Lilydale/Harriet Island Regional Park

Master Plan

PREPARED FOR THE CITY OF SAINT PAUL
DEPARTMENT OF COMMUNITY SERVICES
DIVISION OF PARKS AND RECREATION

BY THE DESIGN SECTION OF THE
DIVISION OF PARKS AND RECREATION

LILYDALE/HARRIET ISLAND REGIONAL PARK MASTER PLAN

AUGUST 1991

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introduction

LILYDALE / HARRIET ISLAND REGIONAL PARK

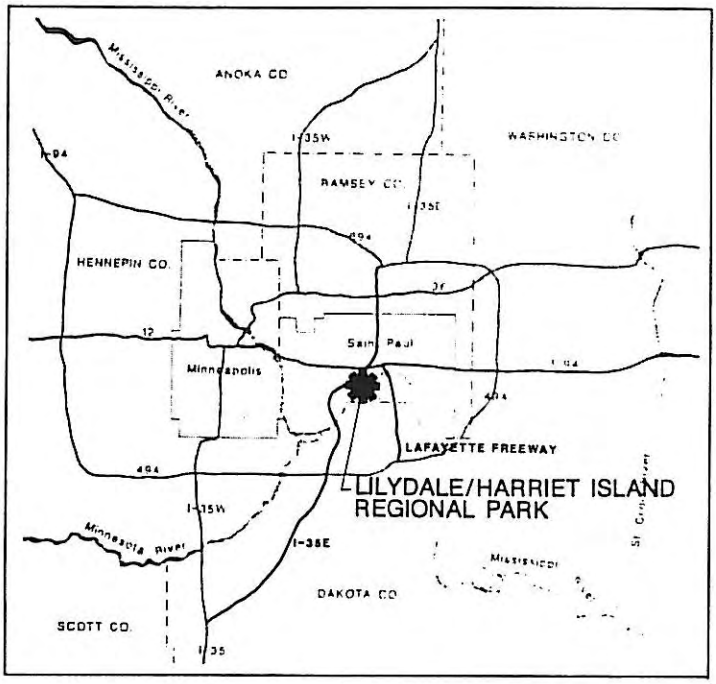
The Riverfront Park System

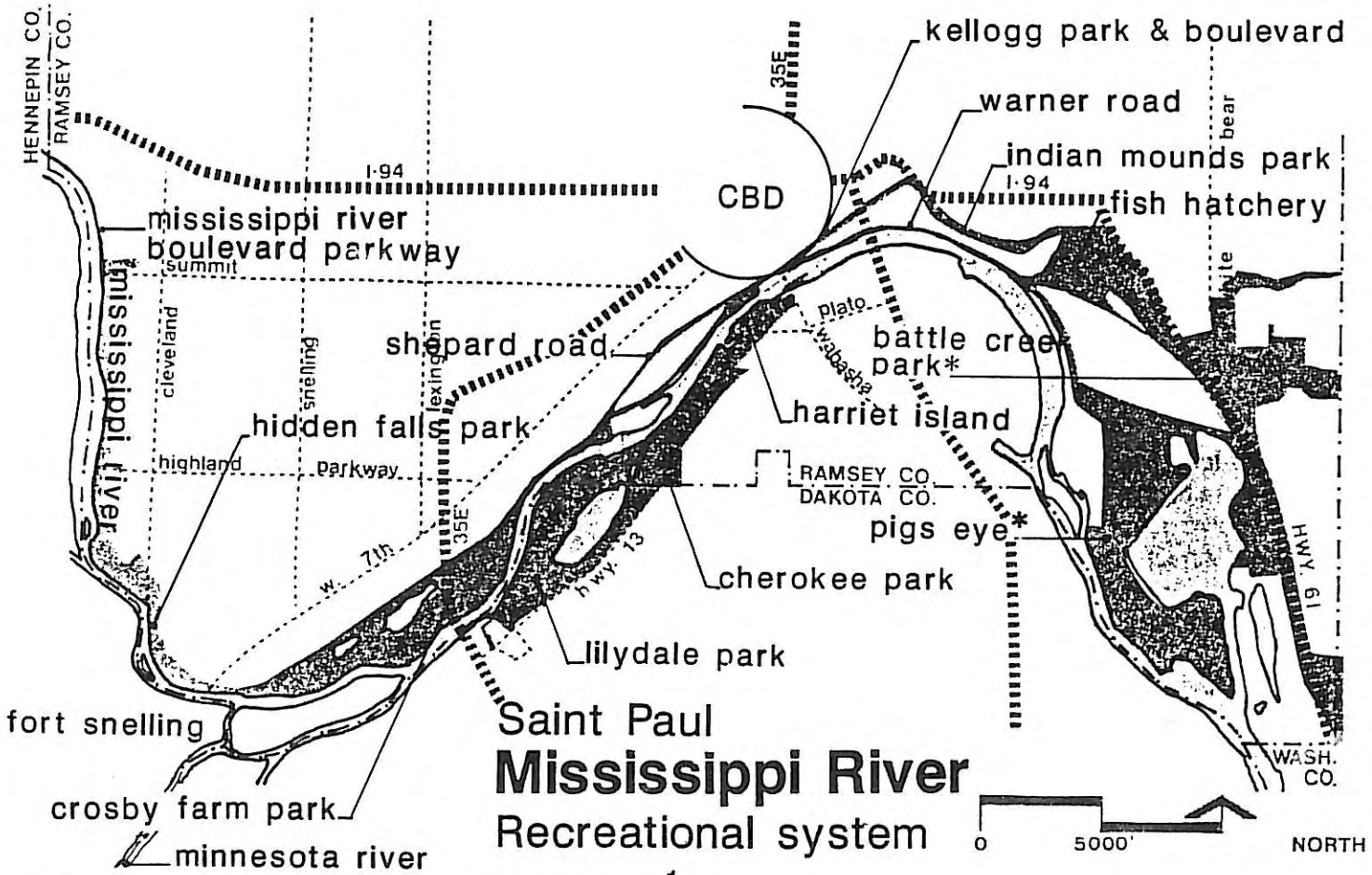
The Mississippi River corridor is one of the most important physical features in the City of St. Paul. It flows 17 miles through the City providing 27 miles of shoreline. Much of this shoreline has been acquired and preserved as parkland to form a continuous, unified riverfront park system providing a variety of recreational experiences for St. Paul and the region.

Lilydale/Harriet Island Regional Park is located within this corridor and will become an important part of the riverfront system of parks.

This plan will provide guidelines for developing Lilydale/Harriet Island Regional Park. Its unique location in the river corridor and its proximity to the St. Paul CBD greatly influences its potential to provide exciting and unique recreational opportunities.

Site Location Map





* Denotes parks under Ramsey Co. jurisdiction

Planning Process

PURPOSE OF THE PLAN

The Division of Parks and Recreation has prepared this document to provide a guide and framework for the orderly physical development, acquisition of funding, and operation and maintenance of the Lilydale/Harriet Island Regional Park.

GOALS AND OBJECTIVES

The identification of goals and objectives for the development of the Lilydale/Harriet Island Regional Park resulted from existing approved city plans and participation by the Community and the Saint Paul Division of Parks and Recreation. These goals and objectives establish the basic guidelines for the development of this plan.

GOAL

To provide a recreational area that is consistent with the "Regional Park" classification as specified by the Recreation and Open Space Development Guide/Policy Plan adopted by the Metro Council and also meets the goals of all pertinent city plans.

OBJECTIVE

-- To develop a focal point and highly visible entrance to the park and the river corridor park system.

-- To provide maximum public access to the river for a variety of recreational experiences unique to this segment of the river corridor.

-- To connect other segments of the river corridor system through trail connections, programming events and operations.

-- To provide interpretive opportunities and increase awareness of existing and potential natural resources.

-- To provide recreational facilities of sufficient size and scale to alleviate deficiencies within the primary service area.

-- To provide facilities that are physically accessible to all segments of the population.

GOAL

To implement a design that reflects the unique character, integrity and needs of this geographical area, specifically the Central Business District, the surrounding neighborhoods and this segment of the River Corridor.

OBJECTIVE

-- To select and assign recreational activities that enhance the unique site features, in particular the lake, the bluffs, the fossil area and the river.

-- To reflect urban qualities in the park areas closest to the Central Business District in design solutions and techniques.

-- To preserve, protect and enhance the natural resources of the site and reflect this quality in design solutions and techniques.

-- To improve the recreational quality of Pickerel Lake.

-- To "show off" Saint Paul.

-- To provide access to the river and to the park from adjacent neighborhoods and the central business district for pedestrians, bicyclists and automobiles.

-- To provide facilities and features to promote awareness of nature in the core of the city.

GOAL

To provide for the efficient delivery of quality service to the public.

OBJECTIVE

-- To generate revenue for park operation and maintenance.

-- To develop a maintenance and park office facility to service this area.

Citizen Participation

The Riverfront Commission, a citizen advisory board, was appointed by the mayor in 1984 to prepare a comprehensive plan for redeveloping Saint Paul's riverfront. The Commission's Recreation and Environmental Task Force was organized to study parks and open space development. This task force, along with the Commission's design consultant, BRW Inc., and the Parks and Recreation staff met on a regular basis to produce a preliminary plan. The Task Force was open to anyone wishing to participate and was regularly attended by representatives from the Saint Paul Yacht Club, the West Side Citizen's Organization (Planning District 3), Riverfront Commission members, and individuals from the community. The plan which evolved from this process and was adopted by the Task Force in August 1986 formed the basis for this plan.



Harriet Island Picnic. 1910.

The draft master plan was distributed to adjacent communities, regulating agencies, interest groups, and individuals for review and comment.

The Saint Paul Riverfront Commission adopted a resolution on March 31, 1988 "endorsing the Plan and urging the City Council and the Metropolitan Council to adopt the Plan. . . ."

The City of Saint Paul Planning Commission reviewed and approved the Plan February 10, 1989 for consistency with the Comprehensive Plan.

The Council of the City of Saint Paul by its July 6, 1989 Resolution No. 89-773, adopted the Lilydale/Harriet Island Regional Park Master Plan prepared by the Division of Parks and Recreation, and requested additional studies and/or information regarding certain plan elements.

Subsequently the Division of Parks and Recreation conducted additional research and studies and presented same to the Harriet Island Design Advisory Committee, the West Side Citizen's Organization, the Saint Paul Yacht Club and the Saint Paul Parks and Recreation Commission, and prepared a Master Plan revision dated September 26, 1990, based upon that information and the comments received. All of the aforementioned organizations support the plan as revised.

On August 15, 1991 The Council of the City of Saint Paul reaffirmed its July 6, 1989 approval of the Lilydale/Harriet Island Master Plan and approved and adopted the September 26, 1990 Lilydale/Harriet Island Master Plan revisions, and

Resolved, "that the Division of Parks and Recreation is hereby authorized and encouraged to submit said Master Plan and its revisions to the Metropolitan Council for review and approval."

The final Lilydale/Harriet Island Regional Park Master Plan was approved by the Mayor of the City of Saint Paul August 19, 1991.

Needs Analysis/ User Data*

INTRODUCTION

An analysis of recreational needs is an important component in the development of all regional park master plans. Available information can provide a relative or indirect measure of recreational needs and demands. Basic information pertaining to population characteristics, the supply of natural resource-based recrea tional facilities, and potential activity/facility demand will be presented here. Most of the information will be presented in a form which relates to the park's "primary service area" which in this case will be defined as the area within a five-mile radius of the park's center point. The first section of this analysis will further explain the primary service area concept. Most figures relating to the primary service area were generated from a computer program written to include information from all census tracts within the five-mile radius shown on the regional context map (see Figure 1).

PRIMARY SERVICE AREA CONCEPT

Regional parks and park reserve provide a wide range of outdoor recreation facilities. Recreational surveys conducted at several parks in 1978 and 1982 demonstrate that users travel varying distances for differing recreational opportunities. That is, a park may draw users from an average of 20 miles for camping, 10 miles for a boat access, 8 miles for a picnic-swimming area, and 3 miles for bike-hike trail. Recreational surveys have also shown that users are willing to travel further for the same activities when parks are located in the rural areas as compared to the inner cities. For example, a park in the City of Minneapolis may draw the majority of its bike-hike users from within 2 miles of the park. This correlates to the density of population in these areas as well as the juxtaposition of the park in relation to the urban core populations.

Generally, one-half to two-thirds of a park's total use originates from within 5 to 7 miles. For inner-city parks, the "majority of use" figures will probably be closer to 5 miles, while the figures for more rural or special use parks will most likely be closer to 7 miles. For means of comparison, a primary service area of 5 miles has been defined for regional parks. This is the area from which most parks will draw the majority or a significant percentage of their use. In addition, the park is most readily accessible to those residents within this area.

It is important to remember that regional parks are developed to serve the entire population of the Metropolitan Area, as well as out of state residents and visitors to Minnesota. The primary service area concept is a planning tool to help us better understand the majority of a particular park's current and potential use.

POPULATION

Table 1 shows pertinent data on the population within five miles of the park. The primary service area includes the great majority of the City of St. Paul and the southern suburbs of West St. Paul, South St. Paul, Lilydale, Mendota, Mendota Heights, and Sunfish Lake. Approximately 280,000 people reside in the primary service area. Although this area is projected to lose population by the year 2000 (275,000) the current and projected population greatly exceeds the service area population guidelines established for regional parks (36,000-125,000).

*Needs Analysis/User Data Source:
Metropolitan Council, Parks and Open Space Staff 1986 - Grant Scholen.

The major age groups in the primary service area as well as the Metropolitan Area are young and middle-aged adults. The young adult population is currently the dominant user group in the regional park system, followed by middle-aged adults, teens, and seniors (information relating to the numbers of youth less than 12 years old which use regional parks is currently not available). As the population structures ages over the next 25 years, there will be a higher proportion of middle-aged adults and seniors (this is primarily a result of the post-war "baby boom"). Considering the density population in this area, Lilydale-Harriet Island Regional Park will have a substantial primary user group over the next three decades. Facilities characteristic of regional parks will most likely receive substantial use. After the year 2000, the more passive types of facilities may fit the significant portions of the population as it turns middle-aged and then elderly.

The primary service area includes 25 percent of the region's racial minorities. Two areas of minority concentrations should be mentioned in particular, the first in central St. Paul (racial minority black), and the second in St. Paul south of the Mississippi River (ethnic minority-Hispanic). The Hispanic concentration is the only major concentration of this group in the Twin Cities Metropolitan Area. Thirty percent of the ethnic Hispanics in the Metropolitan Area reside in the Lilydale-Harriet Island primary service area. This group will reside in very close proximity to Lilydale-Harriet Island Regional Park and will have good access potential to its facilities. It should also be noted that the primary service area includes Minnesota's only major concentration of Hmong emigrants—about 9,000 Hmong living in the City of St. Paul in 1985 (the total state population is estimated at about 11,000).

Table 1

CHARACTERISTICS OF THE POPULATION WITHIN FIVE MILES OF LILYDALE-HARRIET ISLAND REGIONAL PARK
(based on 1980 U.S. Census Data)

	LHI PSA*		Metro Area Total		Percent
Population (1980)	279,987		1,985,873		14%
Projected Population (2000)	275,000		2,305,000		12%
Population less than 5 years old	18,646	(6.7%)	142,519	(7.1%)	13%
Population 5 to 17 years old	48,673	(17.4%)	413,643	(20.8%)	12%
Population 18 to 64 years old	168,966	(15.6%)	1,241,504	(62.5%)	14%
Population 65 and older	43,702	(15.6%)	188,207	(9.5%)	23%
Population in racial minorities (all "nonwhite")	25,732		104,648		25%
Population with Spanish ethnicity	6,627		21,866		30%

Table 2
COMPARATIVE SUPPLY OF SELECTED RECREATION FACILITIES
WITHIN FIVE MILES OF LILYDALE-HARRIET ISLAND REGIONAL PARK

Lilydale-Harriet Island
Primary Service

Facility	Area Supply		Regional Supply	
	Total	Per 1,000 People	Total	Per 1,000 People
Picnic areas with more than 10 tables - tables	698.0	2.50	7,622.0	3.8
Reservable picnic areas - shelters	13.0	0.04	215.0	0.1
Swimming beaches - feet	410.0	1.40	24,321.0	12.2
Boat access - parking spaces	190.0	0.60	2,067.0	1.0
Bike trails - miles	11.6	0.04	260.3	0.1
Walking paths - miles	43.0	0.10	394.7	0.2
Ski trails	25.0	0.09	362.8	0.2

Although the primary service areas has less recreational facilities typical of regional parks for all activities considered, the campground which is proposed in this park warrants additional discussion. Existing campgrounds in the Metropolitan Area are situated on the periphery of the region, outside of the first ring suburbs. This campground is the only camping facility proposed in the center of the urban area, and will likely receive considerable recreational vehicle (RV) use during the summer months and especially during special events (Riverfest, State Fair, etc.).

RECREATION ACTIVITY DEMAND

Two factors are used to judge the activity demand in an area served by a potential park. First, is the area relatively well-served by the current distribution of facilities in the region; and second, what kind of activities are of interest to the area's population and do they face any constraints in satisfying the interests.

The Metropolitan Council uses results of its field surveys of recreational use to develop use forecasting models for several kinds of recreational facilities. When these models are applied to all existing facilities in the region, a pattern of service emerges for each kind of facility. The resulting pattern can be used to judge the level of demand for each facility in the service area of a potential park.

The facilities analyzed are picnic areas, swimming beaches, boat launches, fishing accesses, campgrounds and nature study areas. The area served by this park received low scores in the analysis, that is, it is underserved for these kinds of facilities. This is not surprising considering the level of services shown in Table 2. In fact, the analysis identified an area south and west of the Mississippi River (from downtown St. Paul) which includes St. Paul's "West Side," West St. Paul and South St. Paul—all in the park's primary service area as areas which had the lowest score (-3 on a scale of -3 to $+3$). This is because the population is relatively high and distribution of existing facilities is sparse.

SUPPLY OF RECREATIONAL FACILITIES

The Minnesota Department of Natural Resources, Office of Planning, maintains an inventory of recreational facilities for the State Comprehensive Outdoor Recreation Plan (SCORP). Metropolitan Council Parks and Natural Resources staff has worked with DNR in updating information pertinent to the metropolitan area. This database identifies the following parks which offer a minimum (such as 1 mile or greater length for a trail) level of selected recreational facilities within the Lilydale-Harriet Island primary service area:

	Administering Agency
State	
Fort Snelling State Park	Minnesota DNR
Point Douglas Rest Area	Mn/DOT
Regional	
Como Regional Park	City of St. Paul
Mississippi Gorge Regional Park	City of St. Paul
Hidden Falls-Crosby Regional Park	City of St. Paul
Minnehaha Regional park	Minneapolis Park and Recreation Board
Battle Creek Regional Park (Indian Mounds and Pig's Eye Lake portions)	City of St. Paul
Lilydale-Harriet Island Regional Park (existing Harriet Island development only)	City of St. Paul
Municipal	
Interstate Valley & Rogers Lake Park	City of Mendota Heights
Garlough, Southview, Marthaler & Kennedy Parks	City of West St. Paul
Langford, Newell, Marydale & Highland Parks	City of St. Paul
Kaposia Park	City of So. St. Paul
Thompson Lake Park	Dakota County
Groveland	City of Inver Grove Heights

Note that in Figure 2, all regional parks except Lilydale-Harriet Island and Hidden Falls-Crosby Farm are situated along the periphery of the primary service area. Phalen-Keller Regional Park is just outside of the primary service area to the northeast. The SCORP inventory identifies the supply of recreational facilities for both the Lilydale-Harriet Island primary service area and the Metropolitan Region as shown in Table 2. No equestrian trails, snowmobile trails, or camping areas are identified in the Lilydale-Harriet Island primary service area. Note that for all facilities identified, the Lilydale-Harriet Island supply of facilities per 1,000 people is lower than the Metropolitan Region supply as a whole.

The Metropolitan Council has also collected information on the leisure interests of the region's population. In 1983, over 460 people from the greater St. Paul (generally includes St. Paul and areas to the south and east) returned a general leisure survey questionaire (approximately 3,500 usable returns were analyzed regionwide). Table 3 provides the results of the survey from the greater St. Paul area, which includes the Lilydale-Harriet Island primary service area. The results show that this area's interests are similar to the interests of the rest of the region. Of the typical regional park activities, only power boating and snowmobiling have different interest levels in the Lilydale-Harriet Island area than regionwide. Several of the activities where less than half of the interest is satisfied are those typical of regional parks; non-power boating, biking in natural areas, cross-country skiing, formal nature study, etc.

SUMMARY

Approximately 280,000 people reside within five miles of Lilydale-Harriet Island Regional Park. When considering typical regional park activities, the primary service area is undersupplied in relation to the rest of the Metropolitan Area. This densely populated area, which includes significant percentages of the region's minority population, will be well served by the additional facilities proposed for Lilydale-Harriet Island Regional Park.

Table 3
GENERAL POPULATION SURVEY
Adult Activity Interests - Overall and Unsatisfied

Activity	Percent Interested		Percent with Unmet Interests	
	Metro	LHI Service Area	Metro	LHI Service Area
1. Talking, visiting	94	92	14	12
2. Going out	92	88	23	20
3. Listening (TV, radio, etc.)	92	93	6	8
4. Reading	88	89	16	16
5. Travel	87	82*	38	33*
6. Walking (neighborhood)	84	83	18	17
** 7. Picnicking	82	81	23	19
** 8. Visiting zoos	79	76	27	22*
** 9. Walking (natural areas)	78	78	32	28
10. Shopping, browsing	75	79	12	14
11. Visiting historic sites	71	74	31	31
** 12. Visiting conservatory	68	70	28	24
** 13. Swimming (beach)	68	63*	24	20
14. Cooking	67	65	12	11
15. Attending performances	66	63	31	28
16. Gardening	64	61	20	18
17. Attending sports events	62	64	23	26
18. Biking (neighborhood)	62	55*	21	20
19. Playing table games	61	61	14	15
** 20. Fishing	60	59	24	22
** 21. Camping	60	58	28	23

Table 3
GENERAL POPULATION SURVEY
Adult Activity Interests - Overall and Unsatisfied
(Continued)

Activity	Percent Interested		Percent with Unmet Interests	
	Metro	LHI Service Area	Metro	LHI Service Area
22. Exercise, fitness	55	52	23	19
23. Casual sports	54	49*	15	12
** 24. Boating (non-power)	52	51	29	28
** 25. Biking (natural areas)	52	48	28	28
26. Clubs, church groups	50	48	12	14
27. Swimming (pools)	50	42*	20	18
28. Bowling	47	44	18	19
29. Photography	46	46	16	17
30. Performing arts	46	48	21	23
** 31. Sledding, tobogganing	40	39	18	19
** 32. Skiing (cross-country)	38	37	23	21
** 33. Nature study (informal)	37	36	15	14
34. Racquet sports	37	38	19	19
** 35. Boating (power)	37	29*	15	14
36. Needlework	37	40	11	10
37. Shopwork	36	34	13	13
38. Team sports	34	37	13	18*
39. Jogging, running	34	33	12	10
40. Golf	31	24*	15	10*
** 41. Horseback riding	31	31	23	23
42. Pool, billiards	30	29	12	12
43. Animal training	29	26	9	10
44. Skiing (downhill)	27	22*	15	15
45. Ice skating (non-hockey)	26	27	14	14
46. Studio arts	25	25	14	13
47. Hunting	24	22	8	7
48. Collecting	24	23	7	6
49. Electronic games	21	22	4	6
50. Rollerskating	21	18	11	10
51. Shooting sports	19	16	9	8
** 52. Snowmobiling	18	13*	9	8
** 53. Nature study (programs)	12	12	8	9
54. Recreational flying	12	10	8	6
55. Adventure sports	12	13	8	8
56. Martial arts	11	13	6	8
57. Racing	10	10	5	5
58. Playing ice hockey	9	13	4	7

* Significant differences between the overall metro population and LHI Service Area.
** Activities generally provided in regional parks.
____ Underlined percentages are for activities where more than half of those interested are unsatisfied.

Figure 1

Regional Context Map
Lilydale-Harriet Island Regional Park

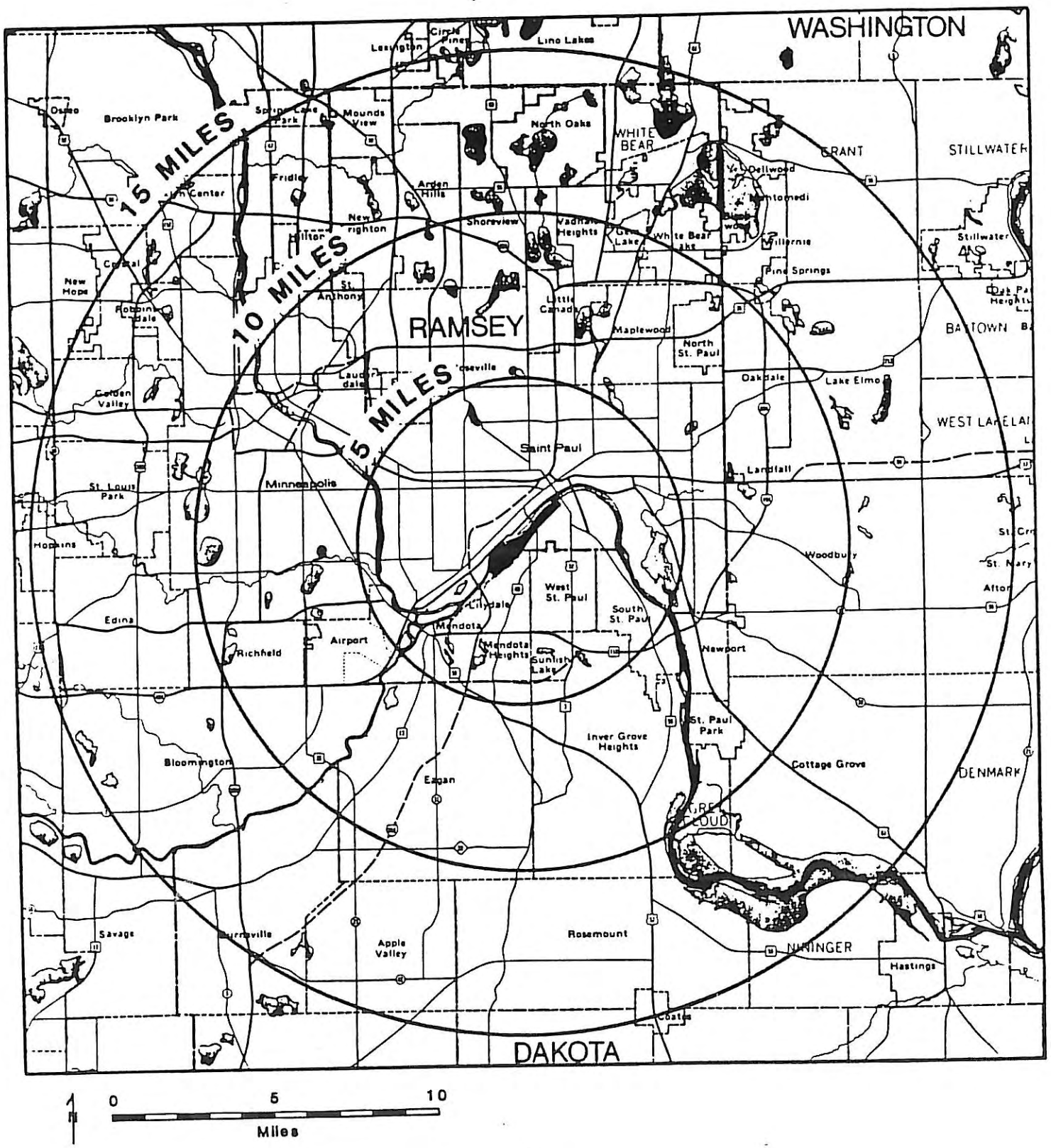
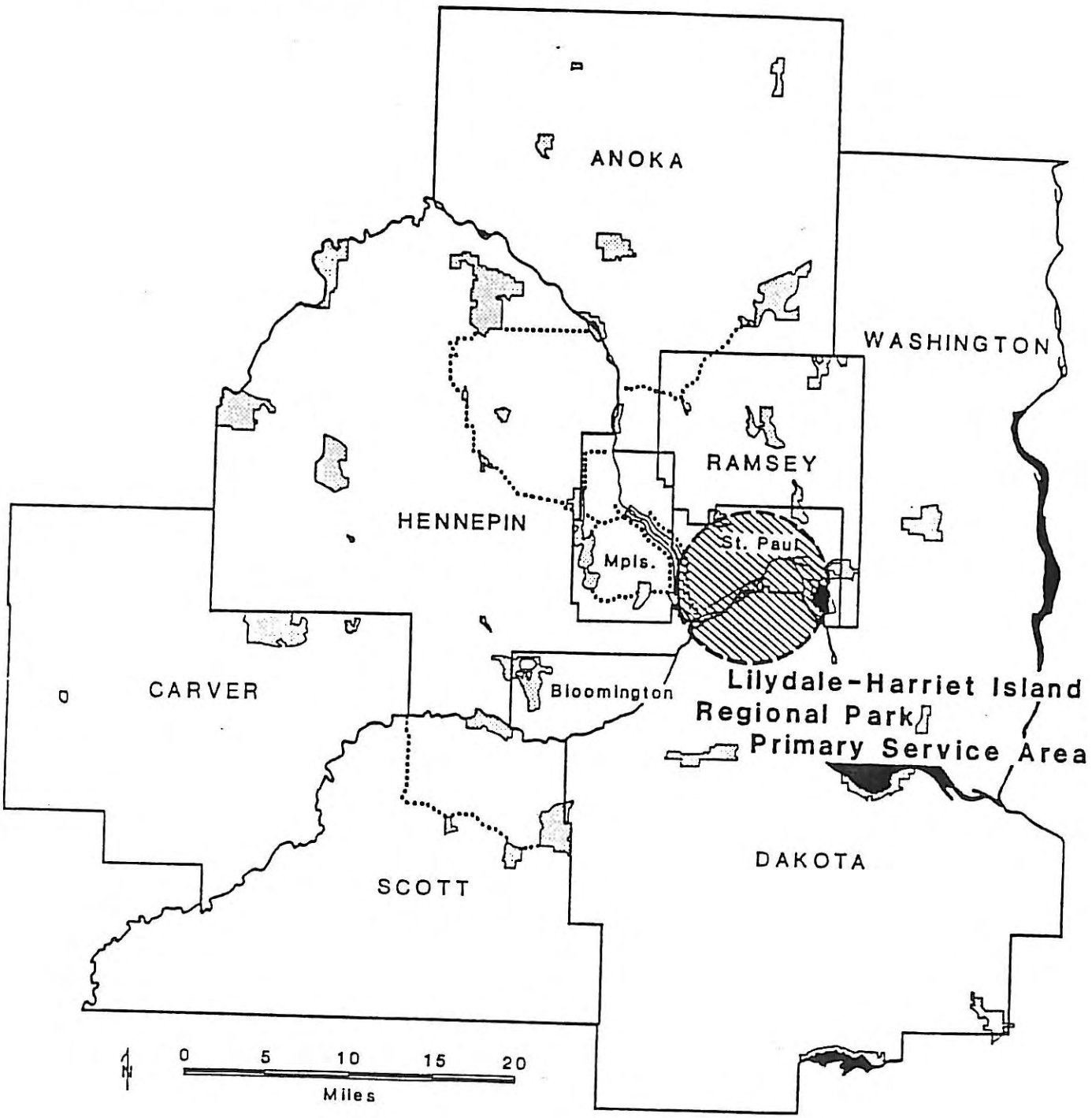


Figure 2
Twin Cities Metropolitan Area
Regional Recreation Open Space System

Location of Lilydale-Harriet Island Regional Park and Its Primary Service Area



Historical Background

The Lilydale-Harriet Island Regional park encompasses three park areas: Harriet Island, Cherokee Park and Lilydale, each with its own unique history.

HARRIET ISLAND

Harriet Island, situated on the southern shore of the Mississippi River directly across from St. Paul's central business district, features a varied and interesting past.

The island is named after Minnesota's first school teacher, Harriet Bishop, who came to this area in 1847 and held classes for Native Americans in an old log schoolhouse located on the island.

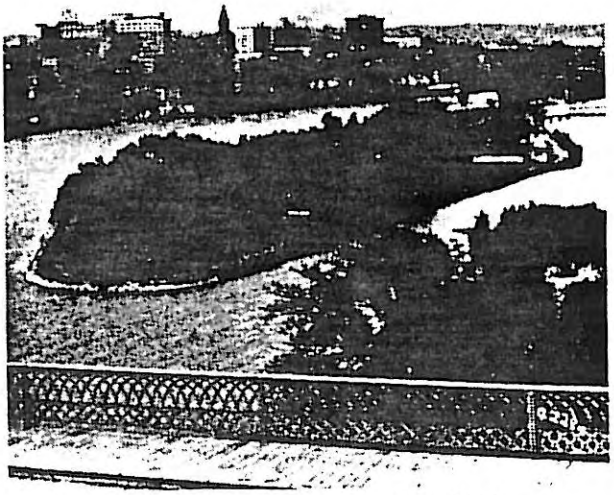
The island has long been an area of citywide activities up to and including the present time. In the early 1900's, with few sanitary facilities available in the surrounding community, the island's owner, Dr. Justus O'Hauge, opened a bathhouse. He later donated this property to the City as a gift to the people. The baths, along with a playground, a free day nursery and a small zoo developed into an extremely popular area attracting thousands of visitors daily. This popularity remained until the baths were closed due to the unsanitary conditions of the river water. The zoo animals were later relocated in Como Zoo and the island was turned over to the St. Paul Parks Division from the Public Safety Department in 1929.

During the period that followed, the island lost much of its appeal although it was still a popular picnic site for both large groups and families. In 1940, a stone picnic pavilion was constructed by the WPA.

Up until 1950, the park was a true island, separated from the mainland by a channel of water varying in width from 100 to 200 feet. This channel was subsequently filled in eliminating the siltation problems that had plagued the area for years. The construction of a small boat harbor and levee were undertaken in 1965 to protect the area south of the park from floodwaters.



Harriet Island Public Baths. 1912.



Harriet Island viewed from High Bridge. 1912.

CHEROKEE

In 1903 James J. Hill, a prominent local business man and railroad tycoon, donated $13,000 to be used to acquire a strip of land along and including the bluffs on the south side of the Mississippi River. This tract of land beginning at the High Bridge and extending west for about 1500 feet has since become a part of Cherokee Boulevard Parkway and Cherokee Park. The remaining park acreage was donated by other individuals and purchased by assessment. All of the parkland acquisition was made between 1903 and 1911.

The Indian name, Cherokee, has no special historical significance except that many streets in this area were platted with Indian names. The Dacotah and Sioux were the people that inhabited this area.

The Parkway was paved for the first time in 1923. Following that, a shelter house for a tourist camp and a bandstand/pavilion were completed along with a "kittenball" field and a double tennis court.

Since its establishment in the early 1900's, Cherokee Park and Parkway has been primarily a passive park with scenic views and picnic sites as its major attractions. This is also how it remains today.



Cherokee Heights Boulevard Parkway. 1924.

LILYDALE

Lilydale Park lies in the Mississippi River floodplain between steep bluffs on both its north and south sides.

The nearby region of Mendota is rich in history. It was the first permanent white settlement in the State of Minnesota. In 1826, Jean Baptiste Faribault selected it as the best location for trade with the Sioux Indians and established a headquarters for John Jacob Astor's American Fur Company.

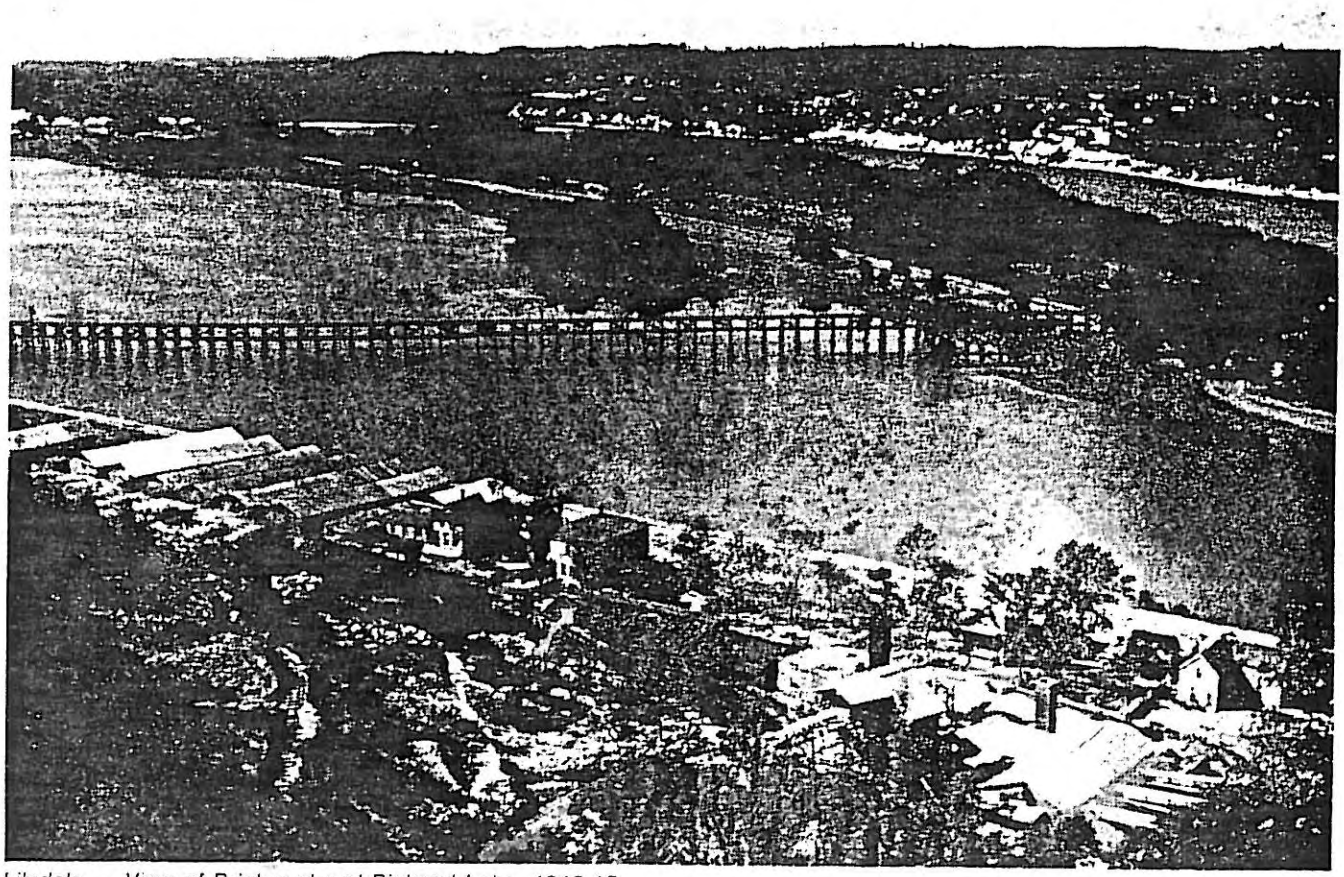
The bluffs to the north of the Lilydale area are also historically significant. It is in this bluff that Fountain Cave is located. In 1838, Pierre "Pigs Eye" Parrant, a vagrant voyageur, established an outpost in the cave and sold bootleg whiskey to Indians and soldiers from Fort Snelling. This was the first structure of what is now the City of St. Paul.

Within the site of Lilydale Park are huge caves carved out of the bluffs. They were used to grow mushrooms and also used by breweries to age and cool beer.

The Twin City Brick Company, founded in 1889 by Fritz Koch, mined the bluff for clay to make bricks, and produced bricks in this location until 1973.

In the 1950's, many structures, mostly mobile homes and a few small businesses, were located in the lower floodplain area even though nearly the entire area was susceptible to flooding. Acquisition of Lilydale for regional park purposes was approved in 1974 and subsequently, all of the structures were removed to allow the area to return to its natural floodplain state.

In March of 1984, the City of St. Paul, by mutual agreement with Ramsey County and the City of Lilydale, acquired the Lilydale portion of the park to consolidate operation and maintenance responsibilities for the entire 631.9 acre Lilydale/Harriet Island Regional Park.



Lilydale — View of Brickyard and Pickerel Lake. 1910-15.

existing conditions

LILYDALE / HARRIET ISLAND REGIONAL PARK

General Park Description

Lilydale/Harriet Island Regional Park is made of three separate, but contiguous park areas: Harriet Island, Cherokee and Lilydale. The Park extends from Wabasha Street upstream to Interstate I-35E and encompasses 631.9 acres of land that varies significantly in character from one park area to the other. These lands include the area from the river shoreline up to and including the bluffs and some areas above the bluffs. Cherokee, for the most part, is above the bluffs and Harriet Island and Lilydale are on a floodplain below the bluffs. The park boundaries for the three parks are as follows:

HARRIET ISLAND AND NAVY ISLAND

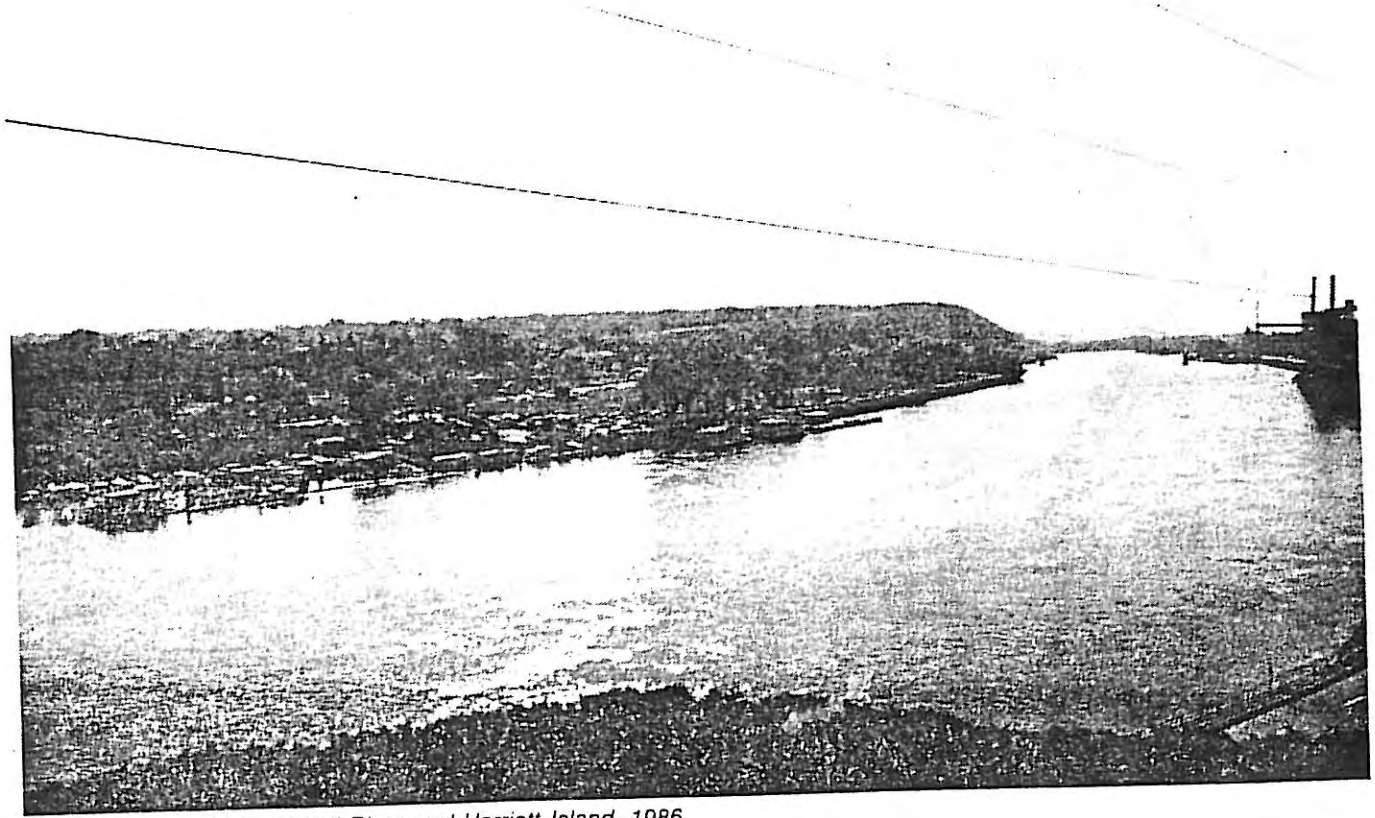
The boundaries for Harriet Island are considered to extend from the Wabasha Bridge upriver to the High Bridge and from the shoreline to Nagasaki Road and Water Street. Harriet Island includes 67.73 acres. (See addendum for Navy Island.)

CHEROKEE

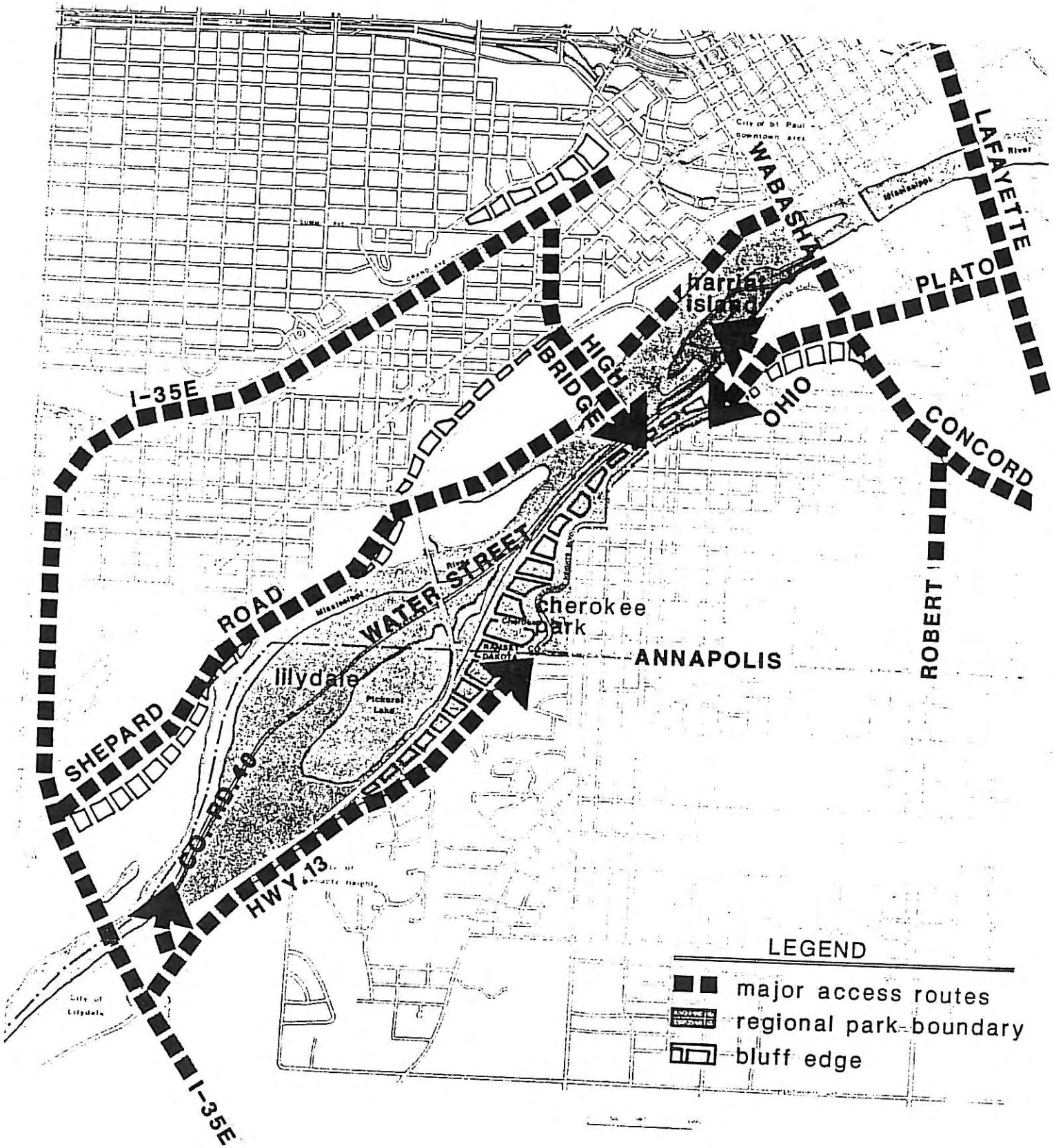
Cherokee Park and Parkway lies above the river valley. Its boundaries are considered to extend from the city limits at Annapolis Street to Ohio Street including areas on the bluff and abutting Chippewa Avenue and Cherokee Avenue on the east. Cherokee Park includes 67.63 acres on top of the bluff and 112 acres on or below the bluff.

LILYDALE

The boundaries for Lilydale extend from the High Bridge upriver to approximately I-35E from the shoreline to the bluffs including some areas above the bluff adjacent to Highway 13. Lilydale includes 384 acres.



Upstream view of Mississippi River and Harriett Island. 1986.



regional park boundary/site access

0 1000' NORTH

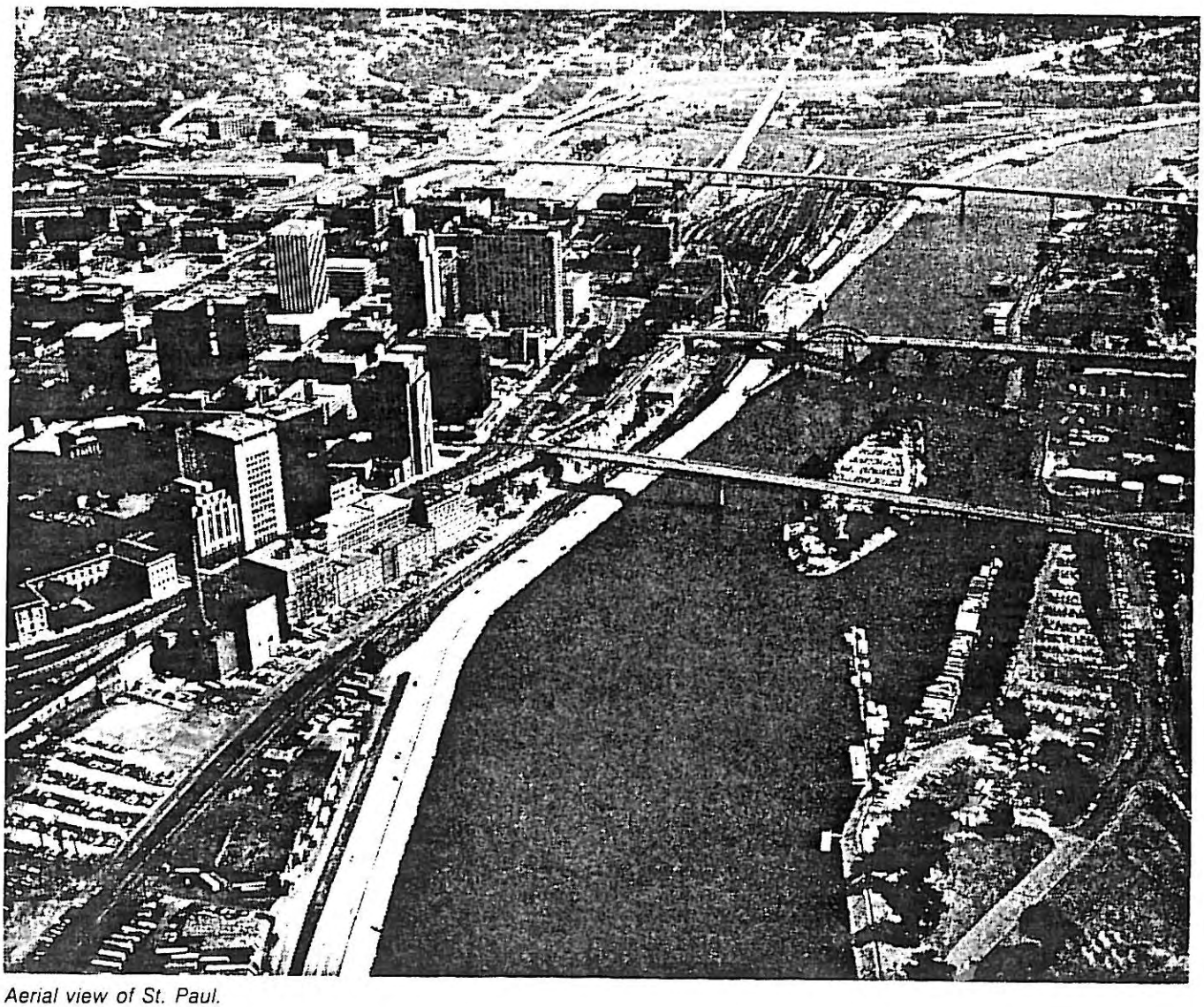
LILYDALE / HARRIET ISLAND REGIONAL PARK

General Access

The most direct access to the park from the interstate freeway system is via the Lafayette Freeway at the northeasterly end of the park and via I-35E at the southwesterly end of the park.

Many local routes, including Highway 13, Plato Boulevard, Wabasha Street, Water Street, Ohio Street and Cherokee Boulevard also lead into the park.

The Mississippi River runs the length of the park on the north making this side suitable for access by boat only. Public watercraft access is currently available at Harriet Island.



Aerial view of St. Paul.

existing conditions • harriet island

LILYDALE / HARRIET ISLAND REGIONAL PARK

HARRIET ISLAND

Harriet Island is part of a designated regional park within the St. Paul Park System. Its main purpose is to provide outdoor water related recreation that attracts users from throughout the metropolitan region. In its present condition, the park area is underutilized, unattractive and in need of a complete rehabilitation.

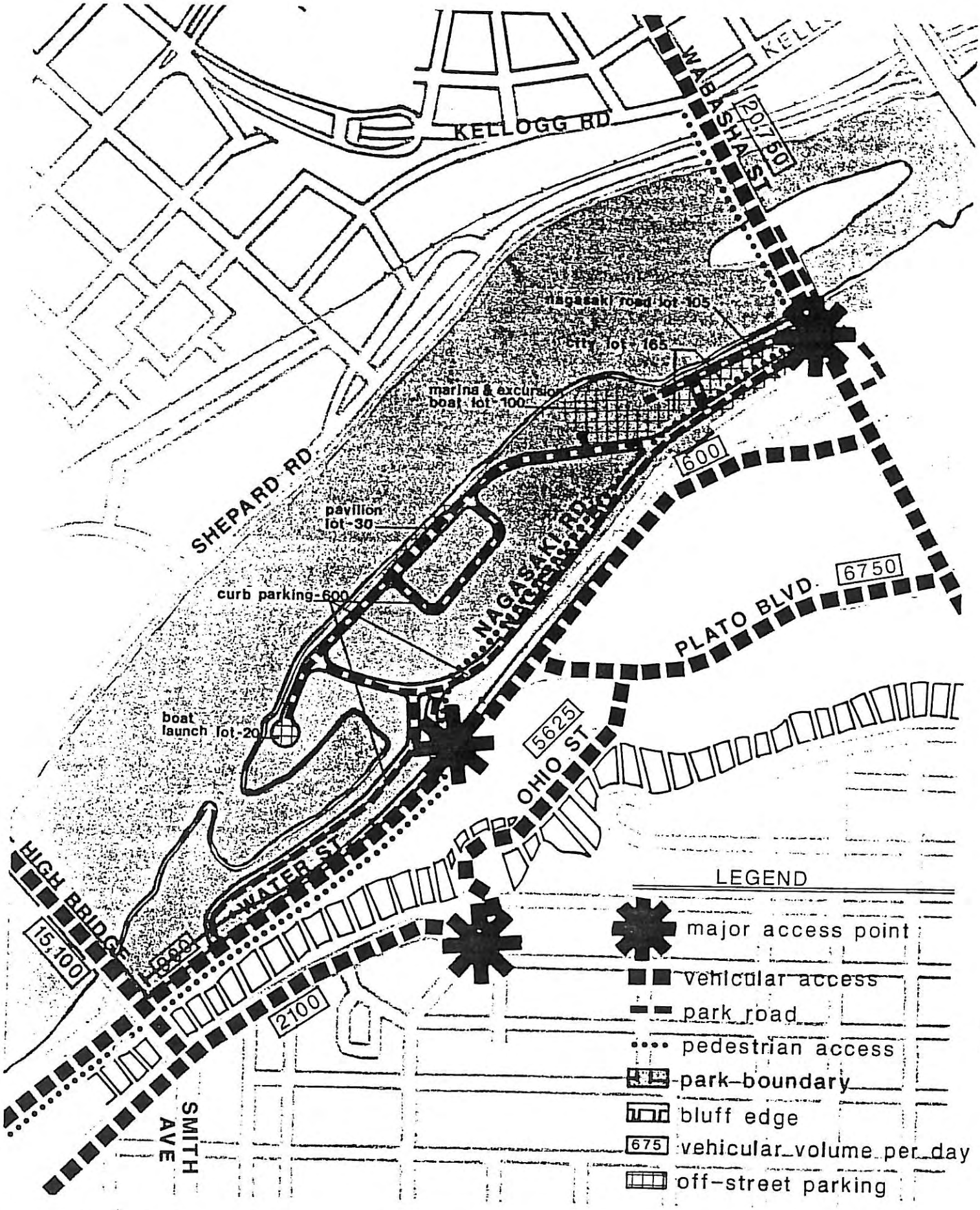
Existing use of the park includes areas for picnicking, field sports, storage of dredge spoil material, a flood control levee, parking and a marina and marina related facilities including an excursion boat docking area.

The current atmosphere of the site does not encourage non-programmed or non-facility related recreation such as strolling, biking or sitting. However, jogging is an exception to this rule and is very common weekdays during the noon hour when hundreds of people living and working in the central business district use Harriet Island through to Lilydale for this exercise.

Recent programmed use of the park includes a two week festival, performances of the St. Paul Children's Theater group at the pavilion and Winter Carnival activities.







harriet island – existing circulation

Circulation

VEHICULAR

There are four routes that currently serve as vehicular access routes into the park. Three of these routes lead directly off Wabasha Street, a high traffic volume arterial street. They are Nagasaki Road, Water Street and Plato Boulevard. The fourth, Ohio Street, connects Cherokee Boulevard and the upper park areas with the lower park areas at Harriet Island.

Of these four access routes, Plato Boulevard, a four-lane divided roadway, is the only route that connects directly with a major freeway (Lafayette Freeway).

Water Street currently runs through the regional park between Harriet Island and Lilydale. This street provides the only access to several small businesses at the base of the bluff west of Ohio Street and one business just west of the High Bridge.

The primary vehicular access points into the park are at the intersections of Wabasha Street and Nagasaki Road and also Nagasaki Road and Water Street.

Although the majority of park access occurs at these intersections, they are currently poor park entryways. Their locations lack any sense of park identity and have inherent traffic circulation and safety problems.

Access into the park is also restricted by the levee which runs the length of Nagasaki Road and acts as a barrier for all park visitors wishing to enter the park from the south.

At this time, all other roads and streets, including Nagasaki Road, are considered interior park roads and relate directly to present uses and features of the park.

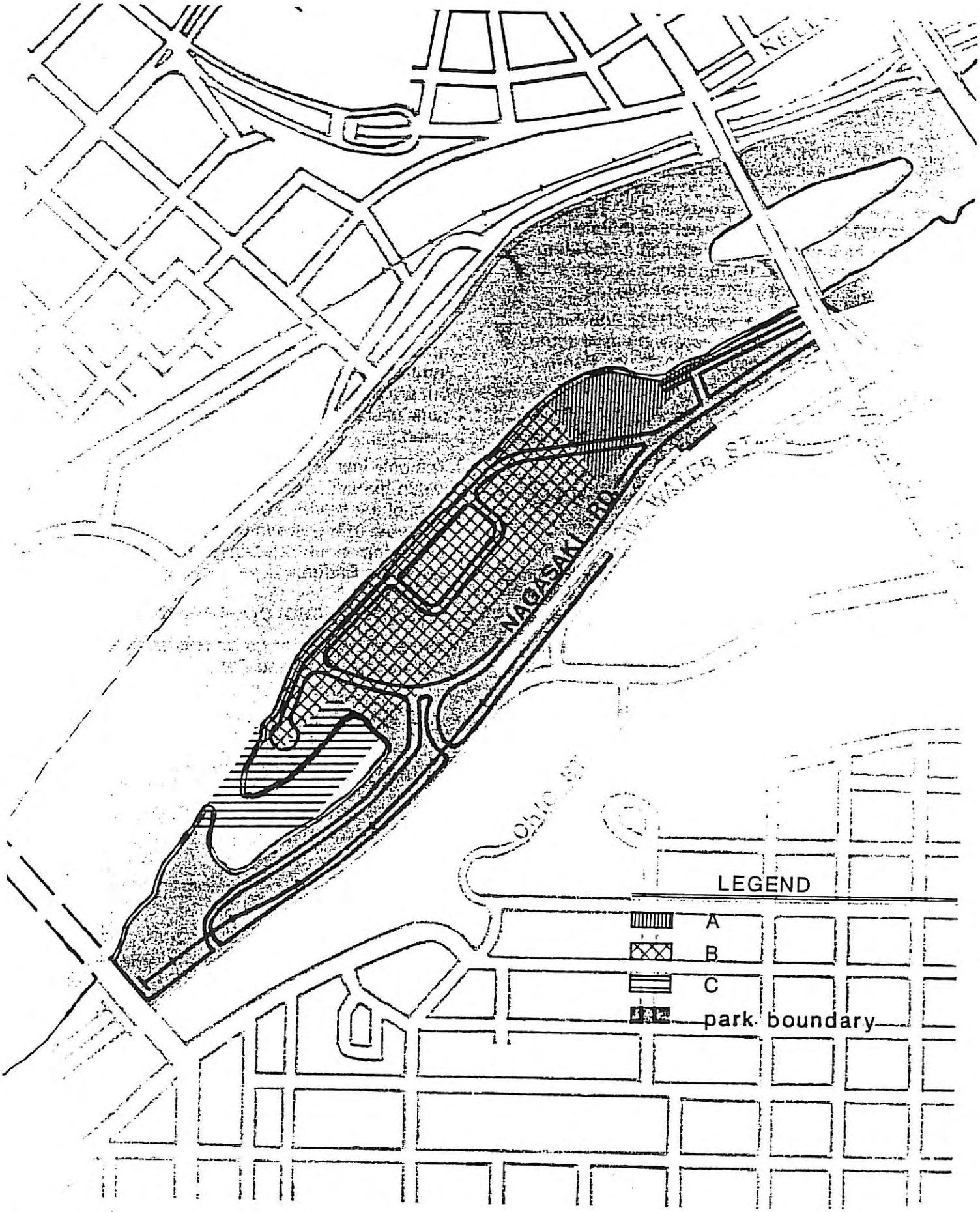
Parking currently occurs on all interior park roads. The majority of people parking here during the week are not using the park facilities, but are people who work downtown. Weekend park users simply use on-street parking provided.

The only improved off-street parking provided within the interior of the park is a small lot in front of the pavilion. Other off-street parking is available in a gravel/paved area adjacent the excursion boat landing extending to the Wabasha Bridge.

PEDESTRIAN/BICYCLE TRAILS

There are currently no pedestrian or bicycle trails in Harriet Island Park.





harriet island – deed restrictions

Deed Restrictions

In addition to the zoning code and other typical land use controls, Harriet Island Park also has some very specific title (or deed) restrictions.

Portions of the park were donated to the City by Dr. Justus O'Hauge, with the stipulation that the land would be used for certain public purposes. In 1982, a lawsuit regarding the City's use of Harriet Island resulted in specific land use restrictions and established boundaries for each use.

The three separate use areas that were defined are indicated on the Deed Restriction Map as areas A, B, & C. Generally stated, the use of these areas is:

AREA A may be used for river intensive purposes such as parks, public recreation, restaurants, bars, shops and marine development. This area may not be used for housing, industrial developments, hotels or any use closed to the general public.

AREA B may be used only as a public park for public recreation including facilities for commercial river excursion boats.

AREA C may be used for parks, recreation, and as a public marina and its ancillary facilities.

Vegetation

Vegetation consists primarily of turf grass, ground cover and overstory trees.

Floodplain tree species dominate the site with a mixture of young volunteer species found on the riverbanks south of the lower harbor and north of the upper harbor. Mature trees are located east and west of the picnic pavilion. Additionally, a few ornamental species have been introduced to the west and northeast of the pavilion.

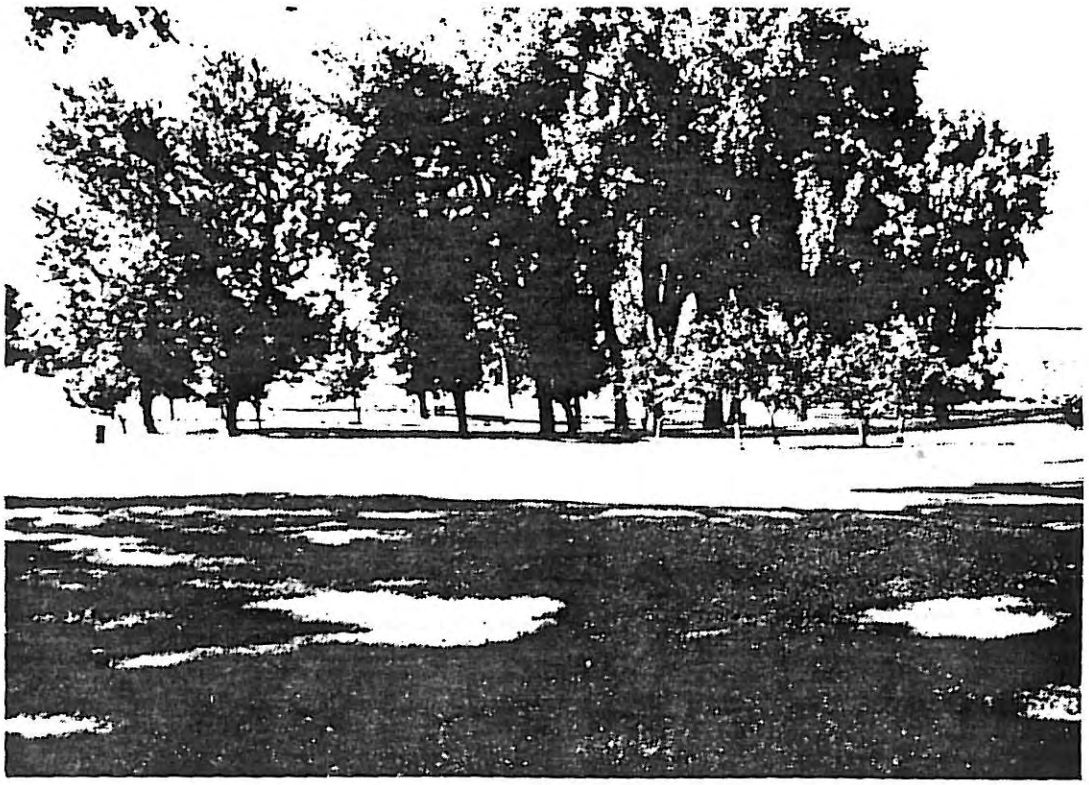
The main tree species identified are:

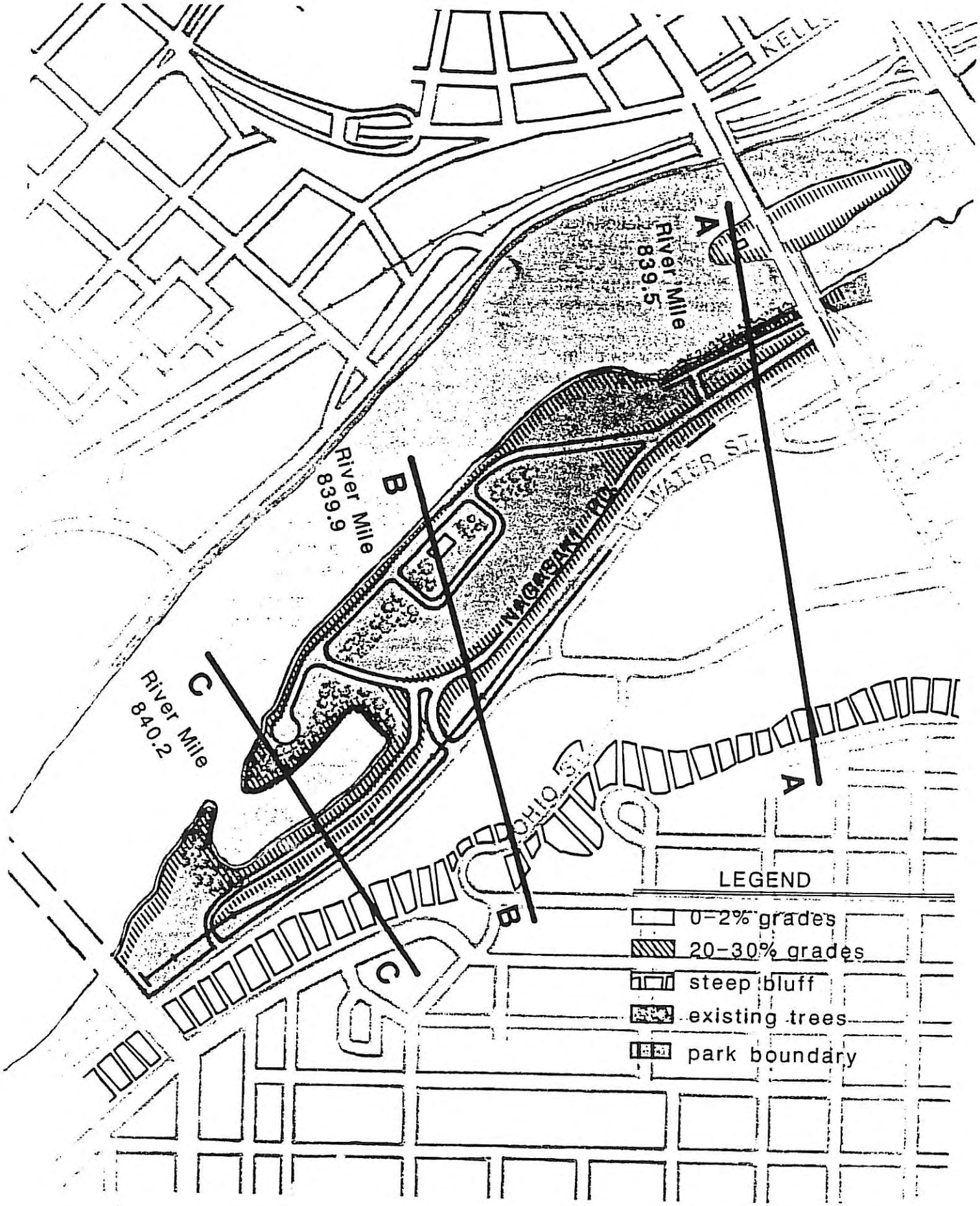
— Floodplain
  Cottonwood
  American Elm
  Green Ash

— Ornamental
  Little Leaf Linden
  Flowering Crab

Over 50% of the area is completely devoid of trees and other landscaping.

The impact of the existing vegetation is poor at best and the area badly needs more vegetation for spatial definition, wind, and sun protection as well as a variety of aesthetic considerations.





harriet island - topography/vegetation

SCALE / HARRIET ISLAND REGIONAL PARK

Topography

Originally, Harriet Island was a river island separated from the mainland by a backwater channel, irregularly shaped by the natural forces of the river.

Today however, the park has lost its natural island character. The backwater was filled in, marina basins constructed, and a flood protection levee added, all with engineered slopes and geometry.

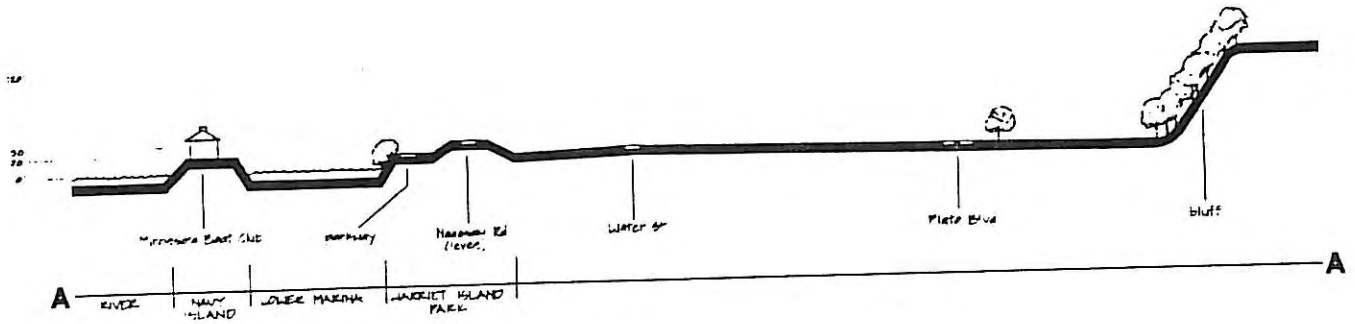
For all practical purposes, the majority of the site can be considered flat. It sits approximately 17 feet above the normal pool elevation of the river and harbor water levels. The top of the levee runs approximately 12 feet higher than the park area.

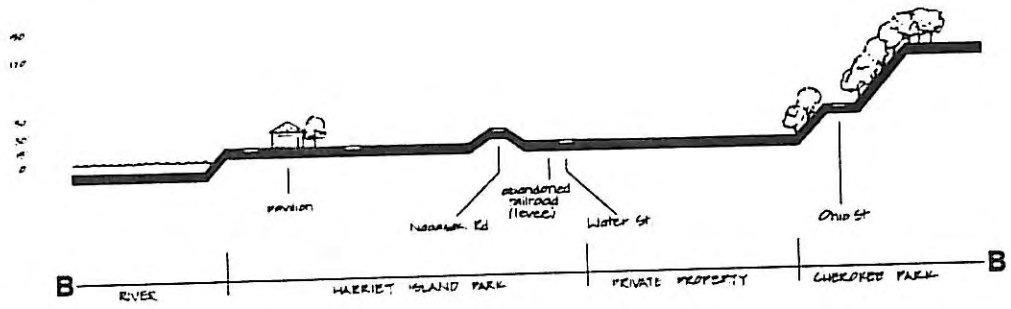
Steep slopes of between 1-1/2:1 and 4:1 separate the park area from the river's edge and the top of the levee.

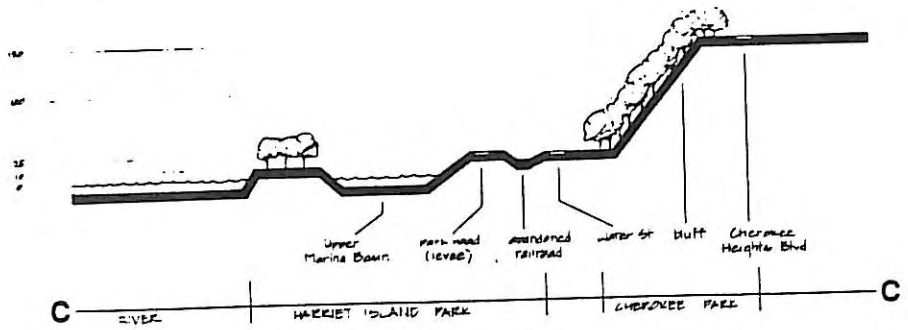
These slopes are not suitable for park uses and separate the major usable park area from the river and the adjacent property south of the levee.

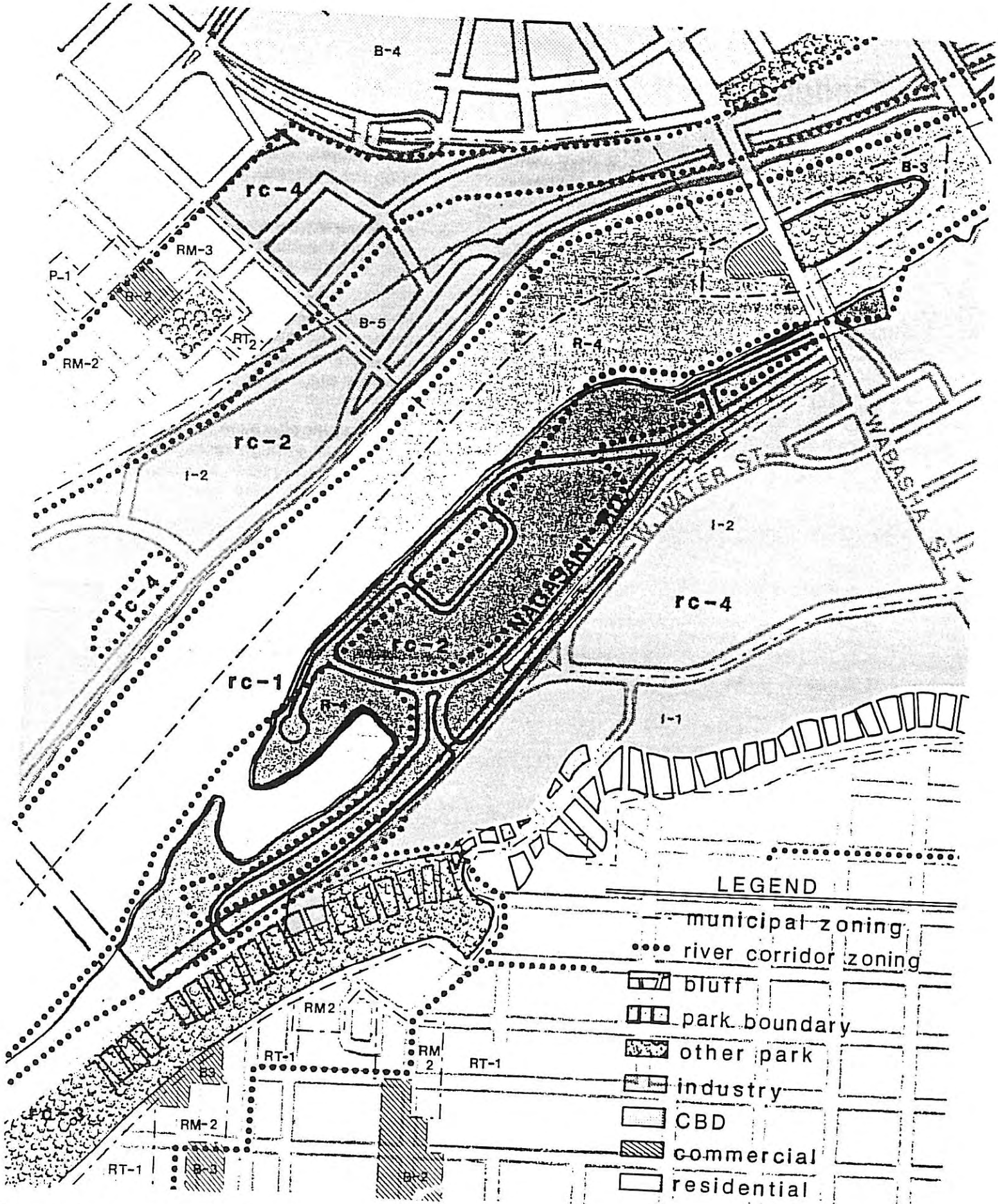
Restoration of the original topography and island configuration would be difficult. It would be economically expensive to achieve and maintain and in any case, the flood control levee must remain.

Topographic alteration of the levee can be accomplished through redistribution of existing soil. Major filling north of the levee is generally prohibited by state law and local zoning regulations.









harriet island – land use/zoning

Adjacent Land Use

Harriet Island is surrounded almost entirely by business and industrial land uses and is overlooked by a residential area to the south and the City's central business district across the river to the north.

Adjacent land use is the Riverview Industrial Park. This is an area of business, office, storage, and light industrial uses. The use and general atmosphere is similar to that of a typical contemporary suburban industrial office park. The area contains a variety of building types and is generally well landscaped. Plato Boulevard is the main circulation route through Riverview to Harriet Island. Plato is a four-lane, divided and landscaped roadway.



Harriet Island aerial view.

Zoning

The Harriet Island area is entirely within the City of St. Paul and is subject to the City's zoning codes regarding development.

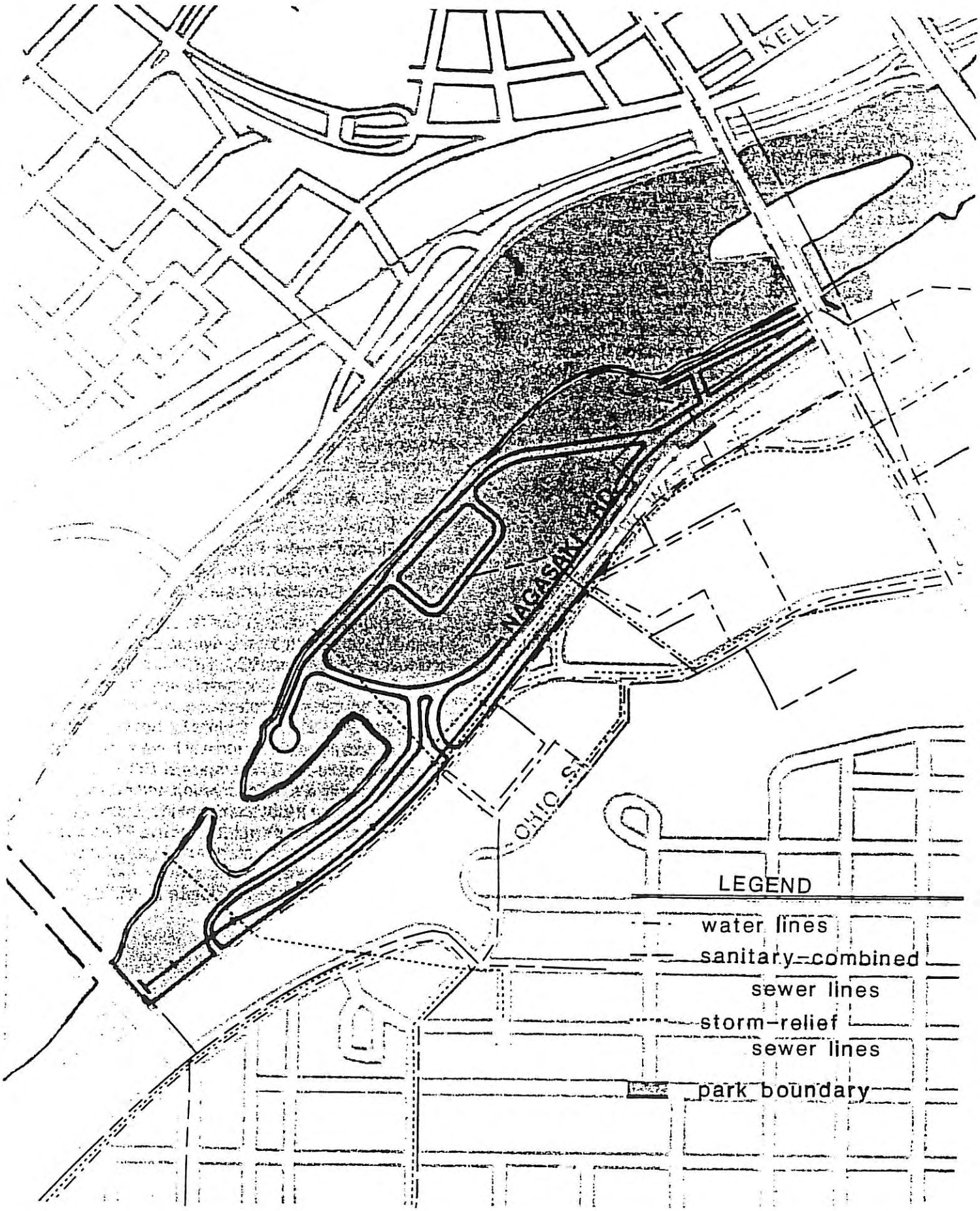
The majority of Harriet Island Park is zoned R-4, the most restrictive zoning classification, limited primarily to single-family residential, park and recreation and open space uses.

The park also falls within the State of Minnesota's "designated critical area of the Mississippi River corridor. Areas such as this include additional overlay districts designed to provide comprehensive floodplain and river bluff management for the City of St. Paul in accordance with the policies of Minnesota Statutes . . . Minnesota Regulations . . . and Governors Executive Order 79-19."

The four overlay districts are:

RC-1 River Corridor Floodway District
RC-2 River Corridor Flood Fringe
RC-3 River Corridor Urban Open District
RC-4 River Corridor Urban Diversified District

Three of these overlay districts apply to Harriet Island. Extending from the river to the flood control levee is RC-1 and RC-2. RC-4 is at the levee. The RC-1 and RC-2 districts are subject to periodic flooding, therefore, permitted use and/or design of facilities is limited to that which will not obstruct flood flows and will have a low flood damage potential. The standard RC-4 district deals primarily with conservation and protection of the floodplain including the bluffs. In the RC-4 district most uses permitted by the RC-4 zoning would not be restricted. Any legal, nonconforming use or structure currently existing is also permitted in the floodplain districts.



harriet island - park utilities

Park Utilities

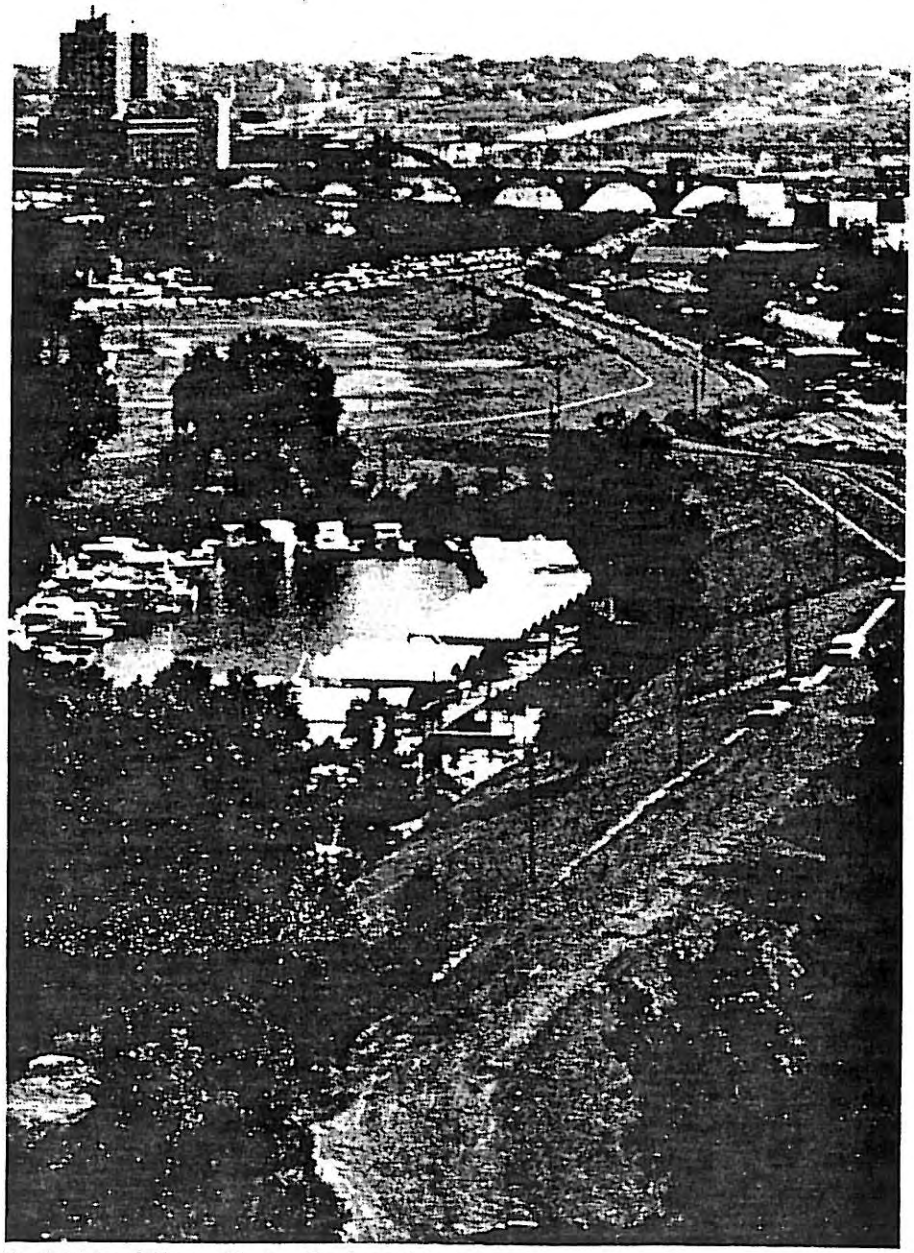
The park currently is served by water, sewer, gas and electricity. The service availability is generally adequate in the area.

Public utility easements for telephone, gas, sewer, water and electricity cross much of the site and serve the park, principally the pavilion, marinas and excursion landing. Other major utilities crossing Harriet Island are sanitary sewer and storm relief lines.

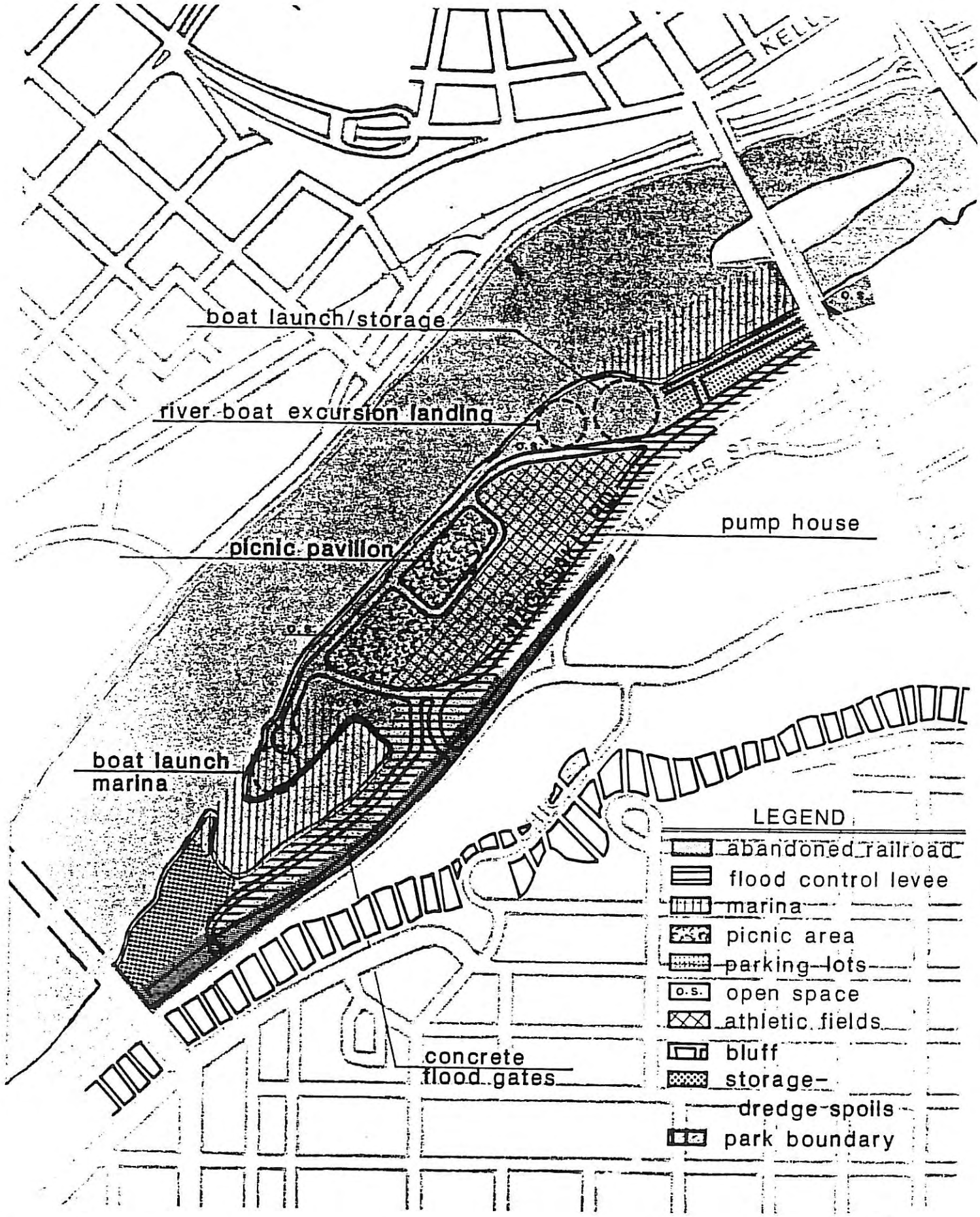
Easements

Harbor, river channel and levee easements are found on Harriet Island, specifically including the levee, the upper harbor, the land west of the upper harbor and the river adjacent to the island. These easements to the U. S. Army Corps of Engineers were for construction of the flood control levee and construction and maintenance dredging operations of the harbor and river channel.

There are two private property roadway easements from Water Street to private property located south of the levee.



Harriet Island Upper Marina Basin and Levee.



harriet island – park use/features

Park Use/Features

MARINA

The marina area includes two separate harbors, one at each end of the park. The upper harbor (upstream) is a protected basin separated from the main river channel. The lower harbor (downstream near the Wabasha Bridge) is a semi-protected off- channel area. The marina facilities include:

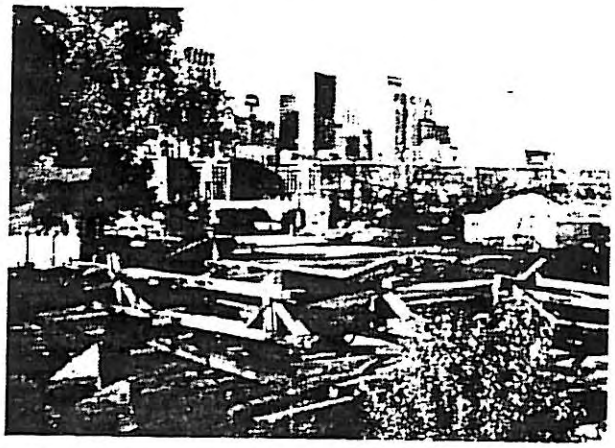
- 130 boat slips, including tie-ons
- dry storage for 100 boats
- a sheer boom or floating water break with gas and snack bar facilities
- two small craft boat launches
- a stationary hoist crane for boat placement and removal

The upper harbor is a simple rectangular basin with 75 boat slips. The setting is rustic, secluded and for the most part removed from the current overall park experience. The general area has low visibility potential from the adjacent bluffs and good visibility potential from the park and water. The area is clean and nondescript with service limited to boat slips.

The lower harbor with 55 slips is the working portion of the marina. It is highly visible from the park, the central business district, the Wabasha Bridge and the adjacent residential areas.

It is considered run-down and disorganized in appearance with a somewhat industrial character. In particular, the high visibility of the working aspects of boat storage, dry boat handling and maintenance at this location add significantly to the poor image of the area. Current conditions do not allow appreciation of the marina by the general public.

Of the two harbors, the lower harbor has the greater river traffic congestion. The river is somewhat narrower and use includes commercial barge traffic, pleasure boats, excursion boats and rowing craft from the Minnesota Boat Club on Navy Island. The width and congestion is aggravated by the limited access between the Wabasha Bridge piers.





RIVERBOAT EXCURSION AREA

A riverboat excursion operates from the riverbank adjacent the marina's lower harbor. The excursions are a popular park concession providing public recreational access to the river. The excursion operation consists of:

— two short trip riverboats
— one cruiser for extended trips
— an on-the-water restaurant
— ticket sale booth and office

The concession offers public trips to the historic Fort Snelling area, business lunch trips and evening dinner cruises on a scheduled basis as well as nonscheduled charter trips.

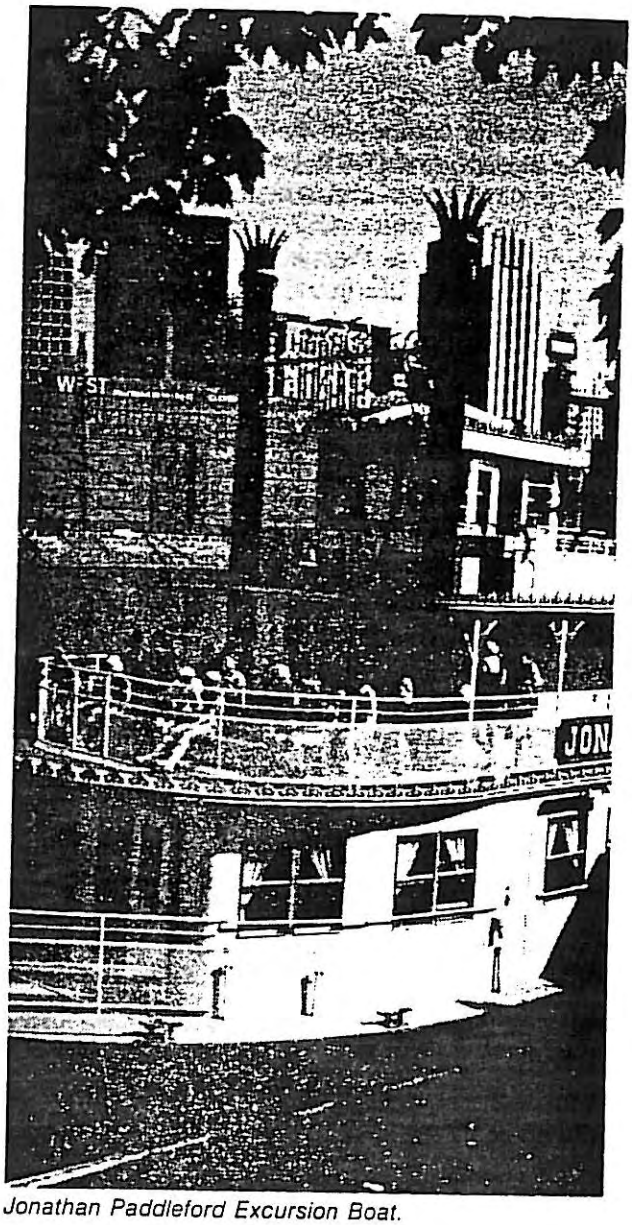
The operational season is from Memorial Day through Labor Day, seven days a week. Schedules provide 4 public trips per day and 3-5 possible charters.

The two paddle wheel boats, the Josiah Snelling and the Jonathan Paddleford have maximum capacities of 350 and 250 people, respectively.

Additionally, this location is the Port of Call for the Viking Explorer, an interstate extended trip charter cruiser.

The landing area is essentially the rip-rap riverbank. Formal facilities consist of a set of steps and a ramp on the riverbank, parking area and utility connections for sewer, water and electricity.

While the excursions are a popular and unique park facility, the potential of this resource has been only partially realized. In particular, the unique river atmosphere this activity lends to the park should be experienced by user and observer alike and could contribute immensely to the overall quality of the park. However, current site conditions minimize opportunities and distract from the unique river experience.



Jonathan Paddleford Excursion Boat.

PICNIC AREA AND PAVILION

The picnic area, located in the middle of the park adjacent the river, is sparsely wooded with mature cottonwood and other floodplain trees. Picnic facilities include a few picnic tables, a small rain shelter and a large, enclosed picnic pavilion.

The pavilion is made of cut stone and was erected by the WPA in 1940. It has no apparent historic value and its condition and appearance are run down and antiquated. The exterior resembles a fortress with its heavy stone walls and boarded up window openings; the interior is dark, cold and acoustically poor. All ancillary features such as entrance walks, steps and monuments are near complete deterioration.

The use of the pavilion is available by permit and used primarily by family and church groups, although some individual use does take place. The use season is May 15 through October 15. An average of 22,500 people per year use the pavilion for group picnicking with group size ranging from 50 to 1500. The average group size is 250 people.

In addition to picnic related use, the Chimera Children's Theater reserves the pavilion for two weeks each summer with an attendance of 200-300 people per day. The pavilion also serves as a headquarters facility for special events, including Winter Carnival.

DREDGE SPOIL AREA

An area of approximately 4 acres upstream of the upper harbor is used to temporarily store dredge spoils removed from the upper harbor and the navigation channel by the U.S. Army Corps of Engineers. Every 2-3 years approximately 20,000 cubic yards are stored at this location during the summer and removed later in the year. The majority of the spoils originate in the vicinity of the high bridge location in the navigation channel with very little from the maintenance of the upper harbor.

ATHLETIC FIELDS

The athletic field area is approximately 6-1/2 acres in size and located adjacent to the picnic pavilion. It is used primarily as a game area by groups using the pavilion and to a lesser extent is programmed for athletic teams when no other space is available. The area also is used on an occasional basis for special events and as a staging area for concerts and festivals.

The surface quality of the field is very poor and ancillary equipment is all but nonexistent. The entire area lacks vegetation and the appearance is not at all attractive or parklike.

RAILROAD

The railroad right-of-way, known as the Fillmore Line, is part of the park. Track usage has been abandoned. The railroad was acquired under a Metropolitan Parks and Open Space grant in 1984.

FLOOD CONTROL

An earthen levee, running underneath and parallel to Nagasaki Road, was constructed by the U.S. Army Corps of Engineers at Harriet Island as part of a St. Paul Flood Control Project. Completed in 1964, the levee protects the adjacent Riverview Industrial Area from flooding. A portion of the levee is within the park boundaries, but does not protect the park area itself. It includes a small pumphouse building located just north of Nagasaki Road, built into the side of the levee and a floodgate which is located in an area adjacent the upper harbor basin.

Due to changed hydrologic and economic conditions, the U.S. Army Corps of Engineers has re-evaluated the project and found it lacking in protection capabilities. In a "Draft, Feasibility Report" the Corps recommends several options for increasing the height of the levee. The favored option appears to be a 4 foot raise with modifications to associated floodgates and pumphouses.

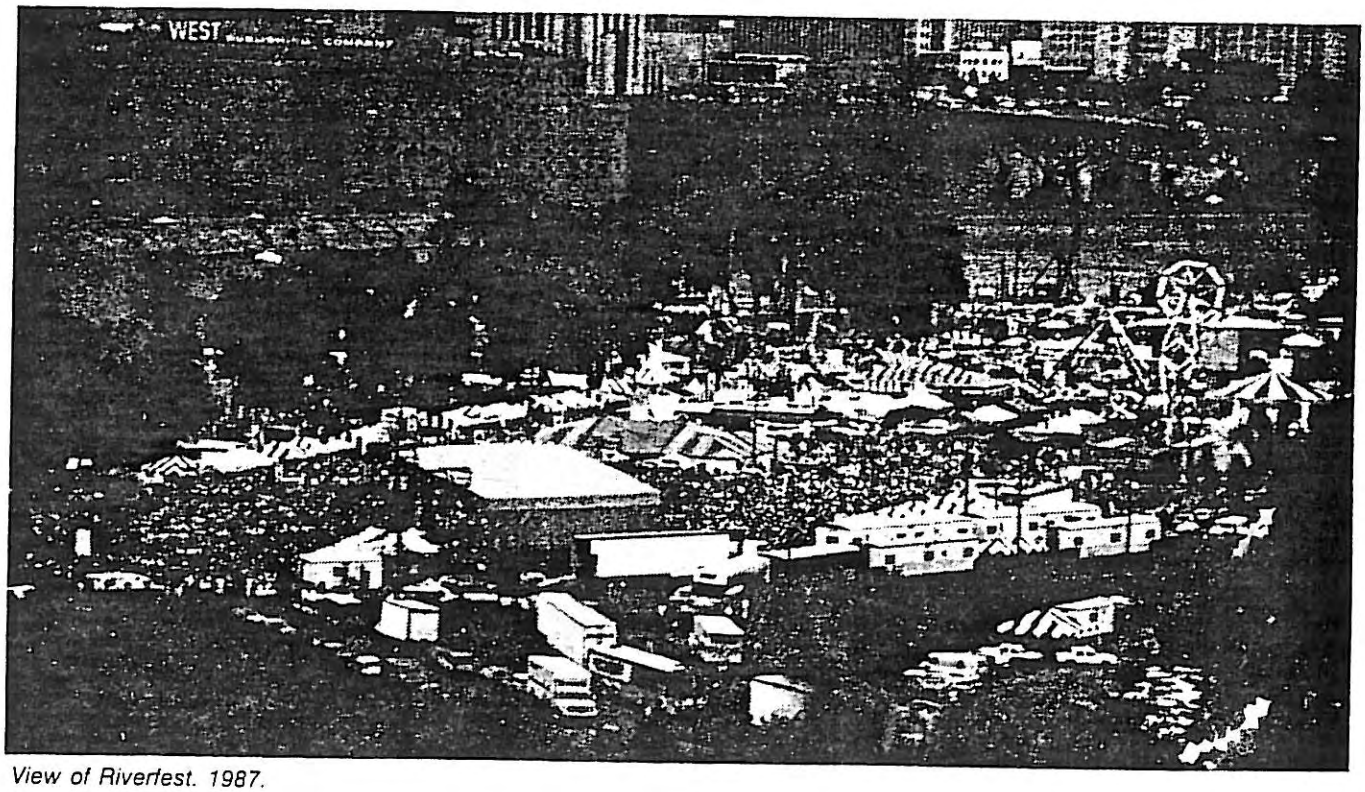
SPECIAL EVENTS

A variety of special events take place at Harriet Island. Examples of recent special events are:

The River Revival—an ecological festival oriented to the Mississippi River. Events take place on the first weekend in June and draw approximately 2,000 visitors annually.

Riverfest—a large annual event featuring 10 days of outdoor musical entertainment, food, rides and cultural attractions. The event drew 185,000 visitors in 1985 and 220,000 in 1986.

These events require unique types and quantities of temporary support facilities which are provided specifically for each event.



View of Riverfest. 1987.

existing conditions • cherokee

LILYDALE / HARRIET ISLAND REGIONAL PARK

CHEROKEE

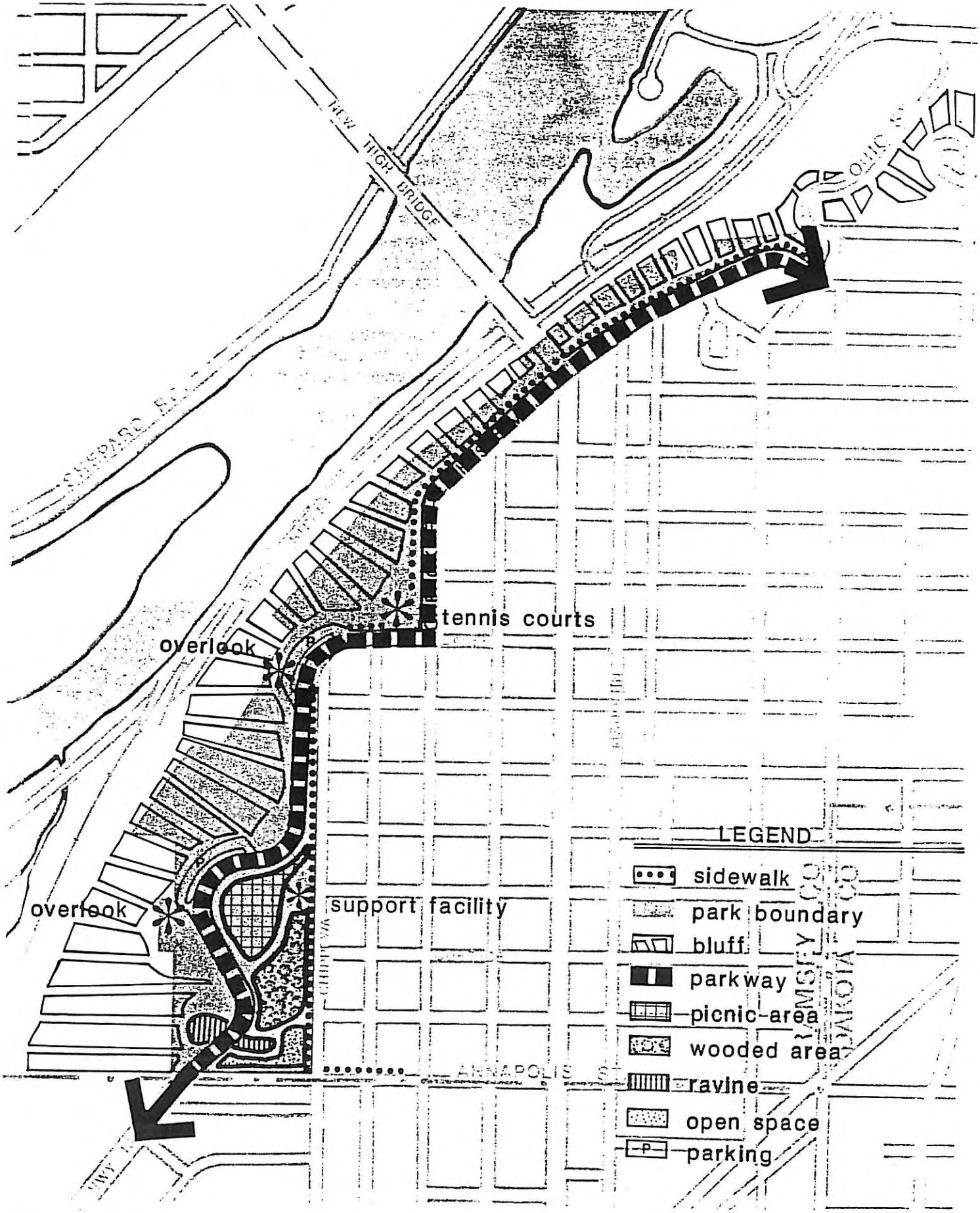
Cherokee Park, which includes areas on the river bluffs between Ohio and Annapolis Streets, is an existing City of St. Paul Park and Parkway. Its existing passive character and panoramic views of the valley lend itself well to picnicking which is the primary activity in the park. There are two covered picnic shelters and forty individual picnic tables located in the park. The picnic shelters are reserved almost every weekend of the summer with group sizes ranging from 25 to 200 persons. Interspersed with the picnic area are various outdated pieces of play equipment. A basketball court, a tennis court and a ball field are also included in the park. A restroom facility adjacent Curtice Street has been recently completed.

At the edge of the bluff near the picnic grounds are the remains of an old stone overlook, totally surrounded by overgrown vegetation. This overgrown condition extends for much of the length of the bluff edge until approaching Ohio Street where there is virtually no vegetation on the top of the bluff. At this end of the park and parkway there are no overstory trees so it appears very open and bare with nothing framing the view of the city below.

Also, because of the severe angle of the bluff, many areas along the edge have begun to erode with the bluff edge getting alarmingly close to Cherokee Parkway itself.



Cherokee Park.



cherokee – park use/features

HYDALE / HARRIET ISLAND REGIONAL PARK

Circulation

VEHICULAR

The severe slope of the river bluffs prohibits vehicular access from the western edge of the park except at Ohio Street which winds its way from Cherokee Boulevard down to Plato Boulevard, connecting upper and lower park areas. The other main access route to the park is via Highway 13. Several secondary streets lead into the park from the adjoining neighborhood. These streets abut Chippewa Avenue which forms the park's eastern boundary. Cherokee Heights Boulevard, a designated parkway, is the main circulation route through the park.

PEDESTRIAN/BICYCLE

There are currently no pedestrian or bicycle paths in Cherokee Park. A sidewalk is available for pedestrian use on both sides of Cherokee Heights Boulevard through about half of the length of the parkway (from Ohio to Baker). From Baker to the end of the park the sidewalk veers away from the parkway and follows the park's eastern boundary of Chippewa Avenue, ignoring the bluff and its views. There is also a concrete sidewalk on Ohio Street which continues down to Plato Boulevard. This walkway with chain link fence on one side and typical highway barrier on the other, could be much improved to encourage pedestrian/bike access from upper to lower park areas.

PARKING

Parking is permitted on both sides of the parkway, in the two pull-off, scenic overlook parking lots, and on other side streets near the park.

Near the picnic area, the on-street parking concentration (on weekends) poses safety problems that should be taken into consideration and alleviated.

Adjacent Land Use

Land use around the park includes an established residential area to the south mixed with light commercial and to the north is Lilydale/ Harriet Island Park.

Zoning

Cherokee Park is zoned R-4, single-family residential, which includes parks, recreation and open space uses.

Adjacent, (non-public parkland) below the bluff, is the Riverview Industrial Park, zoned I-1, industry. Above the bluff, the majority of the adjacent area is zoned RT-1, two family townhouse and RM-2, multiple family, low-rise multiple family residential district. Isolated pockets of B-1, B-2, and B-3, business classifications, are found within the residential zoning.

Cherokee Park is also within the St. Paul River Corridor Overlay Zoning District and is classified RC-3, Urban Open Space District. This classification permits most of the R-4 land uses with additional consideration for environmental protection.

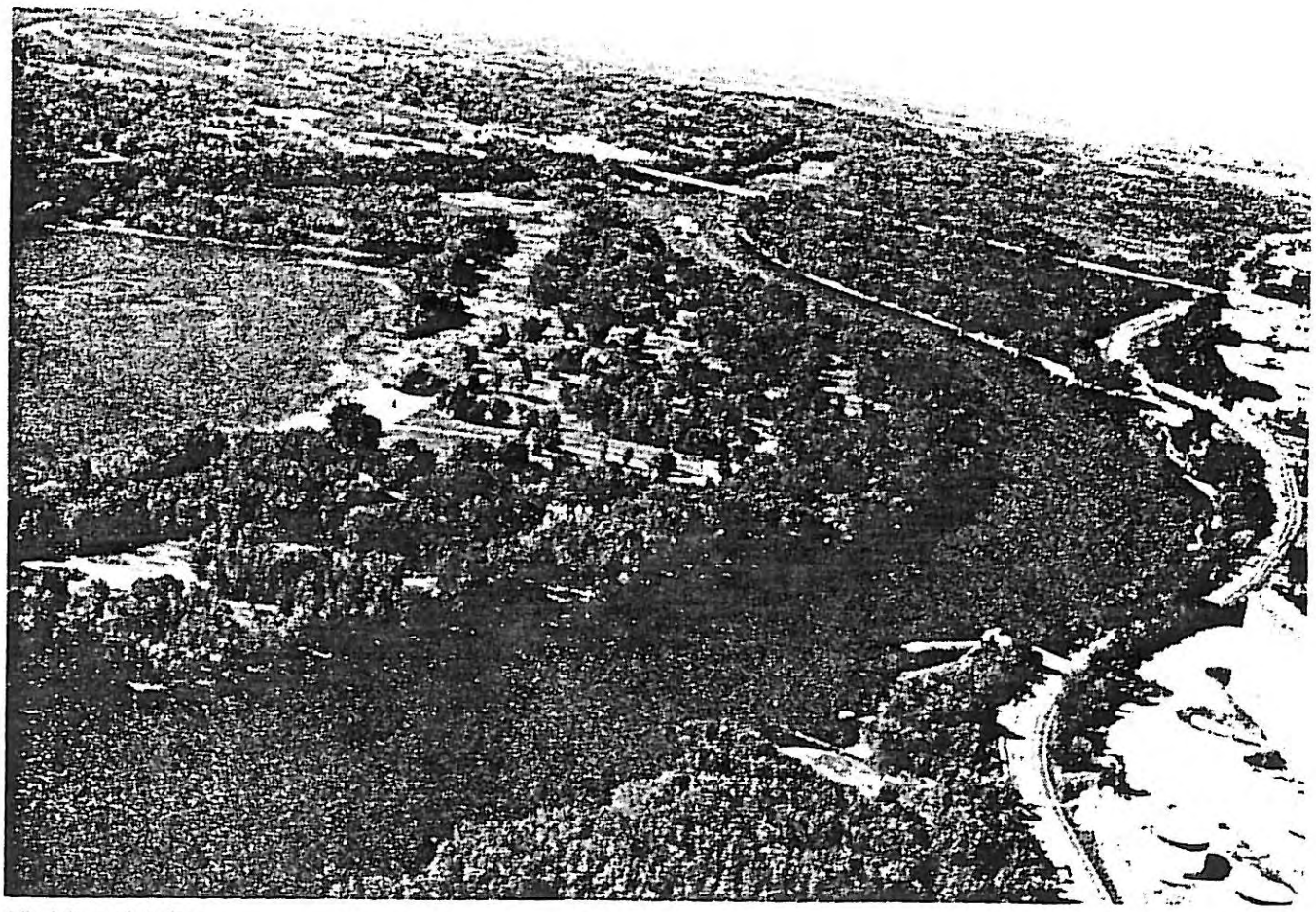
existing conditions • lilydale

LILYDALE / HARRIET ISLAND REGIONAL PARK

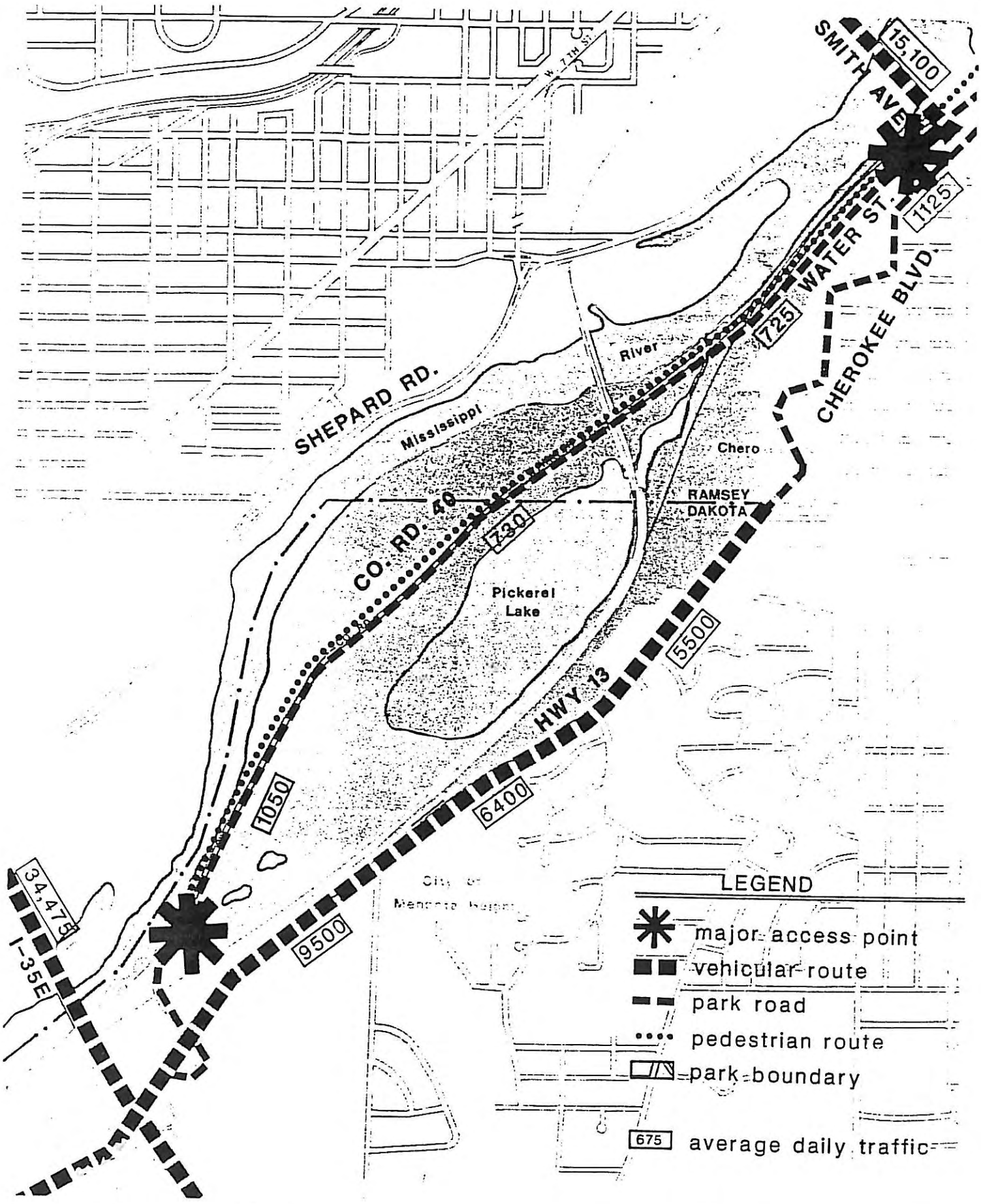
LILYDALE

The Lilydale site is currently an undeveloped floodplain area, 2-1/2 miles in length and 1/2 mile in width. It is bounded on the west by the Mississippi River and on the east by a 250 foot bedrock escarpment forming a wall of the Mississippi River Gorge.

Of the three parks that make up the regional park, Lilydale is by far the largest and most diverse. Within its boundaries are found a 100 acre lake and connected pond and approximately 100 acres each of marsh and wooded areas that provide habitats for a variety of water fowl, mammals and vegetation.



Lilydale aerial view.

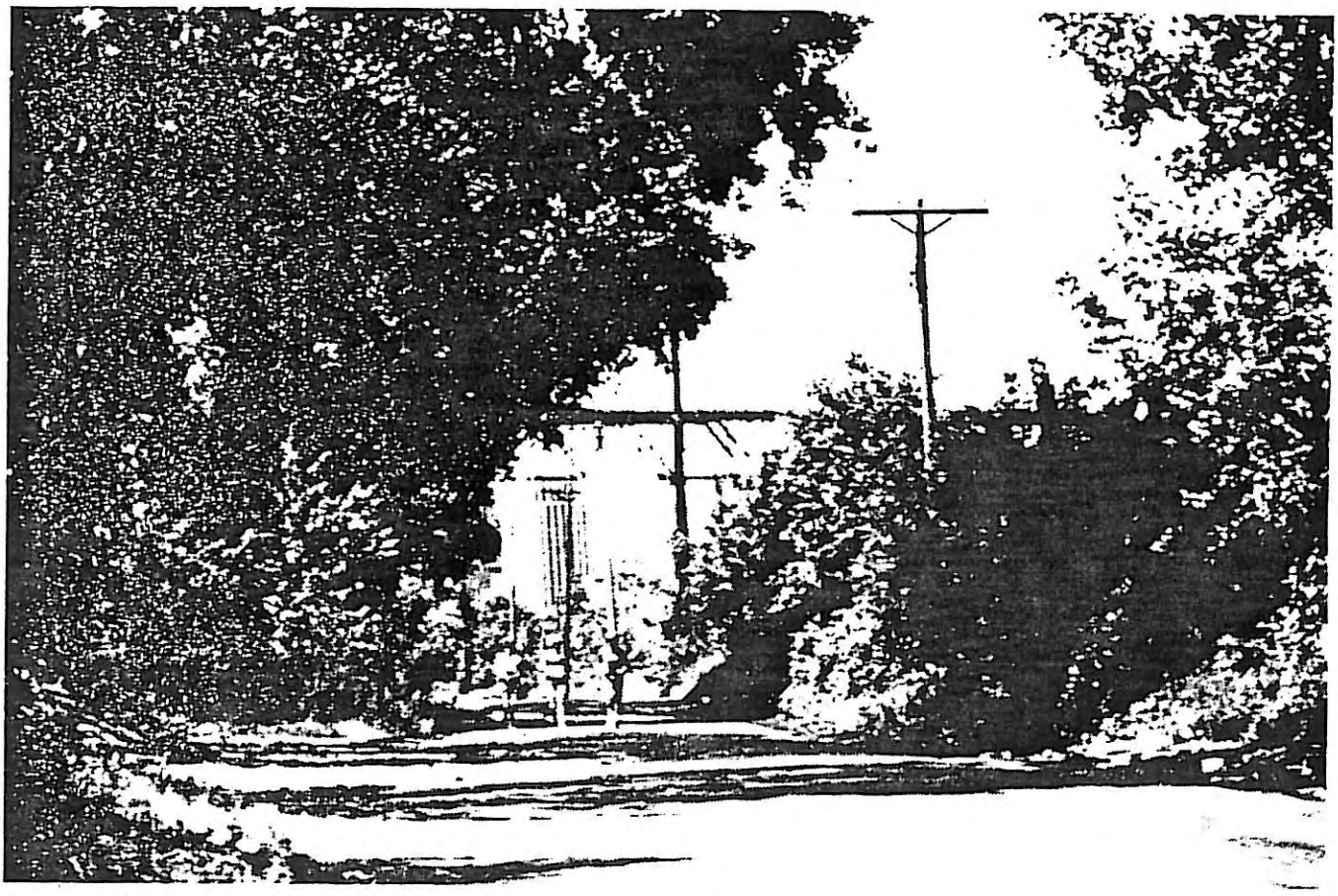


lilydale – existing circulation

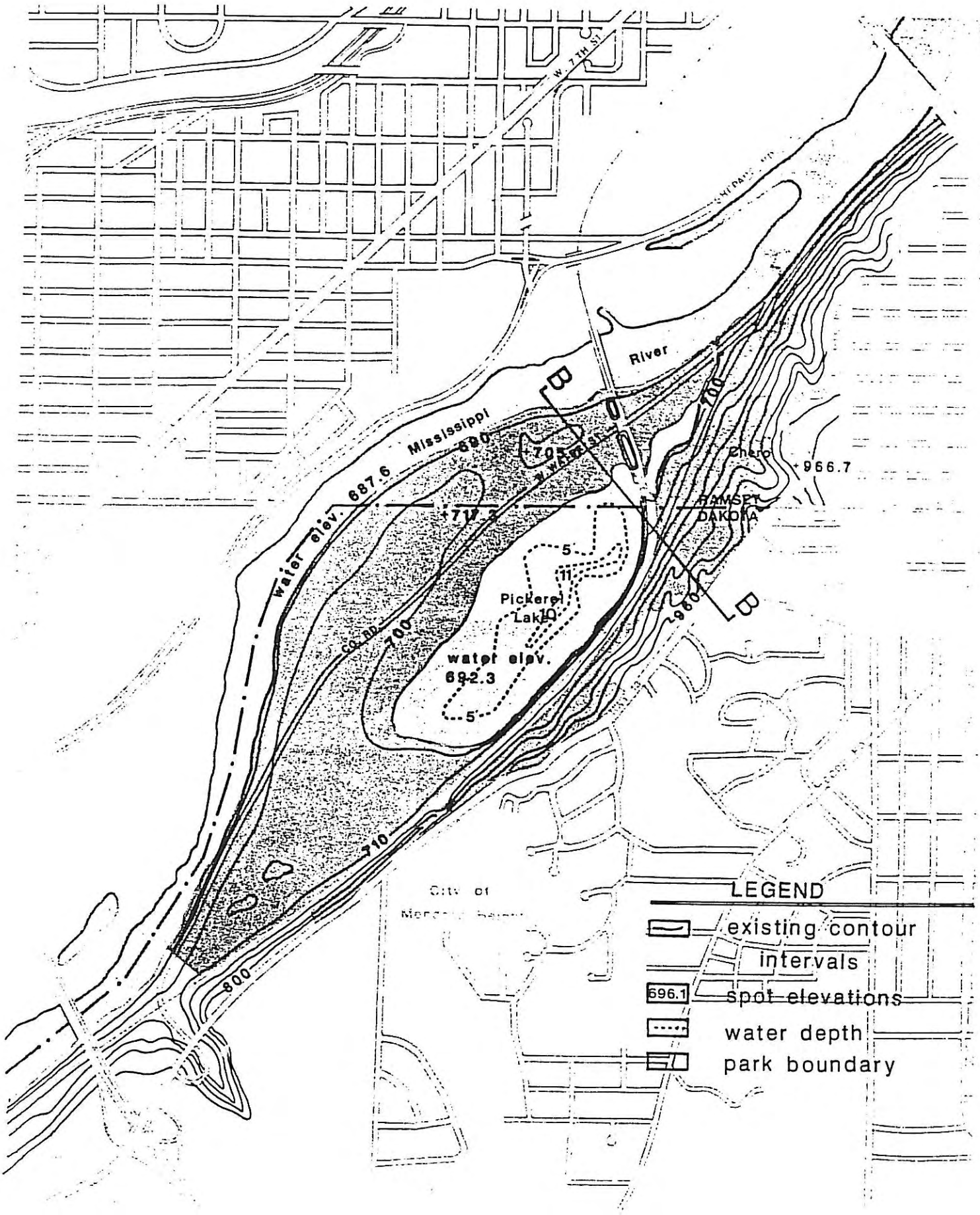
Circulation

Access into and through Lilydale is on Water Street, a single lane county road which runs from Highway 13 through Lilydale to Harriet Island. The surface of this road is decaying in several locations and the alignment under the railroad bridges is awkward and narrow.

There are currently no developed pedestrian or bicycle paths within the park area.



Joggers in Lilydale



lilydale–topography

Topography

The physiographic features of this site are noteworthy. It is defined by the Mississippi River on the north and west and by steep bluffs on the south and east. These bluffs rise 200 feet from the base of the floodplain and have an average slope of 45 degrees. The steep hillside is heavily wooded and a small stream flows down its face into the marsh area.

The bluffs are often unstable with pedestrian access very difficult except for an abandoned roadway into and through the clay pits area. Much of the bluff is eroding where major landslides have occurred. Nearly the entire clay pit area requires slope stabilization.

Pickerel Lake is 692 feet above mean sea level; the Mississippi River at this point has an elevation of 687 feet. Land between the lake and the river is approximately 702 feet above mean sea level. There are several locations where elevations exceed or approach the 100 year flood elevation. Due to the high flood potential of the area these higher areas are the most suitable locations for placement of park facilities requiring structures.

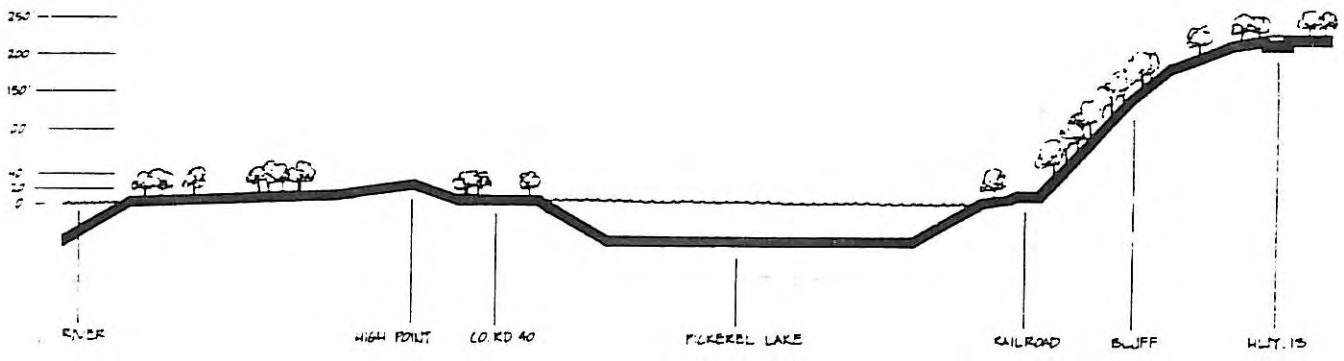
The general topography below the bluffs is rolling with elevation changes between major level areas creating a variety of sub areas. Many areas offer easy on-grade access to the river where small embankments are often at the river's edge.

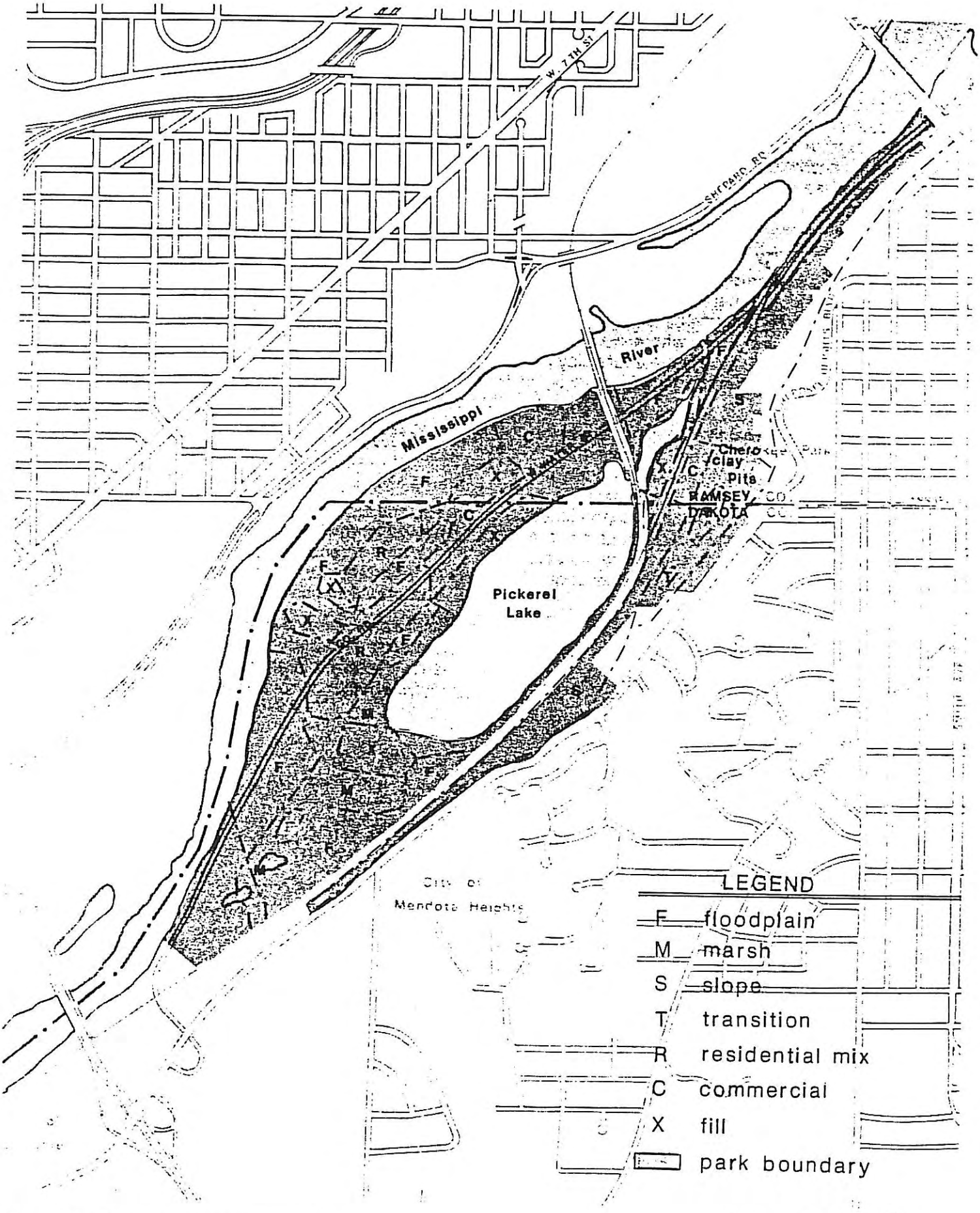
While this topography offers a great opportunity, past use has created many problems, principally in filled areas where steep grades were created and edges where not adequately covered with topsoil or blended into the surrounding terrain. These areas are unsightly, often unstable and do not support vegetative growth.

Soils

The soil type in this area is classified as mixed alluvial land. Soil borings taken in 1968 indicate that organic and soft clay soils extend to depths of 10-30 feet and are underlain by outwash sand and gravel deposits.

In the past, several areas have been filled. The amounts and fill types are not recorded with subsurface exploration work needed to determine whether or not remedial work is required.





lilydale-vegetation

LILYDALE / HARRIET ISLAND REGIONAL PARK

Vegetation

In the recent past, the majority of this floodplain area was used for residential, business and industrial purposes. The vegetation is now in the first stages of voluntary succession from those uses to heavily wooded floodplain. However, as a result of the past land use many areas on the bluff and throughout the floodplain require extensive restoration.

The bluffs are heavily wooded overstory vegetation with the exception of the old brickyard and clay pits which have relatively little vegetation. Topsoil in the barren area is often non-existent and the surface is unstable gravel and stone rubble susceptible to erosion. Vegetation necessary to stabilize these areas is not establishing itself in these locations.

The majority of the floodplain area is currently in the beginning stages of transition from a residential/industrial area to a floodplain forest. The forest density is very irregular with pockets of aggressive, primary invader species, such as aspen, developing quickly.

A marsh area located near the southwest boundary of the park is comprised of approximately 50 acres of land. It is primarily a cattail and sedge marsh with some areas of open water.

The vegetation in this area is primarily of three types: floodplain, bluff, and marsh associations. Some of the main species identified are:

Floodplain

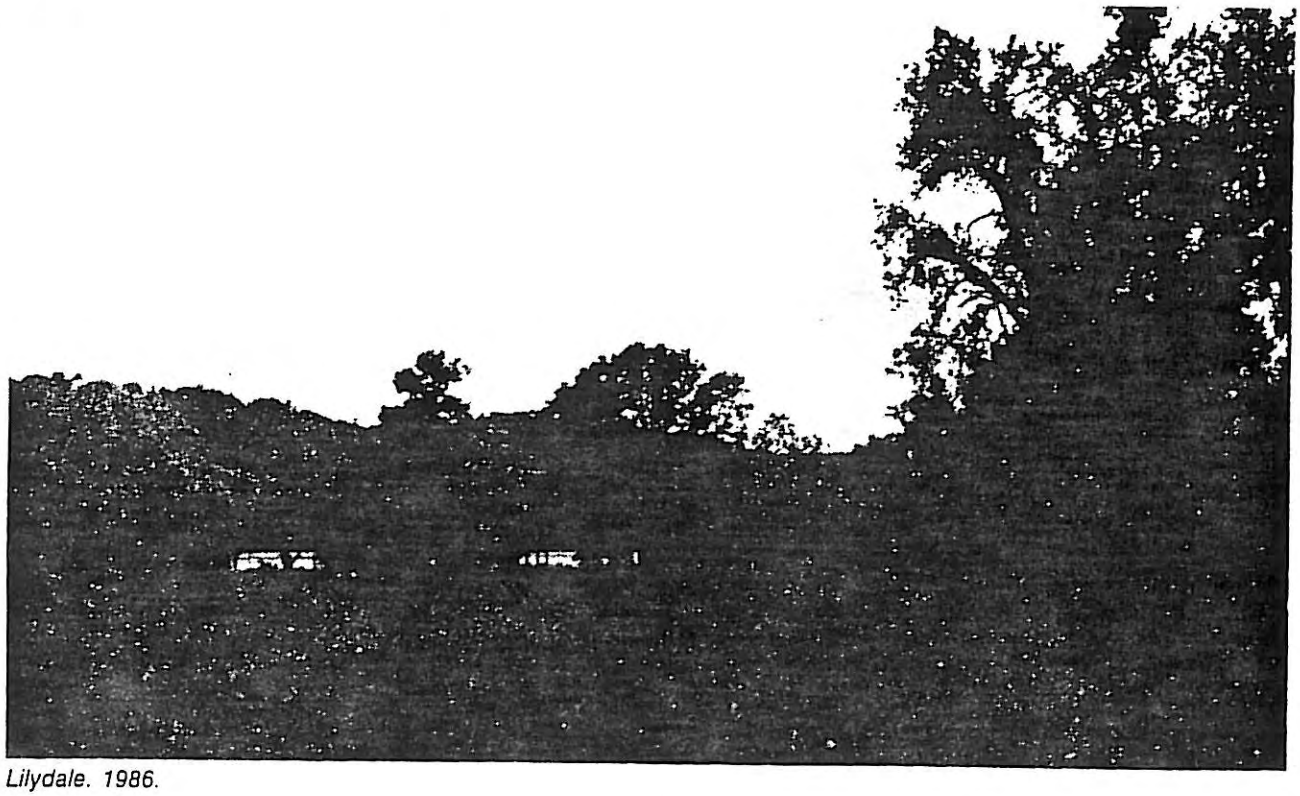
Cottonwood	Nettle
American Elm	Virginia Creeper
Silver Maple	Alder
Dogwood	Aspen

Steep Slope

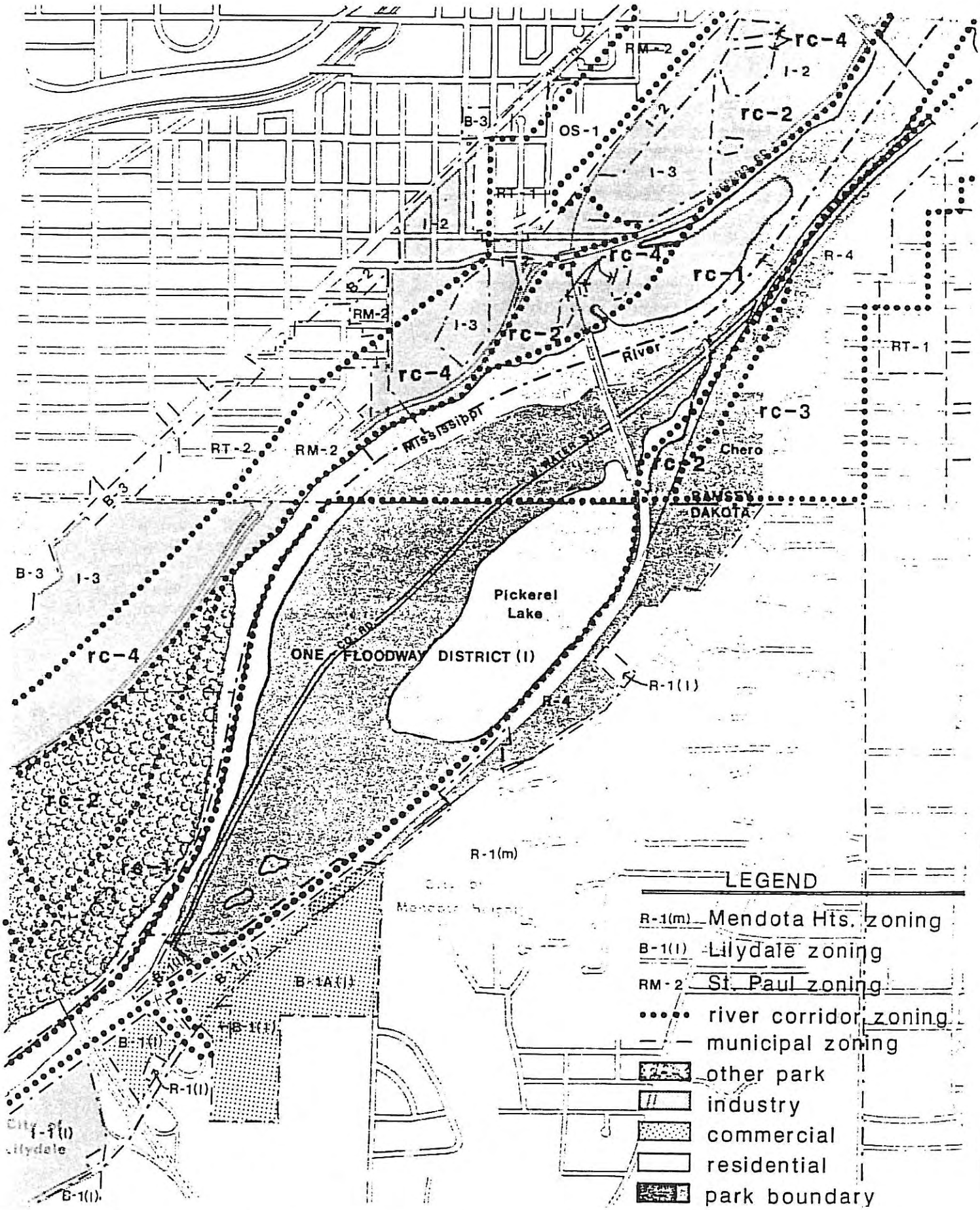
American Elm	Ironwood
Red Oak	Blackberry
Bur Oak	Raspberry
Basswood	Virginia Creeper
Green Ash	Sumac

Marsh (Wetland Area)

Willow	Bullrush
Marigold	Red-stemmed Dogwood
Cattail	Canary Grass
Swamp Milkweed	Swamp Thistle



Lilydale. 1986.



lilydale – adjacent land use/zoning

Adjacent Land Use

Across the river, land use is varied. The river bluffs are preserved in a relatively natural state and 95 acres of the Hidden Falls/Crosby Regional Park borders the river. Behind the bluffs, the majority of the use is industrial (bulk storage and major Northern States Power electrical generating plant) with a small amount of residential.

The principal land use south of the site and above the bluffs is a rapidly growing residential area in the City of Mendota Heights. At the southwest end of the park, in the City of Lilydale, a small business area of mixed retail and specialty shops is located at the top of the bluff. These areas currently have little physical relationship with the park area due to the separation caused by the steep bluffs. Below the bluff, at the west end of the park, is a private member pool and yacht club.

Zoning

The Lilydale Park site falls within the zoning boundaries of three cities. The majority of the usable floodplain is within the City of Lilydale, and a small area on the bluff where Ivy Creek enters the park is in Mendota Heights. The balance at the east end of the site below Cherokee Park is in the St. Paul city limits.

The following zoning section illustrates the current zoning requirements for the park; however, the City of St. Paul is discussing with the City of Lilydale the possibility of annexing the entire park area into the St. Paul city limits. We are assuming this eventually will be the case and that St. Paul's zoning regulations will then apply to the area.

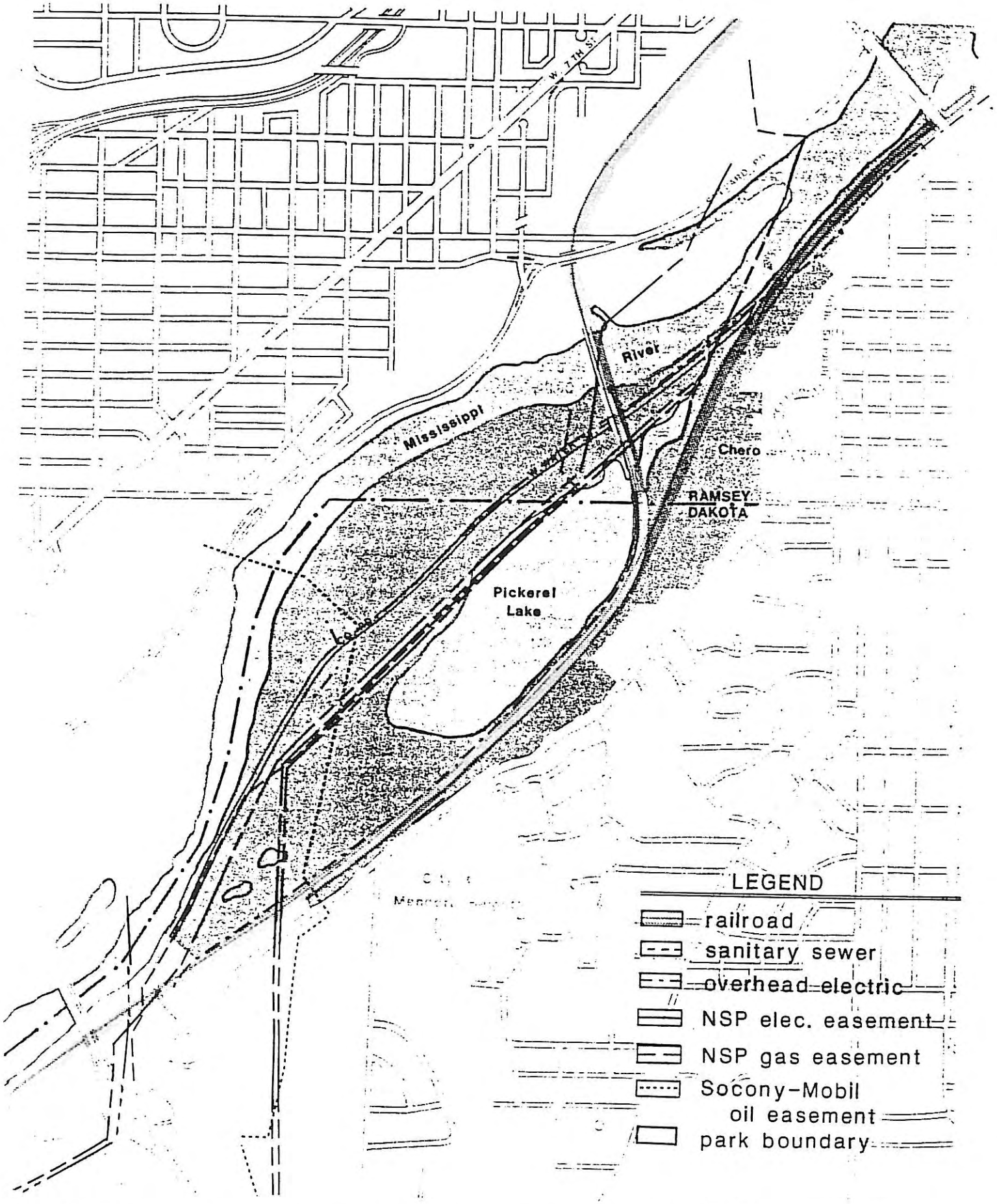
The park is zoned R-4 (single family residential) in St. Paul, OS (open space) in Lilydale and R-1 (single family residential) in Mendota Heights. Each of these classifications limits land use to single family residential and/or park and recreational uses.

As is Harriet Island, all of Lilydale Park is within the State of Minnesota's designated river corridor "critical area" so all zoning has overlay district designations for floodplain management. In the City of St. Paul, the area is divided into RC-3 on the bluffs, RC-2 at the base of the bluff and RC-1 over the balance of the area. These areas restrict development on the bluffs and will require careful consideration in specific site selection for park facilities, floodproofing and conditional use permits. These classifications were previously discussed in more detail in the Harriet Island section.

The City of Mendota Heights has also adopted, by ordinance, four overlay districts for floodplain management. These districts are virtually identical in name and scope to those of the St. Paul zoning code. The permitted land use for the parcel of the park within Mendota Heights is identified in the City's "Critical Area Plan" as open space. The area is generally bluff and would be protected.

The Lilydale Floodplain Ordinance classifies all areas within reach of the 100 year regional flood, which includes nearly all the land below the bluffs, as a one-floodway-district. Only uses with low flood damage potential, including parks and recreational uses, are permitted. Support structures, temporary or permanent, require a conditional use permit. These provisions are generally comparable to the City of St. Paul's RC-1 overlay regulations.

As with Harriet Island, the floodplain management requirements need careful consideration in selection of park facility locations and floodproofing.



lilydale – site intrusions/easements

Site Intrusions

RAILROADS

A Chicago and Northwestern railway line, which averages two trips daily, runs on an elevated grade through the site, separating the park and lake from the bluff area and restricting intra-site access from east to west park areas to one bridged location. This opening is too narrow to allow for a typical roadway width. Another bridge spans an outlet from the lake to a small connected pond which eventually flows into the river. This structure is also very narrow and unattractive.

The Fillmore Line, a spur track off the Chicago and Northwestern Railway runs from the end of Pickerel Lake into Harriet Island. This line was acquired under a Metropolitan Parks and Open Space grant in 1984.

Additionally, the side slopes of the fill which elevate the railroad are steep and barren, especially adjacent the lake, making them highly visible, unnatural and unattractive.

UTILITIES

There are no useable utilities within the site. Park development in need of water, sewer, gas, electricity and telephone service will require installation of these services from sources outside the park.

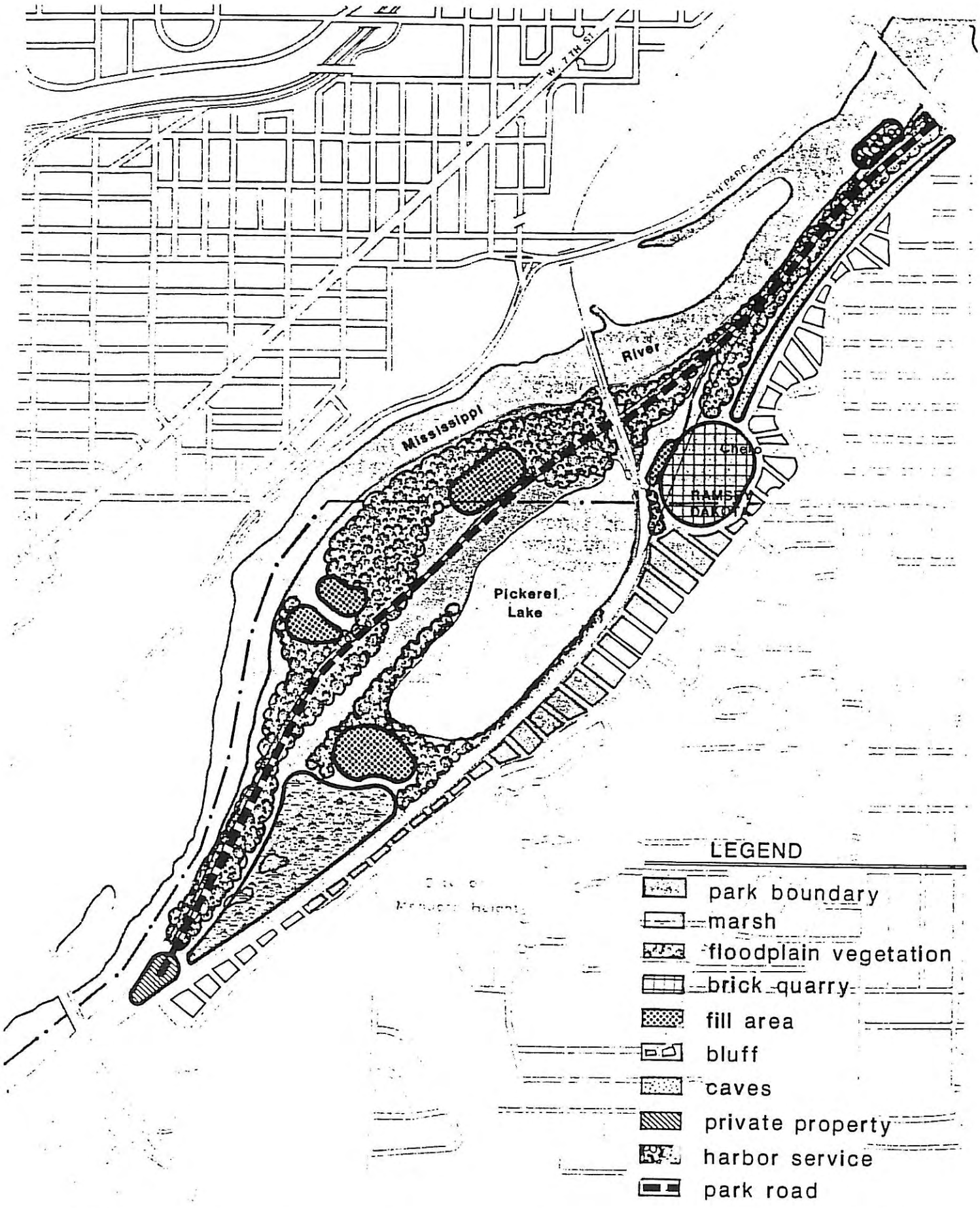
EASEMENTS

An NSP Easement for natural gas pipeline and electrical power runs through the site. The gas line is a large high pressure underground line. Visibility is limited to above grade valves in a few locations. Although the valves are inconsistent with the park image, they are relatively insignificant in the overall scale of the site and could easily be screened. The effect of these pipes on development considerations will be mainly in the siting of park improvements.

The electrical power lines and the towers which support them are an intrusion of major significance. These lines run nearly the entire length of the site and cross through one side of the lake. The current location of these towers is highly visible and will be in the way of development.

A Socony-Mobil Oil Easement for an underground pipeline also crosses the site. Like the NSP gas line, it has little visual impact on the park other than requirements for maintenance access.

Both the NSP gas line and the Socony-Mobil Oil line may require relocation of some sections due to park development.



lilydale – park use/features

Park Use/Features

PICKEREL LAKE

Pickerel Lake is approximately 100 acres in size with 1.7 miles of shoreline. The majority of the shoreline has been severely disturbed by filling and loss of vegetation. Also, the placement of power lines running through the lake on the north side is a major intrusion.

The river regularly contaminates the lake, most frequently through the outlet and occasionally through major flood inundation. The water quality is, therefore, subject to change, however, initial investigative water tests conducted in 1984 by the City of St. Paul Health Division indicated the lake water quality to be bacteriologically safe for swimming.

The lake is fed by springs and a small stream (Ivy Creek). Water clarity is generally good. The normal pool elevation of the lake is 5 feet above the normal pool elevation of the river. The State of Minnesota Department of Natural Resources, Division of Fish and Wildlife maps indicate a maximum depth of 11 feet. The bottom of the lake has some silt, undoubtedly deposited by flooding and Ivy Creek. However, soundings by the Division of Game and Fish in 1967 found "a firm bottom and very little silt."

Vegetation is visible in most of the lake. Common types are:

Lotus
Sazo Pondweed
Elodea
Marsh Marigold
Narrow-leaf Pondweed
Curly-leaf Pondweed
Star Duckweed
White Waterlily
Lessor Duckweed
Greater Duckweed
Smartweed
Water Millfoil

In 1980, the Department of Natural Resources, Division of Fish and Wildlife conducted a lake survey for fish population assessment in which the following types of fish were found:

Gizzard Shad
White Sucker
Carp
Golden Shiner
Emerald Shiner
Black Bullhead
Brown Bullhead
Yellow Bullhead
Tadpole
Mad Tom
Northern Pike
Banded Killifish
White Bass
Yellow Perch
Smallmouth Bass
Green Sunfish
Pumpkinseed
Bluegill
Black Crappie
Freshwater Drum

The description of the fish population was, "The fish population of Pickerel Lake consists of 19 different species. Of these species only Northern Pike, Black Bullhead, and Bluegill are particularly numerous. Because this is a river backwater lake, it is difficult to judge the nature of this population against typical lakes of the region. The Northern Pike appear to maintain themselves quite well by natural reproduction. Reproduction of Bluegill is also apparently quite good. Frequently winter kills may hold down their numbers. Black Bullhead reproduction is evident."

It should also be noted that river fish frequently enter the lake during periods of high water, most frequently through the lake outlet. This problem prevents management, introduces rough fish and river fish which are considered contaminated and edible only on a limited basis.

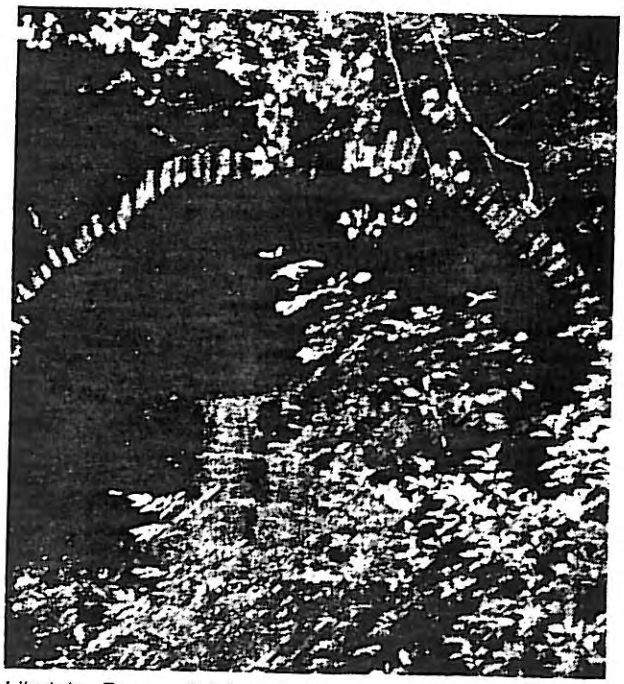
BRICK QUARRY AREA

A unique geological feature is located in Lilydale in the former Twin City Brick Quarry area. In the process of making bricks, sections of the bluff were mined for clay. This operation exposed the underlying Decorah shale which contains infinite numbers of fossils, some types which are found nowhere else in the world. (Bruce Erickson, Minnesota Science Museum.)

Presently, almost all area schools, colleges and universities utilize the site in their field investigations. In addition, the Brick Quarry area is referenced in many national publications on the subject of fossil collecting (i.e., Ransom, Fossil Collecting in America, page 245). Several state publications also cite the Brick Quarry (i.e., Swatz, Minnesota's Rocks and Waters, page 325).

The Brick Quarry site could be developed so as to display the most complete, continuous geologic section in the Metro area. It has unlimited resource potential and offers a tremendous opportunity to learn about the geologic history of the state.

Stabilization and reforestation in some extremely steep and potentially dangerous areas must occur along with other development of this resource.



Lilydale. Former Brickyard area.

FILL AREAS

There are several locations where fill has been placed in the past. In at least 3 major locations fill was placed with little regard for natural appearance and was not blended into the surrounding grade. Side slopes were not covered well so they often show exposed rubble material and lack adequate vegetative growth. The elevation above the river provided by these areas, however, offers opportunities to place facilities for increased flood protection.

HARBOR SERVICE

Minnesota Harbor Services is a small river barge cleaning business located at the east end of the park. This business operation salvages leftover products and performs minor repairs to barges. The majority of the operation takes place at or near the river's edge with the majority of the land used for employee parking. The land used by Minnesota Harbor Service is leased from the City of St. Paul.

CAVES

Another unique geologic feature is the sand rock caves that are located at the base of the bluff area. Many of these caves were man-made and used in the past for business or storage purposes, but are now abandoned and potentially hazardous. The City is in the process of filling the caves and permanently sealing up their openings.

WILDLIFE

Wildlife is both abundant and diverse in the Lilydale region. Birds commonly seen in this area are:

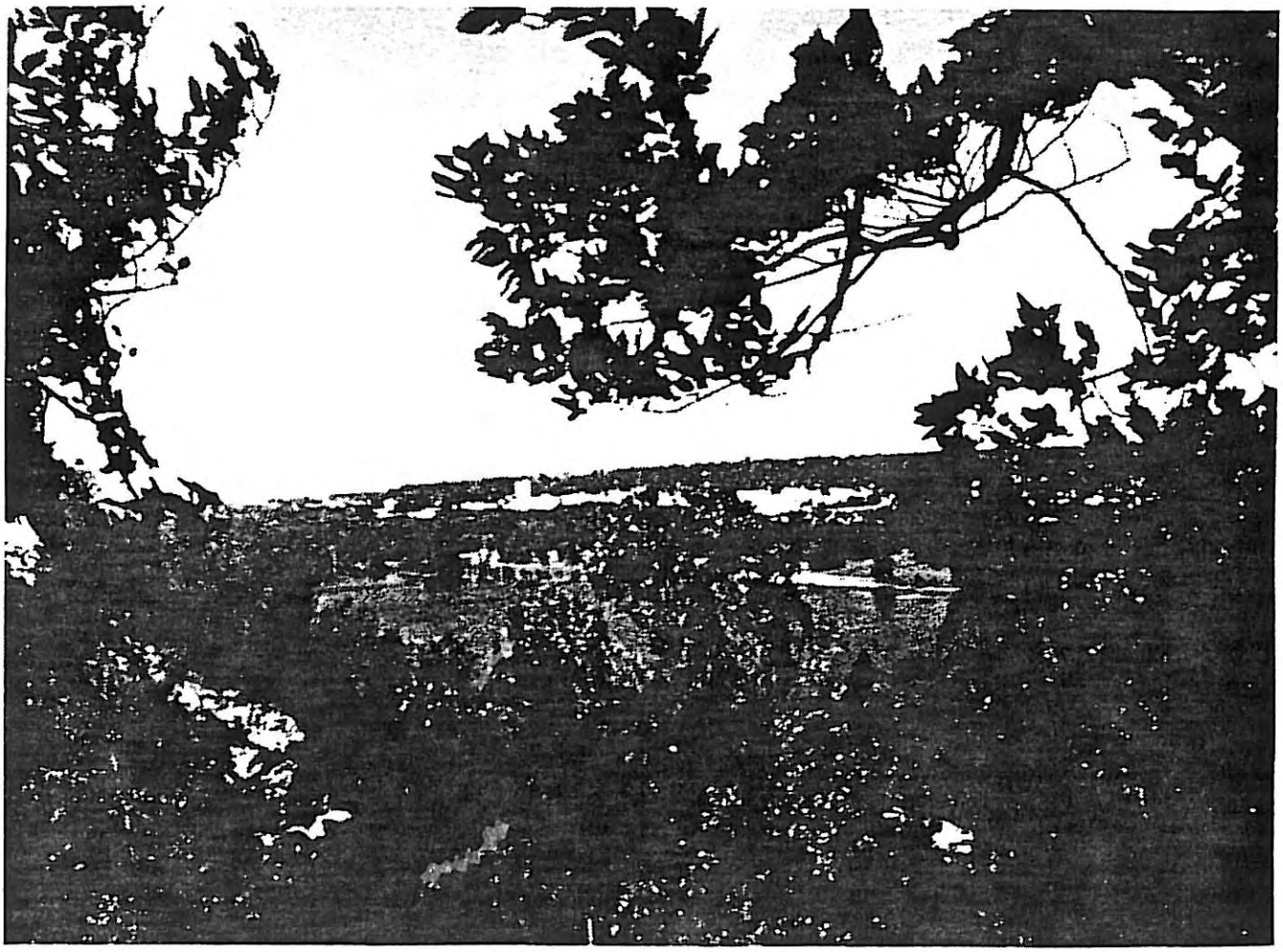
Cardinal
Blue Jay
Wood Thrush
Baltimore Oriole
Flicker
Downy Woodpecker
Hairy Woodpecker
Red-wing Blackbird
Kingfisher
Bank Swallow
White-breasted Nuthatch
Wilson's Snipe
Pectoral Sandpiper
Black Tern
Ring-necked Pheasant
Red-tailed Hawk

Active waterfowl nests were located near the lake in early spring. During migration this lake is visited by large flocks of waterfowl.

Great Blue Herons and American Egrets from the heronry at Pig's Eye Lake occasionally feed in the pond and near the lakeshore.

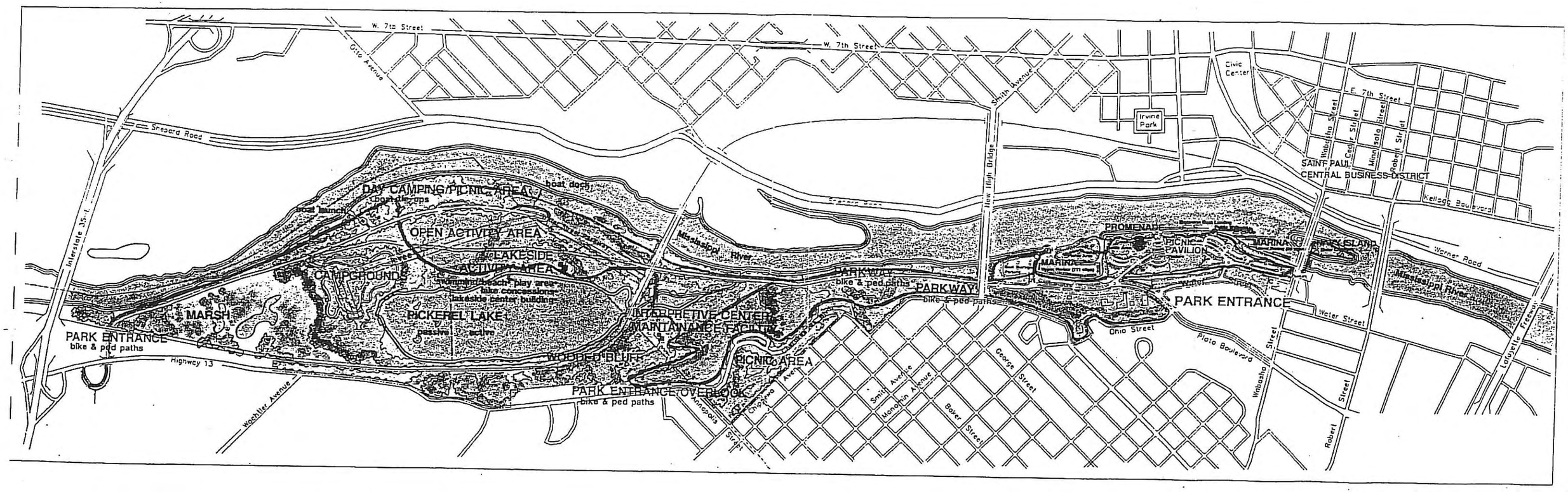
Mammals characteristic of the area include:

Raccoon
Red Fox
Woodchuck
Gray Squirrel
Muskrat
Cottontail Rabbit
Gopher
Chipmunk
White-tailed Deer
Rat



recommendations

LILYDALE / HARRIET ISLAND REGIONAL PARK



Sept. 26, 1990
Department of Community Services
Division of Parks and Recreation

0 400' 800' 1200' 2000'

NORTH

lilydale-harriet island regional park master plan

The following section summarizes development recommendations based on the analysis of existing site conditions, uses, goals and objectives as set forth by the relevant sections of the City's Comprehensive Plan, the Metro Council Parks and Open Space Development Guide, the Downtown Riverfront Commission's Recreation Task Force and City Staff.

Park Gateways

It is especially important to provide park gateways that extend park entrances to locations of high visibility announcing the park and directing visitors to it.

Four main gateways will be developed for Lilydale/Harriet Island Regional Park. One will be located at the easterly Harriet Island end in the vicinity of the Plato Boulevard/Wabasha Street intersection. The other three will be above the bluff at either end of Cherokee Boulevard and at the westerly end of Lilydale near the intersection of Water Street and Highway 13.

These gateway features should be extended along the major access routes (Ohio Street, Highway 13, Water Street, and Plato Boulevard) through the use of signage and general streetscaping to establish a more parklike atmosphere and announce the park entrance at the first available, highly visible location.

Vehicular Circulation & Parking

The recommended circulation and parking plan includes the elimination of certain roads and parking areas, realignment of others, creation of one-ways and the redesign of some intersections. These modifications are necessary to simplify and improve parking and roadway design, improve safety and security and provide a pleasant park experience.

Two parkways will run the length of the park. One, above the bluff on Cherokee Heights Boulevard and the other below the bluff through Lilydale/Harriet Island on Water Street.

Local & Regional Trail Connections

A connection will be provided between park entrances at Cherokee Park and Harriet Island via pedestrian walks and a bike route on Ohio Street. A pedestrian path and bike route on the county road to Highway 13 will be developed from the park entrance at Lilydale to a similar trail system through Mendota Heights. The City of Mendota Heights is currently planning to develop the Backbone Trail System through Valley Park and eventually connect to West St. Paul at Delaware Avenue by way of a Dakota County link and to Eagan at I-494 by way of Dakota County and Minnesota Department of Transportation links.

Another pedestrian link adjacent to the river, is planned by the City of St. Paul to extend from the park boundary near Wabasha and continue down river connecting development with the park.

Pedestrian/Bicycle Circulation

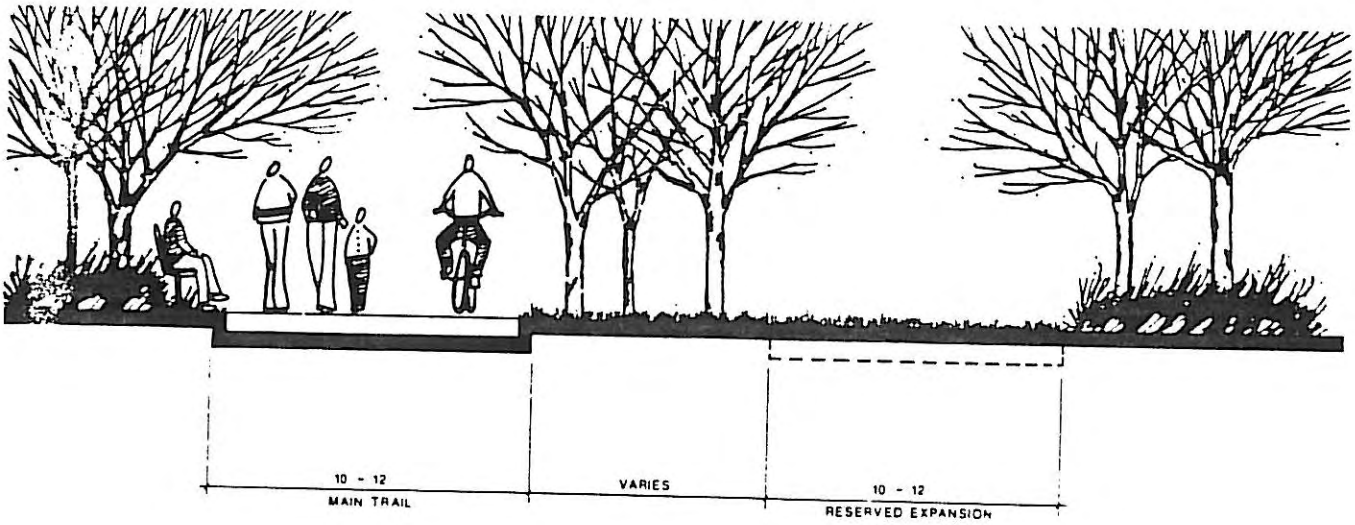
Walking and bicycling are two of the most popular and most requested recreational opportunities in the metropolitan area. The diversity of dramatic natural features at Lilydale and Cherokee combined with an urban waterfront atmosphere at Harriet Island provide an excellent setting for several miles of diverse pedestrian/bicycle trails.

In Cherokee Park, a pedestrian/bicycle trail adjacent to Cherokee Heights Boulevard will take advantage of the vistas from atop the bluff.

Throughout Harriet Island and Lilydale a continuous pedestrian/bicycle trail system will be developed connecting park features and the east and west entrances. Spurs will be provided to the secondary entrance locations at Wabasha Street and Highway 13 and spurs or loops will connect major park facilities to the main trail.

Running the length of Harriet Island, the main trail will parallel the river as part of a waterfront promenade. From Harriet Island through Lilydale a trail will be provided following the river alignment with an additional main trail aligned with the north shore of Pickerel Lake.

Provisions will be included for future separation of pedestrian and bicycle trails where practical.



TYPICAL PEDESTRIAN / BICYCLE TRAIL SECTION

harriet island recommendations

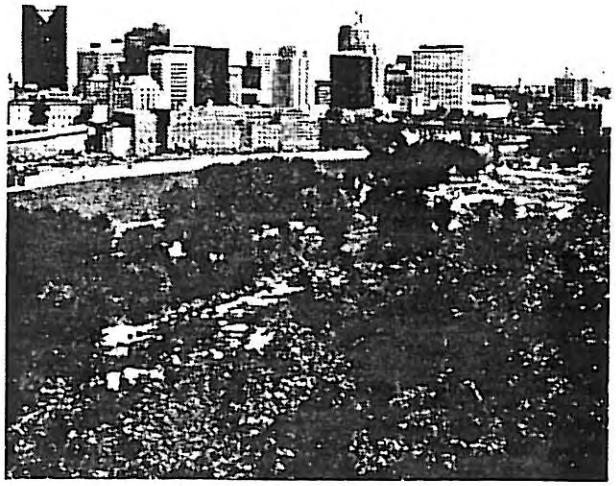
LILYDALE / HARRIET ISLAND REGIONAL PARK

HARRIET ISLAND

The overall theme and emphasis for Harriet Island and Navy Island draws from its riverfront setting and its close proximity to an urban center. A complete renovation of the entire Harriet Island/Navy Island area is proposed in this development plan. The focus of the park will be directed to the river's edge which will be developed as a major public amenity.

Specific park components will include:

- a promenade adjacent the river that connects all of the major park features
- two improved marina harbors
- riverboat excursion landing
- waterfront adventure playground
- staging/amphitheater area
- large group picnic pavilion
- open fields for game areas
- restaurant
- park entryways, parking areas and roadways
- continuous trail system
- a Sister City park on Navy Island honoring all of Saint Paul's Sister Cities. (See addendum for all additional Navy Island information.)

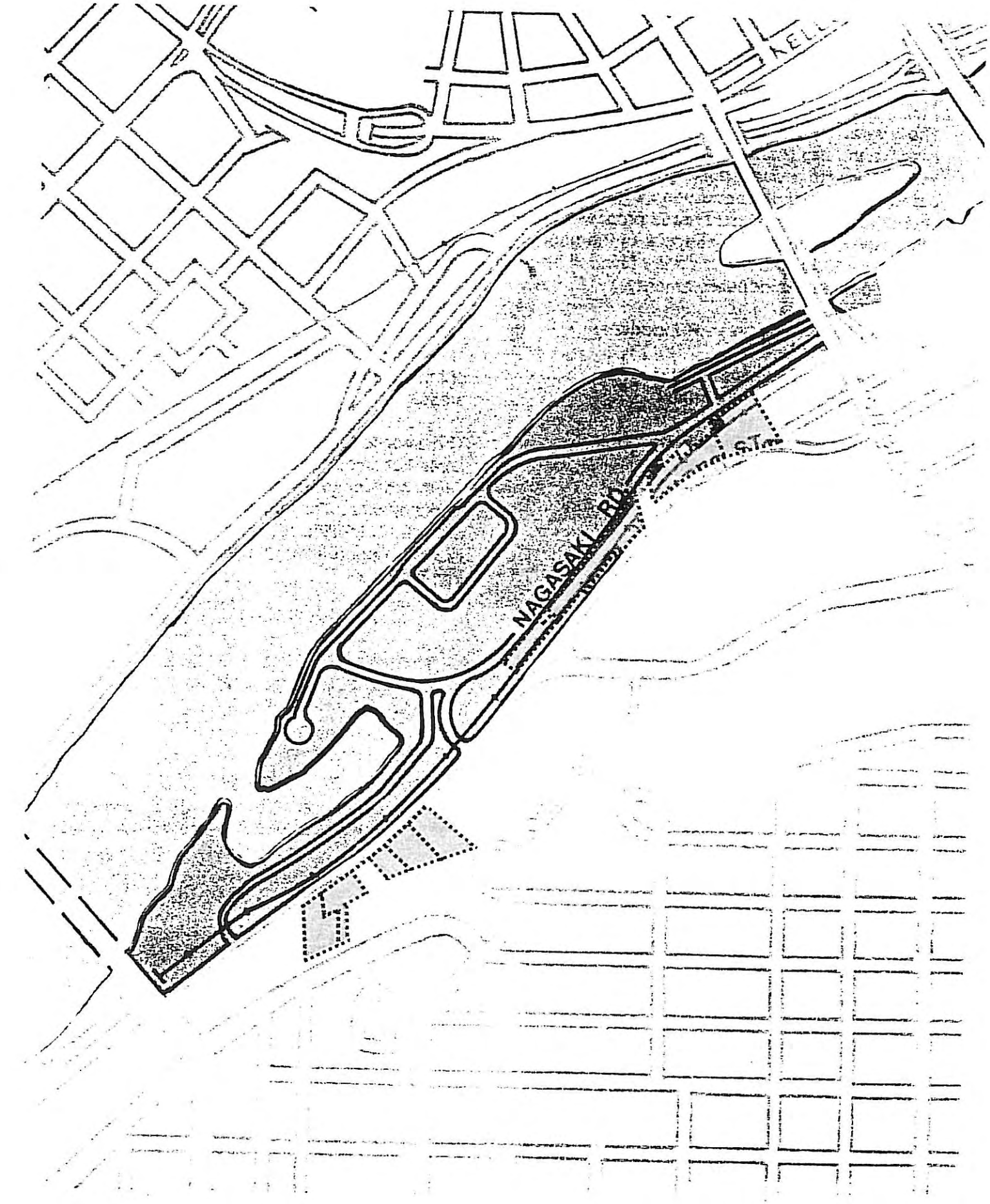


Acquisition

This plan for Lilydale/Harriet Island Regional Park proposes to acquire two areas of land both of which parallel Water Street.

The first area extends from the proposed park entrance to 360 feet west of Wabasha Street between Nagasaki Road and Water Street. This area, comprised of four parcels is essential for construction of the proposed levee modifications as described in the levee section of this plan and also to allow space for parking areas.

The second area of land, approximately 2.4 acres is comprised of 5 parcels and abuts the south side of Water Street near the Lilydale Park entrance. The acquisition of these parcels is essential to allow the development of a park-like atmosphere along this main entrance road into the park.



acquisition

Circulation

ACCESS

The major vehicular access route to Harriet Island will be at Plato Boulevard and Wabasha Street, with an additional access via Water Street. Nagasaki Road will continue as an access as well, but will be de-emphasized somewhat to improve vehicular safety.

PARK ENTRANCE

The main entrance into the park will be near the intersection of Plato Boulevard and Water Street. Water Street west of Plato Boulevard will be rebuilt as a parkway leading to the Harriet Island entrance, also serving as access to the upper harbor, and continuing west into Lilydale Park. Providing a landscaped center median will add to the parkway character and will also make roadway construction more compatible with the slope of the levee.

A major pedestrian entrance to Harriet Island will be developed at Nagasaki Road and Wabasha Street intersection.

INTERIOR CIRCULATION

The existing interior park roads will be eliminated and a new loop road installed in their place allowing for better accessibility to the various new park components, improving park security and eliminating vehicular conflicts with the recommended trail system.

PARKING

The concept for the placement of parking areas on Harriet Island is to locate adequate amounts of parking relatively close to each park facility and use area without parking dominating the site or destroying the overall park appearance. The five main park facilities which require designated parking in close proximity are the picnic pavilion, the play area, the excursion boat landing, the restaurant and the marina. There will also be restricted on-street parking during peak demand periods.

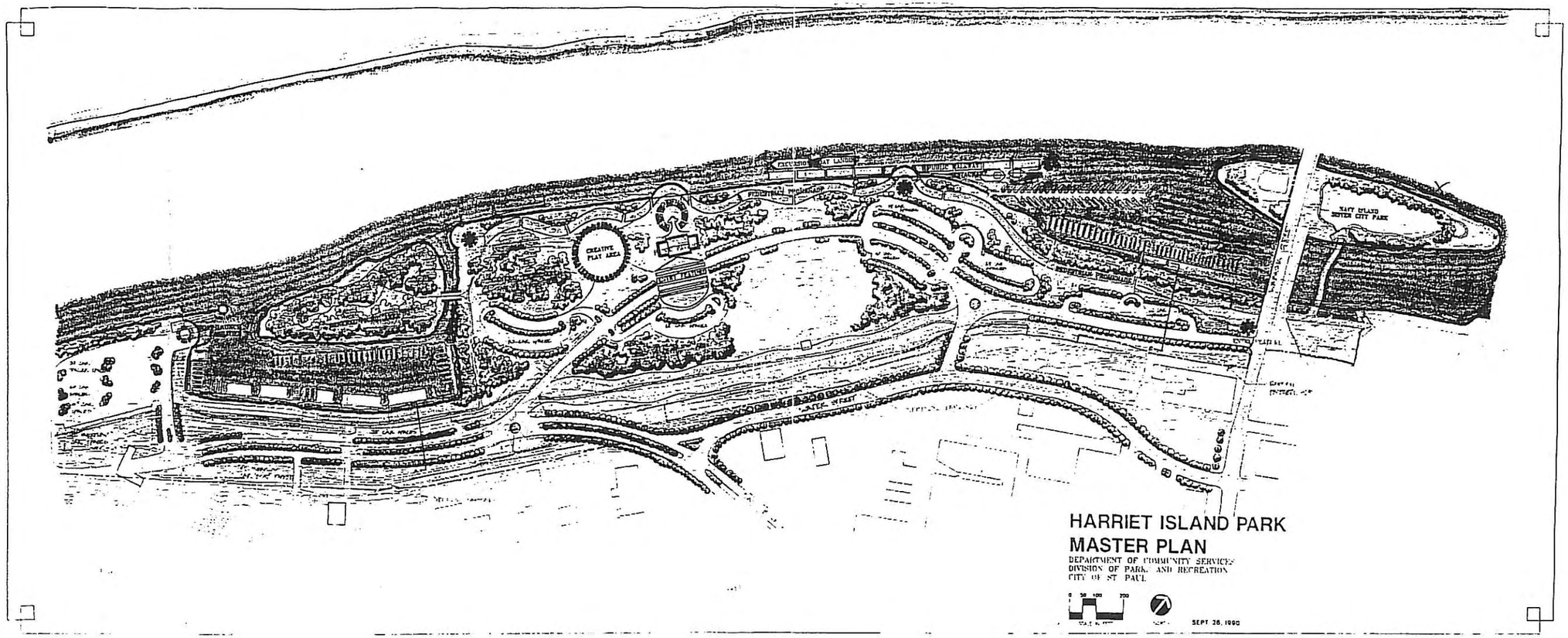
Additionally, overflow parking for special events will be provided south of the levee.

BUS SERVICE

Park visitors will have access to the park by way of the public transportation system which already exists at Wabasha Street. A bus drop-off area will be provided near the intersection of Wabasha Street and Nagasaki Road which will be designated as part of the major pedestrian access into the park.

PEDESTRIAN/BICYCLE TRAILS

A continuous pedestrian/bicycle trail system will run the length of Harriet Island in the form of a waterfront promenade. Additional trails will be provided to connect all park features and will continue into Lilydale and Cherokee Park.



harriet island - concept schematic

PHOTO CREDITS

Page 3:

From the collection of the Minnesota Historical Society

Page 13:

From the collection of the Minnesota Historical Society, photos by C. P. Gibson.

Page 15:

From the collection of the Minnesota Historical Society, photos by Ernest A. Hummel.

Page 64, 65 and 66:

From the collection of the Minnesota Historical Society.

Reference List

Adie, Donald W. : Marinas - A Working Guide to their Development and Design, The Architectural Press Ltd, Boston, 1975.

Chaney, Charles A. : Marinas - Recommendations for Design, Construction and Maintenance, National Association of Engine and Boat Manufacturers, Inc., New York, 1961.

City of Lilydale : Lilydale City Code, Lilydale, Minnesota.

City of Lilydale : Ordinance No. 905A, Lilydale, Minnesota, February 1979.

City of Mendota Heights : Zoning Ordinance, Mendota Heights, Minnesota, November 1981.

City of Mendota Heights Planning Commission : City of Mendota Heights Comprehensive Plan 1979, Part III - Critical Area Plan, Mendota Heights, Minnesota, June 1980.

City of St. Paul Council Resolution : File No. 281223, Agreement between St. Paul and Ramsey County for transfer of Lilydale to the City of St. Paul, December 1983.

City of St. Paul, Department of Finance, Valuations Division: Acquisition Estimates.

City of St. Paul, Department of Parks and Recreation, Design Division : Regional Recreation Open Space in the City of St. Paul, St. Paul, Minnesota, July 1975.

City of St. Paul, Department of Parks and Recreation, Municipal Athletics Division : Harriet Island - information on programming for open fields, February 1986.

City of St. Paul, Department of Parks and Recreation, Recreation Division : Harriet Island Picnic Pavilion usage information, January 1986.

City of St. Paul, Department of Parks and Recreation, Support Services Division : Harriet Island - information on special events taking place, February 1986.

City of St. Paul, Department of Parks and Recreation : Pickerel Lake water sample test results, October 1984.

City of St. Paul, Department of Planning and Economic Development : Harriet Island Parking capacity information, February 1986.

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

Activity Type	Area (Sites)	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Beach Area 500' x 300'	3.4 Acres	290/Acre	2.0	1972
2. Lake Shore Fishing	20 Acres	1/Acre	4.0	80
3. Non-power Boating	15 Boats	2/Boat	4.0	120
4. Lakeside Activity Area	10 Acres	10/Acre	6.0	600
5. Campground/	150 Sites	4/Site	1.0	600
6. Campground Visitor	150	20%	1.0	30
7. Picnic Areas				
A. Family	150 Sites	5/Site	2.0	1500
B. Group	5 Sites	40/Site	2.0	400
C. Pavilion	40 Tables	8/Table	2.0	640
8. River - Power Boating	20 Boats	5/Boat	1.0	100
9. Interpretive Activity		50/Group	6.0	300
10. Sight-seeing/Jogging		50	10.0	500
			Total Users/Day	6842

PLANNED SITE CAPACITIES cont.

CHEROKEE PARK

Activity Type	Area (Sites)	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Picnic				
A. Family	39 Sites	5/Site	1.5	293
B. Group	2 Sites	90/Site	2.0	180
C. Family Blanket	10 Sites	5/Site	1.5	75
2. Sight-seeing	2 Overlooks	10	.4	80
3. Activity Areas -Biking/Jogging		20	6.0	120
			Total Users/Day	748

4. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Picnic - 548 @ 3.5 per car	157
Sight-seeing - 20 @ 3.5 per car	6
Activity Areas - 20 @ 4 per car (bikers & jogger would not need a car space)	5
Total Parking Spaces Required	168

PROPOSED PARKING LOT CAPACITIES

Cherokee Boulevard (east side only)	Curb	53 Cars
Chippewa Avenue (west side only)	Curb	42 Cars
Cherokee North Lot		39 Cars
Cherokee South Lot		51 Cars
		185 Cars

NOTE: Parking quantities are reduced from existing quantities by allowing parking on only one side of Cherokee Boulevard and Chippewa Avenue to alleviate traffic congestion and improve pedestrian and vehicular safety.

PARKING CAPACITIES

Based upon existing use and/or projected user quantities an estimate has been made of the parking requirements anticipated for each use area or facility requiring parking.

The recommended quantities represent levels that will adequately serve parking needs on an average summer weekend day.

Summer Use Area/Facility	Anticipated Parking Need
Upper Harbor - (111 slips) @ 1.0 spaces per slip	111
Lower Harbor - (88 slips) @ 1.0 spaces per slip	88
Boat Launch - 100 @ 3 per car	35
Excursion Boats - 500 @ 4 per car (large percentage arrive by bus)	125
Promenade/Sight-seeing - 50 @ 3.5 per car	15
Pavilion - 300 @ 3 per car	100
Picnic - Family - 75 @ 3.5 per car	22
Activity Areas/Misc.	10
Play Area - 50 @ 4 per car	12
Restaurant - Code	26
Total Parking Required	544

Planned Site Capacities

HARRIET ISLAND PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Marina				
A. Boat Slips	199	4	0.5	400
B. Boat Launch	1	100	1.0	100
2. Restaurant	1	50	3.0	150
3. Play Area	1	50	4.0	200
1. Excursion Boats	2	250 avg.	4.0	2,000
5. Promenade/Sight-seeing	1	50	10.0	500
6. Picnic				
A. Pavilion	1	300	1.5	450
B. Family	15	5	2.0	150
7. Field Areas/ Jogging	6 acres	5	6.0	180
			Total Users/Day	4,130
Winter Use				
1. Winter Carnival	1	500	2.0	1,000 (two weeks only)
2. Skating	1	100	3.0	300
			Total Winter Users/Day	300 to 1,300

CHEROKEE PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
1. Picnic				
A. Family	39 Sites	5/Site	1.5	293
B. Group	2 Sites	90/Site	1.0	180
C. Family Blanket	10 Sites	5/Site	1.5	75
2. Sight-seeing	2	5	2.0	20
3. Activity Areas-Biking/Jogging		20	3.0	60
			Total Users/Day	628

4. Parking

Cherokee Boulevard	106 Cars
Chippewa Avenue	84 Cars
Cherokee N. Lot	39 Cars
Cherokee S. Lot	51 Cars
	280 Cars

NOTE:

Figures were derived from an actual count, an estimate or the "Reservable Group Picnic Facilities" Report, December 1985.

LILYDALE PARK

Area Currently Undeveloped

Existing Site Capacities

HARRIET ISLAND PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
1. Marina				
A. Boat Slips	130(97.5)*	2	1	195
B. Boat Launch	2	10	1	20
2. Excursion Boats	2**	250 avg.	4	2,000
3. Sight-seeing		10	2	20
4. Picnic				
A. Pavilion	1	250	1	250
B. Family	5	5	2	50
			Total Users/Day	2,535

5. Parking	
A. On-street	600
B. City Lot adjacent Nagasaki Road	165
C. Excursion Lot	80
D. Boat Launch Lot	20
E. Pavilion Lot	30
F. Nagasaki Road (90 degree parking)	110
	1,005 cars

NOTE:

Figures were derived from an actual count, an estimate, or the "Reservable Group Picnic Facilities" Report or City of St. Paul, "Large-Craft Marina Survey," Dec. 1985

*130 Boat slips at 75% capacity — 97.5

**Generally only one boat operates at a time.

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

11. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Beach - 990 @ 3 per car	330
Lakeshore Fishing - 20 @ 2 per car	10
Non Power Boating - 30 @ 2 per car	15
Lakeside Activity - 100 @ 3 per car	34
Campground Visitor Parking - 150 sites @ .2 per site	30
Picnic Areas - 150 sites	150
Group Picnic - 200 @ 3 per car	166
Pavilion - 320 @ 3 per car	107
River Power Boating - 100 @ 4 per car (car trailer stalls)	25
Interpretive Activity - 50 @ 2 per car (many groups may arrive by bus)	25
Jogging/Hiking/Sight-seeing - 50 @ 2 per car	25
Total Parking Required (Summer weekend day not peak/maximum)	917

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

11. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Beach - 990 @ 3 per car	330
Lakeshore Fishing - 20 @ 2 per car	10
Non Power Boating - 30 @ 2 per car	15
Lakeside Activity - 100 @ 3 per car	34
Campground Visitor Parking - 150 sites @ .2 per site	30
Picnic Areas - 150 sites	150
Group Picnic - 200 @ 3 per car	166
Pavilion - 320 @ 3 per car	107
River Power Boating - 100 @ 4 per car (car trailer stalls)	25
Interpretive Activity - 50 @ 2 per car (many groups may arrive by bus)	25
Jogging/Hiking/Sight-seeing - 50 @ 2 per car	25
Total Parking Required (Summer weekend day not peak/maximum)	917

appendix

LILYDALE / HARRIET ISLAND REGIONAL PARK

Operating Funding Source

With escalating maintenance and operation costs and decreased budgets in these areas, the idea to encourage and provide self supporting recreation programs and services within this park is essential.

Funds for the maintenance and operation responsibilities will be budgeted by the City of Saint Paul, supplemented by the Regional Park operation and maintenance program and user fees.

Potential User Fee Revenue Sources

1. Pavilion Reservation Fees
2. Picnic Shelter Fees
3. Swimming Fees
4. Day Camp Fees
5. Interpretive Center Fees
6. Ski, Bike and Boat Rental Fees
7. Food Concessions/Restaurant
8. Marina Lease Fees
9. Excursion Boat Lease Fees
10. Campground Fees
11. Festivals, Concerts and Events

Public Awareness

The St. Paul Park Division, as the implementing agency, will cooperate in making the public aware of the new park through the Metropolitan Council's regionwide public awareness program.

When initial park development is completed, the Division of Parks and Recreation will include information on Lilydale/Harriet Island in respective brochures and related public information material and presentations developed by Parks and Recreation staff.

Operational Details

Operating Responsibility - The City of Saint Paul, Department of Community Services, Division of Parks and Recreation has maintenance and operational responsibility for Lilydale/Harriet Island Regional Park.

Park Hours - General hours for the park will be from sunrise to 11 p.m. Specific facilities such as the campground, marina and concessions will have varying hours of operation.

Signage - The signage throughout the park will be consistent with the standardized signing system of the Parks and Recreation Division.

Traffic Control - Provisions will be made for closing all parking areas with security gates. These gates will be under the control of the Police Department and Division of Parks and Recreation Rangers.

Stewardship Plan - The City of St. Paul, Division of Parks and Recreation will maintain and operate the park and existing facilities until, during, and after the reconstruction of the park.

Regulations & Ordinances - Existing park ordinances as well as applicable City ordinances shall apply to the regulation of Lilydale/Harriet Island Regional Park.

Operating Cost - See Maintenance Section.

Public Safety Service
Police: The Saint Paul Police Department has jurisdiction.

Fire: The Saint Paul Fire Department has responsibility for fire protection.

Ambulance: Ambulance service is provided by the paramedics of the Saint Paul Fire Department.

Program Operations

Many new and exciting programming potentials not presently available in any other St. Paul park will be available with the addition of Lilydale/Harriet Island Regional Park.

In addition to maintenance operations, the City has programs and administrative staff with responsibilities for recreational programming. New outdoor recreation programs may include cross country skiing, swimming, day camping, nature study and interpretation, stage events, river festivals and concerts, art fairs and field sports (soccer), and winter carnival events.

Full time, program related staff will be assigned to Lilydale/Harriet Island to initiate and coordinate the many new programming opportunities available. Seasonal staff may include campground and beach attendants, cross country skiing, bike and boat rental attendants, lifeguards, food concession attendants, naturalists, play area supervisors and security rangers, etc.

Trash Removal

May 15 - October 15 2 hours daily - 7 days a week	25,500
October 15 - May 15 4 hours weekly - 2 days a week	9,500
Trash Containers 100 per year - ongoing	1,200
	$36,200

Tree Inspection & Removal

Inspection at $1,000 per year	1,200
Removal and Replacement 375 per tree x 20 average	9,000
	$10,200
Estimated Total	$491,500

Examples for comparisons; 1985 cost for Como Park maintenance less the Golf Course -- $1,416,174 (includes Zoo & Conservatory).

Cost of Phalen Park maintenance less the Golf Course and Recreation Center -- $147,840.

Cost Estimate

LILYDALE/HARRIET ISLAND REGIONAL PARK
20-YEAR DEVELOPMENT/CAPITAL IMPROVEMENT PROGRAM

HARRIET ISLAND

DESCRIPTION	ESTIMATE	SOURCES
Acquisition		
. North of Water Street	$2,400,000	Metro Parks/Flood Control Project
. South of Water Street	1,200,000	Metro Parks
. Minnesota Boat Club	400,000	Metro Parks
Circulation		
. Roads/Parking/Lighting/Misc.	6,590,000	Metro Parks/Flood Control Project
Lower Harbor		
. Marina Facilities & Equipment	SPYC	SPYC
Upper Harbor		
. Harbor Area Sitework	288,500	Metro Parks
. Marina Facilities & Equipment	SPYC	SPYC
Levee		
. Improvements & Other Associated Work (Pump House & 2 Closures)	1,066,000	Flood Control Project
Riverfront Park Features		
. General Sitework	4,987,000	Metro Parks/Flood Control Project
. Playground	300,000	Metro Parks
. Excursion Boat Landing	260,000	Metro Parks
. Water Feature (entry)	115,000	Metro Parks
. Play Fields	453,000	
Riverwalk Promenade	3,675,000	Metro Parks
Picnic Pavilion	1,300,000	Metro Parks
Picnic Island	883,000	Metro Parks
Navy Island (including bridge)	4,374,000	Metro Parks
(See addendum for additional information)		
TOTAL	$28,291,500	

CHEROKEE PARK

DESCRIPTION	ESTIMATE	SOURCES
Circulation	1,051,000	
. Roadway Improvement		Metro Parks
. Entry Development		Metro Parks
. Pedestrian/Bike Paths		Metro Parks
Park Development	294,000	
. Overlook		Metro Parks
. Playground		Metro Parks
. Sitework		Metro Parks
. Amenities		Metro Parks
TOTAL	$1,345,000	

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LILYDALE PARK

DESCRIPTION	ESTIMATE	SOURCES
Circulation	4,750,000	
. Pedestrian/Bike Paths		Metro Parks
. Roadways/Lighting		Metro Parks
. Entry Development		Metro Parks
Pickerel Lake Improvements	2,775,000	
. Control Structure/Lake Protection		Metro Parks
. Nesting Islands/Lake Protection		Metro Parks
. Shoreline Modification/Cleanup		Metro Parks/MAC
. Pond Shaping/Dredging		Metro Parks/MAC
. Swimming Beach		Metro Parks
. Fishing/Boat Docks		Metro Parks
. Landscaping		Metro Parks
. Stock with Fish		MN DNR
Day Camp/Picnic Area	437,500	
. Sitework		Metro Parks
. Picnic Amenities		Metro Parks
. Boat Launch/Dock		MN DNR

LILYDALE PARK cont.

DESCRIPTION	ESTIMATE	SOURCES
General Park Improvements	4,003,500	
. Bluff Stabilization		Metro Parks
. Cave Rehabilitation		Metro Parks
. Sitework		Metro Parks
. Parking		Metro Parks
. Relocations		Metro Parks
-NSP Power Lines		
-Mobil Line		
-NSP Gas Line		
. Utilities		Metro Parks
Lakeside Activity Center	1,607,000	
. Building		Metro Parks
. Sitework		Metro Parks
. Parking		Metro Parks
. Utilities		Metro Parks
Campground	1,547,500	
. Sitework		Metro Parks
. Roadway Lighting		Metro Parks
. Water Service		Metro Parks
. Toilet Service		Metro Parks
. Amenities		Metro Parks
. Utilities-Sewer/Water		Metro Parks
Interpretive Facilities	778,000	
. Building		Metro Parks
. Interpretive Trails		Metro Parks
. Parking		Metro Parks
. Marsh Trail/Blind		Metro Parks
. Cave Habitat		MN DNR
Park Maintenance Facility	588,500	Metro Parks
TOTAL	$16,487,000	

LILYDALE/HARRIET ISLAND REGIONAL PARK COST ESTIMATE **$46,123,500**

Maintenance

The additional costs to maintain a park of this size, most of it entirely new to the regional system, is of primary significance in the preparation of this development plan. It is crucial that any proposals for park development and improvements recognize maintenance costs and requirements and the budget constraints which affect maintenance services.

ESTIMATED YEARLY COSTS FOR THE OPERATION OF THE PROPOSED LILYDALE/HARRIET ISLAND REGIONAL PARK

Grass areas 75.5 acres

Lawn Mowing
Topsoil
Fertilizing and Reseeding
Miscellaneous Hand Tools

$41,000

Additional Crew Composition

1 Supervisor	.4 FTE
1 Pickup Truck	.4 FTE
1 Crew Leader	.5 FTE (w/truck)
Groundsmen	1.5 FTE (w/truck)
Park Aides	.3 FTE

Trades Staff for Building Maintenance etc. 800 hours per year.

Trades Supervisor 10% Time

$203,000

This development plan was presented at a Parks Maintenance staff meeting where general maintenance concerns were discussed. The following maintenance estimate resulted from this and other meetings. It should be noted that this maintenance estimate excludes the two marina harbors.

Added Start Up Costs

In addition to the above costs there will be numerous start up costs to include such things as:

200 Trash Cans

50 Concrete Trash Receptacles

15 2 yard Trash Receptacles

1 Mower Sharpener

1 Power Washer

Items necessary to set up another maintenance facility.

$30,000

Ski Trail Grooming

Groundsmen
X Bombardier
25% Time Enterprise Truck

8 Hrs. per week x 14 weeks

$4,700

Campground SP-SP 200 Sites

Cost $400.00 per site	
Cost Memorial Day to Labor Day	80,000
Extended Season using 20% of Campground Area until November 1 (Cost per day doubled)	19.000
	$99,000

Boat Launch Area

Ramp Repair	1,800
Flood Control Structure Maintenance	1,800
	$3,600

Miscellaneous

Spring Litter Pickup & Fall Leaf Mulching	9,700
Play Area Safety Checks & Repair	1,200
Janitorial Supplies	4,800
Fencing Maintenance	4,300
Tree Trimming and Removal and Inspection	6,000
Flood Maintenance and Repair	24,000
	$50,000

Overall Park Duties

Cleanup, litter picking, grass trimming, restroom maintenance. Field area repair and maintenance Day Camp area cleanups, etc. - Total Park

Pathways & Road Maintenance

Signs
Striping
Patching & Maintenance
Plowing, Sanding & Brooming
Street Sweeping
Seal Coating

$46,800

Lighting SP-SP 607 Units

Normal Maintenance
Damage Costs

$13,400

addendum

LILYDALE / HARRIET ISLAND REGIONAL PARK

Statewide Floodplain Rules : Appendix D - Floodplain Managen ent. U.S. Army Corps of Engineers, St. Paul District : General Design Memorandum - Mississippi River at Harriet Island, St. Paul, Minnesota, Small-Boat Harbor, October 1964, Re-evaluation of St. Paul Flood Control Project, Draft Feasibility Report, December 1980.

U.S. Army Engineer District : St. Paul Flood Control Project, Draft Plan of Study, May 1977.

U.S. Department of the Interior, Bureau of Outdoor Recreation : Upper Mississippi Comprehensive Basin Study, Volume VI, Ann Arbor, Michigan, 1970.

U.S. Geological Survey : St. Paul West, Minnesota, NW/4 and NE/4 St. Paul 15' Quadrangle maps, Washington, D.C., 1967, photo revised 1972.

Upper Mississippi River Basin Commission : Comprehensive Master Plan for the Management of the Upper Mississippi River System, Minneapolis, Minnesota, January 1982; Comprehensive Master Plan for the Management of the Upper Mississippi River System, System Review Comments, Minneapolis, Minnesota, January 1982; Preliminary Comprehensive Master Plan for the Management of the Upper Mississippi River System, Minneapolis, January 1981.

Urban Land Institute : Environmental Comment magazines, Washington, D.C., June and July 1978, March and October 1980, April and September 1981, November 1982.

Walters, John : A History of Harriet Island, 1979.

Ramsey County Open Space : Lilydale Inventory IV.

St. Paul Riverfront Pre-Development Plan : Prepared for the Riverfront Commission, City of St. Paul by BRW, Inc., Wallace, Roberts & Todd; Hammer, Siler, George Assoc; 1986.

St. Paul Yacht Club : St. Paul Yacht Club Long Term Plans data, October 1985.

Scholen, Grant (Metropolitan Council of the Twin Cities Area) : Reservable Group Picnic Facilities in the Regional Open Space System draft, November 1985.

Starr, Edward P. : St. Paul, Minnesota, City Charter and Legislative Code, March 1981.

State of Minnesota, Department of Conservation, Division of Waters : Pickerel Lake - biological data survey, August, 1967. Pickerel Lake - Report on Request to Fill Certain Platted Areas, February, 1966.

State of Minnesota, Department of Housing and Urban Development : City of Lilydale - Flood Hazard Boundary maps, February 1973, revised November, 1975.

State of Minnesota, Department of the Interior, Heritage Conservation and Recreation Service : Urban Waterfront Revitalization - The Role of Recreation and Heritage, Volume II, Eighteen Case Studies, Washington, D.C., 1980.

State of Minnesota, Department of Natural Resources, Division of Fish and Wildlife : Pickerel Lake Depth map, December 1982, Pickerel Lake Fish Population Assessment, Dakota and Ramsey Counties, Minnesota, February 1980.

State of Minnesota, Department of Natural Resources, Division of Waters, Soils and Minerals : Mississippi River Floodplain Information and Management (Mile 815.2 to Mile 847.7), Part II Floodplain Areas and Water Surface Profiles, 1972, Lilydale Floodplain boundary maps and zoning ordinances, February 1986.

State of Minnesota, Department of Natural Resources, Office of Planning Research and Policy Section: Minnesota State Comprehensive Outdoor Recreation Plan, 1979.

State of Minnesota, Department of Transportation : Bikeway Design Manual, February 1983.

Harney, Andy Leon : Reviving the Urban Waterfront, New York, 1973.

Howard Needles Tammen & Bergendoff, Architects/Engineers/Planners: Pickerel Lake Mitigation Site for Downtown Airport, Minneapolis, Minnesota, May 1985.

Lilydale Environmental Assessment, Ramsey County, Minnesota, Project No. LW 27-00561.

Lilydale Planning Commission : Lilydale City Code, Lilydale, Minnesota, November 1976.

Mack, Andrew R. and Fredric R. Harris, Inc. : Boat Handling Equipment in the Modern Marina, New York, 1959.

McLagan, Paul R. and Son : City of Lilydale, Municipal Zoning map, June 1985, and Lilydale Regional Park Boundaries map, July 1961, revised June 1967.

Metropolitan Council of the Twin Cities Area : Barge Fleeting: Potential Impacts on Parkland, March 1983. The Major River Corridors in the Twin Cities Metropolitan Area (staff report), December 1970. Metropolitan Council's Recreation Open Space Development Guide/Policy Plan - the Recreation Open Space chapter of the Metropolitan Development Guide, November 1985.

Metropolitan Park Policy Guide : Policy 7, November 1985.

Midwest Planning and Research Inc., : City of Mendota Heights Official Zoning map, Minneapolis, Minnesota, revised January 1986.

Minnesota State Planning Agency, Transportation Planning : Bikeways Guide, November 1974.

National Assoc. of Engine and Boat Manufacturers : Marina Architects Consultants Designers Engineers, Greenwhich, Connecticut. Marina Operations and Service, Stanford, Connecticut, 1967. The Modern Marina, New York, 1963.

National Park Service, Midwest Region Office : Reconnaissance Survey - Twin Cities Metropolitan River Corridors, December 1980.

Padelford Packet Boat Co. : Excursion Boat Operation Information, St. Paul, Minnesota, January 1986.

Port Authority of the City of Saint Paul, Mark Hurd Aerial Surveys, Inc. : Pickerel Lake Industrial Districts topography map, November 1967.

City of St. Paul, Department of Planning and Economic Development : Large Craft Marina Survey - Mississippi River, St. Croix River, Lake Pepin, December 1985.

City of St. Paul, Department of Planning and Economic Development : A Plan for Parks and Recreation, June 1984.

City of St. Paul, Department of Planning and Economic Development : Proposal for City of Saint Paul Riverfront Enterprise Zone, August 1983.

City of St. Paul, Department of Planning and Economic Development : St. Paul Mississippi River Corridor Plan, August 1979.

City of St. Paul, Department of Planning and Economic Development : St. Paul Riverfront Initiative, 1983.

City of St. Paul, Department of Public Works : Sewer location map, March 1984.

City of St. Paul, Department of Public Works : Traffic Flow map, January 1976, revised January 1986.

City of St. Paul, Department of Water and Utilities : Water Line Location maps, revised 1985.

City of St. Paul, Zoning Code City of St. Paul, July 1985.

Dakota County : Bikeway Plan, Dakota County, Minnesota, Long Range Planning Program, August 1985.

Dakota County Planning Department : City of Lilydale Land Use map and Proposed Land Use 1990 map, July 1980.

Department of Research and Planning : The Language of Open Space, Duluth, Minnesota.

Dunham, James W. and Arnold A. Finn : Small-Craft Harbors Design, Construction, and Operation, U.S. Army Coastal Engineering Research Center, Fort Belvoir, Virginia, 1974.

Floodway Re-analysis for the Mississippi River through the City of St. Paul, Minnesota - Commission No. 8270-01 : For the City of St. Paul by Toltz, King, Duvall, Anderson & Associates, February, 1982.

Fogg, George E. : Park Planning Guidelines Revised, National Recreation and Park Assoc., 1981.

Reference List

Adie, Donald W. : Marinas - A Working Guide to their Development and Design, The Architectural Press Ltd, Boston, 1975.

Chaney, Charles A. : Marinas - Recommendations for Design, Construction and Maintenance, National Association of Engine and Boat Manufacturers, Inc., New York, 1961.

City of Lilydale : Lilydale City Code, Lilydale, Minnesota.

City of Lilydale : Ordinance No. 905A, Lilydale, Minnesota, February 1979.

City of Mendota Heights : Zoning Ordinance, Mendota Heights, Minnesota, November 1981.

City of Mendota Heights Planning Commission : City of Mendota Heights Comprehensive Plan 1979, Part III - Critical Area Plan, Mendota Heights, Minnesota, June 1980.

City of St. Paul Council Resolution : File No. 281223, Agreement between St. Paul and Ramsey County for transfer of Lilydale to the City of St. Paul, December 1983.

City of St. Paul, Department of Finance, Valuations Division: Acquisition Estimates.

City of St. Paul, Department of Parks and Recreation, Design Division : Regional Recreation Open Space in the City of St. Paul, St. Paul, Minnesota, July 1975.

City of St. Paul, Department of Parks and Recreation, Municipal Athletics Division : Harriet Island - information on programming for open fields, February 1986.

City of St. Paul, Department of Parks and Recreation, Recreation Division : Harriet Island Picnic Pavilion usage information, January 1986.

City of St. Paul, Department of Parks and Recreation, Support Services Division : Harriet Island - information on special events taking place, February 1986.

City of St. Paul, Department of Parks and Recreation : Pickerel Lake water sample test results, October 1984.

City of St. Paul, Department of Planning and Economic Development : Harriet Island Parking capacity information, February 1986.

PHOTO CREDITS

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Planned Site Capacities

HARRIET ISLAND PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Marina				
A. Boat Slips	199	4	0.5	400
B. Boat Launch	1	100	1.0	100
2. Restaurant	1	50	3.0	150
3. Play Area	1	50	4.0	200
4. Excursion Boats	2	250 avg.	4.0	2,000
5. Promenade/Sight-seeing	1	50	10.0	500
6. Picnic				
A. Pavilion	1	300	1.5	450
B. Family	15	5	2.0	150
7. Field Areas/ Jogging	6 acres	5	6.0	180
			Total Users/Day	4,130
Winter Use				
1. Winter Carnival	1	500	2.0	1,000 (two weeks only)
2. Skating	1	100	3.0	300
			Total Winter Users/Day	300 to 1,300

PARKING CAPACITIES

Based upon existing use and/or projected user quantities an estimate has been made of the parking requirements anticipated for each use area or facility requiring parking.

The recommended quantities represent levels that will adequately serve parking needs on an average summer weekend day.

Summer Use Area/Facility	Anticipated Parking Need
Upper Harbor - (111 slips) @ 1.0 spaces per slip	111
Lower Harbor - (88 slips) @ 1.0 spaces per slip	88
Boat Launch - 100 @ 3 per car	35
Excursion Boats - 500 @ 4 per car (large percentage arrive by bus)	125
Promenade/Sight-seeing - 50 @ 3.5 per car	15
Pavilion - 300 @ 3 per car	100
Picnic - Family - 75 @ 3.5 per car	22
Activity Areas/Misc.	10
Play Area - 50 @ 4 per car	12
Restaurant - Code	26
Total Parking Required	544

CHEROKEE PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
1. Picnic				
A. Family	39 Sites	5/Site	1.5	293
B. Group	2 Sites	90/Site	1.0	180
C. Family Blanket	10 Sites	5/Site	1.5	75
2. Sight-seeing	2	5	2.0	20
3. Activity Areas-Biking/Jogging		20	3.0	60
			Total Users/Day	628

4. Parking

Cherokee Boulevard	106 Cars
Chippewa Avenue	84 Cars
Cherokee N. Lot	39 Cars
Cherokee S. Lot	51 Cars
	280 Cars

NOTE:

Figures were derived from an actual count, an estimate or the "Reservable Group Picnic Facilities" Report, December 1985.

LILYDALE PARK

Area Currently Undeveloped

Existing Site Capacities

HARRIET ISLAND PARK

Activity Type	Area/Sites	Users/Area	Turnover Rate/Day	Users/Day
1. Marina				
A. Boat Slips	130(97.5)*	2	1	195
B. Boat Launch	2	10	1	20
2. Excursion Boats	2**	250 avg.	4	2,000
3. Sight-seeing		10	2	20
4. Picnic				
A. Pavilion	1	250	1	250
B. Family	5	5	2	50
			Total Users/Day	2,535

5. Parking	
A. On-street	600
B. City Lot adjacent Nagasaki Road	165
C. Excursion Lot	80
D. Boat Launch Lot	20
E. Pavilion Lot	30
F. Nagasaki Road (90 degree parking)	110
	1,005 cars

NOTE:

Figures were derived from an actual count, an estimate, or the "Reservable Group Picnic Facilities" Report or City of St. Paul, "Large-Craft Marina Survey," Dec. 1985

*130 Boat slips at 75% capacity — 97.5

**Generally only one boat operates at a time.

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

11. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Beach - 990 @ 3 per car	330
Lakeshore Fishing - 20 @ 2 per car	10
Non Power Boating - 30 @ 2 per car	15
Lakeside Activity - 100 @ 3 per car	34
Campground Visitor Parking - 150 sites @ .2 per site	30
Picnic Areas - 150 sites	150
Group Picnic - 200 @ 3 per car	166
Pavilion - 320 @ 3 per car	107
River Power Boating - 100 @ 4 per car (car trailer stalls)	25
Interpretive Activity - 50 @ 2 per car (many groups may arrive by bus)	25
Jogging/Hiking/Sight-seeing - 50 @ 2 per car	25
Total Parking Required (Summer weekend day not peak/maximum)	917

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

11. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Beach - 990 @ 3 per car	330
Lakeshore Fishing - 20 @ 2 per car	10
Non Power Boating - 30 @ 2 per car	15
Lakeside Activity - 100 @ 3 per car	34
Campground Visitor Parking - 150 sites @ .2 per site	30
Picnic Areas - 150 sites	150
Group Picnic - 200 @ 3 per car	166
Pavilion - 320 @ 3 per car	107
River Power Boating - 100 @ 4 per car (car trailer stalls)	25
Interpretive Activity - 50 @ 2 per car (many groups may arrive by bus)	25
Jogging/Hiking/Sight-seeing - 50 @ 2 per car	25
Total Parking Required (Summer weekend day not peak/maximum)	917

PLANNED SITE CAPACITIES cont.

LILYDALE PARK

Activity Type	Area (Sites)	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Beach Area 500' x 300'	3.4 Acres	290/Acre	2.0	1972
2. Lake Shore Fishing	20 Acres	1/Acre	4.0	80
3. Non-power Boating	15 Boats	2/Boat	4.0	120
4. Lakeside Activity Area	10 Acres	10/Acre	6.0	600
5. Campground/	150 Sites	4/Site	1.0	600
6. Campground Visitor	150	20%	1.0	30
7. Picnic Areas				
A. Family	150 Sites	5/Site	2.0	1500
B. Group	5 Sites	40/Site	2.0	400
C. Pavilion	40 Tables	8/Table	2.0	640
8. River - Power Boating	20 Boats	5/Boat	1.0	100
9. Interpretive Activity		50/Group	6.0	300
10. Sight-seeing/Jogging		50	10.0	500
			Total Users/Day	6842

PLANNED SITE CAPACITIES cont.

CHEROKEE PARK

Activity Type	Area (Sites)	Users/Area	Turnover Rate/Day	Users/Day
Summer Use				
1. Picnic				
A. Family	39 Sites	5/Site	1.5	293
B. Group	2 Sites	90/Site	2.0	180
C. Family Blanket	10 Sites	5/Site	1.5	75
2. Sight-seeing	2 Overlooks	10	.4	80
3. Activity Areas -Biking/Jogging		20	6.0	120
			Total Users/Day	748

4. Parking Capacities

Summer Use Area/Facility	Anticipated Parking Need
Picnic - 548 @ 3.5 per car	157
Sight-seeing - 20 @ 3.5 per car	6
Activity Areas - 20 @ 4 per car (bikers & jogger would not need a car space)	5
Total Parking Spaces Required	168

PROPOSED PARKING LOT CAPACITIES

Cherokee Boulevard (east side only)	Curb	53 Cars
Chippewa Avenue (west side only)	Curb	42 Cars
Cherokee North Lot		39 Cars
Cherokee South Lot		51 Cars
		185 Cars

NOTE: Parking quantities are reduced from existing quantities by allowing parking on only one side of Cherokee Boulevard and Chippewa Avenue to alleviate traffic congestion and improve pedestrian and vehicular safety.

appendix

LILYDALE / HARRIET ISLAND REGIONAL PARK

Operating Funding Source

With escalating maintenance and operation costs and decreased budgets in these areas, the idea to encourage and provide self supporting recreation programs and services within this park is essential.

Funds for the maintenance and operation responsibilities will be budgeted by the City of Saint Paul, supplemented by the Regional Park operation and maintenance program and user fees.

Potential User Fee Revenue Sources

1. Pavilion Reservation Fees
2. Picnic Shelter Fees
3. Swimming Fees
4. Day Camp Fees
5. Interpretive Center Fees
6. Ski, Bike and Boat Rental Fees
7. Food Concessions/Restaurant
8. Marina Lease Fees
9. Excursion Boat Lease Fees
10. Campground Fees
11. Festivals, Concerts and Events

Public Awareness

The St. Paul Park Division, as the implementing agency, will cooperate in making the public aware of the new park through the Metropolitan Council's regionwide public awareness program.

When initial park development is completed, the Division of Parks and Recreation will include information on Lilydale/Harriet Island in respective brochures and related public information material and presentations developed by Parks and Recreation staff.

Operational Details

Operating Responsibility - The City of Saint Paul, Department of Community Services, Division of Parks and Recreation has maintenance and operational responsibility for Lilydale/Harriet Island Regional Park.

Park Hours - General hours for the park will be from sunrise to 11 p.m. Specific facilities such as the campground, marina and concessions will have varying hours of operation.

Signage - The signage throughout the park will be consistent with the standardized signing system of the Parks and Recreation Division.

Traffic Control - Provisions will be made for closing all parking areas with security gates. These gates will be under the control of the Police Department and Division of Parks and Recreation Rangers.

Stewardship Plan - The City of St. Paul, Division of Parks and Recreation will maintain and operate the park and existing facilities until, during, and after the reconstruction of the park.

Regulations & Ordinances - Existing park ordinances as well as applicable City ordinances shall apply to the regulation of Lilydale/Harriet Island Regional Park.

Operating Cost - See Maintenance Section.

Public Safety Service
Police: The Saint Paul Police Department has jurisdiction.

Fire: The Saint Paul Fire Department has responsibility for fire protection.

Ambulance: Ambulance service is provided by the paramedics of the Saint Paul Fire Department.

Program Operations

Many new and exciting programming potentials not presently available in any other St. Paul park will be available with the addition of Lilydale/Harriet Island Regional Park.

In addition to maintenance operations, the City has programs and administrative staff with responsibilities for recreational programming. New outdoor recreation programs may include cross country skiing, swimming, day camping, nature study and interpretation, stage events, river festivals and concerts, art fairs and field sports (soccer), and winter carnival events.

Full time, program related staff will be assigned to Lilydale/Harriet Island to initiate and coordinate the many new programming opportunities available. Seasonal staff may include campground and beach attendants, cross country skiing, bike and boat rental attendants, lifeguards, food concession attendants, naturalists, play area supervisors and security rangers, etc.

Trash Removal

May 15 - October 15 2 hours daily - 7 days a week	25,500
October 15 - May 15 4 hours weekly - 2 days a week	9,500
Trash Containers 100 per year - ongoing	1,200
	$36,200

Tree Inspection & Removal

Inspection at $1,000 per year	1,200
Removal and Replacement 375 per tree x 20 average	9,000
	$10,200
Estimated Total	$491,500

Examples for comparisons; 1985 cost for Como Park maintenance less the Golf Course -- $1,416,174 (includes Zoo & Conservatory).

Cost of Phalen Park maintenance less the Golf Course and Recreation Center -- $147,840.

Campground SP-SP 200 Sites

Cost $400.00 per site

Cost Memorial Day to Labor Day	80,000
Extended Season using 20% of Campground Area until November 1 (Cost per day doubled)	19:000
	$99,000

Boat Launch Area

Ramp Repair	1,800
Flood Control Structure Maintenance	1,800
	$3,600

Miscellaneous

Spring Litter Pickup & Fall Leaf Mulching	9,700
Play Area Safety Checks & Repair	1,200
Janitorial Supplies	4,800
Fencing Maintenance	4,300
Tree Trimming and Removal and Inspection	6,000
Flood Maintenance and Repair	24.000
	$50,000

Overall Park Duties

Cleanup, litter picking, grass trimming, restroom maintenance. Field area repair and maintenance Day Camp area cleanups, etc. - Total Park

Pathways & Road Maintenance

Signs
Striping
Patching & Maintenance
Plowing, Sanding & Brooming
Street Sweeping
Seal Coating

$46,800

Lighting SP-SP 607 Units

Normal Maintenance
Damage Costs

$13,400

Maintenance

The additional costs to maintain a park of this size, most of it entirely new to the regional system, is of primary significance in the preparation of this development plan. It is crucial that any proposals for park development and improvements recognize maintenance costs and requirements and the budget constraints which affect maintenance services.

ESTIMATED YEARLY COSTS FOR THE OPERATION OF THE PROPOSED LILYDALE/HARRIET ISLAND REGIONAL PARK

Grass areas 75.5 acres

Lawn Mowing
Topsoil
Fertilizing and Reseeding
Miscellaneous Hand Tools

$41,000

Additional Crew Composition

1 Supervisor	.4 FTE
1 Pickup Truck	.4 FTE
1 Crew Leader	.5 FTE (w/truck)
Groundsmen	1.5 FTE (w/truck)
Park Aides	.3 FTE

Trades Staff for Building Maintenance etc. 800 hours per year.

Trades Supervisor 10% Time

$203,000

This development plan was presented at a Parks Maintenance staff meeting where general maintenance concerns were discussed. The following maintenance estimate resulted from this and other meetings. It should be noted that this maintenance estimate excludes the two marina harbors.

Added Start Up Costs

In addition to the above costs there will be numerous start up costs to include such things as:

200 Trash Cans

50 Concrete Trash Receptacles

15 2 yard Trash Receptacles

1 Mower Sharpener

1 Power Washer

Items necessary to set up another maintenance facility.

$30,000

Ski Trail Grooming

Groundsmen
X Bombardier
25% Time Enterprise Truck

8 Hrs. per week x 14 weeks

$4,700

LILYDALE PARK cont.

DESCRIPTION	ESTIMATE	SOURCES
General Park Improvements	4,003,500	
. Bluff Stabilization		Metro Parks
. Cave Rehabilitation		Metro Parks
. Sitework		Metro Parks
. Parking		Metro Parks
. Relocations		Metro Parks
-NSP Power Lines		
-Mobil Line		
-NSP Gas Line		
. Utilities		Metro Parks
Lakeside Activity Center	1,607,000	
. Building		Metro Parks
. Sitework		Metro Parks
. Parking		Metro Parks
. Utilities		Metro Parks
Campground	1,547,500	
. Sitework		Metro Parks
. Roadway Lighting		Metro Parks
. Water Service		Metro Parks
. Toilet Service		Metro Parks
. Amenities		Metro Parks
. Utilities-Sewer/Water		Metro Parks
Interpretive Facilities	778,000	
. Building		Metro Parks
. Interpretive Trails		Metro Parks
. Parking		Metro Parks
. Marsh Trail/Blind		Metro Parks
. Cave Habitat		MN DNR
Park Maintenance Facility	588,500	Metro Parks
TOTAL	$16,487,000	
LILYDALE/HARRIET ISLAND REGIONAL PARK COST ESTIMATE	**$46,123,500**	

CHEROKEE PARK

DESCRIPTION	ESTIMATE	SOURCES
Circulation	1,051,000	
. Roadway Improvement		Metro Parks
. Entry Development		Metro Parks
. Pedestrian/Bike Paths		Metro Parks
Park Development	294,000	
. Overlook		Metro Parks
. Playground		Metro Parks
. Sitework		Metro Parks
. Amenities		Metro Parks
TOTAL	$1,345,000	

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LILYDALE PARK

DESCRIPTION	ESTIMATE	SOURCES
Circulation	4,750,000	
. Pedestrian/Bike Paths		Metro Parks
. Roadways/Lighting		Metro Parks
. Entry Development		Metro Parks
Pickerel Lake Improvements	2,775,000	
. Control Structure/Lake Protection		Metro Parks
. Nesting Islands/Lake Protection		Metro Parks
. Shoreline Modification/Cleanup		Metro Parks/MAC
. Pond Shaping/Dredging		Metro Parks/MAC
. Swimming Beach		Metro Parks
. Fishing/Boat Docks		Metro Parks
. Landscaping		Metro Parks
. Stock with Fish		MN DNR
Day Camp/Picnic Area	437,500	
. Sitework		Metro Parks
. Picnic Amenities		Metro Parks
. Boat Launch/Dock		MN DNR

Cost Estimate

LILYDALE/HARRIET ISLAND REGIONAL PARK
20-YEAR DEVELOPMENT/CAPITAL IMPROVEMENT PROGRAM

HARRIET ISLAND

DESCRIPTION	ESTIMATE	SOURCES
Acquisition		
. North of Water Street	$2,400,000	Metro Parks/Flood Control Project
. South of Water Street	1,200,000	Metro Parks
. Minnesota Boat Club	400,000	Metro Parks
Circulation		
. Roads/Parking/Lighting/Misc.	6,590,000	Metro Parks/Flood Control Project
Lower Harbor		
. Marina Facilities & Equipment	SPYC	SPYC
Upper Harbor		
. Harbor Area Sitework	288,500	Metro Parks
. Marina Facilities & Equipment	SPYC	SPYC
Levee		
. Improvements & Other Associated Work (Pump House & 2 Closures)	1,066,000	Flood Control Project
Riverfront Park Features		
. General Sitework	4,987,000	Metro Parks/Flood Control Project
. Playground	300,000	Metro Parks
. Excursion Boat Landing	260,000	Metro Parks
. Water Feature (entry)	115,000	Metro Parks
. Play Fields	453,000	
Riverwalk Promenade	3,675,000	Metro Parks
Picnic Pavilion	1,300,000	Metro Parks
Picnic Island	883,000	Metro Parks
Navy Island (including bridge)	4,374,000	Metro Parks
(See addendum for additional information)		
TOTAL	$28,291,500	

implementation

LILYDALE / HARRIET ISLAND REGIONAL PARK

Site Intrusions

RAILROADS

The impact of the railroad right-of-way will be lessened through adjacent topographic changes and the planting of buffer vegetation. The two bridge structures associated with the railroad will require modification or replacement. Specific alternatives will be determined with the railroad, but will be designed to improve vehicular traffic safety, include pedestrian access and improve aesthetic appearance.

The City owned Fillmore Line will be removed and the general alignment will be used for pedestrian and bicycle trails.

UTILITIES

All new utilities that will be required to service new park facilities will be underground, whenever possible, to avoid unsightly intrusions. All existing remnants of utilities from former uses will be removed.

NORTHERN STATES POWER (NSP) EASEMENTS

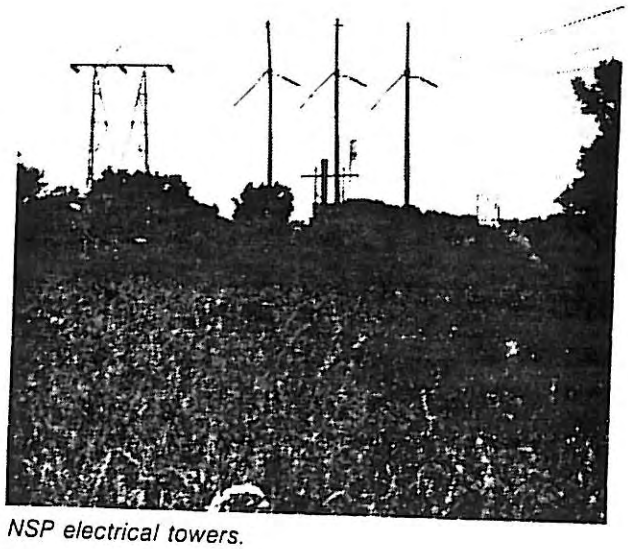
The electrical towers and lines running through the lake will be relocated. A specific location will be determined with NSP when park details are designed.

The most desirable solution would be relocation underground, however, preliminary indications from NSP are that technically this solution is highly improbable. An aboveground line will most likely be relocated in the park road corridor to be de-emphasized with landscaping and more attractive towers.

The underground NSP gas line will need to be relocated in two areas to allow for the new earthen levee. Discussion with NSP regarding the best relocation alignments are currently underway. A written agreement including a new easement and an exact location of the relocated lines will be necessary prior to beginning work.

SOCONY-MOBIL OIL PIPELINE EASEMENT

The Socony-Mobil Oil pipeline will similarly require realignment. An agreement with Mobil Oil to relocate the pipeline outside of the proposed levee has been tentatively reached.



NSP electrical towers.

CAVES

At least one cave will be developed and maintained as a part of the interpretive program for interpreting area geology and the historical uses of the caves. Unless some safe uses of the caves are defined in the interim, they will be secured to prevent access through filling, blocking and landscaping their entrances. If the caves are permanently abandoned and sealed, the bluff at the abandoned entrance will be restored or modified to a natural appearance.

SCENIC OVERLOOK

A scenic overlook with vehicular parking spaces and park information signage will be established above the brickyard quarry area in the vicinity of the new pedestrian access. This overlook will serve as a pedestrian entrance into Lilydale and a vehicular/pedestrian entrance into the Cherokee Park area as well.

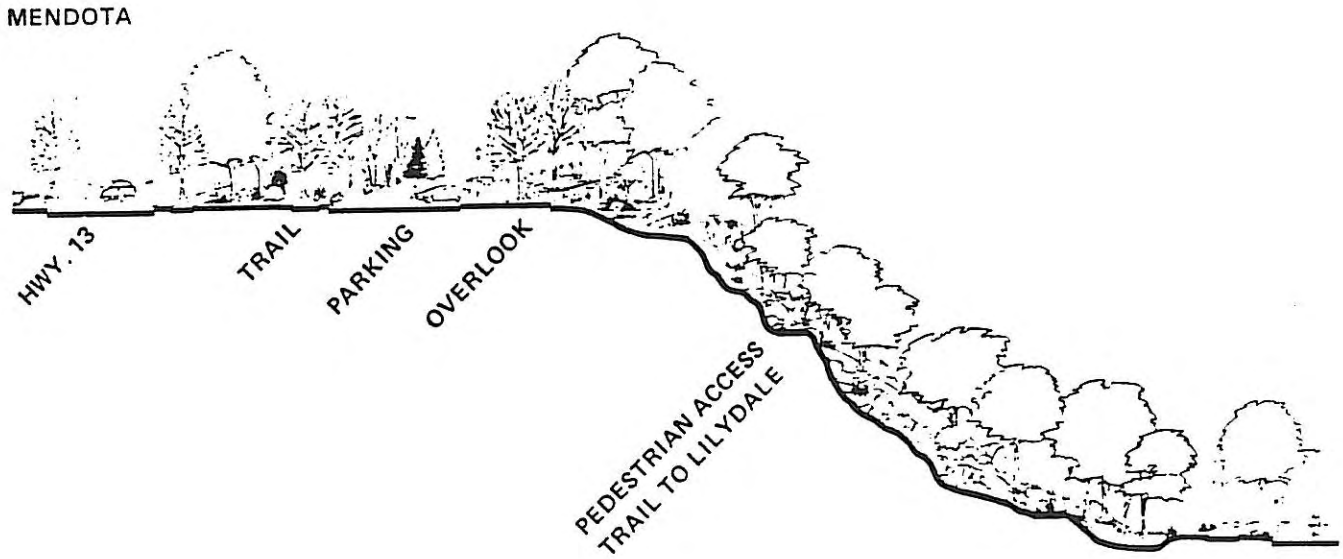
HARBOR SERVICE

The Minnesota Harbor Service operation will remain in its present location. It will be appropriately screened and secured so as not to detract from park uses and views.

WINTER USE

Winter activities at Lilydale will be centered around the Lakeside Activity area and will include ice fishing, cross country skiing, sliding and skating. The interpretive program will also be operating throughout the site in all seasons as well as the opportunity for winter camping activities through a day camp program.

Winter Carnival events and activities will occur here and also at Harriet Island.



SCENIC OVERLOOK

INTERPRETIVE CENTER

The wide range of natural and historical resources make Lilydale an excellent area to operate an interpretive program. The current interest in its geological and paleontological resources has already established a base for a program, which when combined with nature study opportunities, will provide a unique program activity.

The former Twin City Brick Quarry area is identified as the interpretive facility location because the geology and fossils found in this area will be the focus of the program. However, the entire Lilydale site offers many other potential areas for interpretation including:

- wildlife management
- fisheries management
- lake ecology/hydraulics
- bluff geology, cave geology
- floodplain associations, etc.

Initially, the interpretive activity would consist of a program from which specific building needs and site improvements will be determined. It is anticipated though, that a building to serve as a headquarters from which the program would operate will eventually contain an exhibit/classroom area, an office/library and restrooms.

FILL AREAS

Steep slopes of all fill areas will be eased and modified to resemble natural landforms and blend into surrounding areas. All exposed rubble will be removed or covered with soil and vegetated.

The fill area at the west end of Pickerel Lake is the location for a campground. Prior to the development of the campground, the area will be investigated to identify the nature of the fill material and remedial action will be taken if necessary.

MAINTENANCE FACILITY

The quality and high degree of maintenance that will be required for the Lilydale/Harriet Island Regional Park will be much better served if a maintenance facility is located on site. This will eliminate the need to transport equipment, supplies and personnel from the present maintenance facility over 5 miles away and will improve the quality and efficiency of maintenance of all parks in this area.

The facility will be developed at the base of the bluffs southeast of Pickerel Lake in an area once cleared for brick making operations. This location is separated from and can be well screened from the rest of the park activities. The majority of this area is above the 100 year flood elevation and the facility can easily be floodproofed through minor topographic modifications.

It will include a small building and yard for storage of supplies and machinery, employee parking, fuel pumps, security fencing and lighting. Administrative functions and major shop repairs will continue at the Parks and Recreation Central Service Facility in Como Park.

An existing, unimproved access road to this area will be improved and modified and will provide controlled vehicular access to both the maintenance and interpretive facilities.

WETLAND IMPROVEMENTS

The existing marsh will be improved to support wildlife, principally waterfowl, through management and habitat improvements. Vegetation types will be provided on the periphery as well as throughout the rest of the park to encourage wildlife development. A pedestrian trail spur will run to the edge of the marsh and an observation platform will be developed.

In addition, an opportunity to accomplish improvement to wetlands has presented itself through a Minnesota Airport Commission (MAC) mitigation project. Mitigation may be provided at Lilydale which will restore previously disturbed wetlands and improve wildlife habitat.

RIVER BLUFF IMPROVEMENTS

The majority of the bluffs will be protected in their natural state and will be repaired and revegetated where extreme damage or potentially hazardous conditions occur. Wildlife habitat enhancement will be a major consideration in bluff restoration techniques.

The clay quarry area will receive a variety of treatments. Most of the deep bluff cuts and exposed geology will remain and be included in the interpretive program with pedestrian access paths developed into the area. Landscaping will be introduced to eliminate the severity of the visual impact in some locations. Loose and eroded slopes will be stabilized and vegetated where feasible and fenced where a hazard to park users may occur.

OPEN ACTIVITY AREA

An open activity area will be located in conjunction with the picnic, beach and camping areas and will serve as the main game area to support those uses. The approximately 30 acre area will consist of a connected hierarchy of larger and smaller open spaces separated by rolling terrain and vegetation. These multi-use spaces will be arranged to allow for field games and large special events. Tennis courts, horseshoe courts and a children's play area will be located on the periphery.

CAMPGROUND

A campground will be located in the vicinity of the northeast corner of the lake. These facilities will reflect user trends and be responsive to the park's unique urban location and programming potentials.

As stated earlier in this report, there are no camping areas available in the Lilydale/Harriet Island primary service area. In addition, the 1990-94 State Outdoor Recreation Plan (SCORP) states that a public facilities Adequacy Poll indicates that camping continues to rank as a very important recreational activity and a significant percentage of people indicated that there is a need for more facilities. The 1990 SCORP also states that Minnesotans strongly voiced their preference for close-to-home recreational opportunities.

However, surveys alone have a limited usefulness in projecting actual demand when determining specific types and sizes of facilities. Local variations in needs and preferences must be considered in establishing these specific details. Therefore, the specific types and amount of camping will be determined in response to community needs, site limitations and recreational trends at the time of design development, working with a community and user advisory group.

PICNIC AREA

The area adjacent to the river will be developed for general picnicking and day camp use. The picnic area will be geared to family and small to medium size groups that are interested in a natural, river-oriented picnic experience. Approximately 35% of the picnic area will be restored to a semi-natural floodplain state with the remaining areas planted and maintained in a more traditional urban park style.

Picnic sites will consist of a table and grill. Fire rings for day camp use and refuse containers will be interspersed throughout the wooded and open areas at varying intervals.

Access to the picnic sites will be from parking lots off the main park road, but boat access will also be encouraged by providing areas of shoreline with improved boat access and tie-ups. Access from the river will be a major design consideration in the development of the picnic area.

A small boat launch will be located in this same general area for use by visitors and campers.

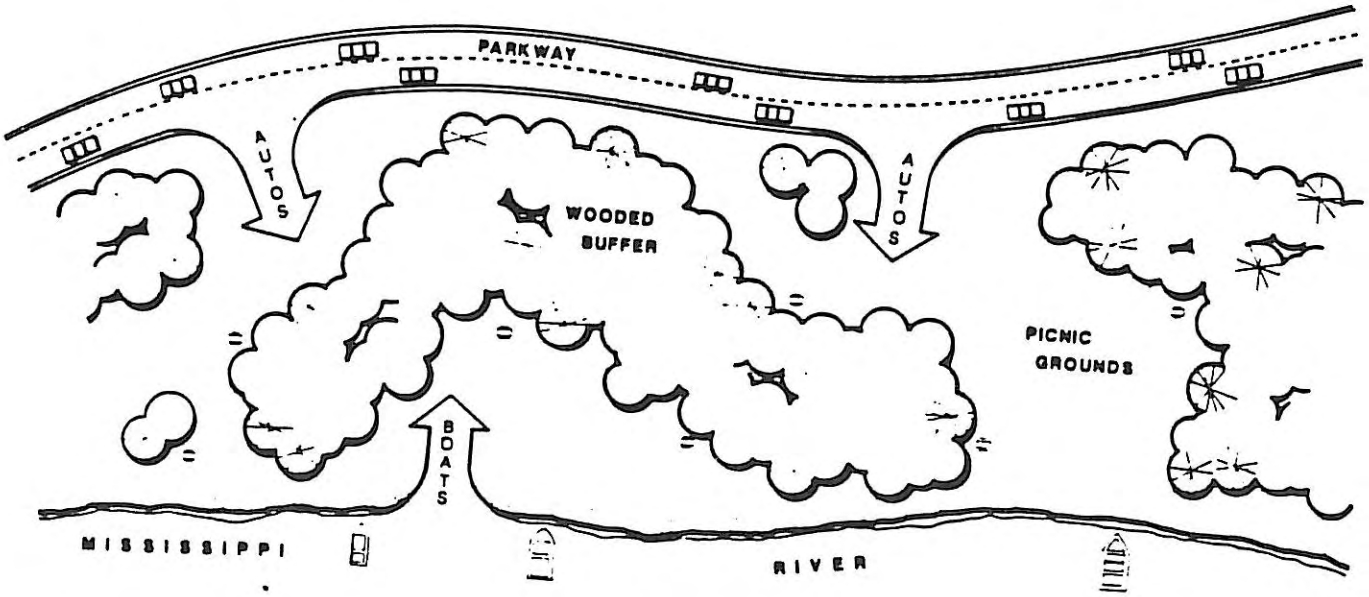
DAY CAMP

The park will serve the day camping activities of children. The day camping site is identified along the river in the general picnic grounds, however, this activity is program-oriented and will use many of the park resources and facilities. The program will use the picnic area for fire circles and craft work. Game fields, fishing dock, marsh, observation area, interpretive facility, riverboat dock, lakeside building and beach will also be used.

BOAT DOCK

A dock will be provided at the river's edge in the picnic/day camp area. The dock may serve as a drop-off point for persons traveling on excursion boats as well as provide a tie-up and access to the park for boats unable to beach at the boater picnic sites.

The trail system will connect the boat dock to other facilities.



LAKESIDE ACTIVITY CENTER

The Lakeside Activity Center is the key orientation feature of Lilydale Park and the main support facility for active lake use. This building will be the main concession area and beach house. It will provide a destination for comfort, storage and services such as telephone and food for other general park users. The location on the northeast side of the lake is excellent for a number of reasons:

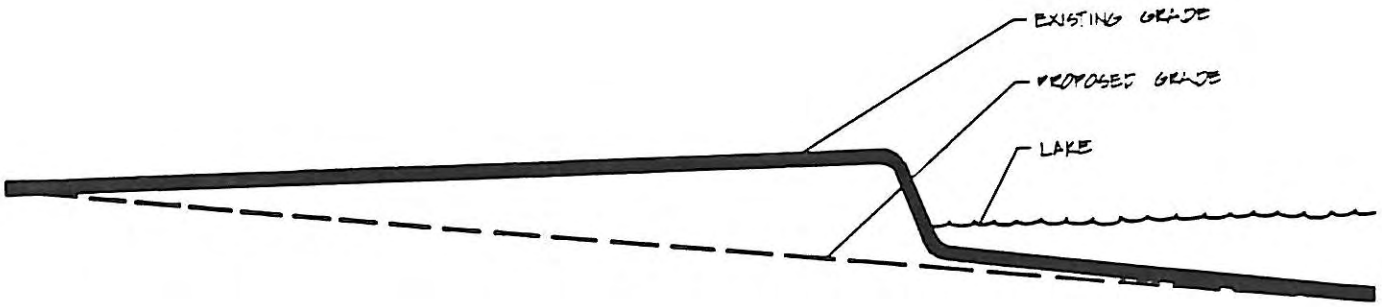
- the southern beach exposure
- much topography is above or close to the 100 year flood elevation
- centrality; close proximity to the main park access road and equal proximity to all other areas
- a strong relationship to both major water features - the lake and the river. This aspect will be enhanced by building placement and site preparations including strong vistas to and from the river and the lake.

Features of the Lakeside Activity Center building will include:

- equipment rental concession for lake and trail use
- snack bar
- fireplace
- restroom
- storage space
- office space

The area surrounding the building will be multi-use and also support most other park activities, as well as those unique to the lake. Facilities which will reinforce this connection with adjacent areas and serve the lake specifically are:

- swimming beach
- picnic facilities oriented to individual families associated with beach use
- lake concession dock for canoeing and boating



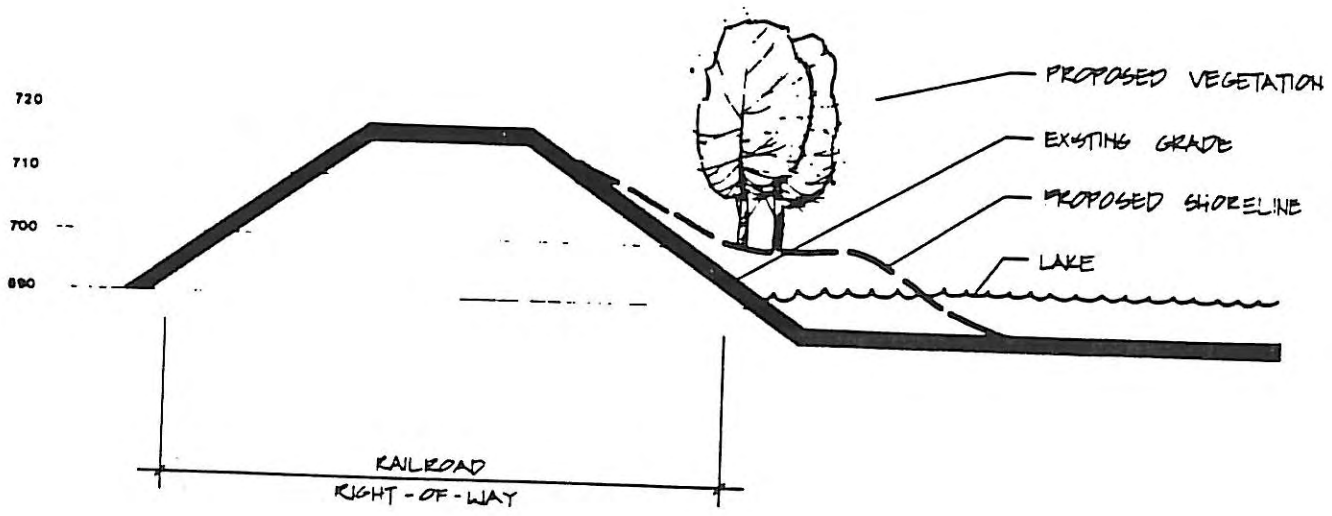
Swimming beach.

Shoreline and Lake Bottom Improvements — On the east shore of the lake, by the railroad tressel, the edge will be extended into the lake from the railroad. This will produce gentler slopes, cover exposed rubble and introduce landscaping.

SWIMMING AREA

The development of a swimming beach on the north side of Pickerel Lake will be a major step toward establishing this new park as a popular facility. In addition, it will provide a swimming resource for the surrounding communities and support the campground, day camp and picnicking areas.

The swimming beach will be approximately 500 feet long and 300 feet wide. To achieve adequate water depth most of the water area will be dredged and a sand bottom established. The lake edge, or beach, will be contoured to eliminate any severe transitions between land and water and a gently sloping sand edge established. The maximum number of swimmers for this beach is estimated at 2000.



Shoreline and lake bottom improvements.

Park Use/Features

PICKEREL LAKE

The lake is the obvious visual and functional focal point in the park. The lake area will be divided into western and eastern use zones. The western one-third will be passive, with little or no surface use and managed to encourage wildlife and aquatic vegetation. The eastern two-thirds of the lake will be used for more active recreational purposes, principally canoeing, swimming and fishing.

The lake itself will be upgraded. Major lake improvement objectives are to:

--improve water quality
--improve game fishing
--eliminate harsh, unattractive shorelines
--develop a swimming beach

To accomplish these objectives, specific improvements will be implemented:

Floodgate and Containment Berm - The contamination by river water and fish will be reduced to approximately a 15 year frequency. Preliminary concepts discussed with the Minnesota Department of Natural Resources indicate a feasible alternative may be to provide a control structure (floodgate) at the lake outlet to control the lake elevation and prevent river water back up and fish introduction during minor high water periods. This currently occurs several times each year.

Additionally, an earthen containment berm would be constructed by modifying the park topography between the river and the lake to reduce the river flood inundation to the 15 year frequency. The existing topography surrounding the lake is generally high and would only require elevating some low points, thereby plugging holes. This work will be accomplished in a manner that will produce natural appearing landforms.

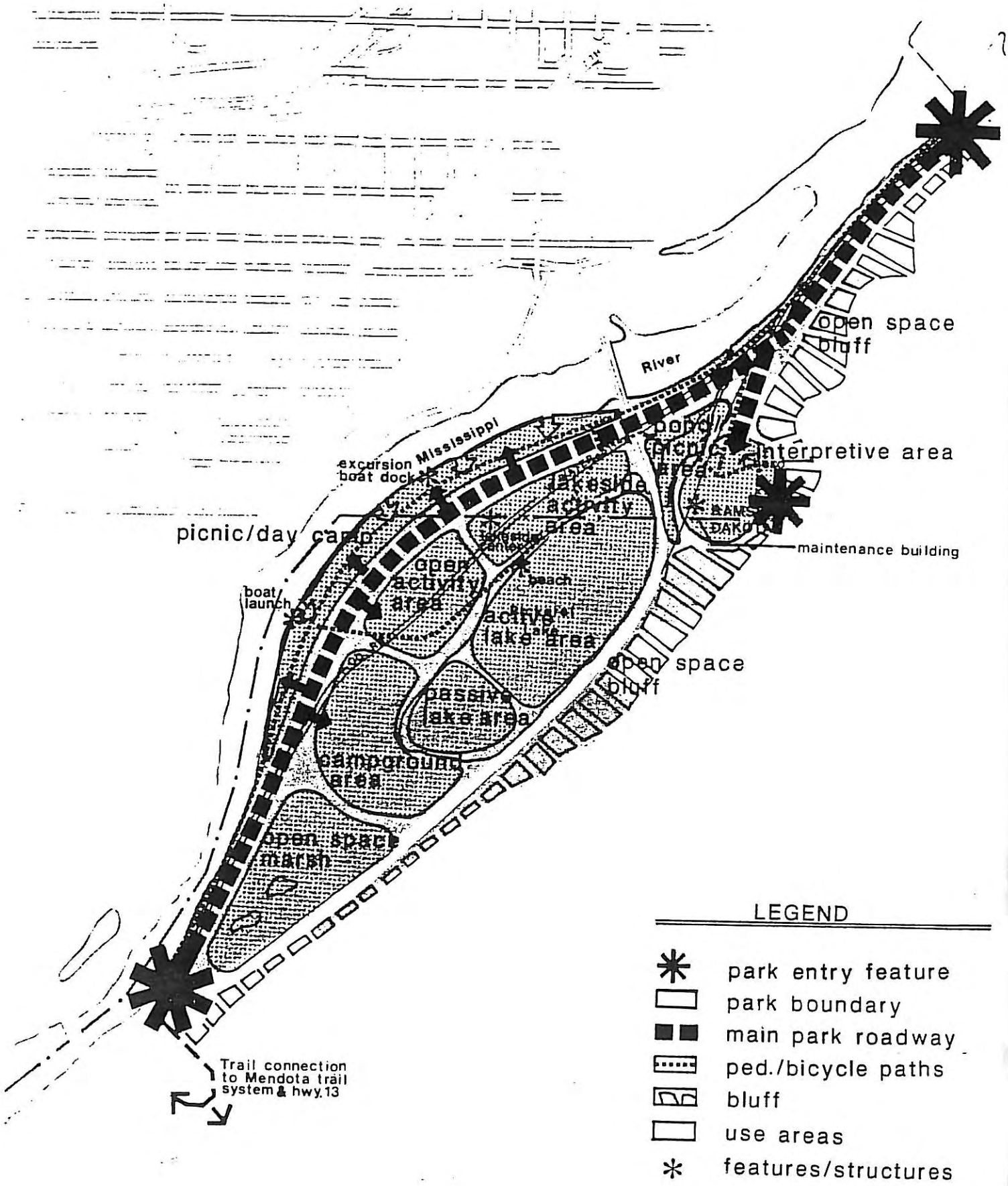
Placement of an earthen containment berm will influence other uses of the area and therefore the Parks and Recreation Division's policy of including input from an advisory group/task force will be included in the final planning and design.

The Saint Paul Department of Planning and Economic Development on June 26, 1987, distributed for review and comment an Environmental Assessment Worksheet (EAW) for the Lilydale Regional Park Floodgate and Levee project.

Following a review of all written comments received on the EAW, a determination was made that no Environmental Impact Statement (EIS) is required for this project.

Fish Management – The lake will be managed as a game fishing resource.

Beach Development – In the beach area on the north side of the lake, the exposed rubble filled edge will be reshaped to a gentle sand beach and the lake bottom will be dredged to produce an adequate depth for swimming.



lilydale-concept schematic

LILYDALE

The theme and emphasis for Lilydale Park draws from its diverse natural amenities combined with its close proximity to major urban centers within the region. Its potential for active, intense use (programmed and non-programmed) and a wide range of services and facilities within a natural setting make it a truly unique regional park. Features and facilities to be developed include:

- upgrading Pickerel Lake for swimming and fishing
- picnic and day camp areas
- campground
- open activity areas
- marsh/wildlife habitat enhancement
- maintenance facility
- interpretive center
- lakeside activity center
- continuous trail system

Circulation

The existing County Road (Water Street) will become the main park road running between the east and west entrances in Lilydale. The roadway will be reconstructed as a parkway on a modified alignment which will:

1. Produce a strengthened entrance and accommodate parking considerations.
2. Eliminate sharp and dangerous curves.
3. Lessen the impact on the north shore of Pickerel Lake and improve accessibility to the site.
4. Provide adequate pedestrian/bicycle trail space along the river's edge.

It will be an undivided, two lane road with spurs and loops leading to park activity areas.

A pedestrian/bicycle trail will be developed that follows the river alignment with an additional main trail that aligns with the north shore of Pickerel Lake.

Park Use/Features

LANDSCAPING

Landscaping improvements will focus primarily on the area along the Parkway between Ohio Street and George Street where the need is greatest, however, the remaining park and parkway will also be included in this plan.

Plant material selected for the parkway will be based on the criteria in the Street Tree Master Plan for the City of St. Paul:

> "Street trees shall be selected to enhance the parkway setting, adding visual and spatial definition and cohesion to the area. All street trees adjacent to the street curbs shall be of same matched variety. Materials on the inside of parkway boulevards shall be planted to create spaces, add color and textural contrasts. Selection for inside boulevard shall include conifers, seed, nut and fruit bearing trees." (P. 13)

These additional site specific landscaping objectives should be met for the Parkway:

- control erosion
- restore boulevard plantings
- strengthen natural areas
- provide more variety
- attract wildlife
- provide seasonal variety
- do selective cutting to enhance views and to control erosion
- define spaces at overlooks, entrances, seating areas, etc.

SCENIC OVERLOOK IMPROVEMENTS

Improvements at the two existing overlooks will emphasize the scenic views and include:

- lighting
- benches
- landscaping
- railings and walls

CHILDREN'S PLAY AREA

A new play area will be designed to serve the needs of both the surrounding neighborhood as well as the larger populations using the picnic facilities.

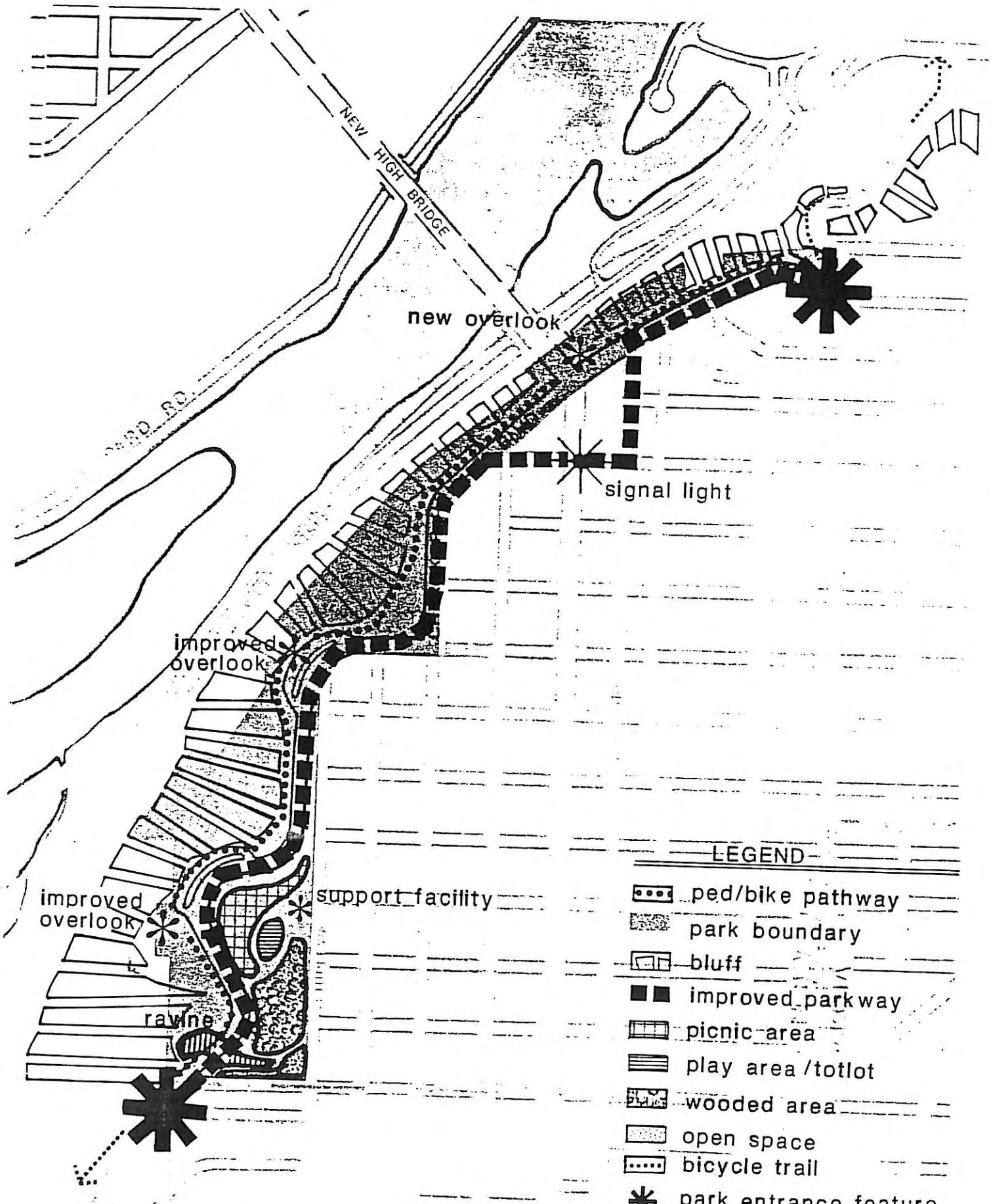
STREET FURNISHINGS

All street furnishings will be of a style consistent with the character of the parkway and, when appropriate, consistent with park furnishings currently in use by the St. Paul Park and Recreation Division. Street furnishings include these items:

- safety bollards
- benches
- trash receptacles
- railing and walls
- signage

lilydale recommendations

LILYDALE / HARRIET ISLAND REGIONAL PARK



cherokee - concept schematic

CHEROKEE

The use and character of Cherokee Park will essentially remain as a parkway and picnic grounds. Modifications will be made primarily to improve and enhance existing features in the park including:

- — park entrance features
- — roadway upgrading
- — pedestrian/bicycle paths adjacent the bluff
- — landscaping
- — scenic overlook improvements
- — children's play area
- — street furnishings: benches, lighting, railings, signage, etc.



View of Cathedral from Cherokee Heights. 1931.

Circulation

VEHICULAR

The main vehicular access and circulation through the park will continue to be on Cherokee Heights Boulevard with the main access into the park at the intersections of Ohio Street and Annapolis Street. These access points into the park area will be developed as gateways providing further continuity between Cherokee Park and the other areas in Lilydale/Harriet Island Regional Park. Improvements to the roadway itself will include overlay paving and new curbing where appropriate with the existing alignment maintained except near Baker Street, where alignment modifications are required to provide a more continuous flow of the parkway.

Parking will remain essentially the same except in the area adjacent to the picnic grounds where parking spaces will be limited to the park side of the street only to alleviate congestion and improve pedestrian safety. See Appendix V.

PEDESTRIAN/BICYCLE TRAILS

A new pathway will be provided from Ohio Street to Annapolis Street along the bluff side of the Parkway to take advantage of the river corridor's scenic quality. Bicycle and pedestrian paths will be separated wherever possible.

cherokee recommendations
LILYDALE / HARRIET ISLAND REGIONAL PARK

FLOOD CONTROL LEVEE

In its "Re-evaluation of St. Paul Flood Control Project," the United States Army Corps of Engineers recommended additional flood protection for the area served by the entire levee. At Harriet Island this specifically means raising the height of the levee by four feet.

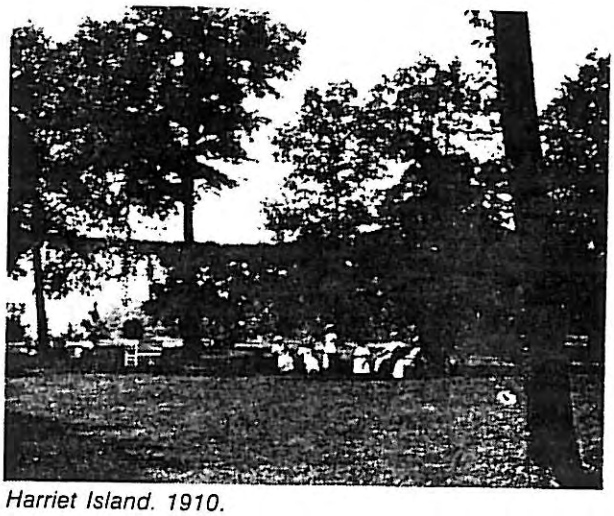
Although final determination has not been reached on that recommendation, this plan for park development will assume that the additional flood protection recommended by the Corps of Engineers will eventually be implemented.

To avoid possible construction conflicts and major disruption to the park, the work will be accomplished in conjunction with the park development work and, in fact, can compliment and assist marina and river edge work. This work is of a similar nature and is likely to produce excess excavated material which could be used in the levee work.

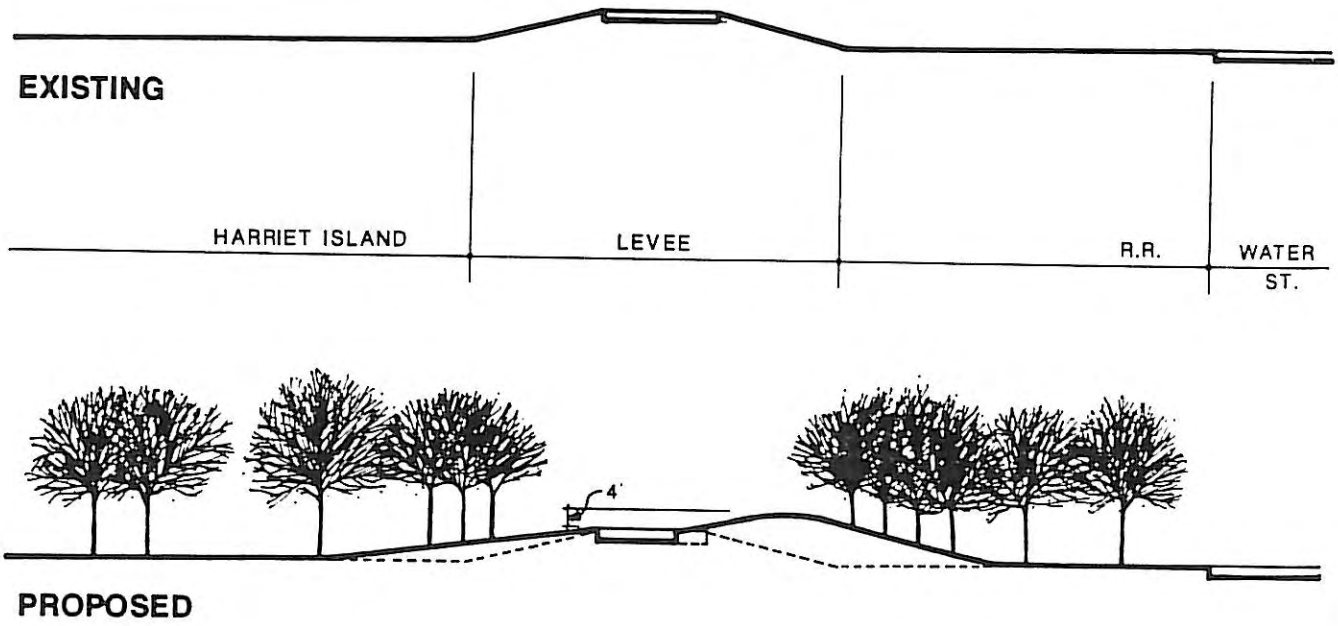
The new levee will generally follow the existing alignment, but with the height, width and alignment varied and landscaped to create a softer, more natural form.

OPEN SPACE

The floodplain landscape will be reintroduced at Harriet Island as open space areas. These areas will include a combination of "natural" floodplain landscape (informal vegetation masses) and traditional parkscape overstory trees, turf and open areas.



Harriet Island. 1910.



PAVILION

The existing pavilion will be renovated to have a lighter, more open character and will be strongly oriented to the river and the picnic grounds.

It will be a facility for large group functions such as family reunions, receptions, community events and celebrations where day long activities can be expected. Features will include kitchen and catering facilities, a stage and dressing room, a dance floor, eating and socializing areas, restrooms and terrace area.

The use of pergolas, landscaping and furnishings in the outdoor areas will be designed and arranged to consider the semi-private functional requirement of large group gatherings.



Harriet Island. July 4, 1904.

PICNIC ISLAND

This park feature, located just west of the new pavilion, will be formed by dredging out a small channel from the upper harbor, through to the river, creating a small island reminiscent of Harriet Island past. The water's edge will include a naturally sloping bank and a pedestrian bridge to connect the new island with the Picnic Pavilion area.

The picnic island will be well landscaped and geared for small groups and individual family picnicking. Sites will be scattered throughout the island along with some simple rain shelters. All features will focus on the river emphasizing this site's unique location. The side of the island toward the upper marina will provide a place for visiting boaters to tie up their boats and picnic for the day.

FIELD AREA

An open field space is to be provided at Harriet Island. During special events it will serve as a gathering area and on a daily basis it will be used as a soccer field and complimentary game fields for groups using the pavilion. The periphery will be a wooded buffer area.

ADVENTURE PLAYGROUND

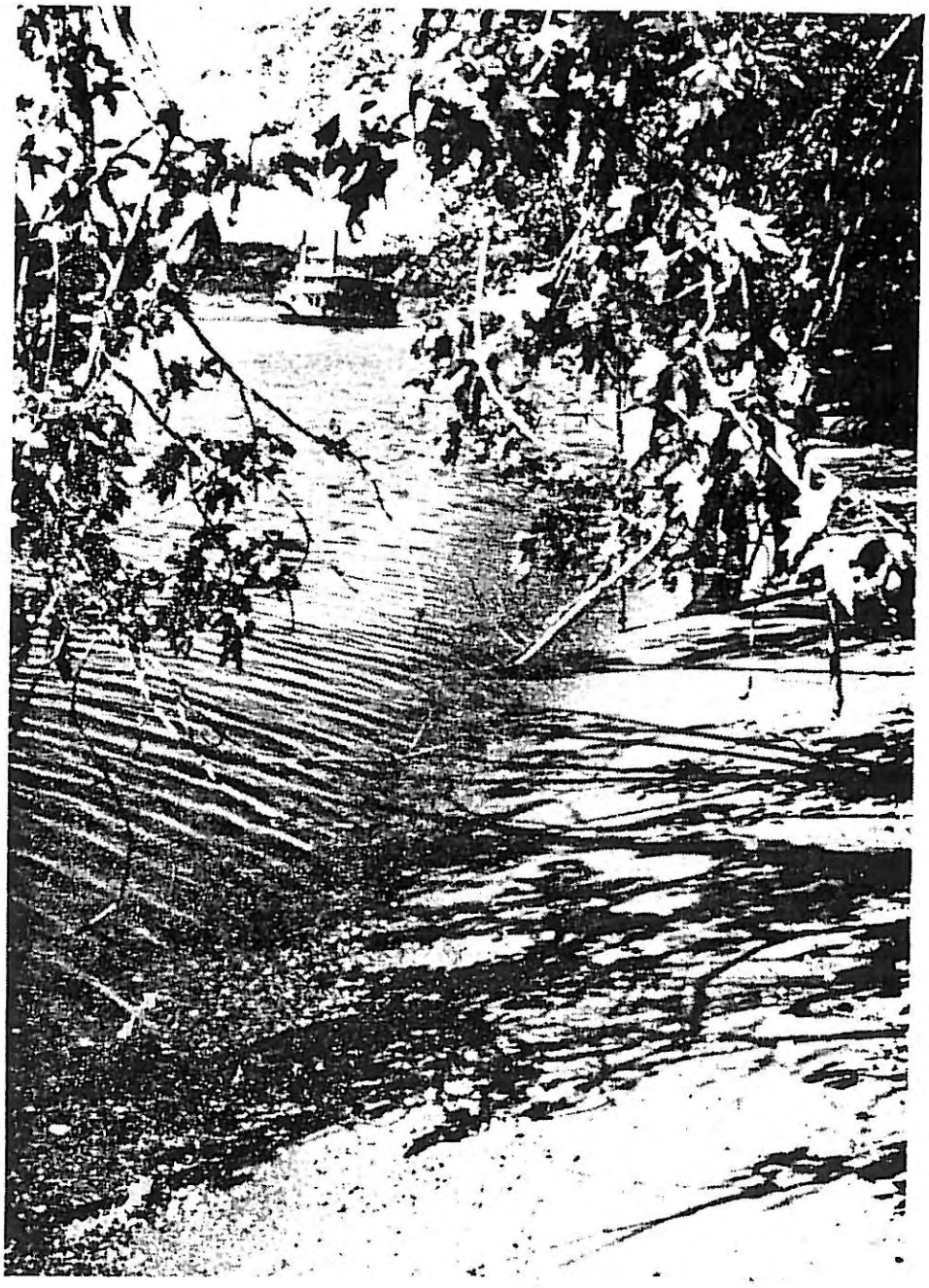
The adventure playground will provide entertainment and education for children visiting the park, and will be conveniently located between the pavilion area and the excursion docks. While waiting for an excursion trip or during a visit to the pavilion, this play feature will begin to introduce an awareness of the river. The design will provide for physical and mental challenges with a specific theme and emphasis demonstrating one or more aspects relating to river history, hydraulics, commercial navigation, etc.

EXCURSION BOAT LANDING

Riverboat excursions are, and will continue to be, one of the most significant activities taking place at Harriet Island. The boats add a valuable ambience and unique quality to the park. They also allow recreational access to the river corridor for several hundred people on a daily basis. Because of their importance to the overall atmosphere of the park, a special landing will be designed which will focus on providing and emphasizing opportunities for the park visitor to observe and participate in the riverboat activities.

The landing itself will be located in the central area of the promenade with specific features including a concession/ticket booth, various sitting and viewing areas, restroom facilities and an area large enough to provide comfortable and efficient boarding for passengers.

A bus drop-off will be provided allowing people a close, convenient access. The buses will be parked in the overflow lot while waiting for their returning passengers.



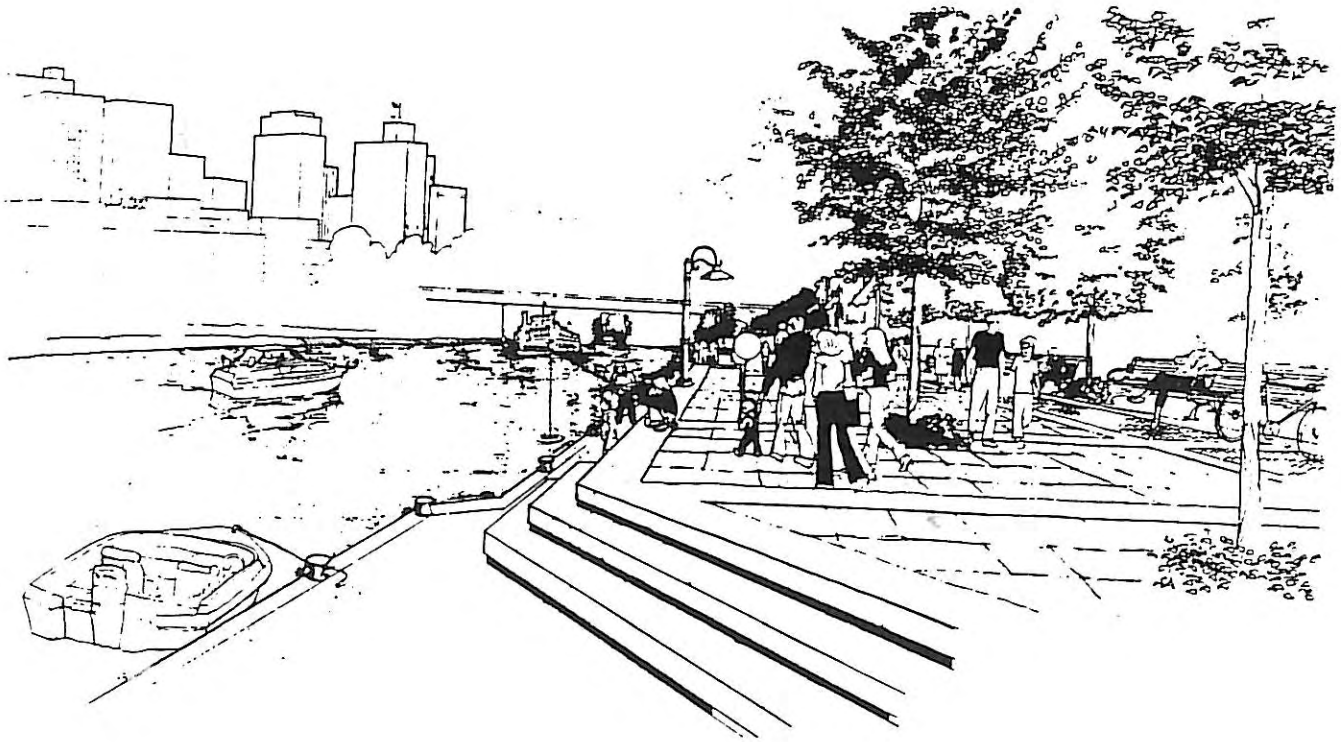
PROMENADE

An extended linear plaza, or promenade, will be developed adjacent to the river, wrapping around and uniting the marina basins. This promenade will also link the other activity areas including the excursion boat landing, adventure playground, pavilion, picnic grounds and restaurant. It will extend from one end of the park to the other. Although it may vary in height, width and material used, it will always focus on the river's edge, the water and the vistas of the downtown skyline.

To reinforce the park visitor's relationship with the river and improve its appearance, the existing rip-rap bank will be modified and an architectural edge (bulkhead or wall) will be provided in areas of higher pedestrian use. Where possible, a natural, sloping shoreline will be provided.

As a park feature, the promenade will have the potential to be programmed for a variety of uses and events as well as being a place for simply strolling, sitting and biking.

The promenade will be lined with trees and include lights, benches and other furnishings. A common theme will be developed uniting activity areas through use of consistent detail design for the benches, railings and light fixtures.



Park Use/Features

MARINA

The marina, because of its high visibility and unique activities and character, can do more than any other single feature in this park to create an exciting river-oriented atmosphere, provide public access to the river and a strong visual connection between the urban central business district and the river corridor.

There will be a single marina with two harbors. Both of the existing harbors will be aesthetically and functionally upgraded.

The UPPER HARBOR will be the main working marina and will include additional ancillary facilities. The current harbor arrangement will be reorganized to allow for an additional 36 slips, for a total of 111 slips.

Marina facilities here include a gas service, a public launch ramp and trailer parking, a transient (visitor) dock and pump out service facilities and winter storage of boats. The west end of the harbor will be modified to accommodate these facilities.

The exterior spaces adjacent to the marina will take advantage of the marina activity. A variety of places to walk, sit, eat, relax, etc. will be provided which will enrich the experience of the non-boater and integrate the marina atmosphere into the park setting.

Winter boat storage areas will be provided adjacent to the west end of the upper harbor at and near the location currently used for temporary dredge spoil storage. These areas are both excellent due to their close proximity to the harbor and also their low visibility from surrounding use areas.

The entire area will be well maintained, secured and landscaped to blend into the surrounding park.

Parking for the upper harbor will be provided in a lot on the levee adjacent to the harbor, with access from Water Street.

The LOWER HARBOR, located just west of the Wabasha Bridge, will be expanded from 55 to hold up to 33 additional slips by reorganizing the current slip arrangement without changing the harbor edge.

Because of the high visibility from the downtown and its close proximity, this harbor will be designed to encourage the park user to visit the dock areas and surrounding promenade.

Docking facilities will allow access from the river for visiting boaters. Automobile parking for this harbor will be provided for in adjacent lots.

City of St. Paul, Department of Planning and Economic Development : Large Craft Marina Survey - Mississippi River, St. Croix River, Lake Pepin, December 1985.

City of St. Paul, Department of Planning and Economic Development : A Plan for Parks and Recreation, June 1984.

City of St. Paul, Department of Planning and Economic Development : Proposal for City of Saint Paul Riverfront Enterprise Zone, August 1983.

City of St. Paul, Department of Planning and Economic Development : St. Paul Mississippi River Corridor Plan, August 1979.

City of St. Paul, Department of Planning and Economic Development : St. Paul Riverfront Initiative, 1983.

City of St. Paul, Department of Public Works : Sewer location map, March 1984.

City of St. Paul, Department of Public Works : Traffic Flow map, January 1976, revised January 1986.

City of St. Paul, Department of Water and Utilities : Water Line Location maps, revised 1985.

City of St. Paul, Zoning Code City of St. Paul, July 1985.

Dakota County : Bikeway Plan, Dakota County, Minnesota, Long Range Planning Program, August 1985.

Dakota County Planning Department : City of Lilydale Land Use map and Proposed Land Use 1990 map, July 1980.

Department of Research and Planning : The Language of Open Space, Duluth, Minnesota.

Dunham, James W. and Arnold A. Finn : Small-Craft Harbors Design, Construction, and Operation, U.S. Army Coastal Engineering Research Center, Fort Belvoir, Virginia, 1974.

Floodway Re-analysis for the Mississippi River through the City of St. Paul, Minnesota - Commission No. 8270-01 : For the City of St. Paul by Toltz, King, Duvall, Anderson & Associates, February, 1982.

Fogg, George E. : Park Planning Guidelines Revised, National Recreation and Park Assoc., 1981.

Harney, Andy Leon : Reviving the Urban Waterfront, New York, 1973.

Howard Needles Tammen & Bergendoff, Architects/Engineers/Planners: Pickerel Lake Mitigation Site for Downtown Airport, Minneapolis, Minnesota, May 1985.

Lilydale Environmental Assessment, Ramsey County, Minnesota, Project No. LW 27-00561.

Lilydale Planning Commission : Lilydale City Code, Lilydale, Minnesota, November 1976.

Mack, Andrew R. and Fredric R. Harris, Inc. : Boat Handling Equipment in the Modern Marina, New York, 1959.

McLagan, Paul R. and Son : City of Lilydale, Municipal Zoning map, June 1985, and Lilydale Regional Park Boundaries map, July 1961, revised June 1967.

Metropolitan Council of the Twin Cities Area : Barge Fleeting: Potential Impacts on Parkland, March 1983. The Major River Corridors in the Twin Cities Metropolitan Area (staff report), December 1970. Metropolitan Council's Recreation Open Space Development Guide/Policy Plan - the Recreation Open Space chapter of the Metropolitan Development Guide, November 1985.

Metropolitan Park Policy Guide : Policy 7, November 1985.

Midwest Planning and Research Inc., : City of Mendota Heights Official Zoning map, Minneapolis, Minnesota, revised January 1986.

Minnesota State Planning Agency, Transportation Planning : Bikeways Guide, November 1974.

National Assoc. of Engine and Boat Manufacturers : Marina Architects Consultants Designers Engineers, Greenwhich, Connecticut. Marina Operations and Service, Stanford, Connecticut, 1967. The Modern Marina, New York, 1963.

National Park Service, Midwest Region Office : Reconnaissance Survey - Twin Cities Metropolitan River Corridors, December 1980.

Padelford Packet Boat Co. : Excursion Boat Operation Information, St. Paul, Minnesota, January 1986.

Port Authority of the City of Saint Paul, Mark Hurd Aerial Surveys, Inc. : Pickerel Lake Industrial Districts topography map, November 1967.

Ramsey County Open Space : Lilydale Inventory IV.

St. Paul Riverfront Pre-Development Plan : Prepared for the Riverfront Commission, City of St. Paul by BRW, Inc., Wallace, Roberts & Todd; Hammer, Siler, George Assoc; 1986.

St. Paul Yacht Club : St. Paul Yacht Club Long Term Plans data, October 1985.

Scholen, Grant (Metropolitan Council of the Twin Cities Area) : Reservable Group Picnic Facilities in the Regional Open Space System draft, November 1985.

Starr, Edward P. : St. Paul, Minnesota, City Charter and Legislative Code, March 1981.

State of Minnesota, Department of Conservation, Division of Waters : Pickerel Lake - biological data survey, August, 1967. Pickerel Lake - Report on Request to Fill Certain Platted Areas, February, 1966.

State of Minnesota, Department of Housing and Urban Development : City of Lilydale - Flood Hazard Boundary maps, February 1973, revised November, 1975.

State of Minnesota, Department of the Interior, Heritage Conservation and Recreation Service : Urban Waterfront Revitalization - The Role of Recreation and Heritage, Volume II, Eighteen Case Studies, Washington, D.C., 1980.

State of Minnesota, Department of Natural Resources, Division of Fish and Wildlife : Pickerel Lake Depth map, December 1982, Pickerel Lake Fish Population Assessment, Dakota and Ramsey Counties, Minnesota, February 1980.

State of Minnesota, Department of Natural Resources, Division of Waters, Soils and Minerals : Mississippi River Floodplain Information and Management (Mile 815.2 to Mile 847.7), Part II Floodplain Areas and Water Surface Profiles, 1972, Lilydale Floodplain boundary maps and zoning ordinances, February 1986.

State of Minnesota, Department of Natural Resources, Office of Planning Research and Policy Section: Minnesota State Comprehensive Outdoor Recreation Plan, 1979.

State of Minnesota, Department of Transportation : Bikeway Design Manual, February 1983.

Statewide Floodplain Rules : Appendix D - Floodplain Managen ent. U.S. Army Corps of Engineers, St. Paul District : General Design Memorandum - Mississippi River at Harriet Island, St. Paul, Minnesota, Small-Boat Harbor, October 1964, Re-evaluation of St. Paul Flood Control Project, Draft Feasibility Report, December 1980.

U.S. Army Engineer District : St. Paul Flood Control Project, Draft Plan of Study, May 1977.

U.S. Department of the Interior, Bureau of Outdoor Recreation : Upper Mississippi Comprehensive Basin Study, Volume VI, Ann Arbor, Michigan, 1970.

U.S. Geological Survey : St. Paul West, Minnesota, NW/4 and NE/4 St. Paul 15' Quadrangle maps, Washington, D.C., 1967, photo revised 1972.

Upper Mississippi River Basin Commission : Comprehensive Master Plan for the Management of the Upper Mississippi River System, Minneapolis, Minnesota, January 1982; Comprehensive Master Plan for the Management of the Upper Mississippi River System, System Review Comments, Minneapolis, Minnesota, January 1982; Preliminary Comprehensive Master Plan for the Management of the Upper Mississippi River System, Minneapolis, January 1981.

Urban Land Institute : Environmental Comment magazines, Washington, D.C., June and July 1978, March and October 1980, April and September 1981, November 1982.

Walters, John : A History of Harriet Island, 1979.

addendum

LILYDALE / HARRIET ISLAND REGIONAL PARK

ADDENDUM

LILYDALE/HARRIET ISLAND REGIONAL PARK

NAVY ISLAND REPORT

Prepared for:

City of Saint Paul
Saint Paul, Minnesota

Prepared by:

City of Saint Paul
Division of Parks and Recreation

June 1990

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I. INTRODUCTION

Purpose

On July 6, 1989, the Saint Paul City Council resolved to adopt the Lilydale/Harriet Island Regional Park master plan. The Council further authorized the Division of Parks and Recreation to conduct a study to include Navy Island in the master plan.

The purpose of this report is to provide information to the City Council which will assist them in making a decision regarding the impacts of including Navy Island in the master plan.

This report, upon Saint Paul City Council approval, serves as an addendum to the Lilydale / Harriet Island Regional Park master plan, and will be forwarded to the Metropolitan Council for review and approval.

Navy Is. name changed to Raspberry Is. per CF 95-498 adopted 5/17/95

II. HISTORICAL LAND USE

Navy Island, formerly known as Raspberry Island, is the last of three islands located near downtown Saint Paul in the Mississippi River; the other two were Harriet Island and McBoal Island. The Minnesota Boat Club, a private organization, has held title to the upstream 1-1/4 acres of the Island since the early 1870's. In the Club's early days, regatta's and formal balls were held on the tree covered island and in 1910 the Club constructed a boat house and also operated tennis courts and curling rinks. The City of Saint Paul obtained title to the downstream three acres of the island from the Union Depot Company in 1938 and it has remained in City ownership since that time.

In 1948, the City leased a portion of the island to the United States Navy for construction of a Reserve Training Center and subsequently the name was changed to Navy Island. The Reserve Station was closed and demolished in 1958. The publicly owned 3 acres of the island is a park which was used primarily for car parking from that time until 1985, when the City's Parks and Recreation Division sodded the area and put in walking paths, planted trees and limited the parking to a small area adjacent the boat house.

III. EXISTING CONDITIONS/ANALYSIS

Ownership

The City of Saint Paul owns three acres of Navy Island extending east from the Wabasha Bridge. The remaining 1-1/4 acre parcel west of the bridge is privately owned by the Minnesota Boat Club, a local rowing club.

Access

Surrounded by the Mississippi River, the island lies within the Saint Paul downtown river corridor. Vehicular access is by a wooden, one-lane, pedestrian/automobile bridge which connects it to the mainland east of Harriet Island Park. The bridge is in poor condition and will need replacement in the near future. A pedestrian access stairway also connects the Wabasha Bridge sidewalk to the island approximately 60 feet below.

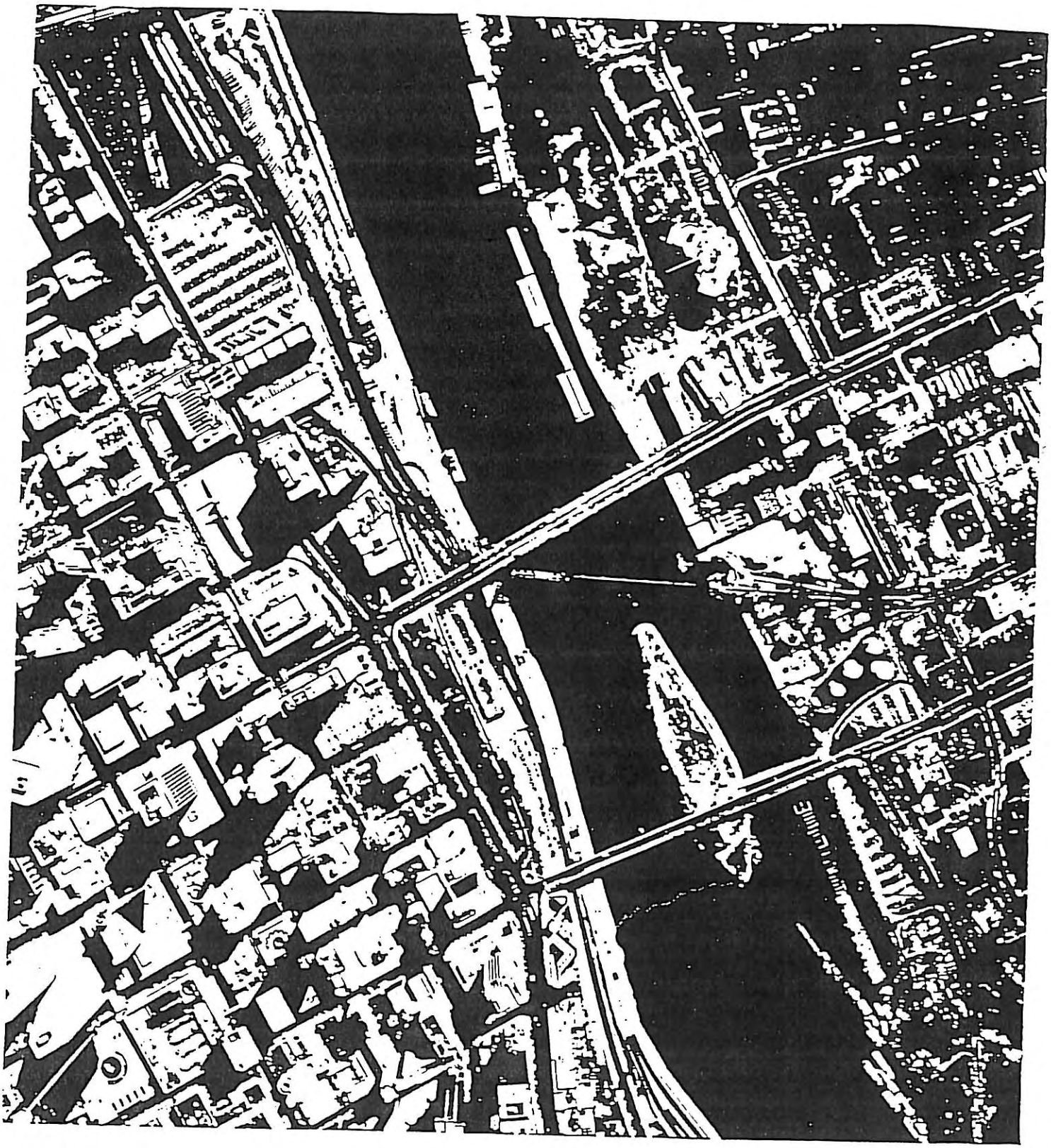
Land Use

Currently, Navy Island is unimproved open space with a 30 car, gravel, parking lot located directly under the Wabasha Bridge. The lot, intended for park users, is usually filled by people who work in the downtown area. A dock and moorings are located on the island's north side, in the main river channel, but are presently not used. The site is almost entirely devoid of natural vegetation and is used only occasionally for casual river fishing and viewing. Outdoor concerts--of up to 5000 people--have been held there in the recent past and it was also the site of a public art project which used the entire open space as a sculptural display during the summer of 1988.

The only structure remaining on the island is the privately owned Boat Club building which was constructed in 1910. It is a concrete, two-story structure and is listed on the National Register of Historic Places. The lower area of the structure is used for private recreational rowing activities and the upper level is available to be leased out for commercial use.

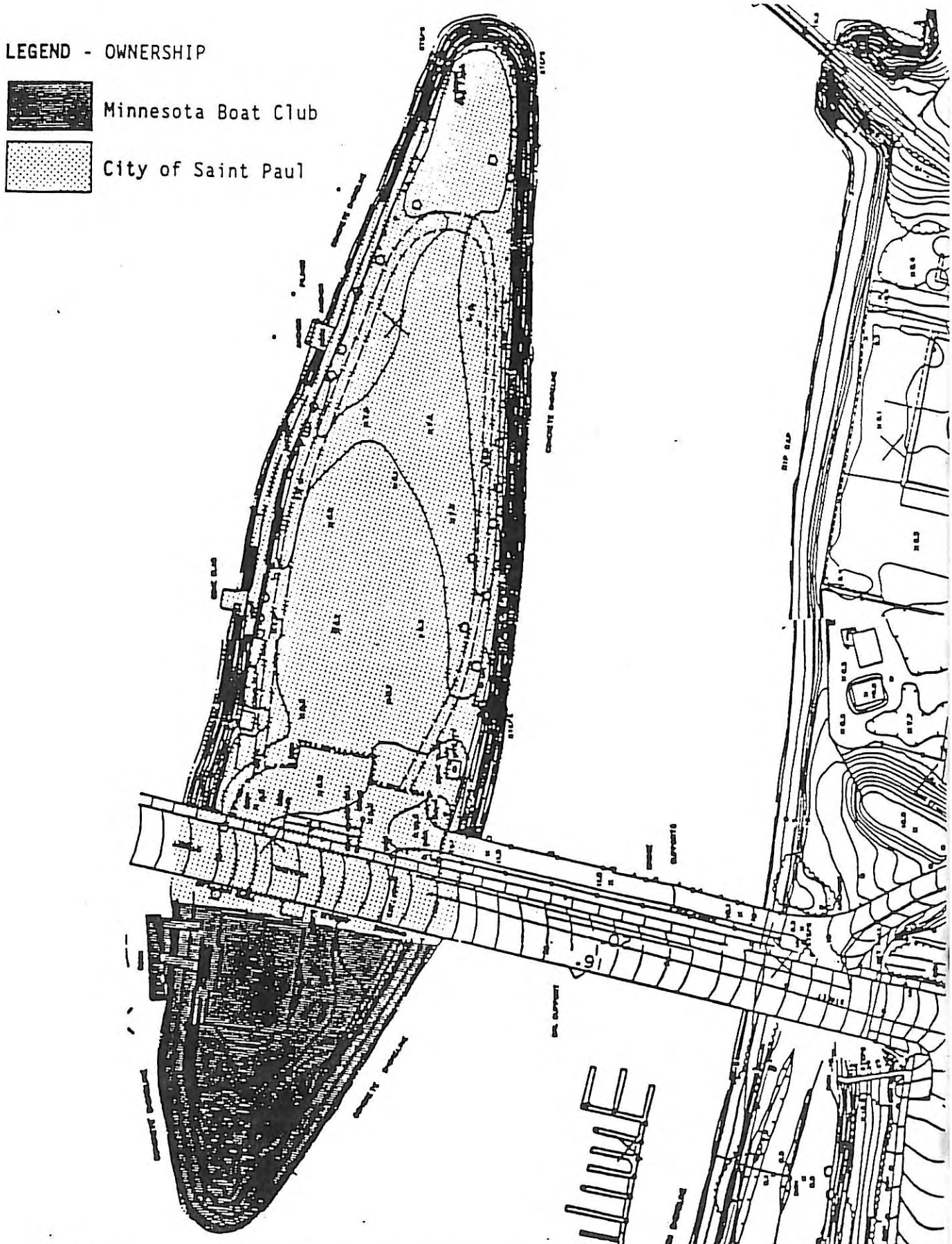
Topography

Navy Island lies within the Mississippi River flood plain at an average elevation of 704 feet above the mean sea level (m.s.l.). The adjacent northern bluff lies 96 feet above it at 800 feet m.s.l. The southern bluff, over one-half mile away, is 900 feet above m.s.l. - or about 200 feet above Navy Island. Flood data from the Department of Natural Resources, Flood Plain Area and Water Surface Profiles (1972), indicates that the river's regional 100-year flood level at the Wabasha Bridge is 708 feet above m.s.l. This 100-year flood level was exceeded in the Mississippi's April 1965 flood when the island was inundated with six feet of water. The normal river elevation is 20 feet below the island's elevation; the lowest point in the streambed is at an elevation of 665 above m.s.l.



Navy Island
Aerial View 1988

← North
Scale 1"=500'



NAVY ISLAND SAINT PAUL, MINNESOTA
EXISTING LAND OWNERSHIP AND SITE PLAN

NOT TO SCALE NORTH

Zoning

City of Saint Paul zoning of the privately owned area of the island is RCC-1, which allows for limited commercial use and/or park space. The publicly owned area of the island is zoned RCR-1 which allows for multiple family dwellings, daycare facilities, churches and publicly owned and operated parks and recreation facilities. The island also lies within the River Corridor Overlay District and is zoned as Floodway (RC-1). This zoning designation does not allow any development to obstruct flood flows or have high flood damage potential. (See pages 16-22 for further zoning information.)

Existing City Plans

The Saint Paul Comprehensive Plan - in the section entitled "Saint Paul City Council Approval of City Plans", November 1987, calls for "Navy Island to be developed as the centerpiece of the riverfront's central focus area. Located in the river, between the Wabasha Bridge and the Robert Street Bridge, it is visually prominent from both sides of the river. Because of this unique setting, it offers an opportunity to make a dramatic statement emphasizing civic pride in the riverfront. The island should be developed to symbolize the rivers importance to the community as an activity center."

The Comprehensive Plan, as referenced above, also recommends:

1. "The portion of the island downstream of the Wabasha Bridge should be dedicated as a public park honoring Saint Paul's Sister City, Nagasaki, Japan."

2. "The Minnesota Boat Club boat house is historically significant and should be preserved and improved with better maintenance. Efforts should be made to encourage the Boat Club's rowing activities and improved docking facilities should be constructed."

3. "Docking space for historic vessels between Navy Island and the south shore should be provided."

IV. RECOMMENDATION

The Division of Parks and Recreation agrees with the Saint Paul Comprehensive Plan for development of Navy Island with the following modifications:

1. The portion of the island downstream of the Wabasha Bridge should be dedicated as a public park honoring all of the Sister Cities of Saint Paul instead of recognizing only one, Nagasaki, Japan.

2. Currently, the use of the land owned by the Minnesota Boat Club is compatible with the proposed recreational use for the rest of the Island. In the future, if this land becomes available, it should be acquired by the City to become part of the Sister City Park.

3. The proposal for the docking of historic vessels between Navy Island and the south shore is not a recommended use for the following reasons:

    - large amounts of the island would be required for car parking

    - high cost of acquiring, maintaining, and staffing the boats

The Division of Parks and Recreation further recommends that all of Navy Island be included in the Lilydale / Harriet Island Regional Park master plan as part of Harriet Island Park. It should be used for public recreation and parkland and be redesigned and restored as a vital component of the regional riverfront park system.

V. COST ESTIMATE

The estimated cost for developing Navy Island and providing access to it is as follows:

Park Development	$2,873,750
Auto/Pedestrian Bridge	$1,500,000

Development costs:

Grading/Site Development	$75,000
Infrastructure	$175,000
Parking	$50,000
Site Amenities/Features/ Programmable Space Development	$900,000
Landscaping	$200,000
Walkways/Promenade/Shoreline Improvements	$900,000
Auto/Pedestrian Bridge	$1,500,000
Design/Engineering/Inspection	$573,750
TOTAL	**$4,373,750**
Future Acquisition (1990 assessment)	$159,300
GRAND TOTAL	**$4,533,050**

These figures do not include restoration of the Boat Club's boathouse or any other restoration of the privately owned portion of the island. The costs associated with obtaining historic riverboat vessels are also not estimated.

VI. FUNDING SOURCE

As part of the Lilydale/Harriet Island Regional Park, Navy Island may be eligible for Metropolitan Parks and Open Space grants.

VII. OPERATION/MAINTENANCE

The City of Saint Paul's Division of Parks and Recreation will be responsible for operation and maintenance of the park. Based on recommended maintenance figures from the National Parks and Recreation Association of 70 hours per year/per acre, the estimated maintenance cost for Navy Island is $5,000.00 per year.

VIII. REFERENCES

Lilydale/Harriet Island Regional Park Development Plan. Prepared by the Division of Parks and Recreation, Design Section. 1986.

Saint Paul Riverfront Pre-Development Plan. Prepared for the Riverfront Commission by BRW, Inc. 1986.

City of Saint Paul Comprehensive Plan - Saint Paul City Council Approval of Riverfront Plans. Adopted November 5, 1987.

City of Saint Paul Zoning Ordinances. Revised 1989.

St. Paul Dispatch, "City Must Find Use For Navy Island Portion", Dec. 8, 1965.

St. Paul Pioneer Press, Sept. 23, 1938, Article titled- "City Horse Trading- St. Paul Gets Part of Isle"

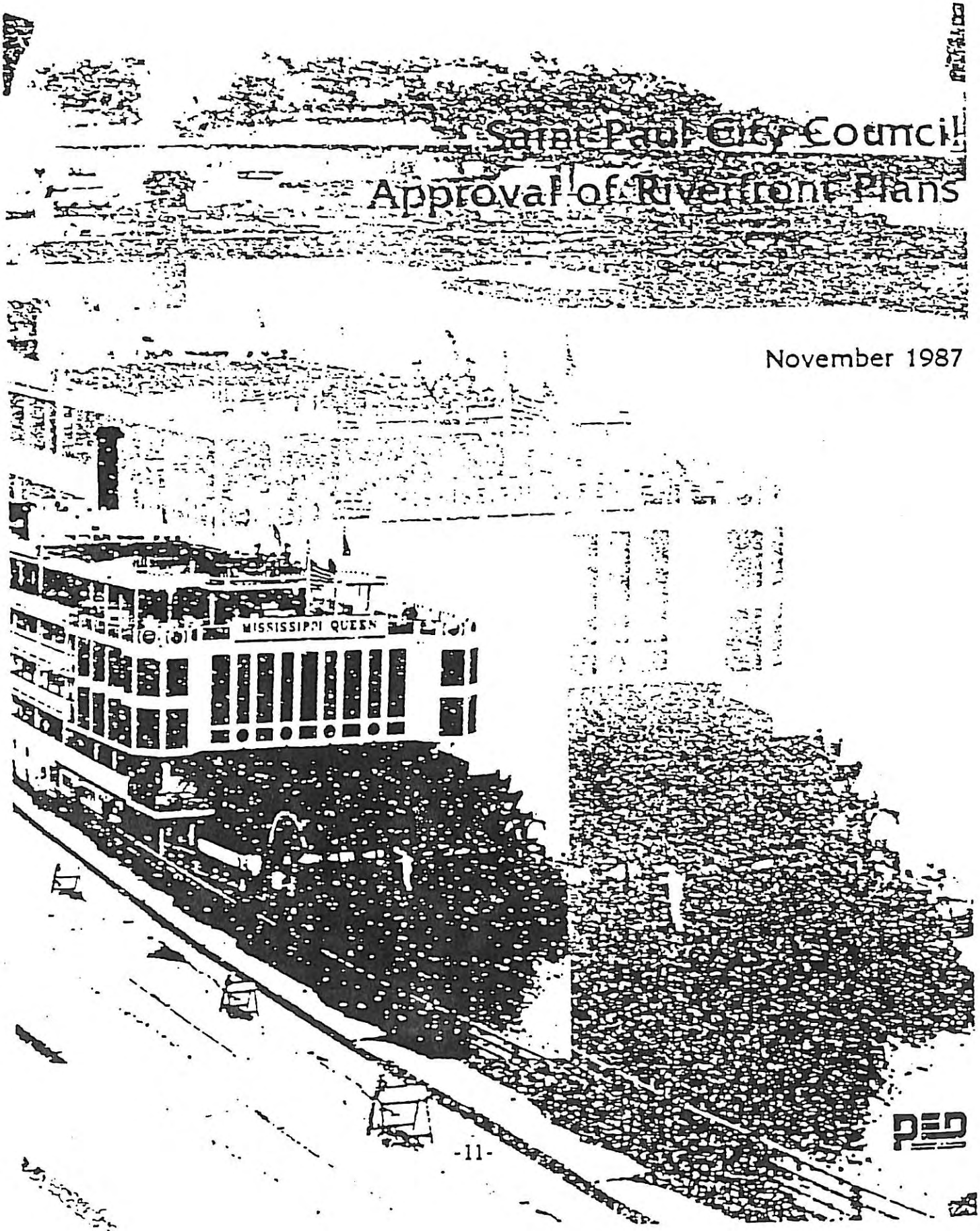
APPENDIX

- City of Saint Paul Comprehensive Plan - Saint Paul City Council Approval of Riverfront Plans. Nov. 1987..... page 12-15

- City of Saint Paul Zoning Code-Ordinance (excerpt) and Zoning Code Maps, 1989.....16-22

Saint Paul City Council
Approval of Riverfront Plans

November 1987



CITY OF SAINT PAUL
DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

25 WEST FOURTH STREET, SAINT PAUL, MINNESOTA 55102 · TELEPHONE: 612-292-1577

GEORGE LATIMER
MAYOR

November 30, 1987

INTRODUCTION

In November, 1987, the Saint Paul City Council and the Saint Paul Housing & Redevelopment Authority (HRA) approved several documents which established a new direction in planning and development of the Mississippi River waterfront. Specifically, the Council adopted the following:

1. Resolution #87-1603 (November 5, 1987), which amended the Saint Paul Comprehensive Plan in several areas to reflect a new long-range land use pattern for the riverfront, as recommended by the Riverfront Commission, Planning Commission, and Mayor;

2. Ordinance #17511 (Council File #87-1320; November 12, 1987), which amended the Saint Paul Zoning Ordinance to create new riverfront-oriented zoning classifications on the riverfront. In effect, the new classifications rezoned much of the riverfront land to regulate development as suggested by the above-referenced changes in the Comprehensive Plan, recommended by the Planning Commission and Mayor;

3. Resolution #87-1613 (November 10, 1987), which established the 'Riverfront Redevelopment Project Area and Development District'; approved the 'Redevelopment Plan and Development Program' for said area(s); created a 'Tax Increment Financing District' for said area(s); and adopted 'Tax Increment Financing Plan' for the Tax Increment District.

   These districts and the Tax Increment program were established pursuant to Minnesota Statutes, and, as required, were approved by the HRA by HRA Resolution #87-11/4-2 (November 4, 1987) prior to City Council approval.

The City Council's actions of November 5-12, 1987 are the culmination of two years' efforts by the Saint Paul Riverfront Commission and the Saint Paul Planning Commission to study and articulate a future vision for the riverfront, and to recommend ways to achieve that vision to the Mayor and Council.

The Riverfront Commission commissioned the original study, which built on previous planning and on thoughtful expressions of community goals, objectives and concerns about the future of the riverfront. Its recommendations were forwarded to the Planning Commission, which thoroughly analyzed the merits of the plan, conducted a public hearing, and recommended specific actions which the Mayor and City Council could take to begin implementation. From this point on, the new direction for the riverfront's future is clear.

This report is a compilation of the City Council and HRA actions, resolutions and supporting material.

Street. This loop parallels the downtown people mover alignment along 7th Street.

e. On the West Side, Harriet Island will be the major urban open space element of the entire system. In addition to providing visual relief from the central business district, it will provide variety of active and passive recreational uses. Harriet Island Park (including and Navy Island) will be redesigned and restored as components of Harriet Island-Lilydale Regional Park a passive river oriented park.

f. Cherokee Park, to be expanded to include bluff lands which extend from the High Bridge to Wabasha Street.

2. Industrial
Areas immediately upstream and downstream of the central business district are excellent locations for economic activities upgrading the tax base, employment opportunities and productivity of the city:

a. An Upstream Industrial Park southwest of the High Bridge, to accommodate intensive industrial activities. Because of the area's visibility from residential blufflands, the need for an aesthetically compatible development is imperative.

b. The Downtown-Steam-Plant is proposed to be located immediately northeast of the NSP Plant. Development of the plant should take place within the following parameters:
(1) Impact of the building mass upon the river corridor be minimized;
(2) Impact of the increased truck traffic not negatively impact the potential parkway character of proposed Shepard and Warner Road parkways. This can be accomplished in part by setting back roadway alignment from river's edge;
(3) Impact of building mass and operation not negatively affect the quality of life in the bluffland community of West Seventh Street; and
(4) The steam plant proposal address the problem of creating power for St. Paul's central business district, not metropolitan waste disposal.
If the Steam Plant is not constructed at this location, the parcel will be considered as part of the Upstream Industrial Park outlined in Paragraph (2a) above.

b. c. Riverview, to continue to be the primary light industrial park. Vacant lands south of Fillmore Avenue will be developed at higher densities than currently exist. Adaptive reuse of warehousing facilities to more intensive uses will be encouraged.

A terraced outdoor and an enclosed winter garden can be built into the bluff and should be built even if the Water Resources Center proves infeasible. They will extend the seasonal use of the park, and provide inviting and secure year-round spaces for observing the river at close hand. A direct link to the riverfront esplanade should be provided by a pedestrian bridge from the terraced garden over Shepard Road and the railroad tracks.

NAVY ISLAND

Navy Island is the centerpiece of the central focus. Located in the river, between the bridges, it is visually prominent from the north and south banks. It is a unique site which offers an opportunity to make a dramatic statement about civic pride in the riverfront. If appropriately treated, it could symbolize the river's importance as a community activity center. The portion of the island downstream of the Wabasha Bridge should be dedicated as a public park honoring Saint Paul's Sister City, Nagasaki, Japan.

The Minnesota Boat Club boathouse is historically significant and should be preserved and improved with better maintenance. Efforts should be made to encourage the Boat Club's rowing activities, and improved docking facilities constructed.

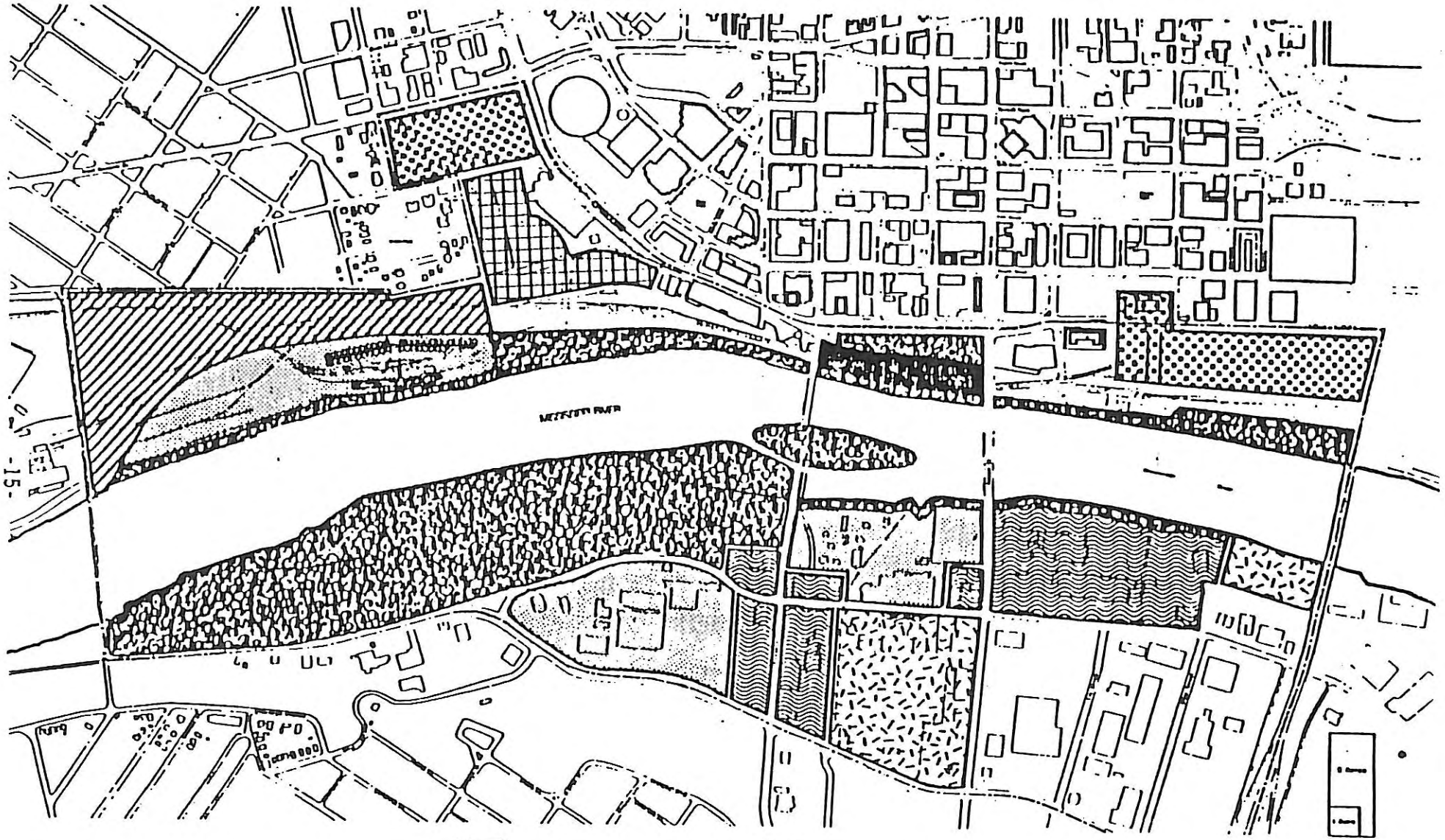
As part of the river history museum, there should be docking space for historic vessels between Navy Island and the south shore. The construction of an enclosed pedestrian walkway from the Kellogg Mall improvements to the south shore should be undertaken, and access between the walkway and the island provided.

MARINA EXPANSION

Marina and boating activities are an integral part of improving the riverfront image. In addition, marina expansion at key locations will improve market response to new housing developments.

The physical constraints present in the area, rather than market demand, will be the factors most directly affecting expansion of marina slips. The Lower Harbor of Harriet Island can be expanded to a total of 150-200 slips, and the Upper Harbor expanded to 100-150. The marina service components - ship's store, fuel service, boat repair and public boat launch - should be located at the Upper Harbor.

Proposed Comprehensive Plan Land Use Amendments



The planning commission and the city council shall hold public hearings on amendments to the final plan and shall give mailed notice to all property owners within three hundred fifty (350) feet of the PD at least ten (10) days before the hearings.

Changes to the final plan shall be recorded as amendments to the recorded copy of the final plan.

Sec. 60.742. Failure to complete the planned development.

All development shall be in compliance with the final plan. In the event the applicant fails to complete the development, the parcel reverts to its previous zoning classification.

Sec. 60.743. Phasing of planned development.

If a planned development is to be developed in phases, the following requirements apply:

(1) The parcel shall be a minimum of five (5) acres in size.

(2) Phases shall be designed to be capable of functioning as independent units. One phase shall not preclude subsequent development of a parcel in the event the entire PD is not developed.

(3) Phase I of any PD shall constitute at least one-third of the total PD.

(4) In the case of phased development, the entire PD shall be developed within five (5) years of the rezoning unless extended by the city council.

(5) In the case of phased development, the city council may accept in lieu of a final plan for the entire PD the following: a final plan for Phase I, a preliminary plan for other phases, and a schedule of phasing. Final plans for subsequent phases shall be treated as amendments as described in Section 60.741.

Subdivision 4. 60.750. RCR-1 River Corridor Residential District

Sec. 60.751. Intent.

The RCR-1 River Corridor Residential District is intended to provide sites for multiple-family dwellings in the Mississippi River corridor which are consistent with the comprehensive plan's river corridor plan. Within the district, buildings will be placed to be harmonious with surrounding buildings and uses and to protect views from adjacent districts.

(Ord. No. 17511, § 1, 11-12-87)

Sec. 60.752. Principal uses permitted.

In a RCR-1 River Corridor Residential District the use of land, the location and erection of new buildings or structures, and the alteration, enlargement and moving of existing buildings or structures from other locations or districts shall conform to the following specified uses unless otherwise provided in this code:

(1) Multiple-family dwellings no more than three (3) stories or thirty (30) feet in height.

(2) Family day care, group family day care and group day care.

(3) Foster homes serving six (6) or fewer facility residents.

(4) Churches, chapels, synagogues, temples and other similar houses of worship.

(5) Home occupations.

(6) Publicly owned and operated parks and recreation facilities.

(7) Accessory buildings, structures, and uses as defined in Section 60.201.

(Ord. No. 17511, § 1, 11-12-87)

Sec. 60.753. Principal uses permitted subject to special conditions.

The following additional uses shall be permitted subject to the conditions hereinafter imposed for each use and subject to the standards specified for all special condition uses as set forth in Section 60.754. All principal uses permitted subject to special conditions shall be reviewed and approved by the planning commission.

(1) Multiple-family dwellings over three (3) stories or thirty (30) feet in height. The massing of the multiple-family dwellings shall be such that the extent of the views and vistas from public rights-of-way and open

spaces shall be maximized between the bluffs and the river and between the river valley floor and the bluffs. Applicants shall be required to provide the planning commission an analysis, including site plans and perspective drawings, showing how the multiple-family dwelling will affect views.

(2) Retail, service and office uses within a multiple-family dwelling, all subject to the following conditions:

a. Any retail, service or office use on the zoning lot shall be clearly incidental to the principal use and designated to serve only the residents of the district.

b. Such uses shall be provided totally within the walls of the main building. No access to such uses shall be available to the general public from any exterior entryways. No identification sign shall be visible from any exterior view.

c. Such uses shall not exceed twenty-five (25) percent of the floor area at grade level, or fifty (50) percent of the floor area of a subgrade level, and shall be prohibited on all floors above the first floor or grade level.

d. Each one thousand (1,000) square feet of floor area devoted to such uses shall be counted as one dwelling unit in the computation of allowed dwelling units on the lot.

(3) Community residential facilities serving six (6) or fewer facility residents subject to the conditions set forth for R-1 through R-4 One-Family Residential Districts in Section 60.413, principal uses permitted subject to special conditions.

(4) Community residential facilities serving seven (7) or more facility residents subject to the conditions set forth for RT-1 Two-Family Residential Districts in Section 60.423(3), principal uses permitted subject to special conditions.

(5) Railroad rights-of-way, but not including terminal freight facilities and transfer and storage tracks.

(6) Public utility and public service buildings and substations which are completely enclosed within a building, when operating requirements necessitate the locating of said building within the district in order to serve the immediate vicinity. Storage yards shall be prohibited. Such uses shall provide substantiating evidence that the use is needed to service the surrounding area.

(7) Accessory buildings, structures and uses as defined in Section 60.201.

(Ord. No. 17511, § 1, 11-12-87)

Sec. 60.754. Standards for principal uses subject to special conditions.

Before the planning commission may grant approval of a principal use subject to special condition, the commission shall find that the use meets all of the following standards:

(1) The use will promote the public peace, health, safety and welfare.

(2) The use will be in compliance with the Saint Paul Comprehensive Plan.

(3) The use will promote and enhance critical view corridors between the river and river valley and surrounding bluffs as set forth in the comprehensive plan.

(4) The extent, location and intensity of the use will be in substantial accord with the comprehensive plan.

(5) The use will conform to the applicable regulations of the zoning district and river corridor overlay zoning district in which the use is located.

(6) The use will provide adequate ingress and egress to minimize traffic congestion in the public streets.

(7) The use will not create nor tend to create an excessive nuisance in the area.

(8) The use will not adversely affect property values.

(Ord. No. 17511, § 1, 11-12-87)

Sec. 60.755. Special setbacks.

Notwithstanding any other yard or setback requirement of the zoning code, the following special setbacks shall apply to all principal uses permitted and principal uses permitted subject to special conditions within the district:

(1) No off-street parking facility shall be located within one hundred (100) feet of the normal high-water level of the Mississippi River, except river basins, unless the facility is within a completely enclosed building containing principal uses permitted or principal uses permitted subject to special conditions. Parking in local parks may be located closer than one hundred (100) feet to the normal high-water level provided the parking is adequately landscaped and the parking location has been reviewed by the planning commission and approved by the city council in a park development plan.

(2) In any yard which adjoins a publicly owned park, buildings may be constructed at the lot line subject to setbacks being provided in accordance with table below:

Park Setbacks

Story of Building	*Setback From Lot Line*
1, 2, and 3	0
4	15 feet
5	30 feet
6 and over	45 feet

(Ord. No. 17511, § 1, 11-12-87)

Sec. 60.756. Area, bulk and yard setback requirements.

See Chapter 61, "Schedule of Regulations," limiting the height and bulk of buildings, the minimum size of lot permitted by land use, the maximum density permitted, and providing a minimum yard setback requirements.
(Ord. No. 17511, § 1, 11-12-87)

Subdivision 5. 60.760 RCC-1 River Corridor Commercial District.

Sec. 60.761. Intent.

The RCC-1 River Corridor Commercial District is intended to provide sites for commercial uses in the Mississippi River corridor which are consistent with the comprehensive plan's river corridor plan. Within the district, buildings will be placed to be harmonious with surrounding buildings and uses and to protect views from adjacent districts.
(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.762. Principal uses permitted.

In RCC-1 River Corridor Commercial District the use of land, the location and erection of new buildings or structures, and the alteration, enlargement and moving of existing buildings or structures from other locations or districts shall conform to the following specified uses unless otherwise provided in this code:

(1) All principal uses permitted in the B-2 District. All such permitted uses shall be located in buildings no more than three (3) stories or thirty (30) feet in height.

(2) Publicly owned and operated parks and recreation facilities.

(3) Accessory buildings, structures, and uses as defined in Section 60.201.

(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.763. Permitted uses permitted subject to special conditions.

The following additional uses shall be permitted subject to the conditions hereinafter imposed for each use and subject to the standards specified for all special condition uses as set forth in Section 60.754. All principal uses permitted subject to special conditions shall be reviewed and approved by the planning commission.

(1) All principal uses permitted in Section 60.762, above, when located in buildings over three (3) stories or thirty (30) feet in height. The massing of the buildings shall be such that the extent of the views and vistas from public rights-of-way and open spaces shall be maximized between the bluffs and the river and between the river valley floor and the bluffs. Applicants shall be required to provide the planning commission an analysis, including site plans and perspective drawings, showing how the building will affect views.

(2) All uses as permitted and regulated in the B-2 Community Business District under principal uses permitted subject to special conditions except auto service stations.

(3) Accessory buildings, structures and uses as defined in Section 60.201.

(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.764. Standards for principal uses subject to special conditions.

Principal uses subject to special conditions shall be subject to the standards set forth in Section 60.754.

(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.765. Required conditions.

The following conditions are required in the RCC-1 District:

(1) All business establishments shall be retail or service establishments dealing directly with consumers. All goods provided on the premises shall be sold at retail on the premises where produced.

(2) All business, servicing or processing, except for off-street parking, loading and those open air uses indicated as being subject to special conditions in Section 60.763 above shall be conducted within completely enclosed buildings.

(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.766. Special setbacks.

All uses shall be subject to the special setbacks set forth in Section 60.755.

(Ord. No. 17511, § 2, 11-12-87)

Sec. 60.767. Area, bulk, and yard setback requirements.

See Chapter 61, "Schedule of Regulations," limiting the height and bulk of buildings, the minimum size of lot permitted by land use, the maximum density permitted and providing minimum yard setback requirements.

(Ord. No. 17511, § 2, 11-12-87)

Subdivision 6. 60.770. RCI-1 River Corridor Industrial District

Sec. 60.771. Intent.

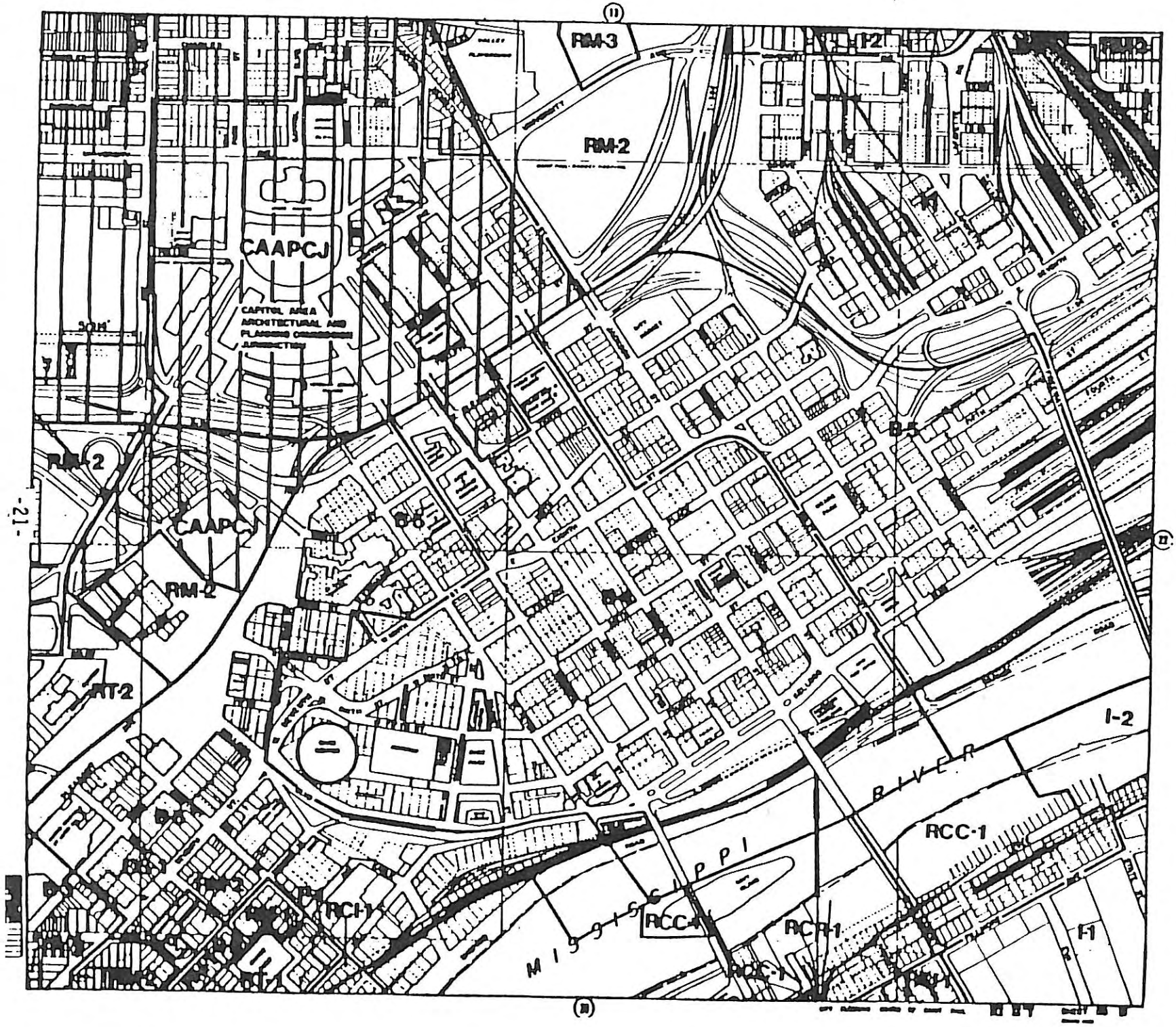
The RCI-1 River Corridor Industrial District is intended to provide sites for commercial, office and industrial uses in the Mississippi River corridor which are consistent with the comprehensive plan's river corridor plan. Within the district, buildings will be placed to be harmonious with surrounding buildings and uses and to protect views from adjacent districts.

(Ord. No. 17511, § 3, 11-12-87)

Sec. 60.772. Principal uses permitted.

In a RCI-1 River Corridor Industrial District the use of land, the location and erection of new buildings or structures, and the alteration, enlargement and moving of existing buildings or structures from other locations or districts shall conform to the following specified uses unless otherwise provided in this code:

(1) All principal uses permitted in the I-1 District except the following: Mortuary establishments; bus passenger stations; new and used car salesrooms, showrooms or offices; lumber yards; automobile service stations; auto repair stations and auto body shops; municipal public work yards and facilities;



Saint Paul Zoning Map

One Family
R-1
R-2
R-3
R-4

Two Family
Townhouse
RT-1
RT-2

Multiple Family
RM-1
RM-2
RM-3

Business
OS-1
B-1
B-2
B-2C
B-3
B-4
B-5

Industry
I-1
I-2
I-3

Special
P-1
P-D
RCR-1
RCC-1
RCI-1

Index Number of ② Adjoining Map

0 200 400 800
(In feet)

21

Revised Apr 1989

River Corridor Overlay Zoning District

RC-1
Floodway District

RC-2
Flood Fringe District

RC-3
Urban Open District

RC-4
Urban Diversified District

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