



# DRAFT FOR PRELIMINARY REVIEW

February 20, 2019

## MISSISSIPPI RIVER CORRIDOR CRITICAL AREA

# Introduction

The Mississippi River Corridor Critical Area (MRCCA) Chapter guides land use and development along the Mississippi River. Saint Paul contains 17 miles of river and 26 miles of shoreline within its city limits, the longest of any municipality within the Critical Area. While other plans have been adopted as part of the Comprehensive Plan that address the city's relationship to the Mississippi (e.g. the Great River Passage Master Plan), the Critical Area chapter uniquely responds to the requirements of Minnesota Rules, Chapter 6106, which lays out a regulatory framework to protect the MRCCA's resources and manage the balance between natural systems, urban development, recreation, and commerce.

Designated by Governor's Executive Order in the 1970s, the Mississippi River Corridor Critical Area is a land corridor along the Mississippi River in the Twin Cities Metropolitan Area governed by special land planning requirements and land development regulations. These regulations, which are implemented through local MRCCA plans and ordinances, protect and preserve the natural, scenic, recreational, and transportation resources of this section of the Mississippi River. The MRCCA comprises 72 miles of river and 54,000 acres of surrounding land in 30 local jurisdictions. Saint Paul's portion of the Critical Area is shown on Figure 1.

## **The following goals guide the MRCCA chapter:**

1. Recognition, celebration and protection of the defining feature of Saint Paul for the benefit of the health, safety and welfare of the residents of the city, state, region and nation.
2. Protection and enhancement of the unique urban ecology of the river corridor and valley
3. An economically-viable working river
4. High-quality and sustainable development that enhances the natural environment
5. Equitable public access/strong connections to the Mississippi River
6. The river as the backbone of a community-building network that extends beyond the shoreline and into the fabric of the surrounding neighborhoods
7. Balance between all of the ways the river is a resource to Saint Paul - environmental, natural, economic, cultural, social, physical, recreational, historic, spiritual



## Districts

Six districts are defined in the MRCCA rules, based on the natural and built character of different areas of the river corridor. In addition to the state-mandated districts, the City of Saint Paul has identified four reaches to guide future land use and development within its river corridor.

**Policy CA-1.** Guide land use and development activities consistent with the management purpose of each of the MRCCA districts.

## The River Reaches

The *Great River Passage Master Plan* provides the long-term vision for orienting the city toward the river, and connecting parks and natural areas along the river to one another and adjacent neighborhoods. The plan divides the Saint Paul riverfront into four “reaches:”

### Gorge Reach

The Gorge is a deep river valley located west of downtown that is defined by steep limestone cliffs and heavily wooded slopes that come right to the river’s edge. The Gorge Reach extends from the Minneapolis city limits at the upstream end near the historic Meeker Dam, to Fort Road (7th Street West) to the south. With the exception of the Ford Lock and Dam #1, and the occasional bridge crossing high above, river travelers are completely separated from the city that comes right to the top of the bluffs above them. This is a place of great scenic beauty, ecological richness and diversity.

### Valley Reach

The vertical bluffs of the Gorge give way to the steeply wooded slopes of the Valley at the confluence of the Mississippi and Minnesota Rivers. The Valley Reach extends from the Fort Road Bridge to Downtown. The Valley is a broad floodplain of expansive swamp forests, wetlands, ponds, and lakes. Its features were formed by dynamic natural processes and frequent flood events that inundate much of the area. The Valley is a place of constant change, and most areas within this reach are undeveloped, except for widely scattered high points at the valley’s edges.

### Downtown Reach

The more natural landscapes of the Gorge and the Valley give way to dramatic urban forms of Downtown on the bluffs and the structured river edges on the east bank. On the west side, the geometric lines and engineered flood control levees, along with marinas and smaller-scale commercial buildings bisected by bridges, presents a very different urban river edge character.

### Floodplain Reach

The Floodplain Reach is a landscape of contrasts. The vast open spaces of lakes, wetlands, and floodplain forests of the Pig’s Eye area are a counterpoint to the heavily wooded and steeply sloping Highwood bluffs that define the eastern edge of the valley. Heavy industrial uses at both ends of the reach are connected by a high-speed highway and heavily used rail lines, which form a major barrier between the bluffs and floodplain landscapes. The industrial uses and major transportation infrastructure contrast with the less densely developed and heavily wooded neighborhoods to the east.

## MRCCA Districts

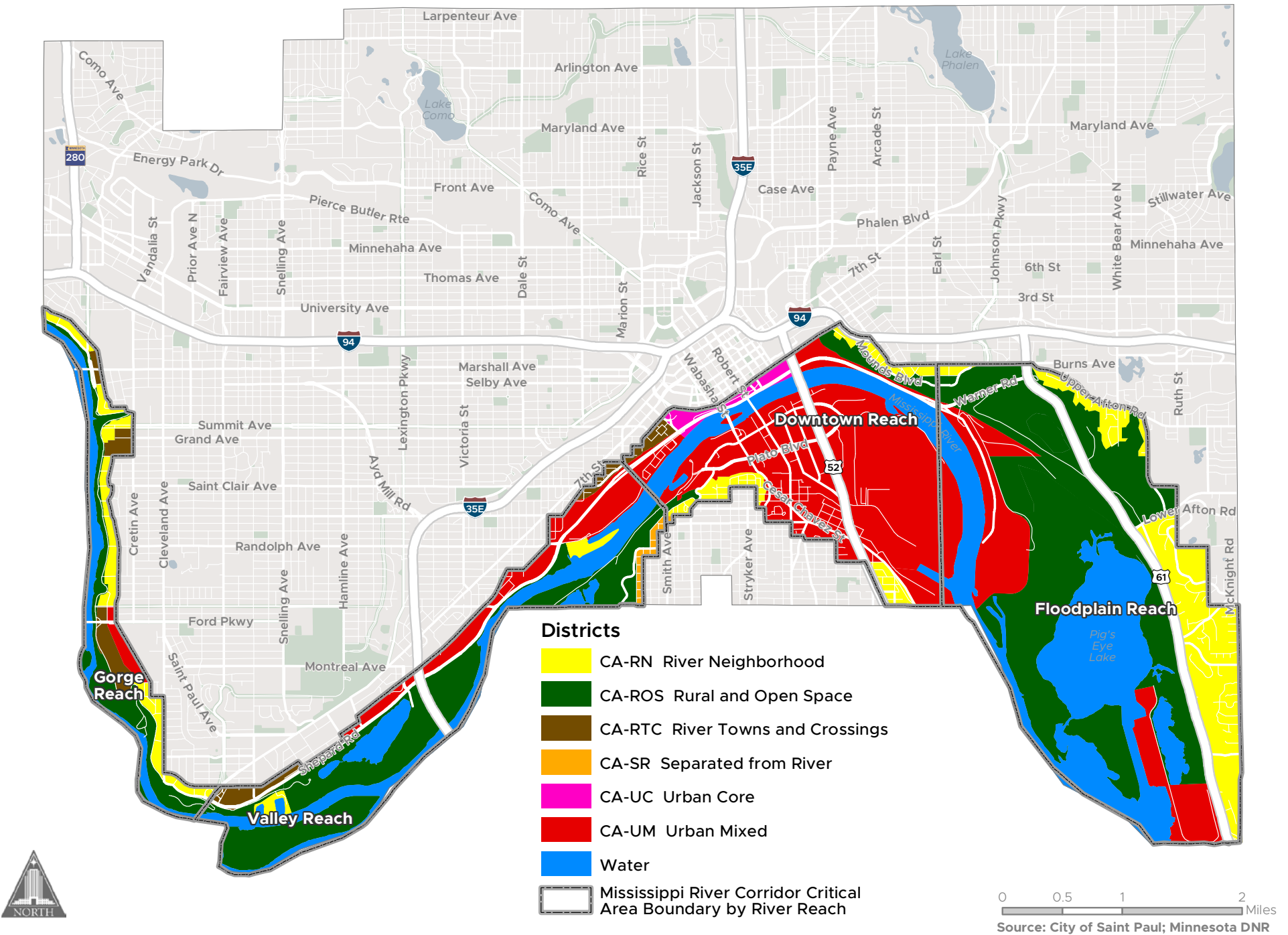
The six MRCCA districts located within the City of Saint Paul are described below and illustrated on the proceeding page:

- **Rural and Open Space District (CA-ROS)**  
The rural and open space district is characterized by rural and low-density development patterns and land uses and includes land that is riparian or visible from the river, as well as large, undeveloped tracts of high ecological and scenic value, floodplain, and undeveloped islands. Many primary conservation areas exist in the district. The district must be managed to sustain and restore the rural and natural character of the corridor and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas.
- **River Neighborhood District (CA-RN)**  
The river neighborhood district is characterized by primarily residential neighborhoods that are riparian or readily visible from the river or that abut riparian parkland. The district includes parks and open space, limited commercial development, marinas, and related land uses. The CA-RN district must be managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas. Minimizing erosion and the flow of untreated storm water into the river and enhancing habitat and shoreline vegetation are priorities in the district.

- **River Towns and Crossings District (CA-RTC)**  
The river towns and crossings district is characterized by historic downtown areas and limited nodes of intense development at specific river crossings, as well as institutional campuses that predate designation of the Mississippi River and that include taller buildings. The CA-RTC district must be managed in a manner that allows continued growth and redevelopment in historic downtowns and more intensive redevelopment in limited areas at river crossings to accommodate compact walkable development patterns and connections to the river. Minimizing erosion and the flow of untreated storm water into the river, providing public access to and public views of the river, and restoring natural vegetation in riparian areas and tree canopy are priorities in the district.
- **Separated from River District (CA-SR)**  
The separated from river district is characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River. The CA-SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated storm water into the Mississippi River are priorities in the district.

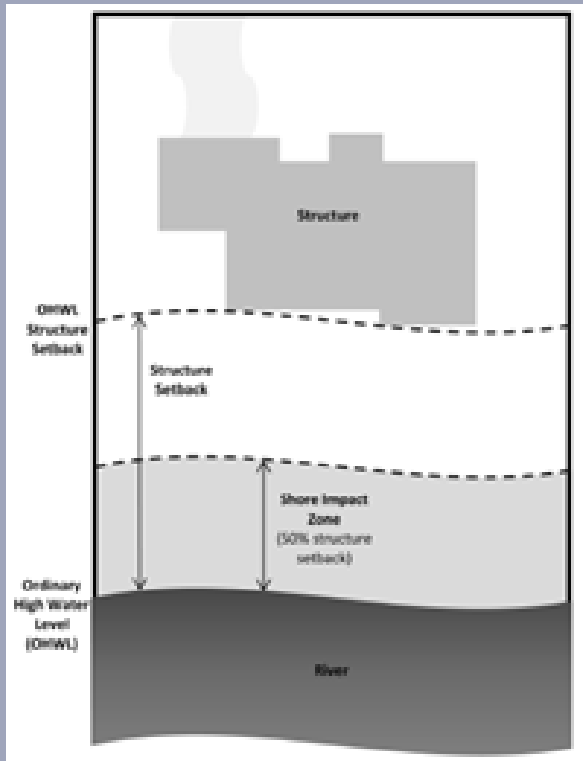
- **Urban Mixed District (CA-UM)**  
The urban mixed district includes large areas of highly urbanized mixed use that are a part of the urban fabric of the river corridor, including institutional, commercial, industrial, and residential areas and parks and open space. The CA-UM district must be managed in a manner that allows for future growth and potential transition of intensely developed areas that does not negatively affect public river corridor views and that protects bluffs and floodplains. Restoring and enhancing bluff and shoreline habitat, minimizing erosion and flow of untreated storm water into the river, and providing public access to and public views of the river are priorities in the district.
- **Urban Core District (CA-U)**  
The urban core district includes the urban cores of Minneapolis and Saint Paul. The CA-UC district must be managed with the greatest flexibility to protect commercial, industrial, and other high-intensity urban uses, while minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated storm water into the river. Providing public access to and public views of the river are priorities in the district.

Figure 1: MRCCA Districts in Saint Paul



## Shore Impact Zones

Shore Impact Zones (SIZs) are lands located between the ordinary highway water level of public waters and a line parallel to it at a setback of 50 percent of the requirement MRCCA district structure. SIZs apply to the Mississippi, all of its backwaters, and its four key tributaries (i.e., the Crow, Rum, Minnesota, and Vermillion Rivers). The locations of the SIZs are provided on Map CA-2.



## Primary Conservation Areas

Primary conservation areas (PCAs) define key natural and cultural resources and features that are addressed by the MRCCA rules. These resources include shore impact zones, wetlands, floodplains, confluences with major tributaries, bluff impact zones, native plant communities, and significant existing vegetative stands. Key features and resources have been defined as PCAs throughout the MRCCA districts to ensure that they are given priority consideration for protection. Map CA-2 through Map CA-8 identify locations of PCAs within the MRCCA boundary.

**Policy CA-2.** Protect Primary Conservation Areas through planning, land use and land alteration regulations, and other tools.

**Policy CA-3.** Minimize impacts to PCAs from public and private development and land use activities.

**Policy CA-4.** Regulate development in the floodplain consistent with the requirements of the Federal Emergency Management Agency (FEMA) and the FEMA Flood Insurance Program (FIP).

**Policy CA-5.** Manage vegetation and conduct vegetation restoration consistent with park master plans and MRCCA requirements.

**Policy CA-6.** Promote the preservation and re-establishment of natural vegetation on privately-owned property.

**Policy CA-7.** Consider alternative design standards related to subdivision and development of land within the MRCCA, such as conservation design or transfer of development rights, in order to protect or restore PCAs.

## Public River Corridor Views

A primary objective of the Critical Area Act is to protect views to and from the Mississippi River. The Public River Corridor Views (PRCVs), defined in Appendix C, are the highly-valued views within the river corridor, including views toward the river from public parkland, historic properties and public overlooks, as well as views towards bluffs from the opposite shore. The wide variety of terrain and topographical features that lie within the MRCCA boundary have blessed the city with some of the best public views in the region. See Appendix C for an overview of Public River Corridor Views and details on each view.

**Policy CA-8.** Regulate building height, placement and design consistent with the intent of the MRCCA rules to protect, enhance and minimize impacts to Public River Corridor Views.

**Policy CA-9.** Protect and minimize impacts to PRCVs from public development activities.

**Policy CA-10.** Consider designated Public River Corridor Views from other communities in developing dimensional standards, view impact evaluation procedures, and mitigation identification procedures.

**Policy CA-11.** Support shorter buildings closer to the river's edge and taller buildings as distance from the river increases in order to maximize views of and from the river, and preserve visual access to the river as a public good (rather than privatized right).

## Restoration Priorities

Restoration of natural vegetation and plant growth within the MRCCA has many benefits, including the stabilization of soils, retention and filtration of runoff, provision of habitat and recharging of groundwater. The City of Saint Paul supports the restoration of natural vegetation throughout the MRCCA and will support efforts of its local government partners to do so. The DNR native plant communities and significant vegetative stands are mapped in Map CA-6.

**Policy CA-12.** Support re-establishment on both publicly- and privately-owned property of native plants and/or natural vegetative communities to provide wildlife habitat, soil stabilization, and runoff filtration.

**Policy CA-13.** Minimize loss of native and existing vegetation due to public or private development.

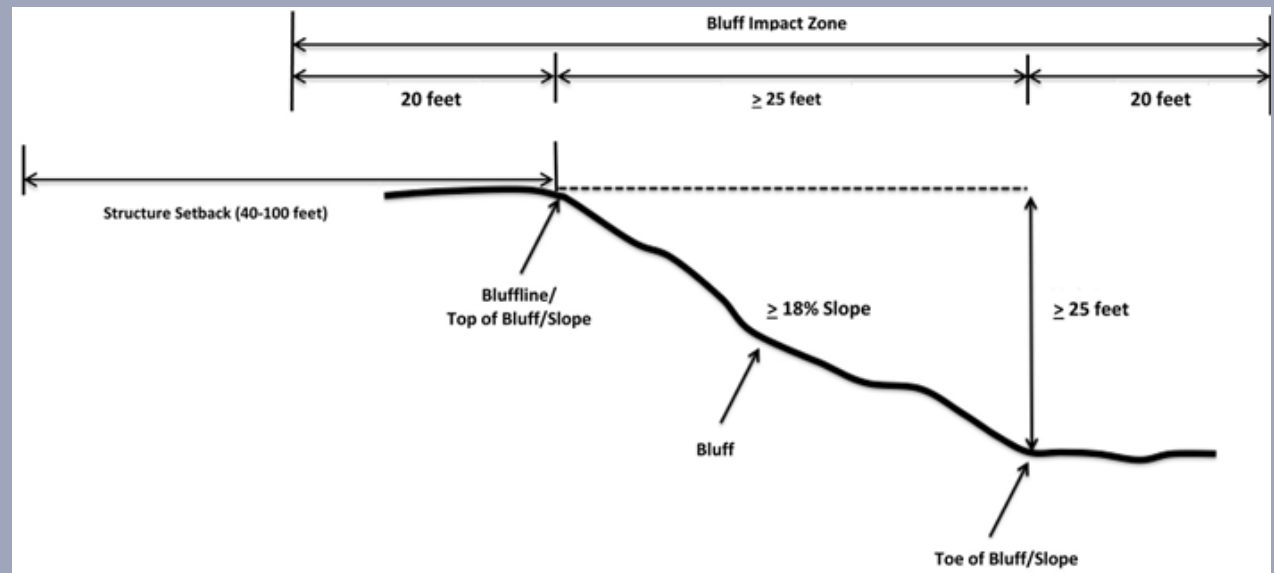
**Policy CA-14.** Sustain and enhance ecological functions (habitat value) during vegetation restoration.

## Bluff Impact Zones

The MRCCA rules define the Bluff Impact Zone as the bluff and land within 20 feet of the bluff (top of bluff and toe of bluff), as shown below. A “bluff” is defined within Minnesota Rule Section 6106.0050 Subp. 8 as a natural topographic feature having:

1. A slope that rises at least 25 feet and the grade of the slope averages 18 percent or greater measure over a horizontal distance of 25 feet, as follows:
  - a. Where the slope begins above the ordinary high water level, from the toe of the slope to the top of the slope; or
  - b. Where the slope begins below the ordinary high water level, from the ordinary high water level to the top of the slope; or

2. A natural escarpment or cliff with a slope that rises at least ten feet above the ordinary high water level or toe of the slope, whichever is applicable, to the top of the slope, with a slope of 75 degrees or greater.





## Native Plant Communities and Significant Existing Vegetative Stands

Native plant communities are defined within the MRCCA rules as a plant community that has been identified as part of the Minnesota Biological Survey (MBS) or biological survey issued or adopted by a local, state or federal agency. The MBS further identifies a Native Plant Community as a group of native plants that interact with each other and the surrounding environment in ways not greatly altered by humans or by introduced plant or animal species. These groups of native plant form recognizable units, such as an oak forest, a prairie, or a marsh, that tend to repeat across the landscape over time. The Minnesota Department of Natural Resources (DNR) describes the importance of native plant communities as:

*Native plant communities provide a range of ecological functions that are increasingly recognized as valuable for the quality of life in Minnesota and even for human health and safety. Among these functions are water filtration, flood moderation, carbon storage, moderation of water-table level, local temperature moderation, erosion control, and development and enrichment of soil. Large tracts of native plant communities provide opportunities for sustainable resource use, such as logging systems that mimic natural cycles in forests and help to perpetuate all the beneficial functions that plant communities provide while also supplying commercial products.*

Significant vegetative stands depict those considered significant by the National Park Service and Minnesota DNR because they are largely intact and connective to native communities. Significant Vegetative Stands are described by the Metropolitan Council as follows:

*This vegetation provides high ecological value in addition to the water quality and scenic values of “natural vegetation.” Ecologically, this vegetation provides species diversity, habitat for endangered and threatened plants (supporting 19 state-listed rare plant species and 15 state-listed rare animal species in the MRCCA), and a continuous corridor where plants and animals can naturally spread and disperse. This latter characteristic is especially important as habitat becomes more fragmented, climate change accelerates, and invasive species increase. In addition, these vegetation areas serve as living remnants of the original native communities that existed in the corridor, even though they do not meet the size and quality criteria to be classified as a Native Plant Community by the MBS.*

Native Plant Communities and Significant Existing Vegetative Stands in Saint Paul are identified in Map CA-6.

## Surface Water Uses

In Saint Paul, surface water uses vary from barge operations between the High Bridge and Wabasha Street Bridge to recreational marinas at Hidden Falls Regional Park and the Minnesota Boat Club. The shipping industry is of crucial importance to Saint Paul, greater Minnesota, and the Upper Midwest. Located 1,800 miles inland from the Gulf of Mexico the Saint Paul Port is a hub in the intermodal freight transportation system, where barge, rail, and truck traffic intersect. Agricultural products and other bulk materials are brought by rail and truck from throughout the Upper Midwest, and transferred to barges that travel to downstream river ports. Surface Water Uses are illustrated in Map CA-7.

**Policy CA-15.** Recognize the Mississippi River as a “working river” that is important to the economies of Saint Paul, the Twin Cities metropolitan area and the Upper Midwest.

**Policy CA-16.** Balance commercial, industrial and recreational surface water uses.



## Water-Oriented Uses

Industry and commerce are an important function of the river. The City recognizes that commercial and industrial uses of river corridor land will continue. Given the continued mix of land uses in the river corridor, careful planning for the use of land along the river's edge is warranted. The City recognizes that the use of land in the floodplain or within 300 feet of the ordinary high water mark has the potential for serious adverse effects on the river if not properly managed. All development must comply with existing regulations governing the floodplain and river corridor. Existing water-oriented uses within the city are identified in Map CA-7.

**Policy CA-17.** Prioritize protection of natural resources, nature-based recreation and public access to the Mississippi River in the Gorge Reach.

**Policy CA-18.** Prioritize protection of natural resources, nature-based recreation and public access to the Mississippi River in the Valley Reach.

**Policy CA-19.** Prioritize urban development, activation of the riverfront, public access and green connections to the Mississippi River in the Downtown Reach.

**Policy CA-20.** Prioritize a balance between urban development and natural resources protection, and public access to the Mississippi River in the Floodplain Reach.

**Policy CA-21.** Limit commercial and industrial land uses along the river to those having an economic or operational need for a river location, provided that they do not:

1. have a significant adverse impact on water or air quality in the river corridor; or
2. substantially impair the visual character of the corridor from adjacent neighborhoods or the river itself.

**Policy CA-22.** Support the replacement, as leases expire, of non-river-related businesses with river-related businesses at Barge Terminal #1, Barge Terminal #2, Red Rock and Southport.

**Policy CA-23.** Minimize the visual and physical impacts of river-related commercial and industrial land uses through native vegetation and landscaping.

**Policy CA-24.** Support the redevelopment of vacant and underutilized industrial sites as mixed-use urban villages that reconnect the city to the river.

**Policy CA-25.** Design new public and private development to embrace the river and turn its face to it, so that the river's edge becomes the city's shared "front yard."



## Historical and cultural sites found within the MRCCA boundary as listed in the National Register of Historic Places.

The City of Saint Paul is rich in history and deeply connected to its past. The Mississippi River plays a large role in this connection to the past. Those who have lived on the lands that now make up the City of Saint Paul have understood the importance of the Mississippi for thousands of years as a source of life and spirituality. The following list of the historical and cultural sites listed in the National Register of Historic Places within the MRCCA boundary

1. Lock and Dam No. 2
2. Edward Sr. and Markell Brooks House
3. Giesen-Hauser House
4. Indian Mounds Park Site
5. Carvers Cave
6. West Summit Avenue Historic District
7. Highland Ford Parkway Bridge (intercity Bridge)
8. Mendota Bridge
9. Saint Paul Municipal Grain Terminal (City House)
10. Harriet Island Pavilion
11. Anthony Yoerg Sr. House
12. Riverview Branch Library
13. Saint Matthew School
14. Colorado St. Bridge (Bridge No. L8803)
15. Holman Field Administration Building
16. Riverside Hanger Complex (Holman Field)
17. Minnesota Boat Club Boathouse (on Raspberry Island)
18. Chapel of Saint Paul Site
19. Robert Street Bridge (Bridge No. 9036)
20. Lowertown Historic District
21. U.S. Post Office and Custom House
22. Irvine Park Historic District

## Open Space & Recreational Facilities

Open spaces and recreational features provide an opportunity for the public to engage with the river. Saint Paul will continue to support the connection between the public and the river through the planning, development and maintenance of open spaces and recreational features. Several regional bike trails connect and carry people through MRCCA; the City of Saint Paul currently owns seven parks within it. Open space and recreational facilities are identified in the Parks, Recreation and Open Space Chapter on Map PR-1.

**Policy CA-26.** Maintain and expand public access to the river's edge.

**Policy CA-27.** Maintain and expand open space and recreational facilities along the river, connect them with one another as part of the Great River Passage, and connect them to adjacent neighborhoods.

**Policy CA-28.** Prioritize the use of park dedication funds for public river access on sites immediately adjacent to the river's edge.

## Transportation & Public Utilities

The Mississippi River corridor has been and continues to be a critical transportation corridor for movement of goods and people. For the purposes of this chapter, public transportation facilities include transportation facilities provided by federal, state, county or local government and dedicated to public use, such as roadways, transit facilities, railroads and bike/pedestrian trails. Public utilities include electric power facilities, essential services and transmission facilities.

Maps T-10, T-16, and T-18 in the Transportation Chapter show existing, planned and potential transitways and streets within the MRCCA. Policies regarding public utilities within the MRCCA boundaries are similar to those city-wide.

**Policy CA-29.** Ensure multi-modal access to the river and connections to the broader transportation system.

**Policy CA-30.** Minimize impacts to PCAs and PCRVs from solar and wind generation facilities, public transportation facilities and public utilities.

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