City of Minneapolis

Mississippi River Critical Area Plan
2006

Approved by City Planning Commission
May 8, 2006

Approved by Zoning & Planning Committee
June 8, 2006

Approved by City Council
June 16, 2006

Summary

This plan fulfills the requirements of both the State of Minnesota Mississippi River Critical Area order and the *Management Plan* for the Mississippi National River and Recreation Area by the National Park Service. It does this by documenting the City's river corridor resources and setting forth those policies and implementation strategies the City has adopted to protect the natural, cultural, historic, commercial, and recreational values of the river corridor. The river corridor is roughly 1,000 feet on each side of the river but adjusted to follow roads and other major landmarks. Goals for the river corridor are established that cover all the categories required by both the State and Federal requirements.

Natural, cultural, and economic resources are briefly reviewed with special emphasis on the opportunities and problems foreseen along the corridor. The corridor within Minneapolis has been divided by the State for policy purposes into an Urban Developed District, an Urban Diversified District, and an Urban Open Space District. The plan's general land use policies emphasize improving public access to and movement along the banks of the river, creating more park space, enhancing river-oriented recreation opportunities, reducing the amount of industry and open storage, attracting development that is compatible with the river, protecting natural features, and reducing adverse visual impacts. Historic properties and districts will continue to be protected. Outside the downtown area, the height and setback of structures along the river will be carefully regulated. The plan intends to strike a balance between protection and utilization of river related resources. The key element in protection and utilization revolves around appropriate public management since the corridor's most significant natural resources are under the jurisdiction of the Minneapolis Park and Recreation Board, the University, or the State. Regulations already in place will continue to protect bluffs, steep slopes, riverbanks, wetlands, and major vegetation while controlling flooding, erosion, and runoff and the City of Minneapolis will continue to enforce, review and revise its regulations and ordinances to ensure the preservation of the Critical Area.

Section I. Introduction

The Mississippi River was the incentive for creation of a town called St. Anthony; the City's first settlers were drawn to the milling and waterpower potential of St. Anthony Falls, and St. Anthony eventually merged with the other new community on the opposite bank to become Minneapolis. With the decline of the lumber and grain milling booms the City seemed to turn its back to the river. In the 1950's and 1960's, with the construction of the St. Anthony Falls locks permitting barge access to the Upper River, there was a renewed interest in the river as an economic resource. Since that time, the City has viewed the Mississippi River as a historic, cultural, and recreational resource. Interest in alternative uses of the river rose sharply in the early 1970s, with designation of the St. Anthony Falls Historic District by the state in 1971. The Heritage Preservation Commission was created in 1972, giving the City strong control over construction in the St. Anthony Falls Historic District. Also in 1972, the City published the visionary 130-page plan for the River called *Mississippi/Minneapolis.* The major concepts of *Mississippi/Minneapolis* were adopted as part of the City's comprehensive plan in 1973. Several actions occurred in 1976 recognizing the importance of the Mississippi River. The Minneapolis City Council, the Minneapolis Park and Recreation Board (MPRB), and the Minneapolis Housing and Redevelopment Authority reached a joint powers agreement creating the Riverfront Development Coordination Board and giving it jurisdiction over the central riverfront area of Minneapolis. That year the MPRB also appointed the Long Range Regional Riverfront Development and Acquisition Committee, which prepared a report on the recreational and park land potential of the Mississippi River corridor in the City. And finally, in 1976 the state by Executive Order declared the Mississippi River corridor through the metropolitan area as a Critical Area, requiring each municipality to develop plans and regulations for its protection.

The first Minneapolis *Critical Area Plan,* approved by the Metropolitan Council, Environmental Quality Board, and City Council in 1989, addressed many but not all of the same subjects as this document. In 1988, Public Law 100-696 established the Mississippi National River and Recreation Area (MNRRA) as a unit of the National Park Service. The MNRRA was established by Congress to (1) protect, preserve, and enhance the significant values of the Mississippi River corridor through the Twin Cities, (2) encourage coordination of federal, state, and local programs, and (3) provide a management framework to assist the State of Minnesota and units of local government in the development and implementation of integrated resource management programs and to ensure orderly public and private development in the area. A Final Comprehensive Management Plan for the MNRRA was approved by the Secretary of the Interior in 1995. This plan lays out a policy-level framework for management of the river corridor. In 1997, the City of Minneapolis requested and was awarded funding from the National Park Service to help update its Critical Area policies and ordinances and, in conjunction, consider incorporating the voluntary MNRRA guidelines. If Minneapolis' Critical Area Plan does conform with MNRRA guidelines, the City will be eligible for funding assistance from NPS to help implement the plan.

I. A. Conformance with Critical Area Act and MNRRA Management Plan

This plan fulfills the requirements of both the State of Minnesota Mississippi River Critical Area order and the *Comprehensive Management Plan* for the Mississippi National River and Recreation Area by the National Park Service. It is an update of the 1989 Critical Area Plan and includes additional policies. It documents the City's river corridor resources and sets forth those policies and implementation strategies the City has adopted to protect the natural, cultural, historic, commercial, and recreational value of the river corridor. (Note that the plan generally does not address the holdings of the University of Minnesota and higher levels of government over which the City has no control. The University has prepared its own Critical Area Plan. The Minneapolis Park and Recreation Board is subject to all City of Minneapolis land use policies and regulations.)

The purposes of the state's Mississippi River Corridor Critical Area designation are to:

- protect and preserve a unique and valuable state and regional resource for the benefit of the health, safety, and welfare of the citizens for the state, region, and nation;
- prevent and mitigate irreversible damage to this state, regional, and national resource;
- preserve and enhance its natural, aesthetic, cultural, and historic values for the public use;
- protect and preserve the river as an essential element in the national, state, and regional transportation, sewer and water, and recreational systems; and
- protect and preserve the biological and ecological functions of the corridor.

The purposes of the MNRRA Management Plan are to:

- preserve, enhance, and interpret archeological, ethnographic, and historic resources;
- enhance opportunities for public outdoor recreation, education, and scenic enjoyment.
- Preserve, enhance, and interpret natural resources;
- provide for continued economic activity and development;
- improve the public's understanding of the river and promote public stewardship of its resources; and
- recognize and strengthen people's relationships with the river as a dynamic part of our heritage, our quality of life, and our legacy for future generations.

I. B. Critical Area Planning Districts

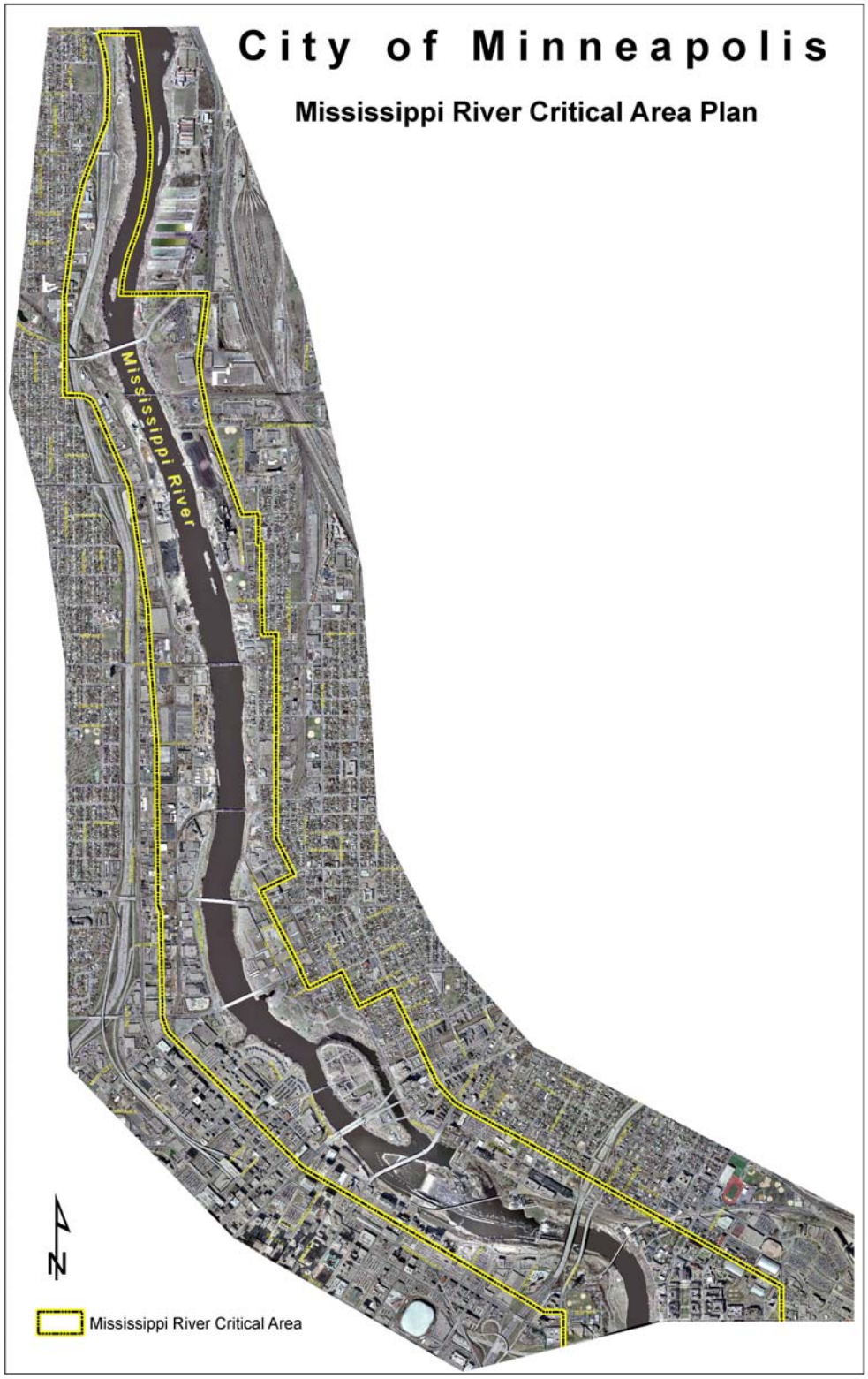
The Critical Area order established three districts within the Minneapolis Critical Area corridor that recognize existing land uses. These districts are:

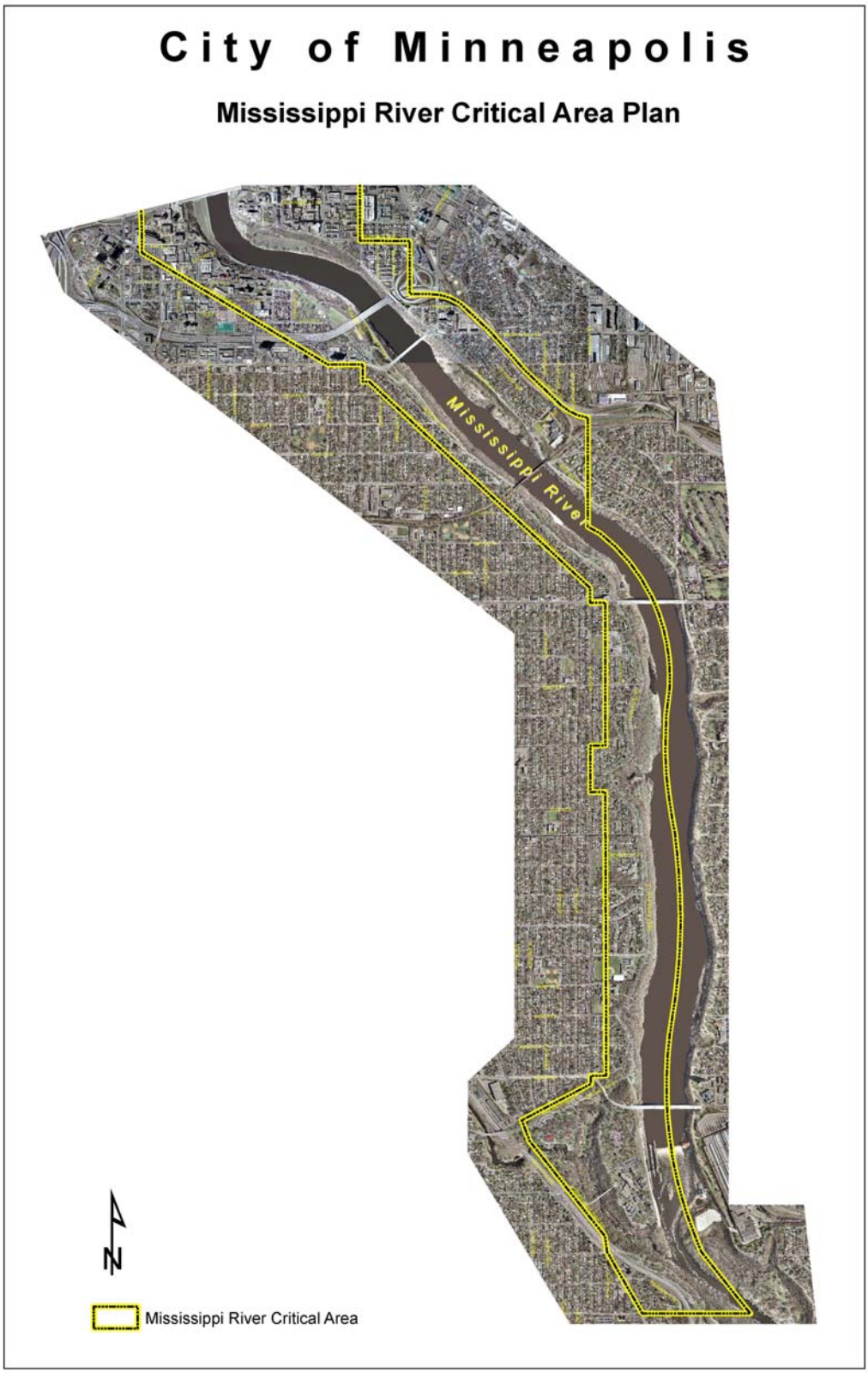
- *Urban Developed District* - north of 48th Avenue North; predominantly parkland in Minneapolis.
- *Urban Diversified District* - south of 48th Avenue North to Franklin Avenue; a mix of industry, businesses, office buildings, housing, a barge terminal, two power plants, parks and parkways, and the University of Minnesota campus.

- *Urban Open Space District* - publicly-owned forested gorge with low density housing and some institutional uses set back from the bluff.

This plan is guided by many past plans and ordinances and will guide future planning and regulatory actions. For the most part, this plan brings together ideas from the City's comprehensive plan, the zoning ordinance, and several sub-area plans. In response to state or federal requirements, it does include some policies that were not specifically and clearly articulated in other documents, but those policies are consistent with past City practices or broader policies. Plans that address land in the Critical Area will be consistent with Executive Order 79-19 and all other state laws. In the case of overlap of plans and/or policies, the policy most protective of the Critical Area will prevail.

Figure 1. Mississippi River Critical Area in Minneapolis




City of Minneapolis
Mississippi River Critical Area Plan
Mississippi River
N
Mississippi River Critical Area

Section II. Existing Conditions

The Mississippi River corridor through Minneapolis presents a rich tapestry of natural and man-made features. A visitor to the area can experience it from the various perspectives of history, geology, architecture, engineering, ecology, and economic development. This section presents a brief overview of the natural, cultural, economic, and visual resources of the Mississippi River Critical Area.

A. Natural Resources
- A-1. Upper River
- A-2. Central Riverfront
- A-3. Lower Gorge
- A-4. Bluffs and Steep Slopes
- A-5. Major Vegetation
- A-6. Natural Drainage Routes and Wetlands
- A-7. Floodplains

B. Cultural Resources
- B-1. National Historic Landmarks
- B-2. National Register of Historic Places
- B-3. Local Landmarks and Historic Districts
- B-4. National Civil Engineer Landmarks

C. Economic Resources
- C-1. Commercial Navigation
- C-2. Upper Harbor Terminal
- C-3. Heavy Industry
- C-4. Light Industry, Office, Commercial, Hospitality and Non-Profit Uses
- C-5. Public Assistance for Redevelopment

D. Visual Quality
- D-1. North Mississippi Regional Park
- D-2. Upper River
- D-3. Central Riverfront
- D-4. University of Minnesota Campus
- D-5. Lower Gorge
- D-6. Ford Dam Area

E. Public Investments
- E-1. Drinking Water System
- E-2. Sanitary Sewer System

II. A. Natural Resources

Natural conditions along the Mississippi River through Minneapolis vary from one section to the next depending on whether the site is above or below St. Anthony Falls and on current land use and development. Some portions of the riverfront have been highly altered to suit industrial needs (e.g., the Upper and Central Riverfronts) while others are very much as they were at the time of exploration by Europeans (e.g., the Lower Gorge as seen from the water). The general trend of land stewardship over the last 25 years along the river in Minneapolis has been one of returning the river's edge to a natural condition from its heavily altered state. The river shoreline is in the process of being re-vegetated and in many locations is being dedicated to walking and river oriented recreation. The West River Parkway and its associated plazas, overlooks, paths, and linear parks is a good example of this change from a heavy industrial heritage.

II. A-1. Upper River

From the Plymouth Avenue bridge to the Soo Line Railroad Bridge (just south of the Camden Bridge), only a few vestiges of the original natural features remain. Even the naturally low slopes have been re-contoured in many locations to accommodate shoreline development; only minor bluffs exist above the falls. Several small islands are untouched except for the flooding and scouring action of the river.

Upriver of the Soo Line Bridge, there are mature woods on the west bank that are protected by North Mississippi Regional Park. Many birds, small mammals, and even deer inhabit this riverfront woodland. Along the east bank, there are copses of trees in the Gluek, Edgewater, and Marshall Terrace Parks, near St. Anthony Parkway, and on the grounds of the Minneapolis Water Department in Fridley. Other scrub trees cling to the shoreline in many other locations where urban development has cleared the rest of the site.

Shingle Creek enters the river near the Camden Bridge after flowing through Brooklyn Park, Brooklyn Center, and the Camden Neighborhood. Evidence of beaver work is often apparent along the creek east of I-94. Bassett's Creek enters the river just downstream of the Plymouth Avenue Bridge. Very few wetlands remain in the Critical Area. Minor bluffs confine the floodplains to portions of the Upper Mississippi Regional Park and portions of the Scherer Lumber and Graco sites near the Plymouth Bridge.

II. A-2. Central Riverfront

From Plymouth Avenue to the 10th Avenue Bridge, linear parks have created an attractive wooded stream valley, and the residential area on Nicollet Island add a green canopy. The river edge includes natural woods, manicured parks, hard plazas, rocky bluffs, and man-made structures. St. Anthony Falls is the dominant natural and visual feature here (other than the river itself) and is a major tourist and resident attraction. The steep bluff line begins to rise below the falls.

II. A-3. Lower Gorge

The Lower Gorge is the least-changed section of the river. Its steep, heavily wooded bluffs retain much of their original character. In fact, from the water it is difficult in some places to recognize that there is a major city just beyond view. Access to the water is difficult here, but people have worn paths down the slopes, causing some problems. Local neighborhood plans have recommended many new or improved stairways, overlooks, paths, and landings along with the restoration of much vegetation. Shoreline sandbars are a recreational attraction for adventurous hikers and sunbathers. West River Parkway runs along the river down to Minnehaha Park, and from there, a bicycle and pedestrian path extends along and below the bluff to Historic Fort Snelling State Park. Bridal Veil Creek cascades from the bluff near the Franklin Avenue bridge.

II. A-4. Bluffs and Steep Slopes

Approximate location of slopes from 12 to 18 percent and exceeding 18 percent is included within this report. The identification and protection of steep slopes on individual sites is required during site plan review for any proposed development.

II. A-5. Major Vegetation

Most of the major tree stands are located on or above the steep slopes of the Lower Gorge.

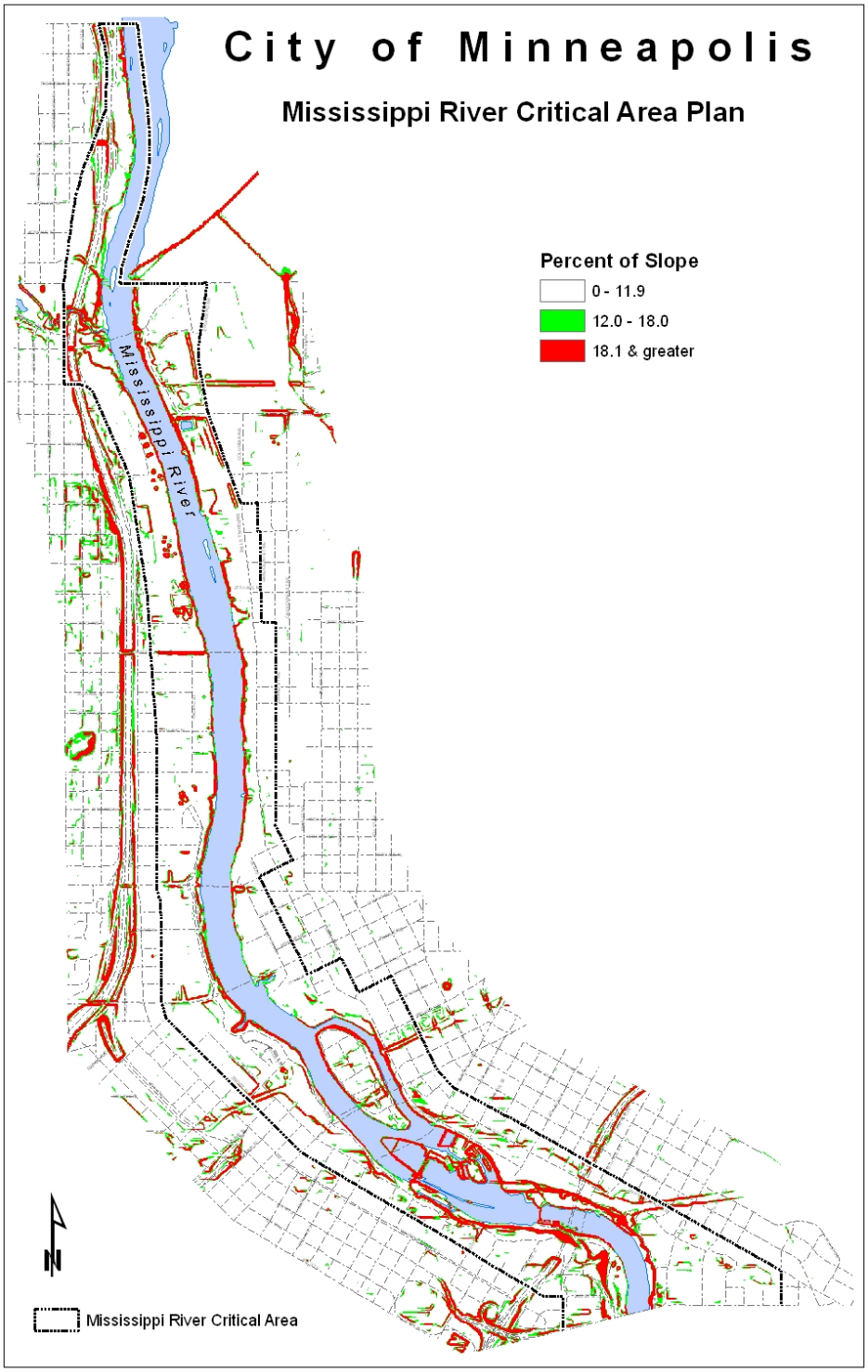
II. A-6. Natural Drainage Routes and Wetlands

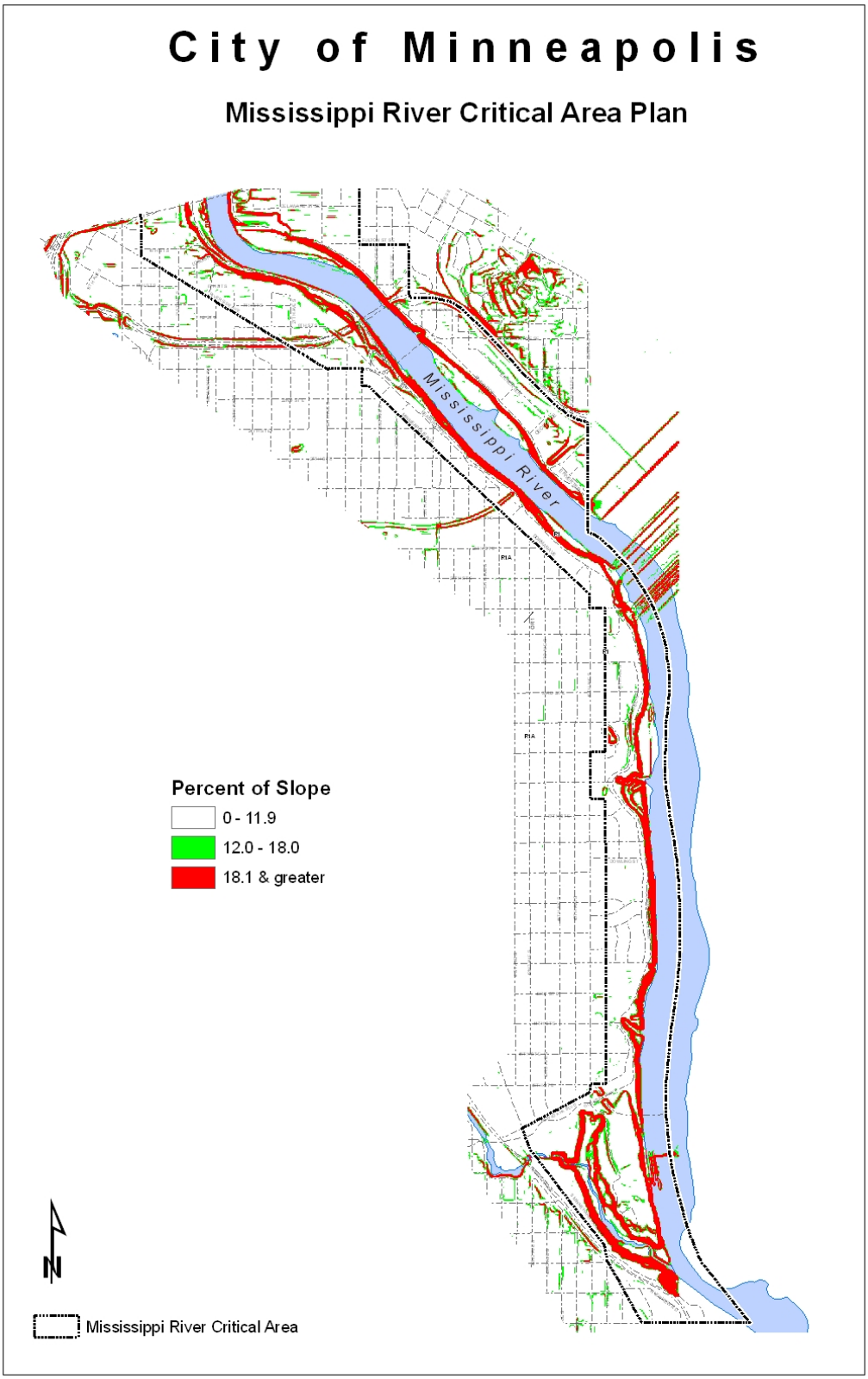
Shingle Creek, Bassett Creek, Bridal Veil Creek, and Minnehaha Creek all enter the River. There are very few wetlands remaining in the Minneapolis Critical Area.

II. A-7. Floodplains

The approximate location of the 100-year floodplain is included within this report. The City's zoning ordinance and maps prepared by the Federal Emergency Management Agency should be consulted for further detail.

Figure 2. Minneapolis Mississippi River Critical Area – Slope




City of Minneapolis
Mississippi River Critical Area Plan
Mississippi River
Percent of Slope
0 - 11.9
12.0 - 18.0
18.1 & greater
N
Mississippi River Critical Area

II. B. Cultural Resources

Near the banks of the Mississippi River are many reminders of the settlement of Minneapolis because of the important early role of the river in transportation and water power. St. Anthony Falls has religious significance to Native Americans and gave birth to the important lumber and flour milling industries. Thus, many historically-designated properties are located in the Central Riverfront.

II. B-1. National Historic Landmarks

- Pillsbury A Mill, 301 Main St. S.E.
- Washburn Mill Complex, S. 1st St. & Park Ave.

II. B-2. National Register of Historic Places

- Capellen Memorial Bridge (Franklin Ave. over the Mississippi River)
- Cedar Avenue Bridge (10th Ave. S.E. over the Mississippi River)
- Grace Evangelic Lutheran Church (234 Harvard St. S.E.)
- Intercity Bridge (Ford Pkwy. over the Mississippi River)
- Lock & Dam No. 2 (Mississippi River north of Lake St.)
- Minneapolis (Grain Belt) Brewing Company (vicinity of Marshall St. & 13th Ave. N.E.)
- Minneapolis Fire Department Repair Shop (24 University Ave. N.E.)
- Minneapolis Warehouse Historic District (roughly bounded by River St., 1st Ave. N., 6th St. N., 2nd Ave. N., 5th St N., 5th Ave. N., 3rd St. N., & 10th Ave. N.)
- Minnehaha Historic District (roughly bounded by Nawadaha Blvd., Hiawatha Ave., Minnehaha Ave., W. 49th St., Minnehaha Creek & the Mississippi River)
- Minnesota Soldiers Home Historic District (roughly bounded by Minnehaha Pkwy., Minnehaha Creek & the Mississippi River)
- St. Anthony Falls Historic District (roughly bounded by 2nd St., 10th Ave. S., 6th Ave. S.E., University Ave., 3rd Ave. N.E., Main St. N.E., & Plymouth Ave.)
- Twin City Rapid Transit Company Steam Plant (12-20 6th Ave. S.E.)
- University of Minnesota Old Campus Historic District (roughly bounded by University Ave. S.E., East River Rd., Pillsbury Dr. S.E. & Church St. S.E.)

II. B-3. Local Landmarks and Historic Districts

- Capellen Memorial Bridge (Franklin Ave. over the Mississippi River)
- Florence Court (1022 University Ave. S.E.)
- Minneapolis (Grain Belt) Brewing Company (vicinity of Marshall St. & 13th Ave. N.E.)
- Minnehaha Historic District (roughly bounded by Nawadaha Blvd., Hiawatha Ave., Minnehaha Ave., W. 49th St., Minnehaha Creek & the Mississippi River)

- St. Anthony Falls Historic District (roughly bounded by 2nd St., 10th Ave. S., 6th Ave. S.E., University Ave., 3rd Ave. N.E., Main St. N.E., & Plymouth Ave.)
- Warehouse Historic District (roughly bounded by 1st Ave. N., 2nd St. N., 4th Ave. N., 2nd Ave. N. & 6th St. N.)
- University of Minnesota Greek Letter Chapter House Historic District (roughly bounded by University Ave. S.E., 5th St. S.E., 10th Ave, S.E., Harvard St. S.E. & Delaware St. S.E.)

II. B-4. National Civil Engineer Landmarks

- Stone Arch Bridge of the Great Northern Railway (Mississippi River, south of St. Anthony Falls)

II. C. Economic Resources

The Mississippi River in Minneapolis was once the engine of the regional economy, but that role has diminished greatly with the advent of transportation alternatives, the loss of grain and lumber milling and the abandonment of direct water power, the relocation of many other nearby industries, and the decline of barge traffic. The river now provides a less direct economic boost to Minneapolis through new forms of economic activity, even though barge shipping is still active through the upper and lower St. Anthony Falls locks and Lock and Dam No.1 to the Upper Harbor Terminal above Lowry Avenue. Office buildings, restaurants, and housing exemplify the current and future growth that benefit from the beauty of the river rather than its opportunities for transportation or power. Tourism is a major industry in Minneapolis, and visiting the Central Riverfront is a common activity for many visitors to Downtown. St. Anthony Falls draws viewers from far and wide.

Many millions of dollars of private and public investment have been poured into properties along the Central Riverfront and elsewhere since industrial uses have declined. City of Minneapolis policies reflect recognition of the river's changing role and seek further benefits by improving it as a natural, cultural, and recreational resource. Consequently, many plans prepared by the City, and the MPRB, and the former Minneapolis Community Development Agency (MCDA, now Community Planning and Economic Development CPED) over the past four decades have emphasized the reclaimed river as an economic catalyst for economic development.

II. C-1. Commercial Navigation

Histories of Minneapolis discuss the long-held desire by civic leaders to extend river navigation upstream from St. Paul. In the nineteenth century the main goal was to bring passenger vessels up to the Lower Falls. Decades of rivalry between St. Paul and Minneapolis, and among water power magnates and navigation proponents, led to many fruitless proposals to build locks and dams in a number of places between the Lower Falls and Fort Snelling. Finally, a dam construction project was started, only to have a higher dam near the mouth of Minnehaha Creek scuttle the effort. This resulted in the "High Dam," more commonly known

as the Ford Lock and Dam (Lock and Dam #1), so named following sale of power generation rights to Henry Ford to secure a deal for an automobile manufacturing plant. The pool of water behind the Ford Dam allowed passage up to the flats below the Washington Avenue Bridge. As soon as this section of the river was opened in 1917, City leaders and navigation boosters began lobbying Congress to construct further locks to allow water navigation to go beyond the Falls of St. Anthony. The lock at the Lower Falls dam was finally completed in 1956. Construction of the lock at the Upper Falls was begun soon after in 1959 and completed in 1963. These locks were known as the "Upper Harbor" project, because they opened the area above the Falls as a new harbor. Opponents of the project argued at the time that it was an unnecessary and unwise investment that would result in few benefits to the City.

In 1999, nearly 40 years after the opening of the Upper Falls lock, the results from both a land use and economic development standpoint are clear. There remain four barge terminal users: a sand and gravel operation, a scrap metal yard, a cement storage facility, and the Upper Harbor Terminal. The following key points illuminate the present situation regarding river navigation on the Upper River:

- Annual federal cost for navigation on the Upper River is $3.1 million, budgeted by the Army Corps of Engineers for lock and channel maintenance.
- Only two barges and a towboat fit through the local locks local locks during any one lockage, compared to fleets of up to nine barges on all the locks down river, from St. Paul to St. Louis.
- Roundtrip time from the Port of St. Paul to the Upper River is 12 hours.
- Additional costs due to less efficient two-barge operations are $0.50 per ton on the Upper River, compared to $0.25 on the Minnesota River and $0.10 to move barges around the Port of St. Paul.
- The minimum threshold set by the Corps of Engineers to justify the public cost of barging is one million tons.
- Tonnage totals for the Upper River fluctuate, with a peak of 2.3 million tons in 1975 and low of 0.66 million tons in 1989. Average tonnage from 1989 to 1998 was 1.58 million tons.
- The barging season on the Upper River is usually about eight months, depending on the weather.
- Upper River barge terminals employ approximately 80 persons, many on a seasonal basis.
- Barge terminal operations occupy 72 acres of land.
- Private businesses operating barge terminals pay annual property taxes of $300,000 on 32 acres (an average of $9,375 per acre).

II. C-2. Upper Harbor Terminal

Perhaps the key policy issue for the Upper River is the status and future of the Upper Harbor Terminal (UHT). This 48-acre barge terminal facility is owned by the City of Minneapolis under the management of the Department of CPED, with a private company handling operations. Several acres of the site are used to store dredge materials, basically riverbed sand, dredged by the Corps of Engineers to

maintain a nine-foot deep barge navigation channel on the Upper River; the area south of the docks is fully used for tree shredding and container storage. In addition to dredge materials, the UHT site contains stores of coal, pit pig iron, pipe, aggregate and bunker sand. The remaining parts of the site contain a warehouse, grain elevator, three concrete storage domes, asphalt tanks, a railroad yard, truck scales and three barge docking areas.

The fate of the Upper Harbor Terminal will be determined by the Minneapolis City Council. Although the terminal has generated a positive cash flow in the past, service on the original debt has caused annual deficits. The City has subsidized the operation since 1990, fluctuating between the amounts of $100,000 to $1 million per year. Bonds used to finance the terminal were paid in 1999. With the bonds paid, it was anticipated that the UHT would generate some revenue for the City. However, between 2000 and 2004 Terminal operations generally broke even. In 2005 the operating agreement for the Terminal was amended making the operator entirely responsible for losses at the Terminal. Additionally, any net revenues that are generated will be split evenly by the City and the operator. Although positive cash flow in subsequent years will provide revenue to the City, the UHT will continue to be exempt from property taxes. This lack of a tax generating use of this 48-acre riverfront site is an ongoing opportunity cost. Even if much of the site were used as non-taxed parkland, the adjacent properties would no doubt rise in value.

Other points for consideration include:

- Currently, eight percent of material moved through the UHT is related to business in Minneapolis; an additional 24 percent is for the metropolitan area, 47 percent is for the remainder of Minnesota and 21 percent of the business at the Terminal is generated in other states or Canada.
- The UHT has a low job count – historically with employment density less than one job per acre.
- The UHT, at roughly 250,000 tons per year, generates less than one-half to two-thirds of the annual tonnage moving through the Minneapolis locks.
- The U.S. Army Corps of Engineers, and ultimately the U.S. Congress, have final say over the future operation of the three locks in Minneapolis.
- Private barge terminal users benefit from the City's operation of the UHT, since the UHT is a significant factor in justifying annual federal expenditures on the Minneapolis locks and channel maintenance operations. All of the businesses that operate private terminals provide necessary commodities and services to the City and region. For instance, Aggregate Industries provides aggregate for construction and for making cement. American Iron and Supply buys and ships recyclable metals. The availability of barging as a transport option allows these businesses to operate at a lower cost. It should be noted that many competing businesses operate without access to a commercial navigation channel.

  Barge terminals are intermodal transfer facilities, and therefore bulk materials are loaded on or off rail cars and trucks, concentrating rail and truck traffic on the

west bank of the Upper River. Relocating this traffic to other facilities may cause minor regional impacts. Not all of the shift to other modes would be to trucks, and some origins and destinations may be closer to other terminals. In fact, there are over 30 other barge terminals in the Twin Cities metropolitan area, on the Mississippi in St. Paul and on the Minnesota River. It is likely that terminals in St. Paul can absorb the volumes moving through the Upper River. If barging were discontinued on the Upper River, it is likely that the pattern of truck traffic in Minneapolis would change. There may be a reduction of truck traffic in the area of the Terminal but there may be also be an increase in traffic through the City from terminals in St. Paul or on the Minnesota River.

II. C-3. Heavy Industry

In the first half of the twentieth century when the construction of the locks at St. Anthony Falls was proposed, the future of cities and their economic development seemed inextricably linked to heavy manufacturing, which required easy access to bulk materials. In reality, Minneapolis historically has played a limited role in complex manufacturing. Rather, the City's original purpose was bulk materials processing – sawing logs and milling wheat. The capital accumulated by these early industries was subsequently reinvested, transforming the City's economy away from industry to office and high-technology businesses.

The small number of businesses located along the Upper River to take advantage of barging are bulk material handling businesses rather than the hoped for manufacturing plants. By the very nature of their operations, these businesses require open storage of materials – piles of sand, gravel, and scrap metals. These materials are unsightly viewed from the land or river, and are also frequently noisy and dirty operations that will understandably conflict with other uses. Currently, job densities for the bulk material industries are low, approximately one job per acre, with seasonal layoffs. City guidelines seek one job per thousand square feet of building, with a minimum of 40 percent site coverage which works out to approximately 17 jobs per acre. Much of the benefits of the City’s effort on the North Washington Industrial Park have come by offering land with the objective of placing businesses that provide jobs with good wages in enclosed facilities in growth industries, such as graphic arts and laboratories. The jobs per acre of these light industries are much higher than the current barging, land intensive uses such as the UHT. The jobs provided are also year-round, rather than seasonal.

The basic direction of industry and employment at the turn of the twenty-first century is perhaps easier to predict than during previous decades. Manufacturing employment in the United States continues to decline, while service and information jobs are increasing. While river navigation may have been the eighteenth and nineteenth century's vital communication and transport infrastructure, sustained growth in the Upper River area could very well be more dependent on new high speed communications cables than on barges.

In addition to heavy industrial uses that take advantage of commercial navigation, the Upper River and Central Riverfront include a fairly limited number of other heavy industrial uses that do provide more intensive job and tax benefits to the community. These uses should be maintained as appropriate.

II. C-4. Light Industry, Office, Commercial, Hospitality and Non-Profit Uses

The Upper River, Central Riverfront and, to a much lesser degree, the Lower Gorge, contain a wide variety of business and non-profit uses that provide substantial numbers of jobs and taxes and generate economic activity that is important to the City and metropolitan area. Some of these businesses are the outgrowth of businesses tied to the City's earliest days (e.g., the General Mills R and D facility) and others have been more recently brought to the corridor. These include many light industrial businesses, significant amounts of office space, hospitality uses such as hotels and restaurants, and commercial uses that support the corridor's residents, employees and visitors. In addition, the corridor contains several non-profit facilities that provide jobs and educational, cultural or other services.

II. C-5. Public Assistance for Redevelopment

The City guides and controls development on large designated sites undergoing redevelopment. Much of the Urban Diversified and Urban Developed Districts in Minneapolis, where not controlled by the University of Minnesota or the MRPB, is within a CPED City Redevelopment Project Area. With City Planning Commission comment and City Council approval CPED adopts urban redevelopment plans that require design and development guidelines to be followed for any form of development within the district where property is purchased from or other substantive assistance is received from CPED. These development guidelines must conform to City land use regulations.

II. D. Visual Quality

The titles of the three Critical Area land use districts – Urban Developed, Urban Diversified, and Urban Open Space – help describe the visual character of those reaches of the Mississippi River in Minneapolis. The following sub-areas offer additional description.

II. D-1. North Mississippi Regional Park

The river and shores are broad and flat with second-generation vegetation growing wildly along the banks. The water is calm and inaccessible to barges. Occasional recreational boat landings and other structures pierce the vegetated edge, but other manmade features have negligible visual impact or benefit.

II. D-2. Upper River

The river and terrain of this area are similar to that described to the north, but beyond that the similarity stops. Development is largely industrial and commercial, built near the water in many cases with fill and retaining walls. Barge activity adds to the visual interest in this area. Although vegetation is

minimal, it helps screen many uses unrelated to the river. The visual effect of the heavy industry on the west bank is unattractive and generally considered incompatible with the river corridor. Occasional river edge parks provide naturalistic relief along a part of the river but invariably afford a view of heavy industrial activities and outdoor storage across the water.

II. D-3. Central Riverfront

The Central Riverfront is the most visually interesting and varied segment of the Minneapolis Critical Area. This area hums with activity, and dramatic views are available in every direction. The former mills, the arching bridges, the river cascading over dam aprons, the transmission line towers, the high-rise housing, the smoke stacks of the power plants, and barges crawling through the locks all contribute to the dramatic visual setting. The urban plazas, overlooks, promenades, and bridges provide many vantage points. Downtown and the Main Street development provide an active and varied backdrop. In contrast, areas like the Father Hennepin Bluffs and Nicollet Island's east channel provide secluded, wildly vegetated retreats. Recent park improvements at Boom Island and the mouth of Bassett's Creek have enhanced the natural setting near Plymouth Avenue.

St. Anthony Falls is the birthplace of Minneapolis and is of primary importance to the City's history and its future. As the only natural waterfall on the Mississippi River (now altered), St. Anthony Falls provided the power source that nurtured the City of Minneapolis. It has traditionally been used for many purposes, as a public amenity as well as industrial use. The Falls is now the core of the City's Central Riverfront redevelopment efforts to enable people to live nearby and to enjoy the vitality of the urban setting and its natural resources. St. Anthony Falls is the center of a 150-acre regional park and included in the state-designated St. Anthony Falls Heritage District. It lies between a national engineering landmark (James J. Hill's Stone Arch Bridge) and the site of the first public bridge across the Mississippi River. The Falls was a major tourist attraction in the 1850s, and both state and local governments are investing heavily in making the area a major attraction again. It is also adjacent to the last lock constructed on the Mississippi at the head of navigation for the river. St. Anthony Falls has historic, economic, scenic, and recreational significance to the nation, the state, the region, and the City, and should be treated with the utmost respect. Accordingly, the City shall continue to participate vigorously on the St. Anthony Falls Heritage Board as established by the State legislature in 1988.

II. D-4. University of Minnesota Campus

The bluffs, dramatic geologic formations in themselves, first create a sense of enclosure as one travels downstream toward the University of Minnesota. Massive buildings atop the bluffs accentuate the enclosure as well as reinforce the urban setting. Numerous bridges, the Lower St. Anthony Falls lock and dam, and roadways are further indicators of man's intrusion into this part of the gorge. In contrast and as a transition to the Lower Gorge, springs, trickling water, vines,

and mature native trees create cool refuges below the bluffs. (Note: the University has prepared a separate plan for its segment of the Critical Area.)

II. D-5. Lower Gorge

Steep bluffs and dense woodland vegetation seemingly cut off human access to the river through the Lower Gorge and, from the water, screen from view all structures but a few church steeples. Though various kinds of watercraft use the river, the natural gorge appears to be totally apart from the city around it.

II. D-6. Ford Dam Area

The Ford Dam and Lock and its associated activity of barges, motorboats, fishermen, and visitors, draw attention away from the surrounding gorge. Roads, paths, and views are focused instead on these kinds of human activity.

II. E. Public Investments

II. E-1. Drinking Water System

In recent years, the City has pumped between 23 and 24 billion gallons of water annually from the Mississippi River; on a daily basis, this amounts to about 65 million gallons. Close to 63 million gallons per day enter the water distribution system. Of that amount, almost 20 percent is piped to suburban communities, an average of 12.3 million gallons per day.

As the metropolitan area grows and a demand for water increases, the existing surface water supplies will be hard-pressed to meet the needs. Increasingly, municipalities and municipal agencies are looking to groundwater sources to augment the present surface water sources. Though domestic water is supplied primarily from surface water sources (in Minneapolis, the Mississippi River) a number of commercial and industrial firms do tap groundwater supplies. Drought and other demands for river water affect Minneapolis water supply and quality. A City of Minneapolis Water Department study estimated that the City has a short-term standby need of 40 to 50 million gallons per day for basic supply, water quality, and other environmental purposes.

II. E-2. Sanitary Sewer System

The City's sewer system was originally built to carry both sanitary sewage and storm water runoff. As the community grew, the normal volume of sewage also increased. Minneapolis has worked for many years to separate its sanitary and storm sewer systems so that during periods of heavy rain, sewage is not discharged into the river. The City of Minneapolis continues to work on completing its Combined Sewer Overflow (CSO) projects throughout the City.

Section III. Critical Area Policies

A. Land Use Policies
- A-1. Public Benefits of the River
- A-2. Economic Resources
- A-3. Appropriate Riverfront Land Uses
- A-4. Industry along the River
- A-5. Public Access
- A-6. Public Facilities along the River

B. Site Development Standards and Visual Quality Policies
- B-1. General Intent
- B-2. Scenic Quality
- B-3. Views Of and From the River
- B-4. Site Layout and Architectural Design
- B-5. Structure Setbacks
- B-6. Building Height
- B-7. Screening Intrusive Existing Development
- B-8. Parking and Storage
- B-9. Vegetative Cutting
- B-10. High Voltage Transmission Lines
- B-11. Billboards
- B-12. Public Improvements
- B-13. Scenic Overlooks

C. Natural Resources Policies
- C - 1. Shoreline Protection
- C - 2. Slopes of 12 to 18 Percent
- C - 3. Slopes Greater than 18 Percent or Bluffs
- C - 4. Vegetation
- C - 5. Erosion
- C - 6. Flooding
- C - 7. Soil and Water Contamination
- C - 8. Dredge Material
- C - 9. Intergovernmental Water Quality Efforts
- C - 10. Surface Water Runoff

C - 11. Wetlands

D. Cultural Resource Policies

E. Economic Resource Policies
- E -1. River Corridor Economic Development
- E -2. Parks and Historic Interpretation
- E -3. Upper Harbor Terminal

F. St. Anthony Falls Policies

G. Park, Parkway, and River Access Policies
- G - 1. Recreation Variety
- G - 2. River-Oriented Recreation
- G - 3. Continuous Parkway
- G - 4. Regional Trails
- G - 5. Access Routes to the River
- G - 6. Boat Access Points
- G - 7. Surface Water Use
- G - 8. Natural Feature Protection
- G - 9. Park and Trail Land Acquisition

H. Public Facilities and Land Policies
- H - 1. Drinking Water Source
- H - 2. Upstream Treatment
- H - 3. Water Conservation and Supply Plans
- H - 4. Sewer Separation
- H - 5. Infiltration and Inflow
- H - 6. Water Quality Management
- H - 7. Flood Control

I. Transportation Policies
- I - 1. Streets and Roads
- I - 2. Bridges
- I - 3. Bicycle and Pedestrian Facilities
- I - 4. Railroad Lines
- I - 5. Railroad and Truck Terminal Locations

J. Electrical Transmission Lines

III. A. Land Use Policies

Citywide land use policies play a role in controlling the impact of development within the Critical Area corridor. The policies in this section are those citywide policies which are most important along the river in fulfilling the purpose of the Critical Area Act and the MNRRA Management Plan.

III. A-1. Public Benefits of the River

The City of Minneapolis should maximize over time public access to and enjoyment of the river corridor, public appreciation of the river's many resources, and protection and enhancement of the river corridor's natural, scenic, and cultural resources.

- Regulate land uses through the Minneapolis Zoning Ordinance as needed to implement this plan and to act in accordance with Executive order 79-19.
- Work with the MRPB to extend the parkway system.
- Work to redevelop river corridor land in a manner compatible with this plan.

III. A-2. Economic Resources

The City of Minneapolis should continue to use the river as an economic resource while accomplishing the protection purposes of the Critical Area designation.

- Plan, zone, and redevelop land along the river for activities that benefit from and enhance the river. These may include but are not limited to housing, restaurants and taverns, office buildings, parks, and private water-related entertainment businesses such as excursion boats.
- The City should examine potential reuses for existing uses that do not adhere to the tenets of this plan; the City acknowledges that certain river-dependent businesses will remain along the river edge for the foreseeable future even though they are not river-enhancing. An example of this includes power plants.

III. A-3. Appropriate Riverfront Land Uses

The City will work to preserve, enhance, and create a sustainable natural and historic environment citywide. The Mississippi River is one of the major form-giving elements of the community, and City actions should enhance it. Land uses within the Critical Area should relate to their riverfront location in a manner that enhances the river environment. Land uses that may be considered river enhancing will vary depending on the location and context. The City will follow the land use guidelines of *The Minneapolis Plan* except where they may be modified or made more explicit by City-adopted small area plans; subsequent small area plans will further enhance and promote the policies necessary to maintain and protect the Critical Area. Activities which have no need for river locations or which would have detrimental effects on a high quality river environment should not be allowed to locate or expand within the Critical Area.

Appropriate riverfront land uses would include:

<u>Upper River</u>

- The Upper River is an area suited for new housing, industrial and office jobs, and an extended parkway system. Job-intensive light industries not located immediately on the riverfront would be appropriate in certain locations.
- Largely residential areas with parks and open space are recommended.

- Expansion of existing and development of new appropriate industrial, commercial, and other non-residential uses that serve to preserve and enhance the residential character of the district are encouraged.
- Nearly all of the land in the Urban Developed District in the City of Minneapolis is now part of the North Mississippi Regional Park or right-of-way for Interstate 94 and should continue in that use.
- Several lateral greenway connections should be considered to the river from nearby neighborhoods including:
    - 53rd Avenue North
    - 49th Avenue North
    - 41st Avenue North
    - 35th Avenue North
    - 29th Avenue North
    - 26th Avenue North
    - 3rd Avenue Northeast
    - 8th Avenue Northeast/Plymouth Avenue
    - 13th Avenue Northeast
    - 14th Avenue Northeast
    - 18th Avenue Northeast
    - 22nd Avenue Northeast
    - 27th Avenue Northeast
    - 29th Avenue Northeast
    - Burlington Northern Santa Fe bridge
    - Dowling Avenue
    - Lowry Avenue
    - West Broadway

Central Riverfront

- Downtown is the major growth center of the entire region. It is a dense, mixed-use area of employment, housing, entertainment, and culture. The river corridor is an important element of Downtown, providing open space and recreation while attracting new housing, shops, and offices.
- Housing is expected to play an increasingly significant role in the Central Riverfront.
- The St.Anthony Falls Historic District should be preserved and the riverfront greenway system improved and extended.
- The river corridor should be more closely linked to Downtown via extensions of the street grid and streetscape improvements to key perpendicular streets.
- Development should retain the diversity of land uses and transportation while making the riverfront accessible to the public, subject to other conditions such as public easements or separation from the water by public rights-of-way.
- Residential, commercial and industrial development should occur as appropriate that complements the riverfront or historic atmosphere and environmental resources. Businesses that complement the riverfront or historic atmosphere or those that contribute significantly to the economic well-being of the community are encouraged.

- Development that expands public access to and enjoyment of the river including parks and open space is supported.
- Entertainment, historic, recreational and cultural facilities that would benefit from the river views or land uses related to the river, as well as schools related to studying the river, the natural environment, or river related industry would be supported.

Lower Gorge

- The easterly end of the Lake Street corridor designated as a potential growth center for housing; existing public parkland is recommended to be retained in this area.
- A lateral greenway connection should be considered to the river from nearby neighborhoods at 40th Street South, connecting to the Midtown Greenway.
- Recreation that is based on water use and that capitalizes on an aesthetically stimulating setting (including viewing of the river and its uses) is encouraged, along with open space for passive and un-programmed recreation or preservation of natural resources.
- Conservation and protection of the existing and potential recreational, scenic, natural, and historic resources and uses within this district for the use and enjoyment of the surrounding region is necessary.
- Transportation role of the river shall be preserved in this district.

III. A-4. Industry along the River

The City will continue to work to reduce heavy industrial land use along the riverfront, to improve the appearance of industries that remain, and to reduce the noise, vibration, air pollution, and water pollution from those that remain. In addition:

- Industry shall be prohibited on Nicollet Island.
- Industries that are not river-dependent should be set back from the water's edge to allow for public open space and access.
- Three power plants (two owned by Xcel Energy and one by the University of Minnesota) will continue to operate along the riverfront for the foreseeable future. The Xcel hydroelectric plant at St.Anthony Falls is powered by the river current.
- The City is of the opinion that the University of Minnesota power plant is incompatible with existing and planned adjacent land uses, specifically because of its truck and rail traffic, its generation of air pollution, and its inhibition of recreational river use.
- To the extent feasible, open storage and parking areas for the coal-fired Xcel Energy generating plant on the Upper River should be screened from view from the opposite bank and the river surface.
- The City is working with Xcel Energy in its efforts to convert the Riverside plant from coal to natural gas.
- If possible, there should be public access along the riverbank at the Xcel Energy plant on the Upper River.

- The City will continue to work toward the eventual elimination of railroad spurs that do not serve river terminals or other industrial users in appropriate areas.
- The City, with help from other agencies, the Minnesota Department of Employment and Economic Development, and the Metropolitan Council, will continue its program to remediate and redevelop former industrial (and other) sites having polluted soils.
- The visual attractiveness of land uses which can be seen from the opposite bank of the river should be improved through improvements that:
  a. Require screening of open storage operations visible from the opposite bank or from the river except as precluded by terminal operations.
  b. Encourage riverbank landscaping, or negotiate public easements for MRPB landscape management.
  c. Encourage consolidation of open storage operations.
  d. Encourage site development that locates river-enhancing structures toward the river and less attractive structures, parking, or storage away from the river.

III. A-5. Public Access

The public should be encouraged to view the river and its river-related activities and to relax along the river. The following actions should be considered to further public access.

- Provide continuous public access along the riverbank in all locations including the entire Upper River. This access should ideally be on park property but may consist of an easement across private land or on City or University of Minnesota land in some cases. Where barriers to continuous public movement along the riverfront remain, such as power plants, private industry, barge terminals, or housing, the City and the MPRB will route trails and parkways around those land uses at least on a temporary basis. Such off-river routes will be improved to maintain visual design continuity with the riverfront route to the extent possible. Where feasible, lateral connections to river overlooks will be included to mitigate the loss of visual contact with the water.
- Extend the parkway system along the west bank of the Upper River from Plymouth Avenue to the Camden Bridge.
- Extend existing Main Street to connect with East River Parkway at the University of Minnesota.
- When feasible, extend the public streets and/or rights-of-way to the vicinity of the bluff or riverbank, consistent with the resource protection policies of this plan, to improve public access from the neighborhoods to the river. This is particularly important in the Upper River and Central Riverfront.
- Provide fishing piers and observation decks at appropriate spaces where the public may view river activities.
- Maintain or improve all river-related parks.

- When the opportunity arises, negotiate public easements on privately owned properties. Consider the dedication of river corridor parkland during any river corridor land subdivision or planned-unit development approval.

III. A-6. Public Facilities along the River

In locating and developing public facilities the City will give careful thought to their impact on the river and adjacent residential neighborhoods.

- Public facilities should be served by the essential street system (collector or arterial) as described in the Transportation chapter of the City's comprehensive plan.
- New corridors for overhead power lines to cross the river should be strongly discouraged.
- Additional river bridges should be strongly discouraged. No additional river bridges are expected in the foreseeable future.

III. B. Site Development Standards and Visual Quality Policies

Protecting views of and from the river is an objective of both the Critical Area Act and the MNRRA Management Plan. In addition, preserving or improving the appearance of urban development within the Critical Area will also enhance the experience of using the corridor and enjoying the river. Any changes in the river corridor should complement the visual characteristics of the river. The first aspect of providing for visual quality along the river is to control and guide actions which might have adverse visual impact.

III. B-1.General Intent

River corridor development should be located and designed to minimize adverse effects on the natural or scenic values of the river.

- Development should respect major natural features and the character of existing nearby development. In locations where an approved plan calls for land use changes, new development might differ in character from other nearby buildings, however, it is also acknowledged that urban development along the river can, if properly designed, have a high degree of visual compatibility with the river in the Urban Diversified and Urban Developed districts.
- In the Urban Open Space District, which includes the Lower Gorge, the predominant visual feature should be trees and bluffs. That district should continue to be managed to preserve and enhance those natural scenic qualities.
- The City will prevent development that blocks or has a significant negative impact on key scenic views and encourages design which preserves, enhances, or creates key scenic views. Walls of tall buildings along the river corridor should be avoided, and view and accessibility pionts through river corridor development should be designed.
- The City will encourage commercial and industrial development to be more job-intensive and land-efficient. The City will encourage the use of more planned-unit developments so as to retain natural physical features,

and should encourage more joint use of space and facilities such as off-street parking.

- Development along the river should encourage reconnections of the traditional street grid to enhance visual and physical connections from the river.

III. B-2. Scenic Quality

The scenic quality of the shorelines should be improved by:

- Insisting on high quality urban design and site planning.
- Minimizing shoreline parking and outdoor storage.
- In the Upper River and Lower Gorge sections, screening buildings structures (other than historically designated buildings or structures), roads, parking, and outdoor storage with landscape, and in the Downtown section as appropriate.
- Aiding the rehabilitation or removal of obsolete and visually blighted structures.
- Creating linear parks along the Upper River.
- Use of native vegetation appropriate to the ecology of the site.

III. B-3. Views Of and From the River

The City will strive to maintain views to and from the river by providing overlooks, river corridor parks, and view corridors between river corridor buildings. View should favor downstream vistas whenever possible for longer views of the river. To preserve views to the Downtown skyline, development on the west bank should be flanked by view corridors. Specific sites to be addressed should include:

- The former site of the Riverview Supper Club, at the northern end of West River Road.
- The Burlington Northern Railroad bridge, proposed to become a pedestrian-bicyclist bridge.
- The proposed promenade of the housing site near 26th Avenue North.
- A new Lowry Avenue bridge.
- Bluff Street Park.
- The top of the proposed Grand Stairs at 35th Avenue North and First Street.
- Dowling Avenue North at the river.
- 41st Avenue North at the river
- The proposed new parkland along the high east side of the river.
- The cottonwood grove south of East Lake Street.
- The proposed overlook at 36th Street, north of the ravine.
- The eastern edge of the 44th Street East picnic area.
- Historic views and sites.
- Father Hennepin Bluffs Park.
- Nicollet Island (from both banks).
- West River Parkway (provides views of St. Anthony Falls).
- The Stone Arch Bridge.

III. B-4. Site Layout and Architectural Design

The City will seek the highest quality site layout and architecture for land along its Mississippi riverfront. When seeking and reviewing development proposals for land that the City owns along the riverfront, or when reviewing projects along the riverfront in the Critical Area to which the City is providing financial assistance, developments will be required to meet and surpass the standards for site design and architectural quality contained in the zoning code. All site designs will be reviewed and evaluated for:

- Compliance with Executive Order 79-19.
- Appropriate building location in relation to the water's edge.
- Orientation to the river.
- Fenestration to create views to the river.
- High quality building materials.
- Location of parking areas away from the river side of a site.
- Screening of all parking and open storage areas from the river.
- Landscaping that is complementary with the vegetated context of the river corridor.
- Best practices for stormwater management.

Citywide policies and regulations, as specified in its comprehensive plan, other policy plans, and its zoning code emphasize sustainable development, including pollution prevention and cleanup, “green” buildings [both construction and demolition] and “green” energy, smart growth and sustainable land use and transportation, and water conservation, stormwater management, conservation of natural areas, and landscaping. In addition to evaluating a proposed development for its environmental impact the City will also seek attractive and context-sensitive architectural design. Where development occurs on the est bank close to the riverfront, structures should step back so that sunlight penetrates to the public areas. The total site and architectural design should contribute to creating a vibrant, interesting, and well-used riverfront and be consistent with adopted small area plans. Fifty percent of the first 150 feet of a private development facing the riverfront should be open space to avoid a solid wall of buildings and to create open space and varied facades.

III. B-5. Structure Setbacks

Minimum structure setbacks should be 40 feet from the bluffline and 50 feet from the ordinary high water mark.

III. B-6. Building Height

In general, structures within the Critical Area should be shorter when located closer to the river. Taller structures are possible within the Critical Area as distance from the river increases or measures are taken to provide some level of screening, buffering and/or enhancement of views of and from the river. This plan recognizes that many existing structures in the Critical Area exceed the height limit contained in the zoning code, and that these structures are either allowed due to the provisions of the 1999 zoning code for legally

nonconforming uses, or were specifically approved through a prior conditional use permit or variance. In addition, exceptions to the established height limit may be allowed in the case of development proposals deemed to warrant exception by the Planning Commission in order to meet the development goals of the City contained in the Comprehensive Plan and other adopted small area plans. Such exceptions may be granted in keeping with Executive Order 79-19, Section C.2.c., which states under the heading of "Clustering" that:

> *The clustering of structures and the use of designs which will reduce public facility costs and improve scenic quality shall be encouraged. The location of clustered high-rise structures may be proposed where public services are available and adequate and compatible with adjacent land uses.*

III. B-7. Screening Intrusive Existing Development

When opportunities arise, the City will encourage or require property owners to screen visually intrusive structures or activities. Opportunities may include applications to the City for site plan review or some form of public assistance. Screening may involve planting trees and shrubs or erecting fences. It is acknowledged that not all visually intrusive developments may be able to be screened from view from the river or from other points of view.

III. B-8. Parking and Storage

New and existing riverbank parking, loading, service, and outdoor storage areas should be visually screened from the public thoroughfare, public open space, and residential areas. Landscaped buffer zones and screening of those areas should be required of new and existing industry that is adjacent to a residential area or park. Any new parking developed in the riverfront area (first 300 feet back from the river) should be internal to the development, not along the river.

III. B-9. Vegetative Cutting

Removal of natural vegetation in the Critical Area Corridor is prohibited, as all development shall be located to preserve the natural features of the site and to preserve significant trees or plant communities (including remnant stands of native trees or prairie grasses or plant communities that are rare to the area or of particular value). Also to be preserved are trees with a diameter at breast height of 12 inches or larger.

Clear cutting is prohibited except as necessary for placing public roads, utilities, structures, and parking areas where these uses are permitted consistent with the other policies of this plan. Selective removal of natural vegetation may be allowed, provided that sufficient vegetative cover remains to screen cars, dwellings, and other structures when viewed from the water. Natural vegetation shall be restored to the extent feasible after any construction project is completed to retard surface runoff and soil erosion and to provide screening. Adequate erosion protection measures such as trees and vegetation plantings on slopes shall be used to ensure that soil loss levels do not degrade the protected water body. Cutting of noxious exotic plants should not be prohibited.

III. B-10. High Voltage Transmission Lines

The City, in conjunction with Xcel Energy, will strongly discourage any new corridors for high voltage transmission lines to run parallel to or, especially, across the river. Necessary river crossings should be designed and located to minimize their visual impact. For instance, towers for transmission lines in the Central Riverfront were previously designed as large-scale pieces of art and actually add to the urban visual interest of that area. The City will evaluate and, if feasible, pursue relocation away from the river any high voltage transmission line that exists along the river. All electrical, telephone, and cable television lines in the Critical Area should eventually be located underground when technically feasible. Electrical transmission lines under 220 kilovolts should continue to be regulated by ordinance.

III. B-11. Billboards

The City will continue to enforce the controls on billboards that exist in the zoning ordinance. Specifically prohibited are off-premises advertising signs and billboards that would be visible from the river, with the exception of signs designated by the Heritage Preservation Commission. The Minneapolis Heritage Preservation Commission must approve all signage in historic districts and on individually designated properties. In addition, no advertising sign or billboard shall be located within 300 feet of a parkway or a public park of three acres or more.

III. B-12. Public Improvements

Public facilities within the Critical Area by any agency of government should strive to attain a very high degree of visual design quality and be coordinated within citywide or sub-area themes (i.e. parkway system). The City will seek to fund public facilities within the Critical Area at a level necessary for them to rise above the commonplace and contribute to the special beauty and characteristics of the corridor.

III. B-13. Scenic Overlooks

Site improvements (signs, kiosks, etc.,) should be chosen and located so that they do not interfere with or obstruct key scenic views. Existing scenic overlooks should be marked and maintained by pruning for the health of the vegetation, removal of noxious exotic species, addition of native species that have mature heights which are below the sight line of the overlooks and as a last resort, selective cutting of vegetation to maintain views of the river.

III. C. Natural Resource Policies

The plan intends to strike a balance between protection and utilization of river related resources. The most significant natural resources – the bluffs and native plant communities – within the river corridor in Minneapolis are already under the jurisdiction of the MRPB, University of Minnesota, or the State of Minnesota. Thus, the key element in protection and utilization revolves around appropriate public management. Natural

resources for purposes of this plan are taken to mean those vegetative or geological features that occur along the river. They include the bluffs, plant communities, and associated wildlife habitat as well as the vegetated riverbanks.

These definitions apply to this section:

- Bluffline: A line delineating the top of a slope connecting the points at which the slope becomes less than 18 percent.
- Clear Cutting: The removal of an entire stand of trees and shrubs.
- Floodway: The river channel and the portions of the adjoining floodplain that are reasonably required to carry and discharge the regional flood.
- Floodplain: the areas adjoining a watercourse that has been or hereafter may be covered by a regional flood.
- Ordinary High Water Level: The boundary of water basins, water courses, public waters, and public waters wetlands, and: (1) the ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence of the level upon the landscape. It is commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial; (2) for watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and (3) for reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool. When the ordinary normal high water level is not evident, setbacks shall be measured from the stream bank of the following water bodies that have permanent flow or open water: the main channel, adjoining side channels, backwaters, and sloughs.
- Prairie: An isolated remnant of undisturbed native prairie grasses.
- Riverbank: The initial slope adjacent to the water's edge of the river.
- Riverfront Area: The first 300 feet back from the river's ordinary high water mark or the landward extent of the 100-year floodplain, whichever is greater.
- Selective Cutting: The removal of single scattered trees or shrubs.
- Shoreland: Land located within three hundred (300) feet from a river or the landward extent of a floodplain on such river, whichever is greater.
- Wetlands: A low-lying area that may be covered with shallow water. A wetland may be frequently associated with a high water table. Swamps, bogs, marshes, potholes, wet meadows, and sloughs are wetlands. Wetlands consist of Types 1 to 8 as defined in USDA Fish and Wildlife Service Circular 39.

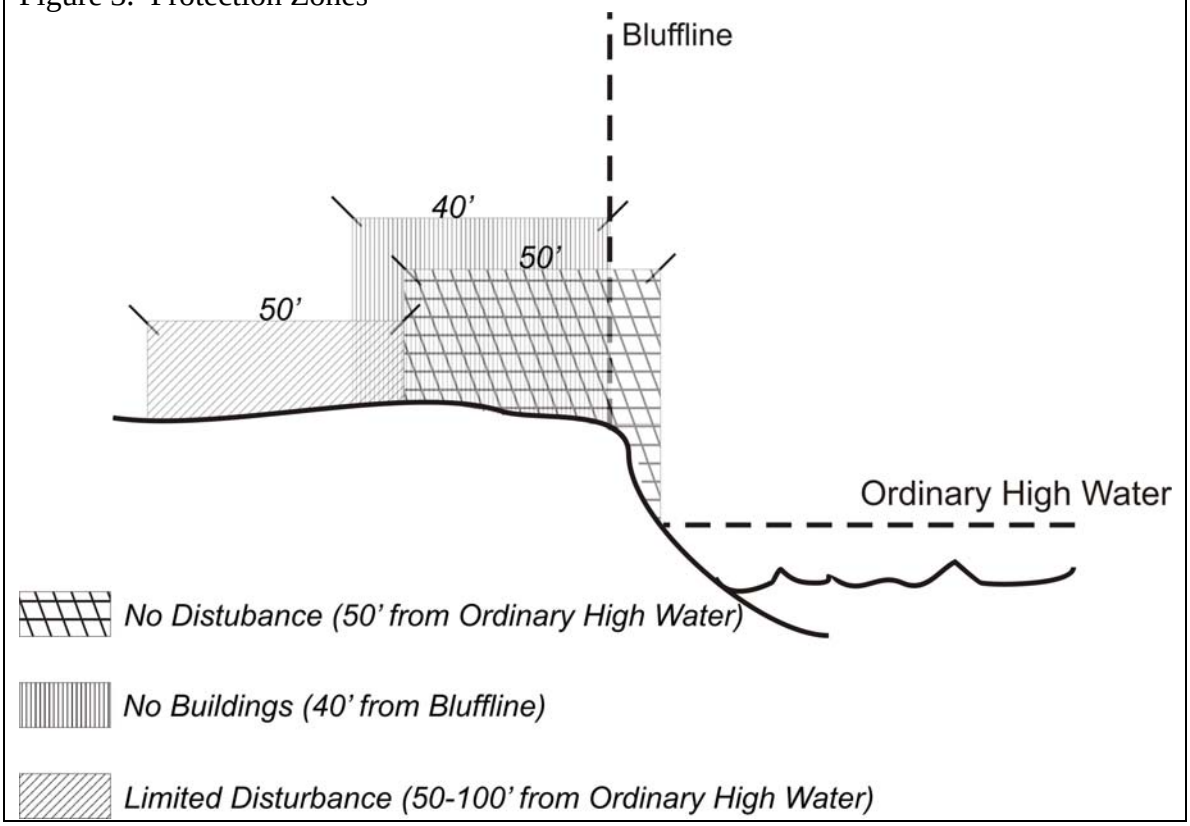
III. C-1. Shoreline Protection

The City will protect vegetated shorelands, riverbanks, stream banks, vegetated islands, slopes of 12 percent or more, and bluffs from erosion, disruption of vegetation, and/or impairment of their hydrologic function. To help provide a natural appearance from the river and its opposite shore, the City will restrict (as feasible) future development to preserve a 50-foot wide zone along the shoreline in an undisturbed condition and restore natural vegetation where practical. This requirement will not preclude the construction of river-dependent facilities such as docks, marinas, observation areas, trails, or the maintenance or reconstruction or other publicly-owned recreational facilities, provided they do not cause a

hazard to river navigation. Potential adverse effects of such structures will be considered during the required site plan review and should be minimized above the ordinary high water level. Public access for stairs or boat ramps down any riverbank slope of 12 percent or more to the water's edge shall be allowed after review by the City of Minneapolis which finds the access to be consistent with the policies in this section relating to vegetation and erosion control. Potential adverse effects of such structures will be considered during the required site plan review and should be minimized above the ordinary high water level.

Within 50 to 100 feet from the ordinary high water mark, the City will try to limit disturbance to minor grading and selective tree removal, although trails are allowed in part or all this zone when they are at least 40 feet back from the bluff line. New developments should appear as natural as possible through the use of setbacks, landscape treatments, and vegetative screening. Shoreline restoration will be encouraged in existing commercial and industrial areas.

Figure 3. Protection Zones



III. C-2. Slopes of 12 to 18 Percent

Development may be permitted on slopes of 12 to18 percent, subject to the following conditions:

- The foundation and underlying material of any structure shall be adequate for the slope condition and soil type.
- The proposed development shall present no danger of falling rock, mud, uprooted trees, or other materials.
- The proposed development shall include adequate provision for stormwater runoff and temporary and permanent erosion and sedimentation control.
- The proposed development shall include adequate buffering, landscaping, and vegetation in its proposed site plan.
- The view of the developed slope from the river and opposite riverbank shall be consistent with the objectives of the Critical Area Act (79-19) and MNRRA.
- Public recreation facilities that enhance public access to the river may be allowed subject to the conditions listed above.

- The degree of slope on any proposed development site in the Critical Area will be determined through a topographic survey prepared by the applicant and submitted to the City for the site plan review process.

III. C-3. Slopes Greater than 18 Percent or Bluffs

Slopes steeper than 18 percent or bluffs should be protected in their natural state. Minneapolis Zoning Ordinance Section 551.470 prohibits development of riverbank or bluff, defined as a slope of 18 percent or greater. Land disturbance along the bluff face should be prohibited. In addition:

- The zone 40 feet back from the bluff line should be preserved in a natural state or restored with natural vegetation in order to screen development.
- All development, including roadways, parking or open storage of any materials should be set back at least 40 feet from the bluff line. Bicycle and pedestrian paths should follow this setback unless there is not enough space.
- Renovation or maintenance of existing parkways or trails or short connections of existing parkways are exempt from this policy. Public recreation facilities that enhance public access to the river may be allowed subject to the conditions listed above.
- Existing roads running down the bluff to the river (all of which are public) may be maintained in their present width but shall not be enlarged.
- Construction of new parkway segments which connect existing parkways may be permitted by Conditional Use Permit within 40 feet of the top of the bluff line.
- Public recreation facilities that enhance public access to the river (defined as stairs, lifts, landings, boat ramps, trails, and parkways permitted by applicable state and federal statutes) may be allowed by Conditional Use Permit, subject to the conditions listed above.
- The natural bluffs in the Urban Open Space District should not be developed except, by Conditional Use Permit for stairways and publicly owned access drives or ramps providing boating, emergency vehicle, or handicapped access to the river.
- The degree of slope on any proposed development site in the Critical Area will be determined through a topographic survey prepared by the applicant and submitted to the City for the Site Plan Review process.

III. C-4. Vegetation

In addition to the policies that apply individually to steep slopes, riverbanks, and bluffs, the following policies apply to all areas.

- Significant or unique vegetation such as native plant communities or remnant plant communities should be identified and preserved for educational, historic, and scenic values.

- Where appropriate, trees and other native vegetation appropriate to the ecology of the site should be used to improve the appearance of the river corridor.
- Where appropriate, vegetation may be selectively pruned to increase visual contact with the river and to open up key scenic views except that such pruning shall not significantly alter the character or massing of the vegetation.
- Clear-cutting, i.e., the removal of an entire stand of trees and shrubs, should be prohibited except as necessary for plant community restoration or the removal of invasive exotic species.
- Where there is no feasible or prudent alternative to cutting trees on a site, tree density and ground cover should be restored to native vegetation appropriate to the ecology of the site. In no case should the applicant be required to raise the density above 20 trees per acre.
- Development should be located in such a manner as to minimize the removal and alteration of the vegetation and natural topography.

III. C-5. Erosion

The City will work to control erosion through use of its regulatory tools including in the zoning ordinance and site plan review standards, as well as other ordinances and regulations. Compliance with all City ordinances and regulations are required for any improvements made by the MRPB.

- The MRPB should monitor whether erosion is endangering Mississippi River sand beaches planned for future recreational use. If erosion is occurring the MPRB, in cooperation with the U.S. Army Corps of Engineers should undertake erosion control measures.
- Development should be suited to the site and to the soil conditions.
- Erosion protection measures should make maximum use of natural in-place vegetation and additional planting of new native vegetation rather than the use of artificial devices on site as erosion control measures.
- Development should not cause erosion, increase the net surface runoff rate, or decrease the net rate of storm water absorption on the site, and development shall minimize runoff.
- The rate of runoff from parking lots, roads, bridges and trails near the bluffline will be minimized and controlled to prevent erosion. Techniques may include detaining water in a parking lot or creating a detention pond.
- Adequate erosion control measures should be maintained before, during, and after construction to ensure that gross soil loss levels do not degrade adjacent water bodies or water courses.
- The quality of surface water runoff and water infiltrated to the water table or aquifer should be improved and higher after development than it was before development of the site.
- Where feasible, trees and vegetation should be used to stabilize slopes susceptible to erosion problems.

- Artificial devices such as retaining walls should be allowed as a last resort after consideration of all other best management practices such as native vegetative or bioengineering solutions for the sake of minimizing slope and erosion problems.

III. C-6. Flooding

The City will continue to implement its floodplain ordinance to guide development and redevelopment in areas prone to flooding by the river or creeks. The exact boundaries of any floodway or flood fringe will be determined by consulting the Federal Emergency Management Agency Flood Boundary and Floodway Map and comparing it to a topographic survey prepared by the applicant and submitted to the City for the site plan review process.

III. C-7. Soil and Water Contamination

The City will continue to license underground oil and chemical tanks and continue its efforts to remediate contaminated sites throughout the City. In addition, the City will continue to require the reporting of oil and chemical spills and to clean up spills and assist with the disposal of waste which might pollute ground and surface waters. Existing control and review mechanisms to prevent contamination of public waters and erosion by surface runoff will continue.

III. C-8. Dredge Material

Many of the sandy beaches along the river were created by sidecasting dredged materials as part of navigation channel maintenance by the U.S. Army Corps of Engineers, prior to development of modern regulations and modern dredged material disposal technology. Agencies that manage dredged material placement work cooperatively to select environmentally beneficial dredged material placement sites. There are two such sites in Minneapolis: the Minneapolis Upper Harbor Terminal and the left descending bank between the Tenth Avenue and I-35W bridges. Dredged material placed in these sites is removed for use elsewhere. Dredged material may be placed on the beaches along the river only in an emergency dredging situation or in response to development by the Corps of Engineers of a recreation beach management plan that is approved by its partner agencies. If the US Army Corps of Engineers decides eventually to stop operating the locks in Minneapolis for commercial shipping, the dredging of the nine-foot deep channel would presumably also be halted, eliminating dredge material deposits as an issue. Until then, Minneapolis will continue to provide a place to deposit dredge material

III. C-9. Intergovernmental Water Quality Efforts

The City of Minneapolis will continue to work with the Minnesota Pollution Control Agency to achieve federal and state water quality standards. The City will continue to enforce along the river corridor as well as the balance of the community its adopted standards for the National Urban Runoff Program and the National Pollutant Discharge Elimination System Program.

III. C-10. Surface Water Runoff

The City adopted a Stormwater Management Ordinance effective January 1, 2000. The ordinance requires new development to minimize or reduce the rate of stormwater runoff from a site. In addition, as of March 2005, all properties within the city limits, with limited exceptions, are charged a monthly stormwater utility fee. This fee already existed, but it was included as part of a combined sewer/stormwater fee. These are separate services with unrelated expenses and therefore the two services now have separate line items and fee structures. The new stormwater management fee includes opportunities for property owners to reduce their stormwater bill by taking environmentally friendly steps on their properties. Stormwater utility fee reductions (credits) are available to those who are using stormwater management tools/practices on their properties or who install such tools. Installing rain gardens or using materials such as impervious pavers allows stormwater to soak into the ground rather than run into storm sewers.

III. C-11. Wetlands

Wetlands will be protected by allowing no development, grading, alteration of the natural character of the land, or construction of structures, roadways or other impervious surfaces within 50 feet of any vegetated wetland and the wetland itself.

III. D. Cultural Resource Policies

The primary concentration of historic and archaeologic resources within the Mississippi River corridor in Minneapolis are within the St. Anthony Falls Historic District. The state legislature designated this district in 1971 giving responsibility for its control to the City. State enabling legislation at the time allowed the creation of the Minneapolis Heritage Preservation Commission; a City ordinance was passed in 1972 for the creation of the Minneapolis Heritage Preservation Commission (HPC). The primary duties of the Commission are: to identify, catalogue, and recommend buildings, lands, areas, or districts for heritage preservation designation to the City Council; and to review permit requests for alteration to designated properties.

The City will continue to coordinate with the St. Anthony Falls Heritage Board on interpretation of the history of the St. Anthony Falls Heritage Zone. The City will continue to use public open space to protect archaeologic or historic resources when that approach is considered most appropriate, such as at Mill Ruins Park, the Ard Godfrey House, or the Longfellow House.

III. E. Economic Resources Policies

The City regards the Mississippi River corridor as one of its major economic development areas, however the businesses that constitute the corridor's economy have changed dramatically from those that set the pattern of land use and public infrastructure

in the 19th and early 20th centuries. Rather than concentrating on heavy manufacturing and the outdoor storage of goods and materials with dependence on the river for transportation, the future economy of the corridor is expected to be based on residences, offices, commercial, light manufacturing, recreation, and historic preservation and interpretation, and tourism. These present and future land uses will be more harmonious with the objectives of the Critical Area than were the old.

III. E-1. River Corridor Economic Development

The City will continue to leverage the intrinsic natural beauty of the Mississippi River as an economic development tool. It should:

- Plan the use of land along the shoreline to include those activities that are river enhancing.
- Work to achieve improved park and trail connections.
- Improve the visual and functional links between the river and the downtown, and between the river and the neighborhoods.
- Continue to improve roads, parks, and other public facilities to maximize economic development in the Critical Area in a manner consistent with the policies of this plan.

III. E-2. Parks and Historic Interpretation

Minneapolis has long recognized that parks, trails, and historic interpretation are important tools for neighborhood revitalization, business development, tourism, and tax base enhancement. The City will continue to weigh the economic and fiscal benefits of parks when resolving conflicts between parks and other land uses.

III. E-3. Upper Harbor Terminal

The City should continue to examine the feasibility of retaining the Upper Harbor Terminal. Based on findings from two recent studies, changing economic conditions over time are projected that show the cost of this facility to the City far outweighing possible benefit.

III. F. St. Anthony Falls Policies

Every effort should be made to maintain St. Anthony Falls for aesthetic reasons, recreation, hydropower, and historical appreciation after minimum flow requirements for public water supplies are met.

- Future alterations should be allowed which enhance aesthetic and recreational potential while being respectful of historic import.
- Prior to approval, proposals which would affect water flow should be reviewed and approved as applicable by the Metropolitan Council, Minneapolis City Council, MRPB, the Department of Natural Resources Public Waters and Appropriations Permits Program, and the U.S. Army Corps of Engineers.

III. G. Park, Parkway, and River Access Policies

The potential of the Mississippi River in Minneapolis as a recreational resource was recognized early with the acquisition of Riverside Park in 1885, East River Road to Franklin Avenue in 1893, Minnehaha Park in 1887, and 455 acres for the Lower Gorge in 1905. Public land acquisition has continued, and parkways and linear parks have been built from Minnehaha Park all the way to Plymouth Avenue. Other river corridor parks include North Mississippi Regional, Marshall Terrace, Edgewater, Gluek, and Boom Island parks. River corridor public open space should be used to increase enjoyment of the river for all residents and to provide an amenity which attracts new housing and compatible business development.

III. G-1. Recreation Variety

Public use and enjoyment of the Mississippi River should be increased by developing a variety of recreational facilities that enhance the environment.

- In the Lower Gorge, the natural character of the wooded bluffs and shoreline will be preserved and enhanced while the public recreational experience is improved.
- The Central Mississippi Riverfront Regional Park should continue to improve its open space appropriate to an urban setting, establishing a continuous regional trail corridor along both sides of the river, with consideration of the potential to add a kayak/canoe course in an added channel near Lower St. Anthony Falls.
- Nicollet Island should be maintained in a manner which will promote public use and enjoyment for all segments of the population, but with primary emphasis on family-oriented facilities and program opportunities.

III. G-2. River-Oriented Recreation

Recreational activities on and along the Mississippi River should capitalize on the recreational opportunities that are river-oriented and compatible with the surrounding environment. Current recreation includes biking, walking, pleasure driving, canoeing, boating, sight-seeing, historic interpretation, eating and drinking, picnicking and bird-watching.

- Active sports, especially those requiring highly delineated spaces and hard surfaces in which participants are not aware of the surrounding environment, should not be encouraged along the river's edge.
- Because of conflicts with boat traffic, river currents, and the fact that more appropriate water facilities are available, swimming, sailing, and ice skating should be actively discouraged.
- Fishing should be encouraged along the river in designated areas which do not conflict with other recreation or transportation uses and when state water quality standards permit.
- Sculling, rowing, kayaking, and canoeing are encouraged everywhere in the River except (for reasons of public safety) between Hennepin Avenue and I-35W.

III. G-3. Continuous Parkway

A continuous parkway corridor parallel to and along both sides of the Mississippi River should be established to provide recreational opportunities for motorists, pedestrians, and bicyclists. The parkway includes an automobile road, a pedestrian path, a bicycle path and the railroad pedestrian bridge south of the 10th Avenue bridge.

- Although the parkway may vary in distance from the riverbank in some areas, it should provide the user with visual contact of the river and river-related activities whenever feasible.
- Where existing commercial and industrial development along the river preclude adequate space for pedestrians, bicycle, and motor routes, the different trail components can be separated and City streets may be used. If possible, the pedestrian and bicycle routes should remain at the river's edge. If public ownership of the route is not feasible, easements should be investigated.
- In the Lower Gorge, pedestrian and bicycle trails should generally follow the East and West River Parkways with looped pedestrian trails at East River Flats, East and West Sand Flats, and Riverside Park to connect the upper bluffs with the lower shoreline.
- In the Central Riverfront, pedestrian, bicycle, and auto routes along both sides of the river should be developed.

III. G-4. Regional Trails

Regional trails in the City will serve recreation by providing access to major parks, linking those parks, and offering multipurpose trail activities such as pleasure driving, bicycling, hiking, and cross country skiing. The bicycle paths along the Mississippi River should be linked to the regional system at the northern and southern ends, and via the Bassett's Creek Trail, St. Anthony Parkway, the Franklin and 46th Street bridges, the Midtown Greenway, Minnehaha Parkway, and other lateral connections.

- Trail routing should take advantage of natural features such as rivers, streams, and creeks or man-made features such as utility easements or railroad rights-of-way.
- Pedestrian, bicycle, and motor routes should be separated wherever feasible with the pedestrian path located nearest to the river, then the bicycle path, then the road.

III. G-5. Access Routes to the River

"Points of particular interest" or "nodes" should be developed along the river at points where adjacent neighborhoods have lateral entry to the river, to provide focal points or interesting directions along the way, and to provide parklands for recreation purposes.

- Wherever feasible, lateral access routes or greenway windows to the river should be developed in the Central and Upper River to provide adjacent neighborhoods with physical and visual access. Greenway windows should utilize existing public rights-of-way to link

neighborhood parks or special features to proposed recreational nodes along the river.

- In the Upper River, a parkway should be extended along the west side from Plymouth Avenue to Webber Parkway near the Camden Bridge. This parkway may weave away from the riverfront at Mississippi Promenade (between Lowry Avenue and the Burlington Northern Railroad bridge near 26th Avenue).
- On the east side, Marshall Street may be improved as a landscaped boulevard with greatly improved sidewalks and bicycle lanes. Since Marshall Street would not be an element of the parkway system, it would continue to carry truck traffic.
- There should be continuous bicyclist and pedestrian paths along both sides of the Upper River across parkland or, in limited instances, public easements.
- Parkway access also should be added on the east bank to connect existing Main Street to East River Parkway at the University of Minnesota.
- Several lateral access routes to the riverfront have been proposed in plans for the Downtown and the Upper River. These streets should be accented with special landscaping, lighting, signage, and street furniture as a means of linking neighborhoods to the river visually and psychologically.
- The eight-acre Bluff Street Park, with its pedestrian and bicycle paths, brings together the West River Road, University of Minnesota east and west bank and provides an overlook of the river and wildlife including eagle and falcon sightings.

III. G-6. Boat Access Points

The City and the MPRB will continue to evaluate opportunities to create boat launches, docks, and marinas on the Mississippi River. This is especially important in the Central Riverfront where new housing is being constructed. Other sites which should be examined include: the University Dam Flats, East River Flats, and the East and West Sand Flats. Some of the factors which should be studied include:

- The feasibility of boating facilities in the Central Riverfront.
- The type, size, and location of boat launches.
- Existing and potential conflicts between recreational and commercial boating and between motorized and non-motorized recreation boating.
- Use of the locks and dams by recreational boats.
- The opinion and regulations of the Minnesota Department of Natural Resources.

III. G-7. Surface Water Use

The City of Minneapolis will cooperate and work with Saint Paul, other affected municipalities, Hennepin County, Ramsey County, the Minnesota Department

of Natural Resources, and the U.S. Government in developing regulations for watercraft surface uses on the Mississippi River.

III. G-8. Natural Feature Protection

The MRPB will continue to improve natural habitat and native vegetation along the shoreline, reduce soil erosion, and create surface water cleansing ponds in its lands. The MPRB should also:

- Continue to incorporate preservation and reforestation of native plant communities into its horticulture and forestry programs. Native plant communities should continue to receive high priority within these programs where natural succession is endangered by invasion of undesirable plants.
- Identify and program projects aimed at improving the wildlife habitat. The overall objective should be to establish and retain uninterrupted vegetated corridors and to provide nesting habitat where appropriate.
- Protect, manage and maintain City-owned vegetated lands in the Critical Area, including publicly-owned embankments (other than industrial locations).

III. G-9. Park and Trail Land Acquisition

As funding becomes available, the MPRB will acquire land for new river corridor parks or trails through purchase or dedication based on a comprehensive park system plan. Easements for public movement along the river's edge or from neighborhoods to the riverfront will be negotiated on a case-by-case basis. Public ownership of river corridor park land is preferred over an easement. When property is subdivided, the City may require the subdivider to dedicate to the City either land (if the location is at a planned park) or cash in lieu of land, as provided by adopted ordinances.

III. H. Public Facilities and Land Policies

III. H-1. Drinking Water Source

The City will continue to use the Mississippi River as the primary drinking water supply source.

III. H-2. Upstream Treatment

The City will protect the quality of the raw water supply by supporting local and state efforts to improve the water quality of any point and non-point discharges.

III. H-3. Water Conservation and Supply Plans

The City will continue to implement its plan for water conservation and alternative supply sources so as to reduce the need for treatment plant expansion and to guard against low river water flows during droughts.

III. H-4. Sewer Separation

The City will finish separating the sanitary sewers and the surface water drainage sewers.

III. H-5. Infiltration and Inflow

The City will maintain its sanitary sewers in such a condition so as to minimize infiltration of groundwater.

III. H-6. Water Quality Management

The City will take measures to protect the quality of water flowing into the Mississippi River. At a minimum, the City's Stormwater Management and Erosion Control Ordinance will be used to regulate site development and watershed management. That ordinance requires, among other things, sediment control and regional detention ponds. In addition, the City will:

- Continue to work with the Middle Mississippi Watershed Management Organization to study the need for additional or different regulations.
- Use state-of-the-art surface water management practices in the Critical Area.
- Design storm drains and impoundment areas to handle 2.1 inches per hour for one-hour storm duration (approximate 10-year storm) whenever practical.

III. H-7. Flood Control

The City will implement floodplain controls so that new construction does not occur in areas of the City subject to periodic, localized flooding.

III. I. Transportation Policies

The City's transportation network – auto, truck, trains, barge, buses, motorcycles, bicycle, and pedestrians and the roadway, rail, and the river channel – is extensive. Light rail transit (LRT) is a recent and significant addition to this overall system. Another LRT line is planned to link Minneapolis and St. Paul, necessitating crossing the river, probably on an existing structure. New or modified transportation facilities shall complement the planned land and water uses and shall not stimulate development incompatible with river uses. In planning and designing construction or reconstruction of public transportation facilities in the corridor, consideration shall be given to provision of scenic overlooks for motorists, safe pedestrian crossings and facilities along the corridor, access to the riverfront in public ownership, and reasonable use of land between the river and transportation facility.

III. I-1. Streets and Roads

The City and the MPRB will minimize creating roads, including parkways, that would be visible from the river surface or that would interfere with enjoyment of the river. Any road improvements will observe the policies of this plan for protection of vegetation, water quality, wildlife habitat, views to and from the river, public access to the riverfront, erosion control, and public open space. The

north-south orientation of streets should be maintained, matching the existing grid dimensions on the west bank and providing access to the river.

III. I-2. Bridges

Bridges are the most highly visible structures along the river. Fortunately no new river bridges are expected in Minneapolis, and any additional river bridges should be discouraged. Any changes to existing river bridges or streets near the river should be designed to enhance the scenic and historic qualities of the river corridor. The City will support replacement bridge designs that add to the aesthetic environment of the river, as the illustrated by the recently constructed Hennepin Avenue bridge.

III. I-3.Bicycle and Pedestrian Facilities

The City will continue to improve bicyclist and pedestrian movement to and along the river.

III. I-4. Railroad Lines

The City will encourage duplicative or unneeded lines to be consolidated whenever possible. When tracks are abandoned, the MRPB will acquire (to the extent funding is available) for public trails or other public open space needs those it has targeted for possible acquisition through a system plan, particularly river bridges. The City will continue to monitor track abandonment and work with the Minnesota Department of Transportation to acquire targeted corridors.

III. I-5. Railroad and Truck Terminal Locations

The City will continue to encourage the relocation of major freight shipping facilities to peripheral or arterial interchanges and highway-rail junctions to reduce conflict with other activities in the river corridor.

III. J. Electrical Transmission Lines

It is recognized that power plants and electric lines provide a necessary service; while existing plants should be allowed to continue to operate, significant expansion should be discouraged. As indicated previously in this document, the City will discourage additional high voltage transmission lines along the river or the establishment of any new corridors for overhead power lines to cross the river. The City will also pursue relocating existing high voltage transmission lines away from the river. If new or modified utility facilities must be constructed, they shall complement the planned land and water uses and shall not stimulate incompatible development.

Electrical lines under 220 kilovolts will continue to be regulated under existing ordinances. Those regulations identify a number of considerations that must be taken into account in locating electrical lines including the potential for erosion and decreased water quality, visual impact (including the potential for locating them underground),

ability to consolidate crossings, and limiting the chemical control of vegetation in the utility right-of-way.

Section IV. Plan Implementation

IV. A. Public Education and Information

The City and the MPRB should continue to cooperate with and assist private education and advocacy groups. The City and the MPRB should focus public attention on the river and encourage the public to develop solutions to conflicting legitimate uses.

Public input for this plan was provided by various groups and individuals. A Critical Area Plan Advisory Committee was established, with meetings held over a period of several months (see attachments). Adoption of this plan will also require a public hearing before the Planning Commission as a step toward amending it into the official comprehensive plan.

IV. B. River Corridor and Neighborhood Planning

The Mississippi River corridor should continue to be an important element of the plans of all adjacent neighborhoods, and the City will continue to emphasize in its planning the importance of the river corridor as a recreational, environmental, economic, and historic resource. The MPRB will continue to explore ways to extend public space and access along the river.

IV. C. Government and Agency Coordination

The City will coordinate its plans, ordinances, and public improvements with those of adjacent cities, the University of Minnesota, and outside units of government whenever applicable and to the extent possible. The City and the MPRB will continue to work closely with the Metropolitan Council, the Minnesota DNR, and the National Park Service on river corridor plans and implementation activities. In accordance with procedures set in Minnesota Statutes, Minnesota rules, and Executive Order 79-19, plans and ordinances that address lands within the Critical Area must be reviewed by the Metropolitan Council prior to DNR approval.

IV. D. Notification of the Department of Natural Resources

As soon as the City has determined that a proposed development in the Critical Area will require a public hearing, and at least 30 days prior to that public hearing, the City will notify the Minnesota DNR, unless the DNR informs the City in writing that the DNR need not be notified of certain types of applications. Discretionary actions in Minneapolis include items such as rezonings, conditional use permits, site plan reviews, variances, land subdivisions, and planned unit developments. Early notification of DNR is necessary to ensure proper review prior to the City's required 21-day notice of public hearings; early contact between City of Minneapolis and DNR staff is encouraged to continue.

IV. E. Regulations Protecting the Critical Area

Due to differing boundary definitions, there are areas within the Mississippi River Critical Area that are not located within the City's Shoreland Overlay District. These interstitial areas are governed by existing zoning and the Mississippi River Critical Overlay District which govern development on slopes and building height, scale and massing as appropriate. The City of Minneapolis has many existing ordinances and regulations that serve to protect the resources of the Mississippi River Critical Area. The City will continue to review and amend its ordinances as necessary to implement the policies outlined in this Critical Area Plan. (See Appendix A for a list of existing ordinances and regulations governing issues within the Minneapolis- Mississippi River Critical Area.)

Minneapolis Critical Area Plan

Appendix
Existing Ordinances/Regulations

MINNEAPOLIS PLANS & IMPLEMENTATION TOOLS FOR THE CRITICAL AREA PLAN
Plans
1. The Minneapolis Plan (city's comprehensive plan)
2. City-Approved Small Area Plans relating to river (e.g., Above the Falls Master Plan, Marcy-Holmes Neighborhood Master Plan, Update to the Historic Mills District Plan, Elliott Park Neighborhood Master Plan, etc.)
3. Park Board Master Plans (e.g., Upper River, Lower Gorge)
4. City-Approved Redevelopment Plans
Implementation Tools
5. Zoning Ordinance
a. General residential, commercial and industrial district standards
b. Shoreland Ordinance
c. Floodplain Ordinance
d. Critical Area Overlay
e. Protection of Natural Features Ordinance
f. Non-Conforming Use Ordinance
g. Site Plan Review Procedures
h. Building Permit Procedures
i. Street and Alley Vacation Procedures
6. Land Subdivision Regulations
7. Heritage Preservation Ordinance
8. Location & Design Review (Capital Improvement Program)
9. Air Pollution and Environmental Protection Ordinances
a. Erosion and Sediment Control Ordinance

b. Hazardous Waste Ordinance
c. Water Pollution Ordinance
d. Storm Water Ordinance
e. Sewers and Sewage Disposal Ordinance
f. Noise Ordinance
10. Maintenance-related codes
11. Park Board Policies, Procedures, Ordinances
12. Trees and Vegetation Ordinance
1s. State and Federal Environmental Review