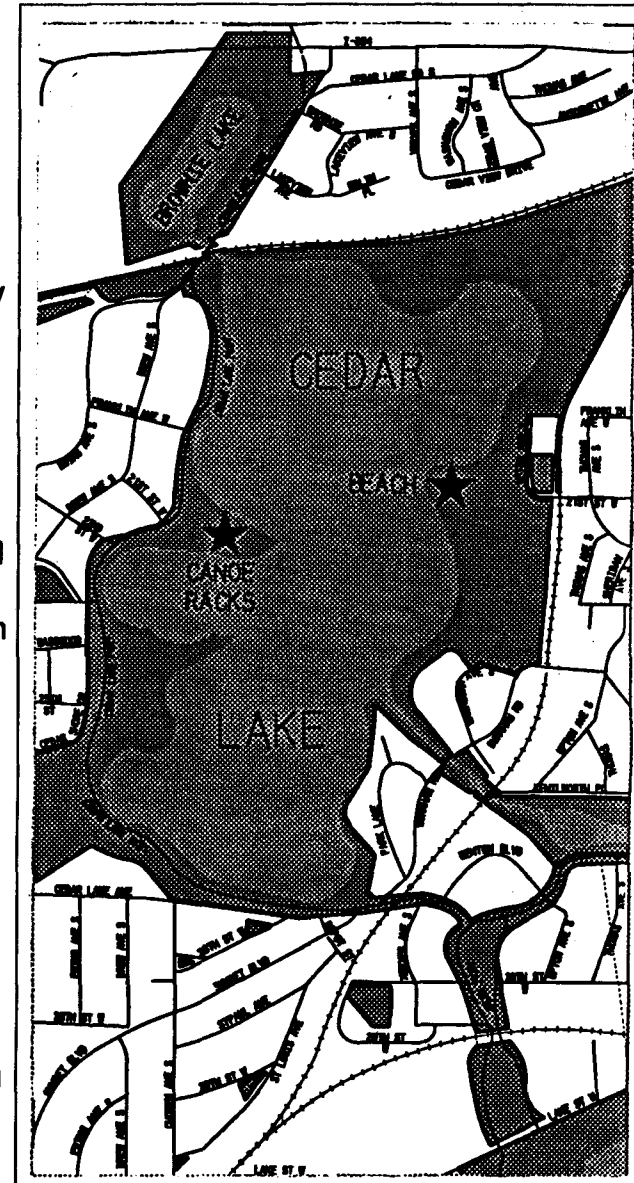
Cedar Lake and Kenilworth Canal proposals

Summary

Major issues raised include restoration of lake and canal banks; addition of pathways along Kenilworth Canal; shoreline revegetation; water quality improvement; improvement of public access to shore of Cedar Lake; and reconfiguring parkway section, including lane widths, parking, and bike lanes.

Cedar Lake: pathways

- Continue pathway system around entire lake perimeter, with upper- and lower-level paths in some locations, connected by stairways
- Create linear "feeder paths" to lakeshore sides on east side, rather than constructing a continuous lakeside path
- Create bike/pedestrian crossing at canal to Brownie Lake
- Add path along Kenilworth Canal, linking to new Kenilworth Trail, and thus to Cedar Lake Trail and Midtown Greenway
- Widen existing combined path on west side from 8' to 10'
- Separate existing combined paths, with floating pedestrian boardwalks
- Improve path crossings at railroad tracks
- Develop a long-term plan for improving pathway connections from the Chain of Lakes to North Minneapolis; historically, this connection has been neglected, due both to demographic and socioeconomic differences between the Chain-area and North Minneapolis neighborhoods and to the physical difficulty of crossing intervening railyards and road corridors



Cedar/Brownie Lakes: existing conditions

Cedar Lake Parkway configurations

- Retain existing two-way parkway on west side of lake, incorporate traffic-calming measures, 20 mph maximum speed, Class A (fast) bicyclists on-road
- Narrow vehicular lanes to 16' totally, add parking bays
- Narrow vehicular lanes to 16' totally, add designated bike lane on each side ❖
- Reconfigure northwest section of Cedar Lake Parkway as one-way north, with Ewing Avenue used for southbound traffic; return vacated area to park use
- Develop a long-term plan for improving road access to the Chain of Lakes from North Minneapolis neighborhoods

Kenilworth Canal

- Cut off existing wooden bulkheads at waterline
Install gravel filter above bulkhead, below pedestrian path
Extend bank slope below waterline with rock toe
Fill area between path and new slope toe with granular subsoil on biodegradable erosion control fabric, planted with native grasses ❖
- Add narrow granular pedestrian paths on both sides of canal between Cedar Lake and Lake of the Isles ❖
- Add pedestrian bridges across Kenilworth Canal at Cedar Lake and Lake of the Isles
- Reconfigure canal as stepped channel or flowing wetland

Cedar Lake: shoreline treatments

- Suggested vegetative filter areas:
 - Southwest side
 - Southeast side, below steeply sloping bank
 - Northeast side (incorporating existing wetlands)
 - West cove
- Suggested areas for bank restoration:
 - West shoreline (areas without wetlands), possibly with new pedestrian path on fill
 - East side, with stone bulkhead, vegetated shoreline, and narrow pedestrian path within MPRB property ❖
 - Northwest corner, with stabilization of existing bulkhead ❖



Summary of proposals to emerge from master planning process

Although the proposals detailed above encompass a wide range of options and are sometimes in conflict, a number of general themes of system-wide applicability can be discerned. While these have not received universal support from all participants, they have, at the minimum, been seriously discussed and have been acknowledged to offer at least a measure of positive benefit. These themes can be summarized as follows:

Water quality/environment

- Improvements in water quality must be the primary consideration in making system modifications
- Overall reductions in the amount of impervious surface should be considered to reduce the volume and speed of stormwater runoff
- Vegetative filters planted with native grasses and wildflowers should be introduced at stormwater outfalls and adjacent to steep slopes to capture and cleanse stormwater inflow to the lakes
- Measures developed by the Clean Water Partnership should be pursued to effect water quality improvements
- Bank reconstruction should be undertaken where necessary
- Channel deepening and dredging should be conducted where necessary for the improvement of water quality
- Existing lawn areas should be revitalized or replaced with low-maintenance plantings
- The issue of undergrowth removal must be resolved in a satisfactory manner. While some participants felt that trees should be limbed up and undergrowth removed to restore historic cross-lake views and improve the perception of safety, this undergrowth performs an important environmental function in slowing and filtering stormwater runoff and retarding bank erosion. Undergrowth adjacent to parkways also has a traffic-calming effect. All participants agreed that invasive exotic plants, particularly buckthorn, should be removed.
- Watershed structure should be recognized at linkage points (Calhoun-Harriet stream, Minnehaha Creek)

Pathways/recreation

- Non-water-dependent activities should be relocated away from lakeshores
- Pedestrian shoreline access should be improved with additional paths and relocation of boat storage facilities
- Waterside dining opportunities should be increased
- The range of family-oriented activities should be increased
- The role and extent of special events within a stressed park system should be reassessed
- Bike/skate paths should be widened from 8' to 10'
- Many pedestrian paths should be widened from 8' to 10', with an adjacent 4' soft running surface; however, the total area of impervious surfacing should not increase, if possible
- Pedestrian and bicycle links should be improved at traffic conflict points, including the construction of grade-separated crossings

Transportation/parkways

- The influence of the automobile on the park system should be reduced, while maintaining an appropriate level of accessibility for the elderly and disabled
- Parkway driving lanes should be narrowed and traffic-calming measures introduced
- Some parkway segments should be considered for seasonal or permanent closure, and the need for continuous road access to the lakeshore should be reassessed
- Class A (fast) bicyclists should eventually be on-road
- Curb and gutter should be removed from the lake side of parkways, where appropriate
- Use of the trolley should be increased as an alternative form of interlake transportation
- Parking should be reconfigured (both on-road parking bays and parking lots)
- Adjacent streets, including Lake Street and Richfield Road, should be fully upgraded to be consonant with parkway aesthetics through the addition of a planted median and other landscaping
- Neighborhood concerns regarding traffic, noise, and parking should be respected

MASTER PLAN: CITIZENS' ADVISORY COMMITTEE AND CONSULTANT RECOMMENDATIONS

Introduction

At a series of meetings in July, 1996, the Commissioners of the Minneapolis Park and Recreation Board heard presentations by the various groups involved in the master planning process. Separate sets of recommendations were made by the consultant team and by the various Citizens' Advisory Committees, including the Framework Committee, the Lake Harriet Advisory Committee, the Lake Calhoun Advisory Committee, and the Cedar and Brownie Lakes Advisory Committee. In addition, a Minority Report was submitted by a subset of the Framework Committee members, advancing proposals which differed from those in the main Framework Committee report. Finally, the Lake Harriet Advisory Committee brought before the Commissioners the recommendations of its subcommittees. These groups had self-organized early in the planning process in order to address concerns of particular importance, including environmental, pathway, boat launch, and traffic/roadway issues.

These recommendations were acknowledged by the Commissioners, but no official endorsement was made of any single set of proposals. In the following section, the recommendations of each committee and of the consultant team are provided; in general, the wording is taken directly from those reports.



Framework Committee recommendations

Immediate recommendations

System-wide, on parkways

- Paint bike lanes on the parkways
- Close lakes to motorized traffic temporarily on weekends
- Use better and more diverse enforcement of noise and speed laws on parkways
- Paint lane markers on two-way roadways at the lakes
- Research and test new/better walking/running path materials

Lake Harriet

- Temporarily redesign current boat launch until master plan is implemented
- Continue to reduce special events, but honor prior commitments
- Consider alternatives to port-a-potties, perhaps adding permanent facilities
- Provide a temporary fix for bike/pedestrian crossing at north side until master plan is implemented

Cedar Lake

- Put up "deep water" warning signs for Cedar Lake Meadows

Lake Calhoun

- Change timing of lights to reduce traffic build-up/congestion at both William Berry Parkway-Lake Calhoun intersection (add a time cycle here to stop all auto traffic in all directions and allow pedestrians, cyclists, and skaters to cross) and East Calhoun Parkway-Lake Street (timing on southbound Lake Calhoun Parkway should be the same on weekdays and weekend)
- Move refectory dumpsters away from lake and people
- Implement a temporary bike path away from the refectory by moving it closer to parkway, reducing congestion and increasing safety
- Move canoes at northeast "corner" to north side -- similar to committee member Ward Joyce's drawing (p. 41)

Lake-specific recommendations

Lake Harriet master plan design recommendations

- Use traffic calming, speed 20 mph (no net loss of greenspace principle)
- Demarcate bike lane in parkway with one-way traffic
- Move parking lot near bandshell, keeping same number of spaces (flip-flop current configuration)
- Redesign the bandshell seating areas (a more defined berm and additional trees)
- Add a bike/pedestrian bridge over roadway north of bandshell
- Boat launch: move to the east side of the bandshell *if* dredging to provide for sufficient depth for launch of boats is approved by the DNR, there is two-way access from the north side of the bandshell, no net loss of greenspace, and weeds are not a problem. Otherwise, reconfigure existing space per drawing presented by BRW
- Landscape Richfield Rd. with a median between 36th and William Berry Parkway, provided that lane widths are the same as or typical of the rest of the parkway system and net reduction in paving occurs, with no loss of trees
- William Berry Parkway: retain current configuration of parkway but with traffic control options at intersection with Calhoun Parkway/Richfield Road to make crossing safer for pedestrians, cyclists, skaters
- Create a lagoon and underpass between Calhoun and William Berry Parkway
- Test vegetative filters on an experimental basis; if successful, proceed further
- Biking path width to remain the same (8')
- Renovated walking/running path should include approximately two feet of current "cow path"
- Explore a variety of running path surfaces and landscaping to keep runners on track w/ no net loss of greenspace
- No additional pathways to be made
- Keep the lower east road open, eliminate an undetermined number of parking bay to gain greenspace, but retain handicapped access and "drop off" spaces

Lake Calhoun master plan design recommendations

- Entire lake road should be narrowed and a delineated bike lane created with clockwise direction (the existing recreational bike path would be changed to counterclockwise)
- Northwest side roadway: leave as is and do not disconnect from Dean Parkway intersection
Trolley line eventually to be extended to Lake Street, with an at-grade crossing near 36th street, and staying on the parkway, rather than going down along the lake
- When the trolley is extended to Lake Street, the east side of Lake Calhoun Parkway should become one-way between Lake Street and 36th Street to make room for the trolley
- Landscape Lake Street with a boulevard and trees between Isles and Calhoun
- Northwest side: put in additional beach, shade structure, and yacht club as designed and presented to the Framework Committee
- Northeast side: serious design of refectory and canoe is needed, per the drawings presented by MVVA or Framework Committee member Ward Joyce
- Grade-separated crossing at Lake Street to allow recreational users (pedestrians, cyclists, skaters) to make the crossing; should be aesthetically designed to fit into the Grand Rounds system

Lake of the Isles master plan design recommendations

- Preserve the picturesque character of Isles and address sinking on the north side
- Do not take out the southern road on Isles
- Do not connect the west side of Isles with Lake Street
- Do not offer parking at the current Park Board maintenance facility until such time as there is a specific need; at that time, design specifics should be considered
- The north end-Franklin disconnect is not recommended, but this issue should be looked at when design options are presented
- No bridge over the lake
- Maintain current traffic speed at Isles
- Put bikeway through Kenwood Park or Parkway to connect with Cedar Lake Trail, pending design specifics that are consistent with no loss of trees and no net loss of greenspace

Cedar Lake master plan design recommendations

The Framework Committee made no independent design recommendations, but accepted the Cedar and Brownie Lakes Citizens' Advisory Committee report.



Framework Committee Minority Report recommendations

- Every decision made regarding the planning for the Chain of Lakes park system should first look at the effects on water quality.
- All possible reductions in impervious surface should be implemented, including elimination of redundant or dual parkway roads. Stress should be taken off the parkway system by improving other commuter routes and encouraging use of shuttle buses and the trolley.
- Stormwater management should include all possibilities for detention and treatment before entering the lake chain, including vegetative filters, upland wetland ponds, grit chambers, curb/gutter reduction, and modification of public behavior involving pet waste and lawn chemicals.
- Continue to attempt to reduce the volume of use by the most destructive elements, including the automobile and both paved and unauthorized paths. Create additional recreational opportunities in lightly-used parts of the system and eliminate some non-water-related activities near the lakes.



Lake Harriet Advisory Committee recommendations

Overall committee recommendations

- Resurface the paths
- Restore the essential landscape
- Implement the short-term plan proposed by the Boat Launch Subcommittee
- Do not relocate the boat launch at Beard's Plaisance
- Keep upper and lower East Lake Harriet Parkway open permanently
- Implement a five-foot bikeway for Class A bikers/skaters with a one-foot rumble strip on one-way traffic routes
- Retain parking bays
- Look for opportunities to create wetland options within the Lake Harriet watershed
- Terminate the contract with Michael Van Valkenburgh and Associates
- Require at least fifty percent of MPRB Commissioners to be in attendance at Lakes Advisory Committee meetings
- End pumping from Calhoun-Isles-Cedar into Harriet
- Do not put water gardens [vegetative filters] in Lake Harriet/ implement water gardens on an experimental basis
[note that this reflects two contradictory votes by the committee]
- Do not alter the road system in major respects, except for "tweaking" to address specific problems

Environmental Subcommittee recommendations

- Recognize the existence of zones of differential use intensity
- Do not convert a current undeveloped zone into a moderate zone, or a moderate to a high use zone
- Accentuate the natural elements within all zones, giving priority to the preservation and restoration of "wild" nature; i.e., native plants and animals
- Specifically identify and locate existing niches of wildlife habitat
- Remove trees and brush only when absolutely necessary and allow the natural decay process to occur in undeveloped areas. This will increase habitat for a greater diversity of plants and animals while decreasing maintenance costs
- Address the causes of decreased water quality as a priority over the treatment of symptoms; i.e., lessen the pollution in stormwater and/or divert it away from the lake
- If vegetative mats are planted into the lake as a biofilter, retain as much as possible the natural habitat for existing plants and animals; i.e., overhanging willows, muskrat burrows, and sunfish beds
- Structures, materials, and designs must blend with the environment and not detract from the lake landscape
- Develop a limited amount of effective signage educating visitors about environmental aspects of the lake and the environmental impact of behaviors; i.e., biodiversity and duck feeding
- Retain the existing docks or piers at or near their present locations
- Retain the "Grand Rounds" connection among the Chain of Lakes (this does not necessitate a 360° automobile navigation of Lake Harriet)
- Separate less-compatible or conflicting usages wherever possible; i.e., joggers and automobile traffic
- Implement automobile traffic-calming in all zones, but especially in high-use zones; also establish and enforce a 20 mph speed limit on roadways
- Where walking/jogging paths are secluded or unlit at night, for greater safety, provide alternative direction to sidewalks along roads; one such location is the southwest corner by the duck feeding area, where a well-marked pedestrian right-of-way should be created to the sidewalk across the road
- Convert the "Queen of the Lakes" from diesel to electric, and stress cleaner, quieter motorized boats and maintenance equipment for Park Board staff

Pathways Subcommittee recommendations

- Five zones of congestion and conflict are identified: the refectory, the north and south beach areas, the dock area on the southwest side, and the intersection of the bike path and William Berry Parkway
- Traffic-calming measures which are generally used on roadways should be adapted and redesigned for the biking/ skating pathway. These calming measures would be implemented at locations just outside the five zones of concern to ensure that speeds have been reduced to a safe level. They would also increase awareness by both bikers/skaters and pedestrians crossing paths. Calming measures might include but are not limited to:
 - Speed humps
 - Traffic circles
 - Parallel chokers
 - Twisted chokers
 - Traffic signage and signals (William Berry crossing)
- Surface treatments (texture) should be used to slow skaters and bikers and make them more aware of a safety zone
- Add a bike lane for type A and B bikers/skaters on the roadway, with a physical barrier to separate cars and bikes, in all or part of the lake. Automobile traffic must be slowed using calming measures.
- Add a painted bike lane to roadways along with traffic-calming measures, along the lines of the Summit Avenue path
- Close off one or two lower roadways to auto traffic, move bikers and skaters onto that road, and eliminate that section of the pathway. This will increase greenspace, spread out congestion, and reduce intersections.
- Maintain existing width of pathways. More asphalt will not solve the problem but will only take away greenspace.
- Address "cow paths" with these measures:
 - Use landscaping (berms, trees, shrubs) around the lake to discourage people from going off-path
 - Make people aware of runners by painting a pathway designated for runners on the asphalt
 - Enforce leash laws
 - Running on trails should be confined to a park designed for that purpose; runners should stay on the asphalt path
 - A woodchip or crushed cinder path of two-person width could be added adjacent to the asphalt path for the exclusive use of runners
 - Remove asphalt path and research alternative materials that would be environmentally friendly
- Introduce park police patrols on bikes to enhance park safety and law enforcement
- Add emergency phones in the more secluded sections on the park
- Add more waste receptacles with dog clean-up stations

- Create small-scale wetlands in heavy runoff zones, spanned with gently sloping bridges, to slow bikers and skaters and prevent runners/walkers from leaving the paths
- Educate path users regarding proper etiquette, including cleaning up after dogs, not walking three or four abreast, and not wearing headphones

Boat Launch Subcommittee recommendations

- Retain boat launch in current location, but create a separate boat setup and tie-down staging area with marked lanes to accommodate five vehicles with trailers
- Move the three east sections of canoe racks toward the west and south
- Move the canoe dock south, consistent with the canoe racks
- Continue the existing retaining wall east to the concrete ramp, allowing trailers to maneuver close to the water
- Add a second entrance to the staging area and bike path midway between current ramp and 42nd St. intersection
- Create a queuing area for vehicles away from the intersection
- Allow temporary trailer parking on grass at southwest edge of boat launch area
- Widen ramp by 50 percent for easier maneuvering
- Install a narrow ramp dock to reduce time required for vehicles on the ramp
- Reroute bike/skate traffic north along the parkway, behind the women's restrooms, and east to existing William Berry Parkway crossing
- Remove existing bike/skate path section between the 42nd Street-West Harriet Parkway intersection and William Berry Parkway east of the bandshell
- Increase width of West Harriet Parkway by 8' ; add a bike lane on the east side of the road, with protection barrier
- Pedestrians would use the existing bike/skate path along the boat ramp
- Install signs instructing bikers to walk bicycles and skaters to reduce speed past ramp and refectory
- Install stop signs on bike/skate path intersection with William Berry Parkway northeast of bandshell
- Initiate bike/skate path speed limit enforcement
- Physical bike/skate path calming techniques should be investigated, including:
 - Sharp turns
 - Maze (twisted choker)
 - Pavement narrowing (parallel choker)
 - Break-away bollards
 - Speed humps
- Consider eventual move of boat launch to Beard's Plaisance area

Traffic/Roadway Subcommittee recommendations

- Implement selected traffic-calming measures, including speed bumps at each stop sign
- Add a 3' wide, one-way designated lane for Class A bikers on the roadway, with a flat sloping curb on the lake side
- Paint a narrow lane on the left side of the off-road bike paths
- Add emergency call boxes
- Increase park patrol visibility, particularly on foot, bike, and possibly horseback
- Reduce parkway speed limit from 25 to 20 mph
- Remove all sanitation satellites, restore the historical "biffs," and add restrooms on the south side
- Do not close parkways on either a temporary or permanent basis, except for event closures



Lake Calhoun Advisory Committee recommendations

Transportation/parkways

- Reduce the impact of the automobile on what is primarily a recreational and environmental amenity
- Reduce traffic volumes, especially as contributed by commuters
- Reduce congestion at problematic intersections
- Calm the traffic, slowing vehicles to 20-25 mph by narrowing lanes and introducing designated bike lane on roadway
- Do not close West Calhoun Parkway at northwest side of lake
- Address the automobile backup at Lake Street and East Calhoun Parkway
- Add planted medians and landscaping to Lake Street and Richfield Road
- No recommendation was made regarding a pedestrian bridge over Lake Street
- Extend the trolley from 36th to Lake Street, with track to be on the parkway, changing the parkway to one-way, possibly southbound

Pathways/recreation

- Increase safety and ease of pedestrian crossings of parkways, especially at Richfield Road/William Berry and on East Calhoun Parkway; design crossings that celebrate rather than endanger pedestrians
- Explore the creation of either a pedestrian underpass and lagoon at the south end of lake or an improved at-grade crossing
- Create a designated Class A cyclists' lane on the parkways to promote commuting, the Grand Rounds, and safety for all parties
- Close parkways on Sundays in the summer, opening them to walkers, bikers, skaters, and boarders
- No recommendation was made regarding a new park building and sailing facility near North Beach
- Thomas Beach should become a neighborhood beach with less parking and better noise enforcement
- Improve the existing Calhoun Pavilion to better accommodate its intense use and make it a more attractive place to gather

- Restore the connection of the Pavilion to the shore by
 - Moving rental canoes away from front of building
 - Extending a deck with overhead shade arbor from the Pavilion toward the shore
 - Redesigning sailors' access to the ramp so they need not drive between the Pavilion and the shore
 - Consider a public dock in front of the Pavilion to provide water access
- Create a new path to pull bikers away from the Pavilion, increasing safety
- Relocate the Pavilion dumpsters
- Improve Sailing Club's boat access and facility, rather than moving them
- Oppose development or changes to Oliver Park, with strong preference for water gardens in lake, as proposed by consultants
- Develop a tot lot on east side of Calhoun, opposite ECCO neighborhood

Water quality

- Implement changes that improve the water quality of the Chain of Lakes
- Further explore the possibility of the use of vegetative filters



Cedar and Brownie Lakes Advisory Committee recommendations

Water quality/environment

- Complete the Cedar Meadows wetland; add signage and safeguards to increase safety
- Develop vegetative filters at stormwater outfall points
- Use education and ordinances to limit the use of phosphorus fertilizers and to address air pollution
- Continue collaborative effort with Cedar Lake Park and Trail Association and neighborhood organizations to appropriately develop and preserve the north and east sides of Cedar Lake

Roadways

- Retain current two-way configuration of Cedar Lake Parkway; explore addition of designated bike lanes
- Form a collaborative, multijurisdictional effort to redesign and repair the Cedar Lake Parkway bridge to provide safer and more efficient passage for automobiles, bikers, and pedestrians
- Provide a safe link to the Cedar Lake Trail
- Implement traffic-calming through increased enforcement of traffic laws and design improvements
- Add a double striped line down the middle of Cedar Lake Parkway
- Work closely with the Cedar-Isles-Dean Neighborhood Association to develop a traffic plan for the Dean Parkway area
- Discontinue the use of paid parking lots on the west side

Bike/pedestrian trails

- Develop feeder trails off the Kenilworth Corridor Trail to provide access to vistas overlooking Cedar Lake; such trails should be made of natural and permeable surfacing
- Discourage the use of mountain bikes along the east side of the lake
- Provide access for disabled citizens at Hidden Beach, the north end vistas off the Cedar Lake Trail, along the Cedar Lake and Kenilworth Trails, and at the canoe rack/beach area on the west side of the lake
- Do not add lakeshore trails along the east side of the lake



Consultants' recommendations

A full detailing of the recommendations of the consultant team is available in the *Chain of Lakes Comprehensive Plan*. The major themes of these proposals are summarized below, using the wording of that report.

- Ideas and solutions should be formulated which address the Chain of Lakes integrally as an environmental system, a recreation system, and a transportation system.
- All proposed strategies should promote the improvement of water quality within the entire Chain of Lakes system and should address many problems at once.
 - Create linear wetlands which at once filter urban runoff and create new low-impact recreation paths to seasonally distribute recreation and create a variety of experiences
 - Establish vegetative filters at lake edges, particularly at areas of concentrated stormwater discharge, to filter stormwater discharge and address erosion problems
 - Restore lake edges, stabilize banks, and create wildlife habitat
- Maintain a continuous vehicular circulation system around the Chain of Lakes while allowing significant modifications to improve safety.
 - Return all parkways to two-way circulation
 - Narrow lanes
 - Implement traffic-calming techniques to slow speeds on parkways
 - Add Class A bikes on parkways
- Break up overly intense concentrations of activity areas by dispersing high-intensity activities, such as boating and swimming, to other areas in the park.
 - Relocate one or more activities from the Lake Calhoun refectory to another area on Lake Calhoun
 - Relocate one or more activities from the bandstand/refectory area of Lake Harriet to another area at Lake Harriet
- Maintain and improve existing "linear" recreation systems, such as jogging, biking, and walking.
 - Reduce the intensity of these activities at the lake edge by relocating one or more of these activities
 - Relocate Class A bicycles into a proposed designated bike lane on the parkways
 - Provide a new 4' soft-surfaced path along the parkway side of the existing "slow" path to reduce the tendency of runners to create "cow paths" for running
 - Widen the existing "fast path" from 8' to 10'

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- Improve recreation linkages between the different lakes; wherever possible, separate recreation from vehicular circulation.
 - Promote enhancement of public opportunities and foster democracy within the entire Chain of Lakes Regional Park.

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APPENDIX: COMMITTEE MEMBERSHIP

Minneapolis Park and Recreation Board staff (positions as of 7/96)

Design Advisory Committee:

David Fisher, Superintendent
Al Wittman, Assistant Superintendent
Robert Mattson, Project Manager; Director of Master Planning
Maureen Durand, Director of Community Planning
Mitzi Patterson, Community Planner
Mary Lynn Pulscher, Community Planner
Jeff Lee, limnologist; Manager, Environmental Operations

Staff Advisory Committee:

Paul Domholt, Urban Forester II
Brad Ericson, North District foreman
Sergeant Loren Evenrud, MPRB police
James C. Fagrelus, Park Operations Planner
James Hermann, Forestry Program Assistant
Captain William Jacobs, MPRB police
Mary Lerman, horticulturist
William Olson, Northeast District foreman
Deb Pilger, Water Quality Specialist
Casey Randall, Southwest District foreman
Michael Schmidt, Director of Park Operations
Sergeant James Schultz, MPRB police
Ralph Sievert, Director of Park Forestry
Alan Singer, Manager, Environmental Programs
Steve Vogen, Supervisor, Park Maintenance North
Michael Walner, Southeast District foreman

Consultant team

Michael Van Valkenburgh Associates, Inc.:

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Matthew Urbanski

InterFluve:

Lon Mikkelsen

White Mountain Survey Company:

Chester Chellman

BRW, Inc.:

Jack Lynch

Chris Behringer

Robert Kost

Framework Committee

Catherine Shreves, Chair, Framework Committee

Pamela Blixt

Jean Brown

Jan Dal Calzo, Chair, Lake Harriet Advisory Committee

Bob Day, Chair, Cedar Lake Advisory Committee

Florence Gray

Tim Griffin

Bill Hanson

Stephanie Hawkinson

Bil Holbrook

Ward Joyce, Chair, Lake Calhoun Advisory Committee

Thomas Lange

Vivian Mason

Jeff McNaught, Chair, Lake of the Isles Advisory Committee

David Messick

Megan O'Hara
Carol Berg O'Toole
Lola Schoenrich
Jeff Shapiro
Jim Spensley
Harvey Zuckman
Don Biemborn, Cedar Lake alternate
Debbie Evans, Lake Calhoun alternate
Bob Schroeder, Lake of the Isles alternate
Fred Walker, Lake Harriet alternate

