



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. (Note: The Water Resources Management Chapter contains policies and implementation actions for surface water, groundwater, water supply and distribution, stormwater and wastewater.)

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.

In 1988, the U.S. Congress established the Mississippi National River and Recreation Area (MNRRA), a unit of the National Park System, that shares the same boundary as the MRCCA. The Park's Comprehensive Management Plan (CMP), signed by the Governor and Secretary of the Interior, incorporates by reference the MRCCA program for land use management. Rather than institute a separate layer of Federal regulations, the MNRRA largely relies on the MRCCA to manage land use within the Park. This reliance establishes a unique partnership and framework for land use management among local, State and Federal governments to protect the intrinsic resources of the Mississippi River Corridor.

The City has made significant progress on furthering the goals and strategies laid out in the 2002 Mississippi River Corridor Plan. Through improvements at Lilydale Regional Park, Upper Landing Park, Chestnut Plaza (including City House), Harriet Island Regional Park (including Raspberry Island), both the character of public space at the river's edge and public access to the river have been greatly enhanced. Individual master plans were prepared for key riverfront development sites – West Side Flats, Upper Landing, Victoria Park and Ford – that took the design guidelines in the 2002 Plan to the next level. These master plans guide private development and public infrastructure consistent with the goals of the Mississippi River Corridor Plan.

Perhaps most significantly, the City Council adopted the Great River Passage Master Plan in 2013 as an addendum to the Saint Paul Comprehensive Plan. The Great River Passage Master Plan contains guiding principles, goals, objectives and concept plans to connect new and enhanced parks and natural areas along the city's 26 miles of shoreline with one another and with adjacent neighborhoods. The Master Plan is a community-based vision with a corridor-wide perspective. It identifies transformative recreation and leisure opportunities along the river, and balances them with the protection and restoration of natural resources, adding value to adjacent land uses while respecting community and neighborhood desires for better access to the river. The Plan represents an evolution and refinement of previous efforts, with the addition of specific recommendations that will help Saint Paul work toward enhancing the natural environment and recreational qualities of the river, as well as the livability and economic vitality of the city. In 2017, the City Council adopted the Saint Paul River Balcony Master Plan, looking in more detail at one of the most popular ideas from the Great River Passage Master Plan. The River Balcony is envisioned as a 1.5-mile pedestrian pathway along the downtown bluff from the Science Museum to Union Depot, with connections to both the river's edge and the rest of downtown.

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-vibrant 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.

There are four key locations with potential conflicts between the MRCCA Districts, the Future Land Use districts and/or zoning. These are areas where Saint Paul will need to strike a balance between the economic and social benefits of redevelopment and the natural, cultural and recreational resources of the Mississippi River. The City will utilize the criteria provided in the MRCCA Rules to evaluate potential visual impacts of additional height and if/when mitigation is needed. In some cases, the City may pursue flexibility in building height and/or district designation in the MRCCA ordinance.

1. Ford Site – The underlying zoning districts (F2 Residential Mixed Low, F3 Residential Mixed Mid, F5 Business Mixed and F6 Gateway) allow building heights 7-17' taller than those permitted in the CA-RTC and CA-UM districts.
2. Shepard Davern – The CA-RTC district allows heights of up to 48' with a Conditional Use Permit (CUP), whereas the underlying zoning of T3 allows heights of up to 55' without a CUP.
3. West Side Flats – The CA-UM district allows maximum heights of 65' without a CUP, while the underlying zoning of T3M (West Side Flats Master Plan) allows building heights of 75' as-of-right and up to 90' with a CUP.

4. Pig's Eye – The area just northwest of Pig's Eye Lake is designated as CA-ROS in the Rules, but industrial on the City's Future Land Use Map. Further, the CA-ROS district allows maximum heights of 35' and the CA-UM district allows maximum heights greater than 65' with a CUP, while the underlying zoning, I3 Restricted Industrial, allows heights of 75' as-of-right, with the option to go higher with greater setbacks.

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

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, natural drainage routes, unstable soils and bedrock, tree canopies, and cultural and historic properties. Key features and resources have been defined as PCAs throughout the MRCCA districts to ensure that they are given priority consideration for protection. Maps CA-2 through CA-6 and HP-1 through HP-5 identify locations of PCAs within the MRCCA boundary. Additional information on Primary Conservation Areas can be found in Map P-1 and Appendix B in the Parks, Recreation and Open Space chapter; the regional park master plans; Map WR-1 in the Water Resources Management chapter; and Maps HP-1 through H-5 in the Heritage and Cultural Preservation chapter.

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.

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 Highway 61 (also known as the Great River Road National Scenic Byway) 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.

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.

Policy CA-8. Restore removed native plant communities and natural vegetation in riparian areas as development occurs.

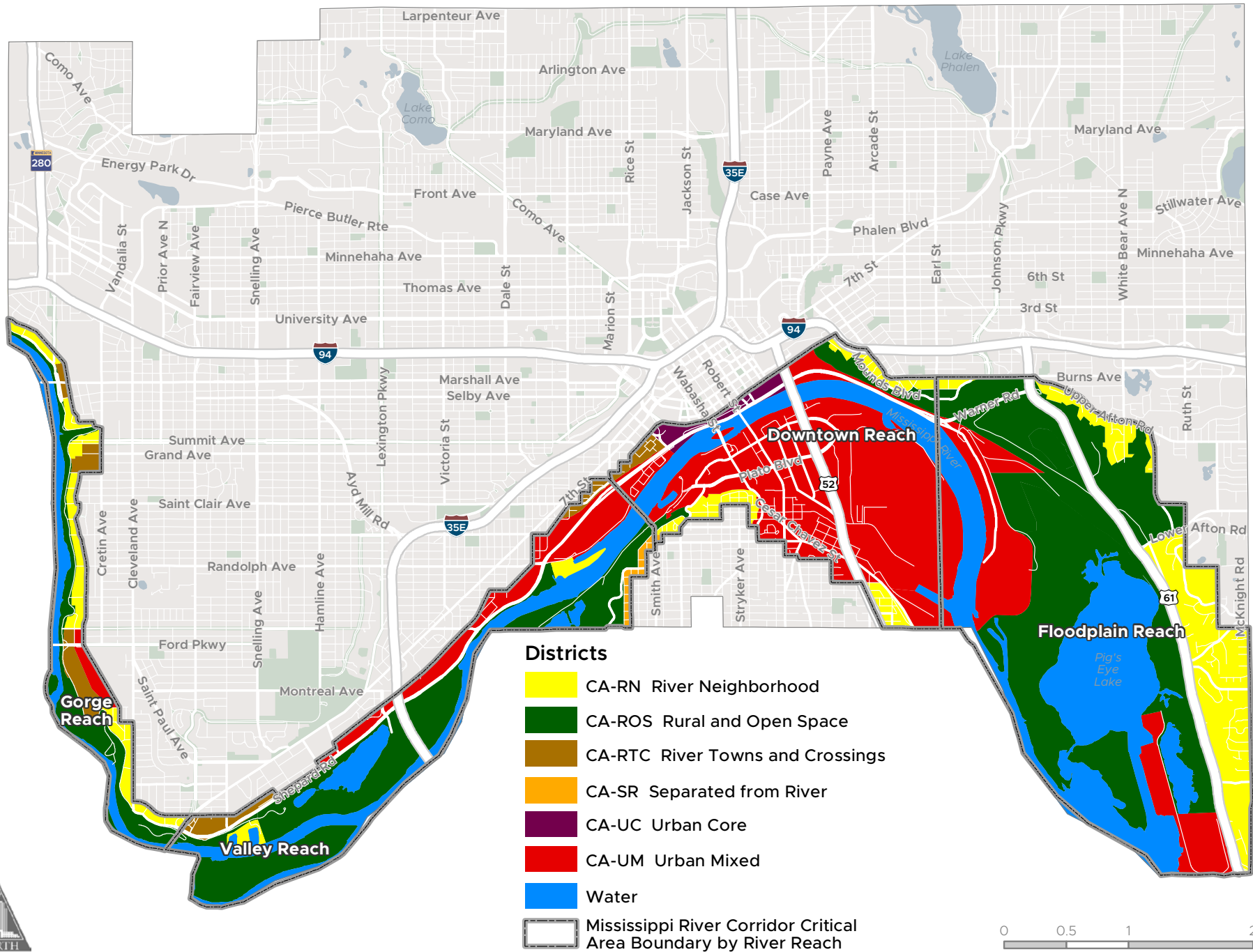
Policy CA-9. Explore permanent protection measures (such as acquisition and conservation easements) to protect PCAs.

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

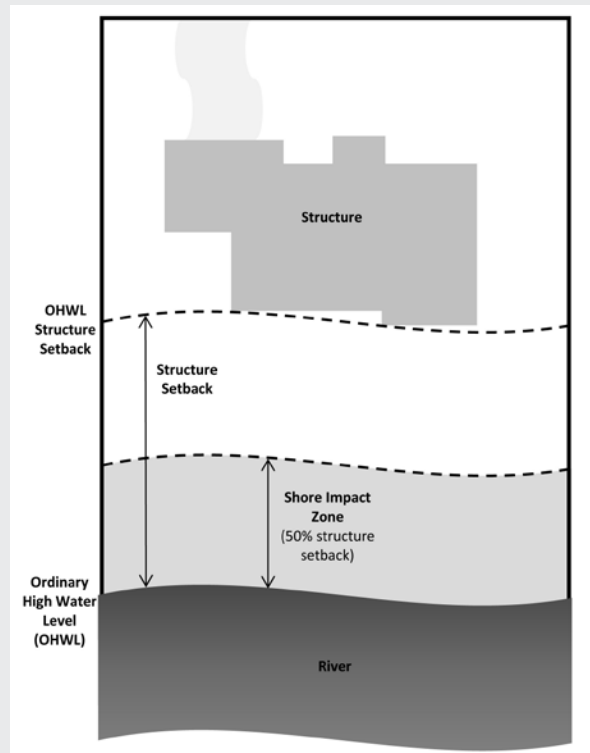


0 0.5 1 2 Miles

Source: City of Saint Paul (2016); Minnesota DNR (2016)

Shore Impact Zones

Shore Impact Zones (SIZs) are lands located between the ordinary high 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.



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-10. 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-11. Protect and minimize impacts to PRCVs from public development activities.

Policy CA-12. Consider designated Public River Corridor Views from other communities in developing dimensional standards, view impact evaluation procedures, and mitigation identification procedures.

Policy CA-13. 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).

Policy CA-14. Protect and minimize impacts to PRCVs from public and private vegetation management activities.

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/significant vegetative stands and opportunity areas for vegetation restoration are mapped in Map CA-6.

Land in the MRCCA in Saint Paul generally falls into one of four categories: parkland; other public land, such as right-of-way; small residential parcels; or land held as larger parcels but already established as industrial or institutional uses. It is not likely that substantive restoration projects on land in any of these categories is feasible, since no substantial future subdivisions of residential land are likely; public land other than parkland already serves other public purposes that are likely incompatible with vegetation restoration; and change from industrial or institutional uses to uses more compatible with vegetative restoration on the remaining large parcels is unlikely due to both ownership and non-MRCCA policy reasons. Some restoration of existing vegetative communities to enhance ecological function within existing regional parks in the MRCCA may be possible, but this would not constitute vegetative restoration for the purposes of the MRCCA Rules. However, careful analysis of the identified vegetation restoration opportunity areas should be undertaken to identify any areas where a project may be feasible.

Unstable soils are generally a result of a combination of factors, including soil type, type/amount of vegetative cover and slope. A general soil erosion susceptibility analysis based on slope is shown on Map CA-8. Some known previous slope failures in Saint Paul are also shown on the map. Bedrock may also be susceptible to erosion, though over longer timelines. Bedrock formations in Saint Paul are shown on Map CA-9.

Policy CA-15. 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-16. Protect native and existing vegetation during the development process, and require restoration if any is removed by development. Priorities for restoration include stabilization of erodible soils, riparian buffers and bluffs or steep slopes visible from the river.

Policy CA-17. Sustain and enhance ecological functions (habitat value) during vegetation restoration.

Policy CA-18. Seek opportunities to restore vegetation to protect and enhance identified PRCVs.

Policy CA-19. Seek opportunities to restore vegetation in identified restoration priority areas through site plan review and related vegetation permits.

Policy CA-20. Evaluate proposed development sites for erosion prevention, and bank and slope stabilization issues; require restoration as part of the development process.

Policy CA-21. Pursue opportunities to clean-up known areas of significant contamination (such as the Pig's Eye Superfund site) within the Critical Area.

Approved - June 19, 2019

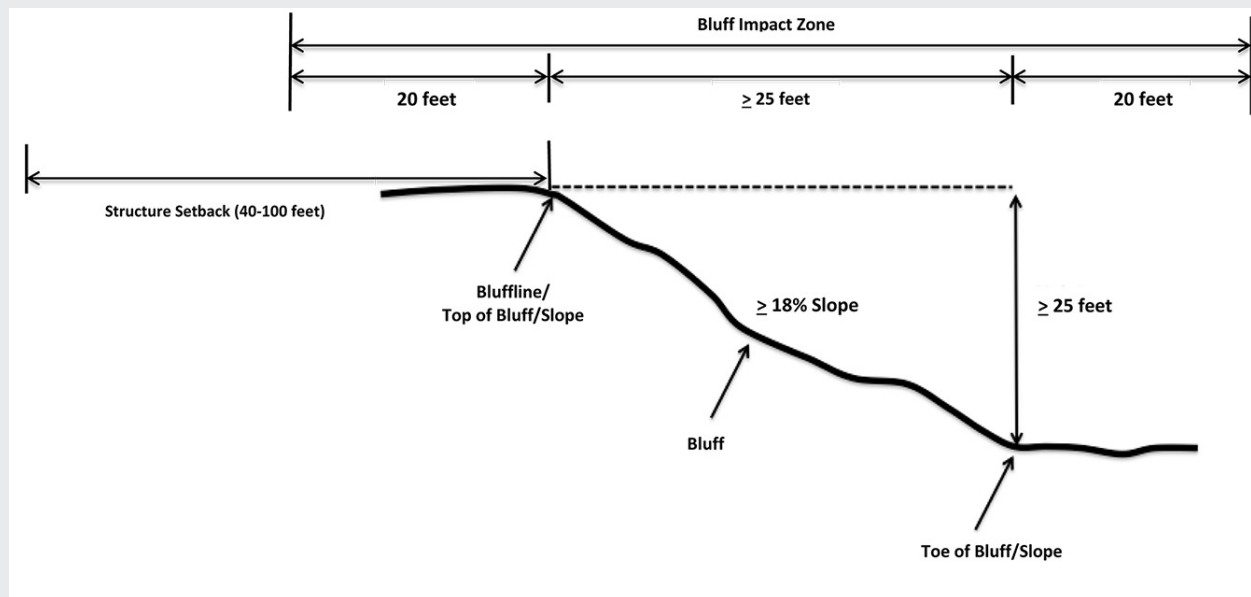
Bluff Impact Zones

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 and fleeting to recreational boating. Via barges, Saint Paul is an import destination for products vital to the region, such as road salt, cement, fertilizer, aggregate and other commodities. Barge fleeting currently takes place mostly in the Downtown and Floodplain reaches; it should be avoided in the Valley Reach upriver of the confluence of the Mississippi and Minnesota rivers and in the Gorge Reach. Recreational boating occurs all along the Mississippi River in Saint Paul, but is heaviest at the marinas and landings noted on Map CA-7.

The area of greatest potential conflict between barge and recreational uses is in the central riverfront, generally between the High Bridge and Lafayette Bridge. Harriet Island Park, Chestnut Plaza, Raspberry Island, the Minnesota Boat Club, Paddleford Riverboat excursions and the public dock generate significant boat traffic in a relatively small area. At times of high water, recreational boating may be restricted or prohibited, especially in the Downtown Reach. Surface water uses are illustrated on Map CA-7.

Policy CA-22. Recognize the Mississippi River as a “working river” that is integral to the economies of Saint Paul, the Twin Cities Metropolitan Area, Greater Minnesota and the Upper Midwest, with trade connections to the world through New Orleans and the Panama Canal.

Policy CA-23. Balance commercial, industrial and recreational surface water uses.

Policy CA-24. Provide for barge fleeting, avoiding areas where it could have a negative impact on PCAs.

Water-Oriented Uses

Industry and commerce are an important function of the Mississippi River in Saint Paul. The shipping industry also serves 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 downriver ports. Barge Terminal #1, Barge Terminal #2, Southport Terminal and Upper River Services are major locations requiring water access. While there are no confirmed prospects for the immediate future, the City acknowledges that river-related, shipping-related and river-dependent industrial and commercial uses will continue to locate in the river corridor, and be integral to Saint Paul's quality of life and continued economic growth. The City recognizes that careful management of these uses is critical to avoid or minimize adverse effects on the river.

In addition, there are four recreational marinas in Saint Paul – Watergate Marina, two marinas managed by the Saint Paul Yacht Club (one by the High Bridge, the other just upriver from the Wabasha Bridge), and a marina between the Wabasha and Robert Street bridges. There are two canoe/kayak landings, a boat launch at Hidden Falls, and a boat landing where the Paddleford riverboats dock. The marinas and landings are all located in City or regional parks. Watergate Marina is the planned location for a new Environmental Learning Center as envisioned in the Great River Passage Master Plan.

Existing water-oriented uses are identified on Map CA-7.

Policy CA-25. Prioritize protection of natural resources, nature-based recreation and public access to the Mississippi River in the Gorge Reach.

Policy CA-26. Prioritize protection of natural resources, nature-based recreation and public access to the Mississippi River in the Valley Reach.

Policy CA-27. Prioritize urban development, activation of the riverfront, public access and green connections to the Mississippi River in the Downtown Reach.

Policy CA-28. Prioritize a balance between urban development and natural resources protection, and public access to the Mississippi River in the Floodplain Reach.

Policy CA-29. 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-30. 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-31. Minimize the visual and physical impacts of river-related commercial and industrial land uses through native vegetation and landscaping.

Policy CA-32. Partner with the Saint Paul Port Authority to remediate contaminated sites in the river corridor.

Policy CA-33. Support the redevelopment of vacant and underutilized industrial sites as mixed-use urban villages that reconnect the city to the river, where these sites are not able to be reused as commercial or industrial businesses having an economic or operational need for a river location.

Policy CA-34. 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-35. Maintain and expand public access to the river's edge.

Policy CA-36. 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-37. Prioritize the use of park dedication funds for public river access on sites immediately adjacent to the river's edge.

Policy CA-38. Encourage the creation, connection and maintenance of open space, recreational facilities and other public connections to the Mississippi River.

Policy CA-39. Identify and encourage the connection of land in the CA-SR district to existing and planned parks and trails.

Policy CA-40. Encourage applying park dedication requirements within the MRCCA to improve public river access.

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. Two power plants exist along the river: an Xcel Energy natural gas facility on Shepard Road, and a District Energy co-generation facility in downtown. Xcel also maintains a series of electric transmission towers along the north side of the central riverfront. The power generating facilities do not negatively impact PRCVs, but the transmission towers have a significant negative impact on PRCVs and, in some cases, obstruct public access to the river.

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-41. Ensure multi-modal access to the river and connections to the broader transportation system.

Policy CA-42. Minimize impacts to PCAs and PCRVs from solar and wind generation facilities, public transportation facilities and public utilities.

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Appendix A

Maps of MRCCA

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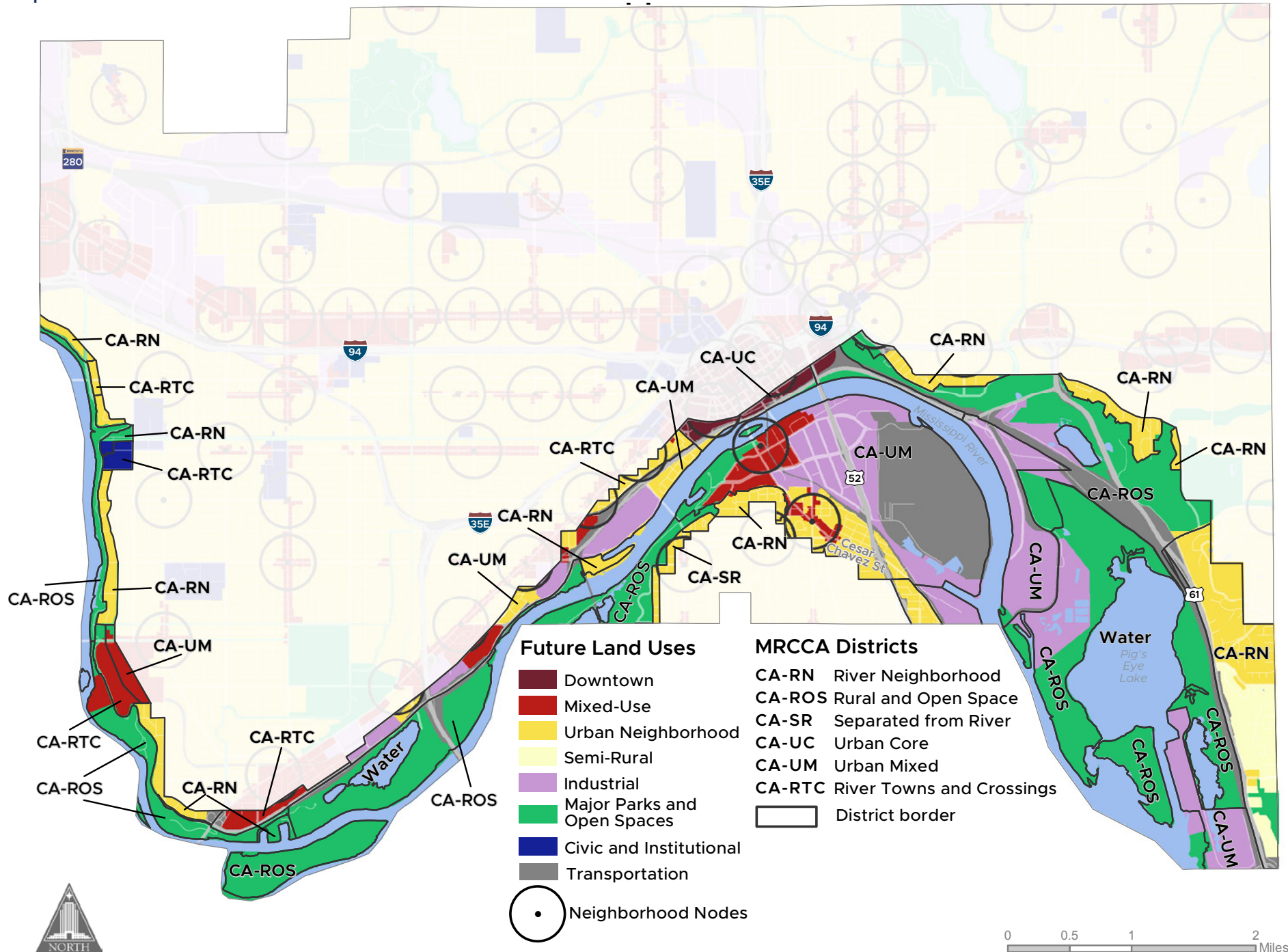
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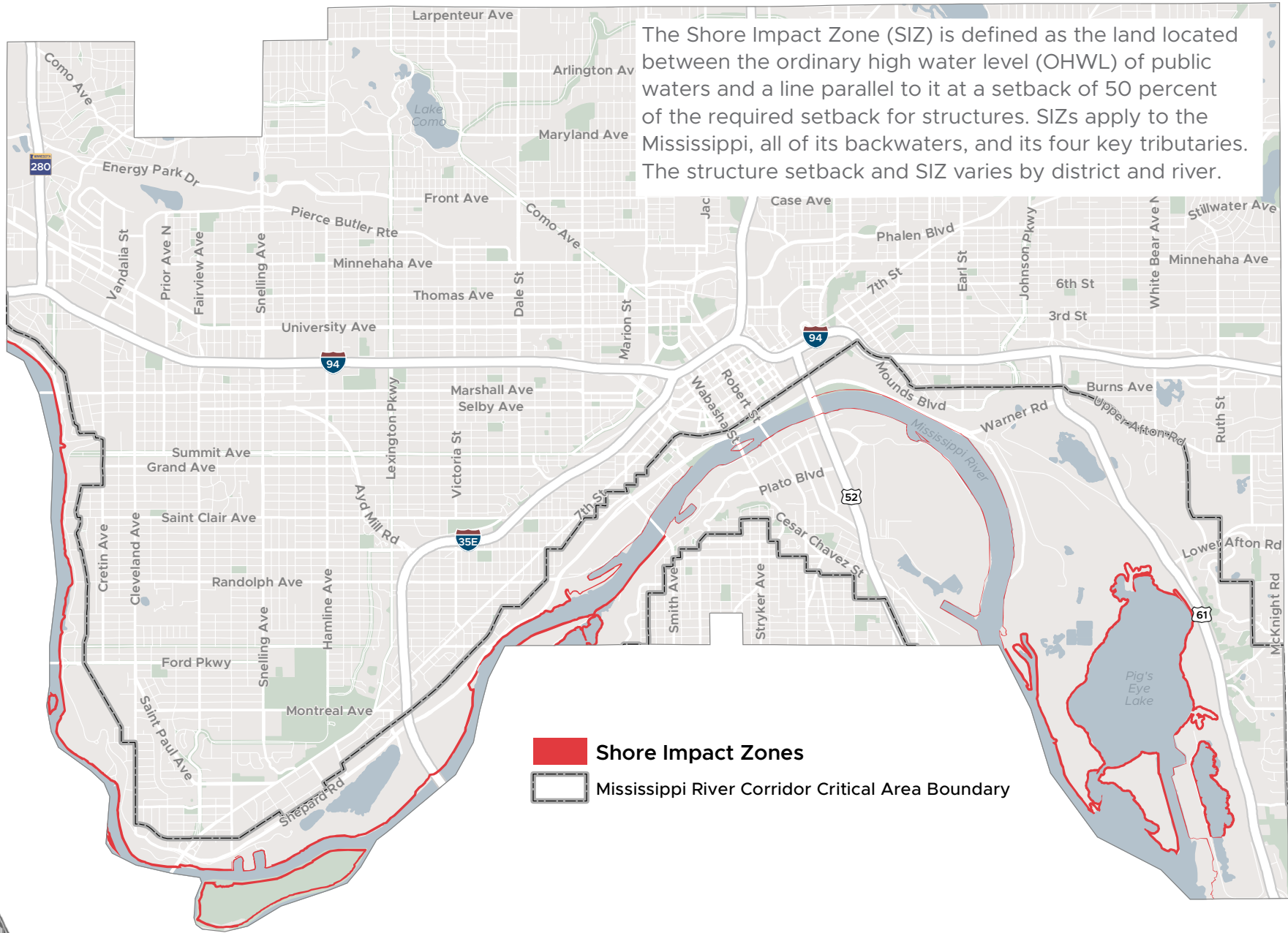
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Map CA-1: Future Land Uses in MRCCA



Map CA-2: Shore Impact Zones



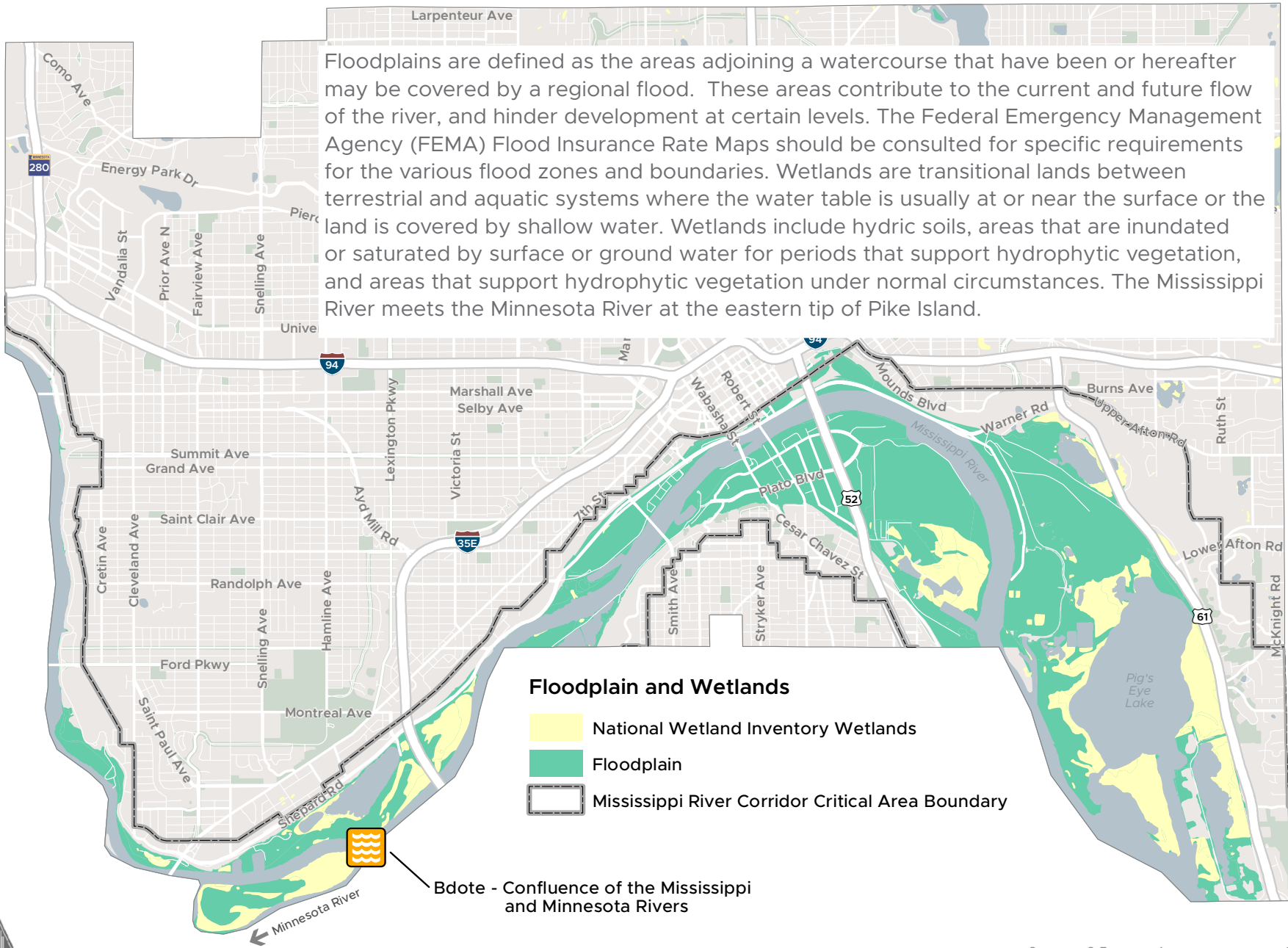
The Shore Impact Zone (SIZ) is defined as the land located between the ordinary high water level (OHWL) of public waters and a line parallel to it at a setback of 50 percent of the required setback for structures. SIZs apply to the Mississippi, all of its backwaters, and its four key tributaries. The structure setback and SIZ varies by district and river.

- Shore Impact Zones
- Mississippi River Corridor Critical Area Boundary



Source: City of Saint Paul (2016); Minnesota DNR (2016)

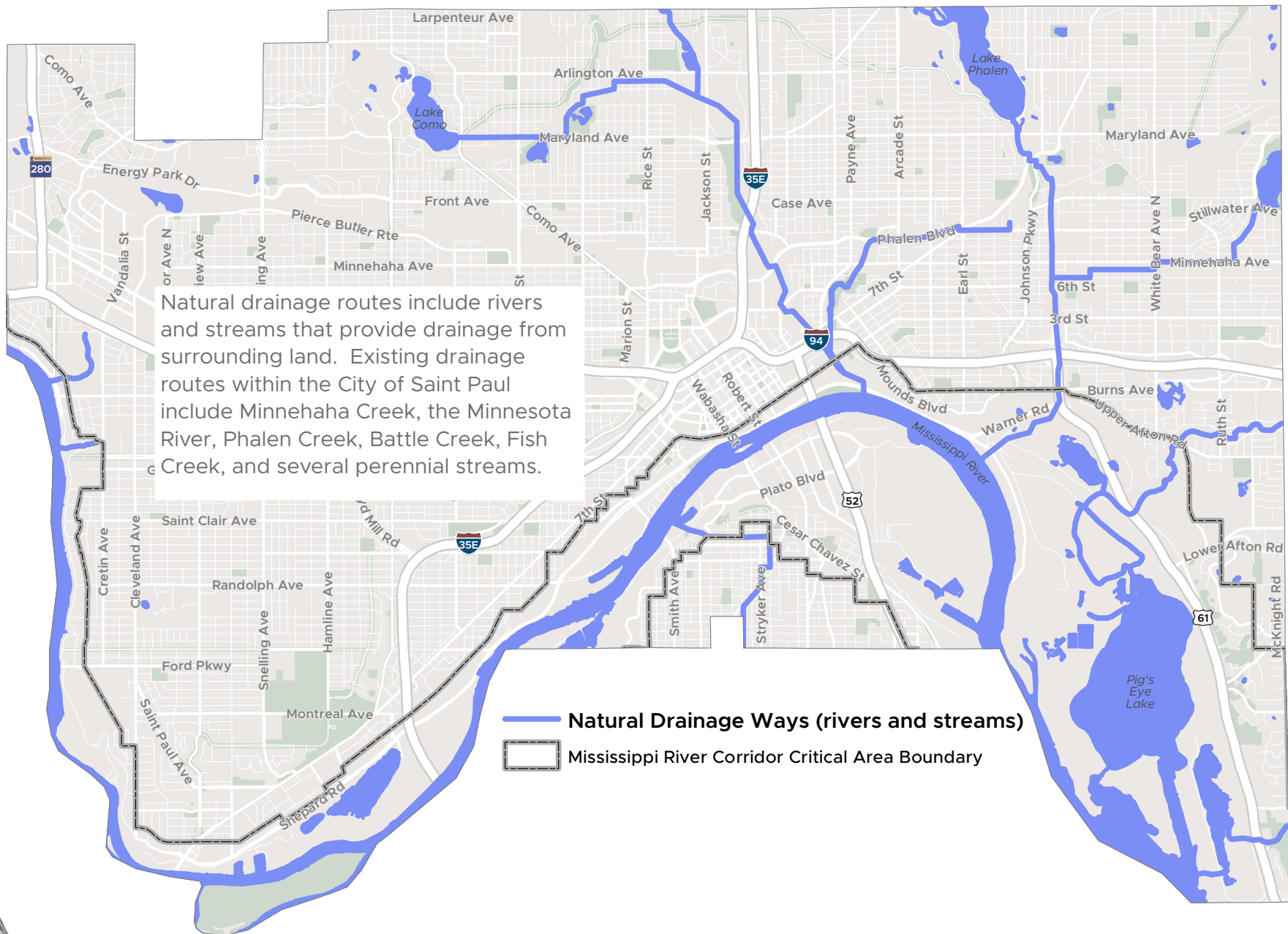
Map CA-3: Floodplain and Wetlands



0 0.5 1 2 Miles

Source: City of Saint Paul (2016); Minnesota DNR (2016)

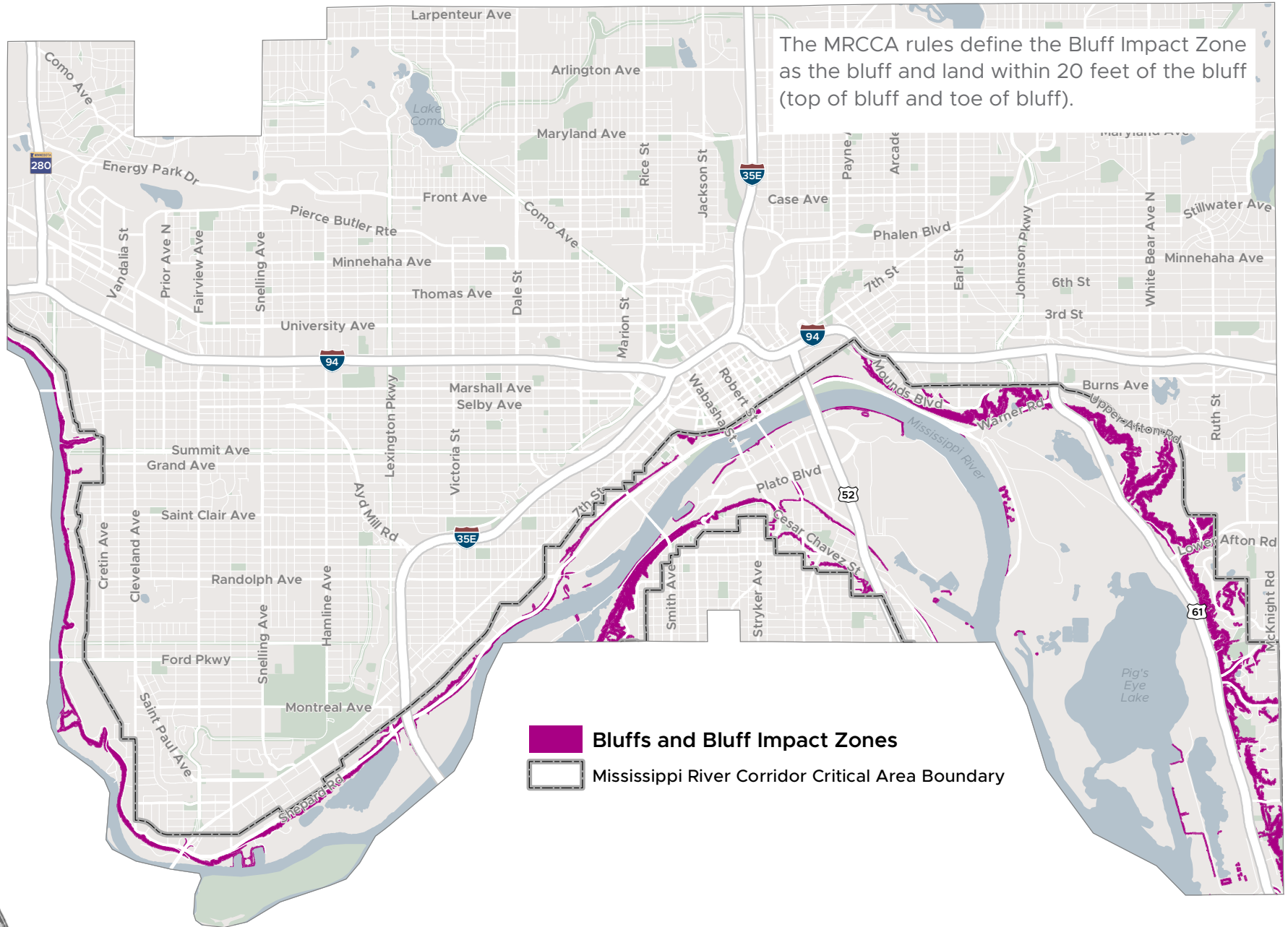
Map CA-4: Natural Drainage Ways



Source: City of Saint Paul (2016); Minnesota DNR (2016)

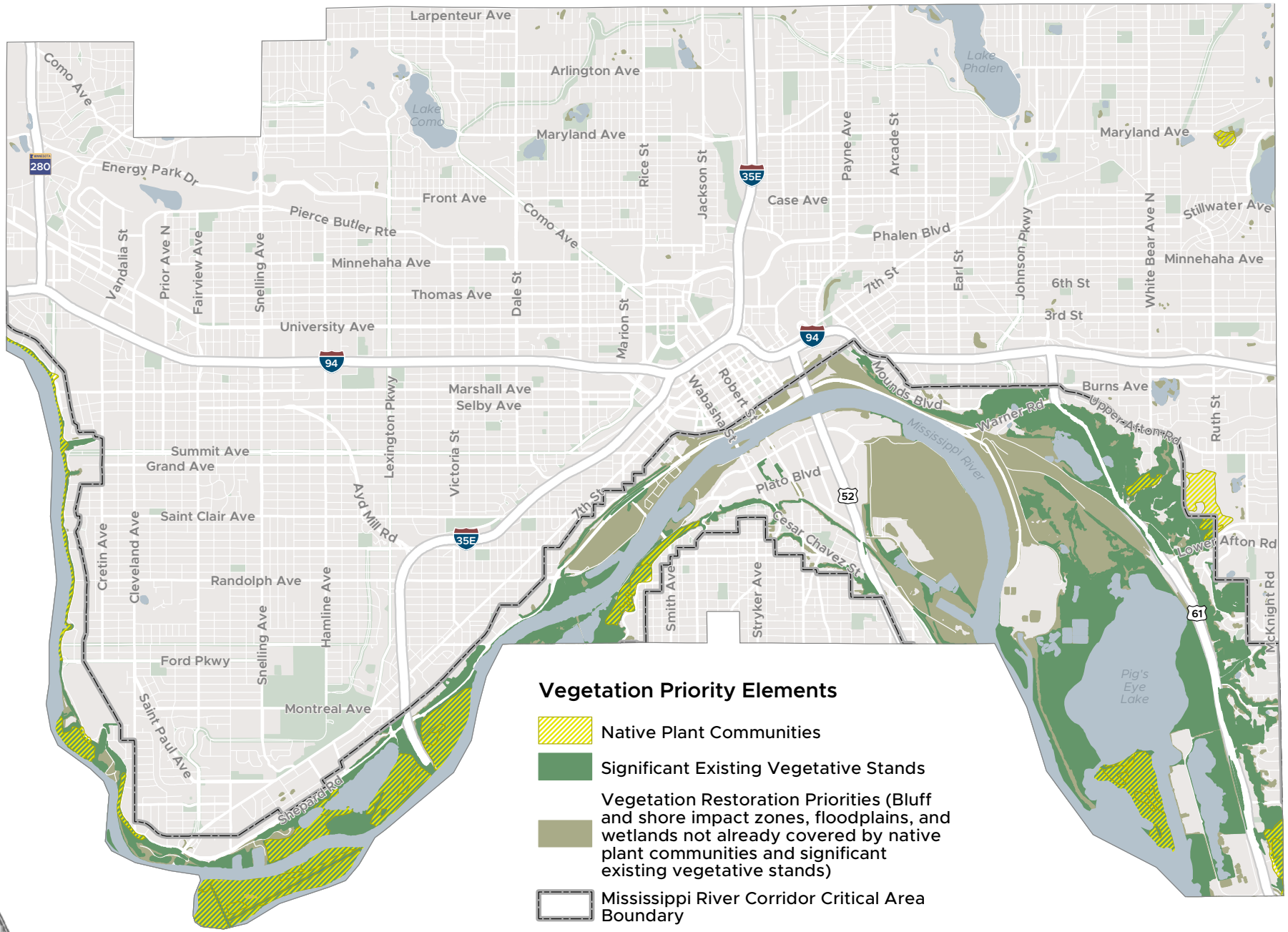


Map CA-5: Bluffs and Bluff Impact Zones



Source: City of Saint Paul (2016); Minnesota DNR (2016)

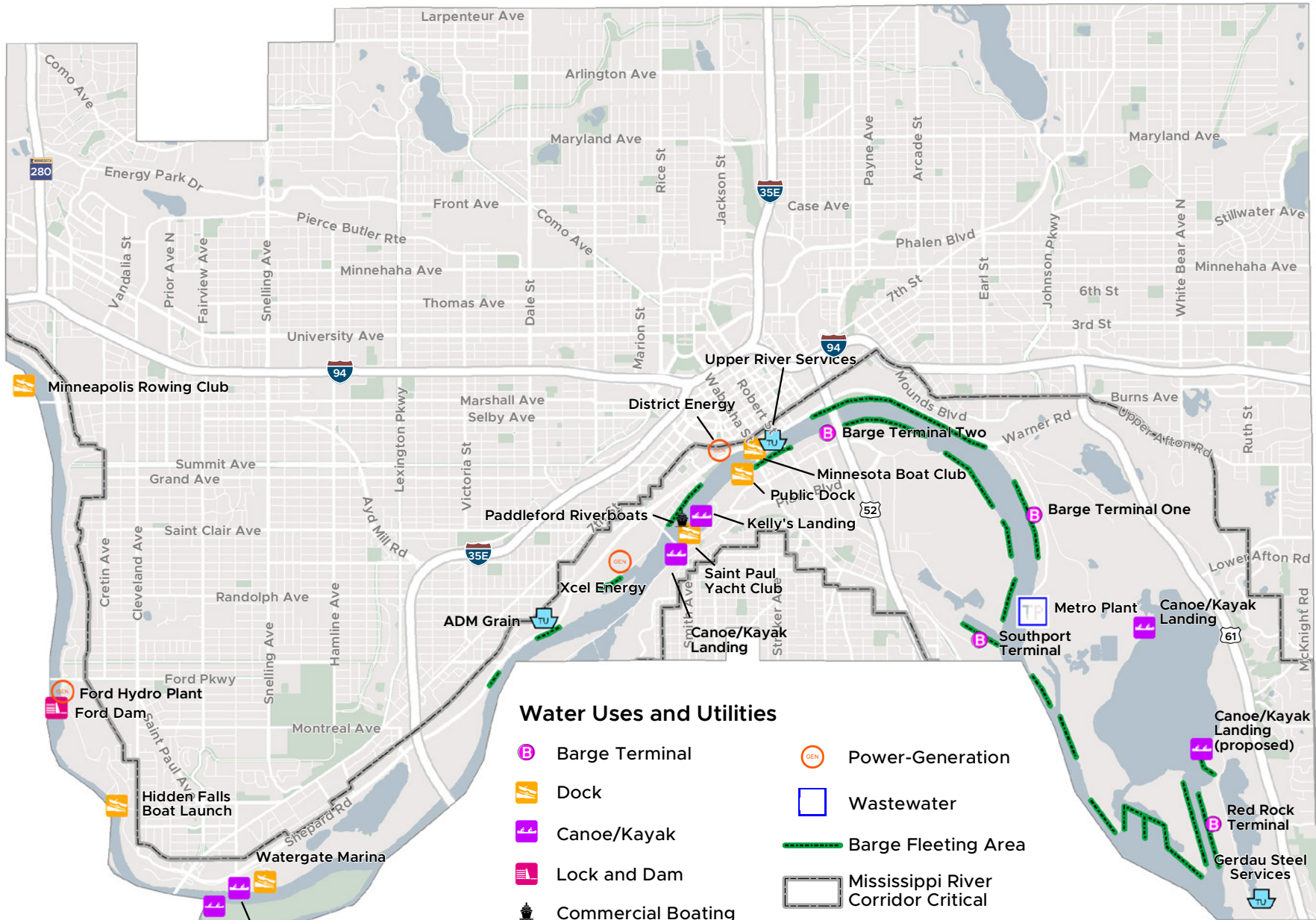
Map CA-6: Native Plant Communities and Significant Existing Vegetative Stands



0 0.5 1 2 Miles
 Source: City of Saint Paul (2016); Minnesota DNR (2016)



Map CA-7: Utilities, Water-Oriented Uses and Surface-Water Uses



Water Uses and Utilities

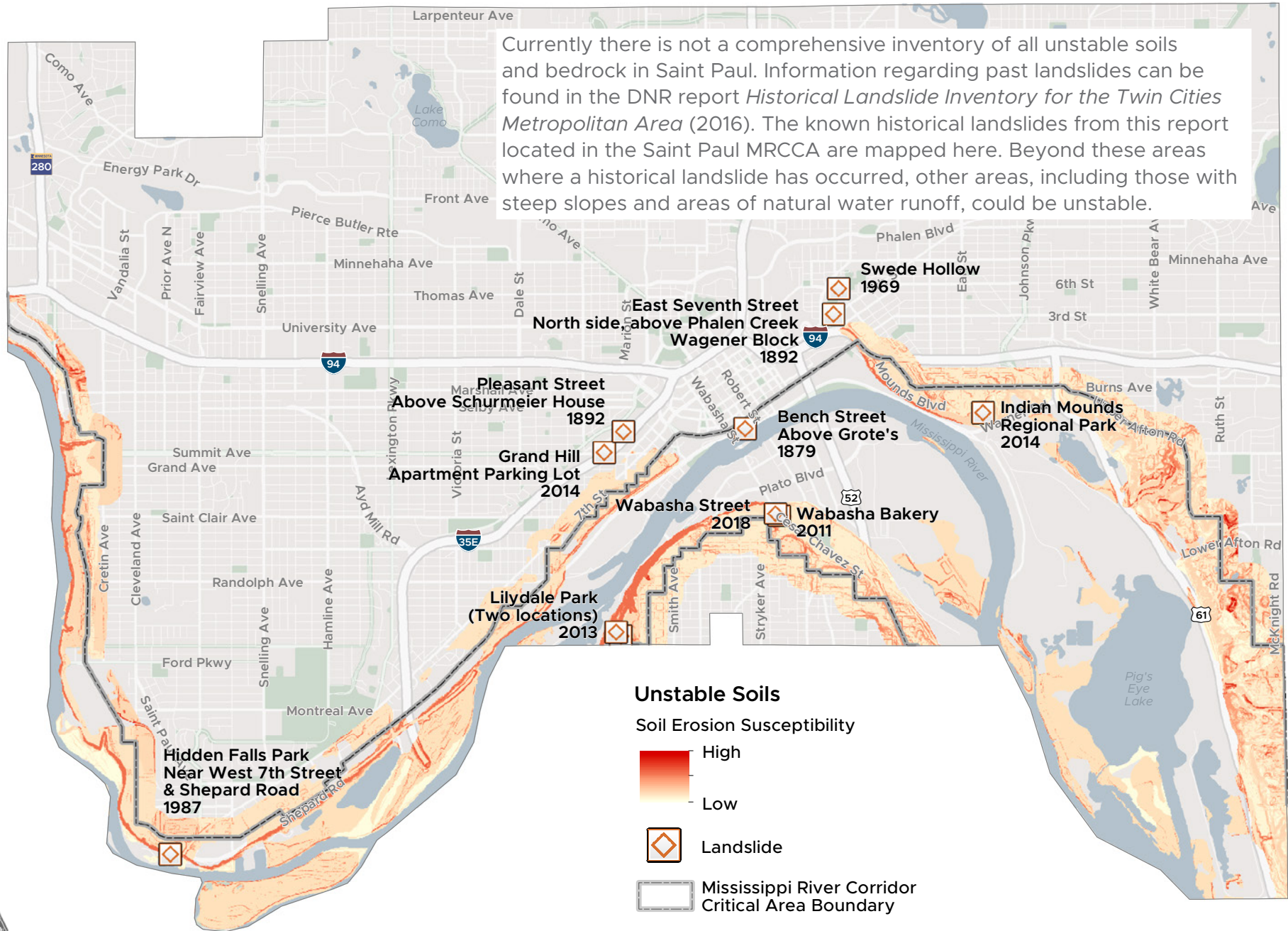
- Barge Terminal
- Dock
- Canoe/Kayak
- Lock and Dam
- Commercial Boating
- Water-Oriented Use
- Power-Generation
- Wastewater
- Barge Fleeting Area
- Mississippi River Corridor Critical

0 0.5 1 2 Miles

Source: City of Saint Paul (2018); Minnesota DNR (2016)

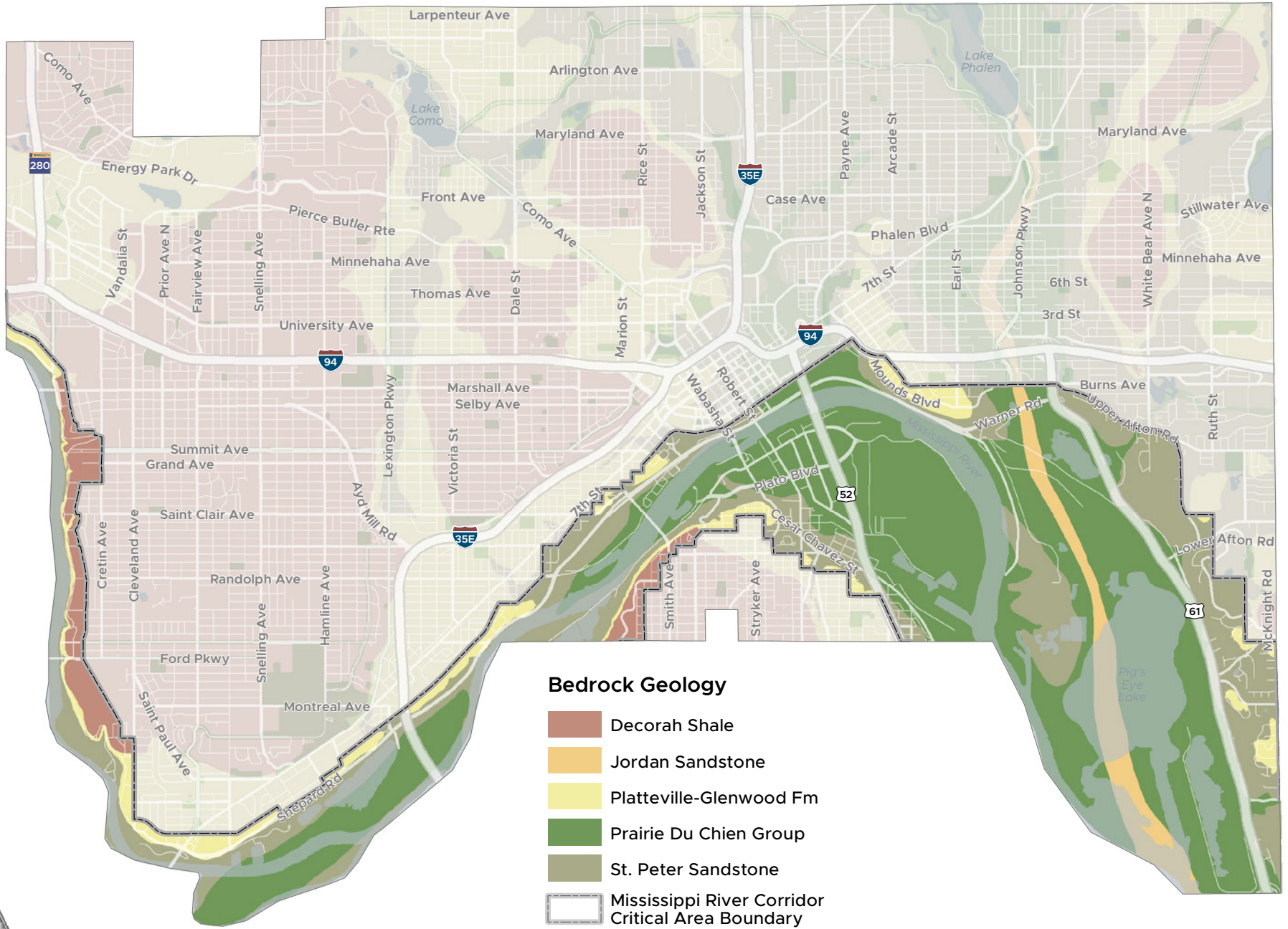


Map CA-8: Unstable Soils



Source: City of Saint Paul (2016); Minnesota DNR (2016)

Map CA-9: Bedrock



Source: City of Saint Paul; Minnesota DNR

Appendix B

Figure CA-1: Dimensional Standards within the MRCCA - Height

Structure Height	
District	Height
CA-ROS	35 feet
CA-RN	35 feet
CA-RTC	48 feet, provided that tiering of structures away from the Mississippi River and from blufflines is given priority, with lower structure heights closer to the river and blufflines, and that structure design and placement minimizes interference with public river corridor views.
CA-SR	Height is determined by the local government's underlying zoning requirements, provided the structure height in the underlying zoning is generally consistent with the height of the mature treeline, where present, and existing surrounding development, as viewed from the ordinary high water level of the opposing shore.
CA-UM	65 feet, provided tiering of structures away from the Mississippi River and from blufflines is given priority, with lower structure heights closer to the river and blufflines, and that structure design and placement minimize interference with public river corridor views.
CA-UC	Height is determined by the local government's underlying zoning requirements, provided tiering of structures away from the Mississippi River and blufflines is given priority, with lower structure heights closer to the river and blufflines, and structure design and placement minimize interference with public river corridor views.

Source: Minnesota Rule Section 6106.0120 Subp. 2.

Figure CA-2: Dimensional Standards within the MRCCA - Structures and Setbacks

Location of Structures and Impervious Surface Setbacks		
Proposed structures and impervious surfaces must be located outside of the shore impact zone (see Map CA-2) and must meet the setback requirements defined within each of the districts. Additionally, structures and impervious surfaces cannot be located within the bluff impact zone (see Map CA-5) and must meet setback requirements.		
District	River Setback	Bluff Setback
CA-ROS	200 feet	100 feet
CA-RN	100 feet	40 feet
CA-RTC	75 feet	40 feet
CA-SR	Not defined for Mississippi River	40 feet
CA-UM	50 feet	40 feet
CA-UC	As specified in underlying zoning	40 feet
<i>Source: Minnesota Rule Section 6106.0120 Subp. 2. and Section 6106.0180</i>		

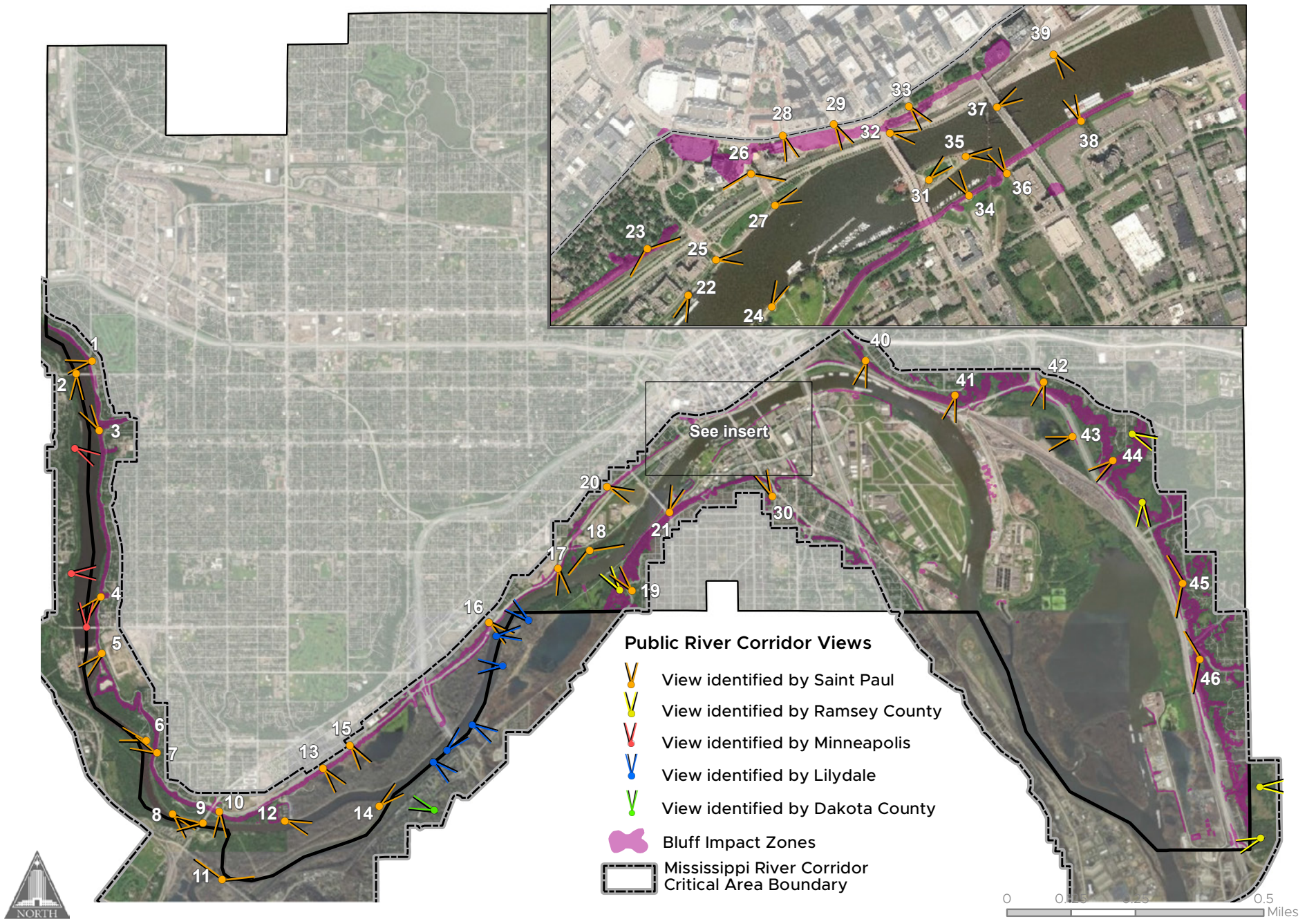
Appendix C

Public River Corridor Views

The Public River Corridor Views in this plan originate on public property, including parks and trails, historic properties and bridge overlooks. In addition, views toward bluffs from the opposite side of the shore are noted.

The City of Saint Paul has identified 44 PRCVs within the city limits or from the opposite side of the shore. The City recognizes that other jurisdictions may identify PRCVs. To ensure that these views are preserved, the City will continue to work with all public and private partners to preserve and protect PRCVs.

Map CA-10: Public River Corridor Views



Source: City of Saint Paul (2018); Minnesota DNR (2016); SRF Consulting (2017); Esri (2016)

View 1: Mississippi River Boulevard North of Marshall Avenue



The overlook at the Mississippi Gorge Trail, north of the Marshall Ave Bridge, provides a scenic view of the river's west and east banks. Upstream, there is a view of the Franklin Avenue bridge and the University of Minnesota. Across the river, there is a view of the Minneapolis Rowing Club and traces of the commercial district along Lake Street in Minneapolis. In the summer months, this view may become impeded by overgrown foliage and shrubbery.

View 2: Marshall Avenue Bridge



The overlook on the Marshall Avenue Bridge provides a wonderfully long and straight view of the steep bluffs on each bank of the river. The downstream view is minimally impeded and provides a great view of the water, shoreline and forested areas. This view is perfect for residents to enjoy the dazzling colors of the trees as they change during the fall months.

View 3: Shadow Falls Overlook



The overlook at the Mississippi Gorge Trail, near Shadow Falls Park just west of Summit Avenue, is a high outcrop that provides two views: one looking upriver towards the Marshall Avenue Bridge, and the other looking directly across the river to Longfellow Beach. This overlook gives the public an opportunity to stop and marvel at the natural beauty of the Mississippi River corridor.

View 4: Hartford Avenue Overlook



The overlook at the Mississippi Gorge Trail, near South Woodlawn Avenue and the Temple of Aaron Congregation, provides a scenic vista with four views. Upriver are views of the forested west bank of the river. Downriver are views of the Ford Bridge. There are no buildings that impede the views at this location, providing an excellent and tranquil location to enjoy nature and the views of the forests that run the length of the Gorge Reach.

View 5: Ford Dam Overlook



The Ford Dam Overlook provides unobstructed views of the historic Lock and Dam No. 1. Upriver are views of the Ford Bridge and historic structures adjacent to the dam. Across the river are views of the steep bluff and bedrock present all along this stretch of the river. This area of whitewater provides contrast to the calmer portions of the river both upriver and downriver of this point. The overlook provides some of the most “up-close and personal” views of historic structures in the entire MRCCA area within Saint Paul city limits.

View 6: Hidden Falls Park North



This viewing spot within Hidden Falls Regional Park provides the public with direct access to the river. Looking upriver provides unobstructed views of the west bank of the river and the many trees lining the shore. People can walk along the small beach or fish and kayakers and canoers can make a quick stop as they continue downstream.

View 7: Mississippi River Boulevard by Elsie Lane



Along Mississippi River Boulevard there are several outcroppings that provide unique perspectives of the river corridor. This upriver view, taken near the intersection of Mississippi River Boulevard and Elsie Lane, provides views of the river and several buildings in south Minneapolis.

View 8: Hidden Falls South



The small beaches and water access points to the south of the Hidden Falls parking lot provide views of the west bank of the river and the opposite shoreline. This location, along the water and across from the bluffs on the west bank, provides quality downriver views of the buildings at Historic Fort Snelling. This view can be accessed on foot or by bicycle, as it lies just off a trail. The location also serves as an area for fishing and picnicking.

View 9: Highway 5 Bridge



The Highway 5 Bridge provides an excellent opportunity to view the river just as one leaves the Gorge Reach and enters the Valley Reach. Upriver views show the river as it turns north towards Minneapolis. This view is easily accessible for pedestrians and cyclists who are visiting the area, or who would like to have a great view of the river on their day trip to Historic Fort Snelling.

View 10: Gannon Road Overlook



This overlook, located along Shepard Road just south of Highway 5, provides views of the west bank of the river, the opposite shoreline and the confluence of the Mississippi and Minnesota rivers at Fort Snelling. The open terrain and rolling hills behind the Fort are clearly seen.

View 11: Highway 55 Bridge



In the long view from the Highway 55 Bridge, the downtown skylines of Saint Paul and Minneapolis are visible at the same time. With the river in the foreground, this view shows how the Mississippi River connects the two largest cities at the heart of the region, the Mississippi National River and Recreation Area and the Mississippi River Corridor Critical Area.

View 12: Watergate Marina



Watergate Marina provides several unique vantage points of the river corridor. From the banks, thick forest can be seen covering the west bank of the river. During warmer months, views from the banks may be impeded by overgrown vegetation. From the docks, downriver and upriver views consist of the riverbanks and dock infrastructure at the marina. This view is easily accessible by bicycle due to the many trails that pass by the marina.

View 13: Sam Morgan West



This is one of several new overlooks proposed in the *Great River Passage Interpretive Plan*. Located where Alton Street meets the bluff, on the river side of Shepard Road. This upper bluff spot features views of the river gorge and Lilydale Regional Park. The Interpretive Plan recommends intersection improvements, seating, a drinking fountain and bike racks at this new overlook.

View 14: Bdote



Accessible only by boat or from Ft. Snelling State Park, Pike Island is one of the few locations in Saint Paul where one can experience the river at the water's edge. The eastern tip of the island is the confluence of the Minnesota and Mississippi rivers, with a mostly undisturbed view of natural bluffs.

View 15: Sam Morgan East



This is one of several new overlooks proposed in the *Great River Passage Interpretive Plan*. Located where Rankin Street meets the bluff, on the river side of Shepard Road. This upper bluff spot features views of the river gorge and Lilydale Regional Park. The Interpretive Plan recommends seating, a drinking fountain and bike racks at this new overlook.

View 16: Victoria Park Overlook



This overlook is part of the emerging Victoria Park, the centerpiece of the Victoria Park Urban Village. The view across the river from this point is of a mostly natural bluff edge, including Lilydale Regional Park.

View 17: Fountain Cave



The Fountain Cave Overlook is proposed in the Great River Passage Interpretive Plan. Located on the river side of the Sam Morgan Trail along Shepard Road, the overlook is planned for seating, a drinking fountain and bike racks. There is currently a plaque along the trail referencing the historic location of the cave. Views of the river corridor are mostly obscured by trees.

View 18: Island Station



The historic Island Station site is planned for redevelopment. A critical component of the development plans will be maintenance of public access through the site from Randolph Avenue and the Sam Morgan Trail to the river's edge. In addition, the *Great River Passage Interpretive Plan* identifies Island Station as a location for a new overlook with spaces for gathering, performance and interpretation. The view from the river's edge is of a mostly natural landscape. This is a site where views of the site from the river are also very important. Building height, scale, configuration and materials must be sensitive to the site's location in the Valley Reach.

View 19: Cherokee Regional Park



This spot is in the midst of a regional park, overlooking Lilydale Regional Park and above the fossil beds. The *Great River Passage Interpretive Plan* recommends an overlook designed for performances and gatherings, with a public art project that frames the view. Selective clearing would open views to the river and opposite shoreline.

View 20: Cliff Street Overlook



The Cliff Street Overlook sits on top of the bluffs on the east riverbank parallel to Cliff Street. This overlook is unique because it is set back much further from the river than other overlooks. The landscape provides downriver views of the historic Island Station site (now an Opportunity Site), a business park, industrial uses, roadways, the Xcel Energy natural gas plant, and the High Bridge. Similar to other overlooks in the corridor, the viewer will see bluffs and shoreline upriver along the west bank.

View 21: High Bridge Overlook



Looking downriver, the long view from this vantage point highlights both the natural/recreational and urban characteristics of the Saint Paul waterfront. With the Saint Paul Yacht Club Marina in the foreground, the view extends to include the housing at Upper Landing, Upper Landing Park and Chestnut Plaza, and the downtown skyline. The *Great River Passage Interpretive Plan* recommends improving this overlook with different railings to open views, native plantings, new pavement and a slightly elevated seating platform.

View 22: Washington Street Overlook



This view along the Sam Morgan Regional Trail provides close views of the Mississippi River, as the overlook is located just over the water level. Views of the High Bridge and Harriet Island Regional Park are prominent from this location.

View 23: Walnut Street Overlook



This view point is at the southern terminus of Walnut Street at the bluff. It sits on top of a partially- exposed bluff above railroad tracks and overlooking Shepard Road. While not an official overlook, the spot is an important location from which to view the Upper Landing Urban Village, City House and Harriet Island Regional Park. The street and block pattern, building configuration and heights, and street alignments in Upper Landing were sited to maintain views to the river and from the river back to the bluff.

View 24: Harriet Island Steps



Standing on the steps that disappear into the water, one can experience what it feels like to be on the water. The view is primarily of the downtown skyline, with Upper Landing housing and City House in the foreground.

View 25: Chestnut Plaza



This location, along the Sam Morgan Regional Trail at Chestnut Plaza in Upper Landing Park, provides downriver views of an increasingly urban landscape. This landscape includes a paved promenade along the river, the Wabasha Street Bridge, as well as Harriet Island Regional Park and its public dock. Unlike previous views of the west bank, the steep bluffs are no longer in view, as a flatter and more urban landscape has taken its place.

View 26: Sam Morgan Overlook



This overlook along the Sam Morgan Regional Trail is located just above the water level along the trail. Views of the river and opposing shoreline can be experienced from this location.

View 27: Science Museum Overlook



This view showcases the evolution of the city's relationship to the Mississippi River. Looking downriver, the river opens up into the wide floodplain, with the industrial waterfront in the far distance. Looking straight ahead, the central waterfront, devoted to mostly transportation (railroad and Shepard Road) and recreational uses (Raspberry Island, Harriet Island, the public dock, Upper Landing Park, Chestnut Plaza and the Sam Morgan Regional Trail) comes into view. Looking upriver, the Upper Landing Urban Village displays the return of residents to the river's edge.

View 28: Market Street



The origin of this view is where Market Street comes out of downtown and terminates at the bluff. The upriver view is of the District Energy Co-generation Plant, Science Museum of Minnesota, Upper Landing housing and park space, and Harriet Island Regional Park. The downriver view is the wide floodplain, with the downtown skyline on the ascending bank and the West Side Flats on the descending bank. Preservation/framing of this view corridor along an extended Market Street right-of-way will be critical in the siting, scale, design and height of new development on the Ramsey West site (along Kellogg Boulevard between Wabasha and Market streets).

View 29: St. Peter Street



The origin of this view is where St. Peter Street comes out of downtown and terminates at the bluff. Currently, the view is wide open, revealing the wide floodplain and curve in the river's course downriver, and Harriet Island Regional Park and Upper Landing development upriver. Preservation/framing of this view corridor along an extended St. Peter Street right-of-way will be critical in the siting, scale, design and height of new development on the Ramsey West site (along Kellogg Boulevard between Wabasha and Market streets).

View 30: West Side



The view immediately below this viewing spot is of low-density industrial land and Harriet Island Regional Park. The longer view is of the Upper Landing housing and the downtown skyline. As the area behind Harriet Island redevelops over time, a building height gradient of lower towards the river and taller closer to the bluffs must be maintained. However, buildings immediately below the bluff should not obscure the views across the river. The *Great River Passage Interpretive Plan* recommends an overlook at the historic location of the Green Stairs that features seating, interpretation and a drinking fountain.

View 31: Raspberry Island North Side



There are multiple locations throughout Raspberry Island that provide views to the Mississippi River and both shorelines. This location is at water level, providing a unique feel for one's place in the river corridor. The downtown skyline, as well as the emerging West Side Flats neighborhood, are visible from this location.

View 32: Wabasha Street Bridge Overlook



This overlook provides a view of the river and surrounding area from a higher elevation, opening the expanse of the view. Raspberry Island and Harriet Island Regional Park are viewed from this location.

View 33: Kellogg Mall Overlook



The overlook at Kellogg Mall Park provides an elevated view of the Mississippi River, Raspberry island, and the West Side Flats. This location is elevated above the railroad tracks.

View 34: West Side Flats Overlook



This viewing point, located on top of the Mississippi River levee, offers excellent views of the downtown skyline and Raspberry Island. Both the *Great River Passage Master Plan* and *West Side Flats Master Plan* encourage development landward of the esplanade to have active first-floor uses that open up to the esplanade. More public activity at this location will make this stunning view of downtown accessible to more people.

View 35: Raspberry Island Overlook



Located on the downriver tip of Harriet Island, the view origin is at water level, with the Robert Street Bridge immediately above the viewer. The lone remaining portion of natural bluff in the Downtown Reach is visible just east of the Wabasha Bridge, as is Kellogg Mall Park and the downtown skyline. The emerging West Side Flats urban village is taking shape on the descending bank.

View 36: Livingston Avenue Overlook



The view point is the overlook along the esplanade on top of the river levee. Directly across the river is one of the most beautiful views of downtown Saint Paul, both the high-density core and Lowertown. Downriver, Lower Landing Park, the boat landing itself, and the long view of Indian Mounds Park are visible. Both the *Great River Passage Master Plan* and *West Side Flats Master Plan* encourage development landward of the esplanade to have active first-floor uses that open up to the esplanade. More public activity at this location will make this stunning view of downtown accessible to more people.

View 37: Robert Street Bridge



The Robert Street Bridge provides a 360-degree view of the surrounding area, including the industrial waterfront.

View 38: River Park Plaza Overlook



Located on the Mississippi River levee, this overlook provides views of Lowertown and Lower Landing. The bluffs of Indian Mounds Park are visible in the long view downriver. Both the *Great River Passage Master Plan* and *West Side Flats Master Plan* encourage development landward of the esplanade to have active first-floor uses that open up to the esplanade. More public activity at this location will make this stunning view of downtown accessible to more people.

View 39: Lower Landing



This view is from the Sam Morgan Regional Trail at the Lower Landing, a popular boat landing for the Delta Queen, American Queen, tugboats and other large boats plying the Mississippi River. Looking out from this point, the industrial character of the river is most prominent, with Barge Terminal #2, Upper River Services and the Riverview Industrial Area directly across the river. The Lafayette Bridge is directly in front of the viewer. The Lower Landing is where the river curves and opens to the Floodplain Reach. The *Great River Passage Interpretive Plan* recommends a landform overlook at this location that features seating, interpretation and a drinking fountain.

View 40: Mounds Boulevard Overlook



With the height of this view on top of the East Side bluff, all of the downtown skyline is visible, as is the industrial waterfront (including the Downtown Airport at Holman Field) on the descending bank. The Floodplain Reach is fully visible here.

View 41: Indian Mounds Park Overlook



The Indian Mounds are the most notable sacred site along this stretch of the Mississippi River. One of the most stunning views of the entire urban riverfront is from Indian Mounds Park. Everything about Saint Paul's relationship to the Mississippi River is visible here – its urban beginnings between the Upper and Lower Landings, the waves of transportation systems that have followed the river (railroads, barges, roads, airports), its evolving land uses from housing to industry to recreation, and the natural remnants of bluffs and caves. This is the postcard view of Saint Paul on the Mississippi. The *Great River Passage Interpretive Plan* recommends improving the two existing overlooks at the geologic marker and Carver's Cave. The geologic marker overlook should be a gathering place, while the Carver's Cave overlook should be a vista overlook.

View 42: Burns Avenue Scenic Overlook



This is an existing overlook just east of Highway 61. The view is of the industrial riverfront, including Holman Field, and the broad Floodplain Reach.

View 43: Little Pigs Eye Lake



This spot has spectacular views from the river bluff of downtown and Pig's Eye Lake, home to a large heron rookery. The *Great River Passage Interpretive Plan* recommends a new overlook with seating, interpretation and a drinking fountain.

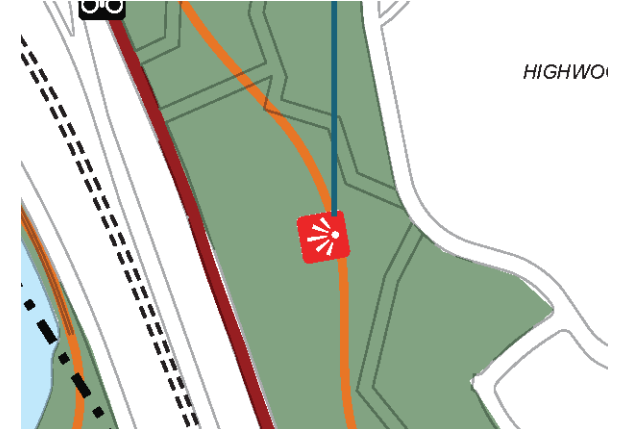
View 44: Highwood Bluffs North*



The most significant view from this spot is of Pig's Eye Lake and the heron rookery. This is the heart of the natural landscape of the Floodplain Reach, where the river corridor reaches its greatest width. The *Great River Passage Interpretive Plan* recommends three new overlooks along the Highwood Bluff Trail (North, Middle and South, views 44, 45 and 46) with seating, interpretation, a drinking fountain, wayside and one bike maintenance station.

*This site is not publicly accessible because the Highwood Bluff Trail has not yet been constructed at this location. The image indicates the planned location of future the overlook as identified in the *Great River Passage Interpretive Plan*.

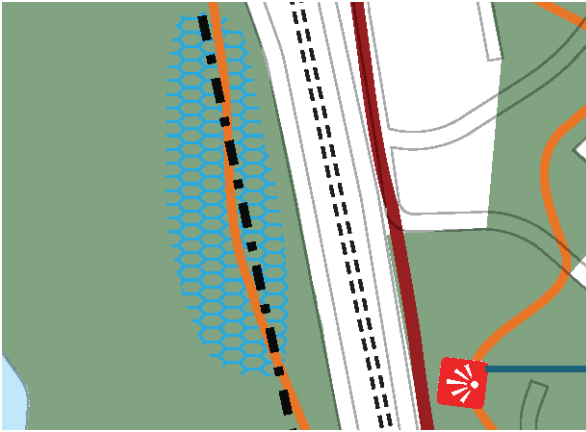
View 45: Highwood Bluffs Middle*



This point also has a spectacular view of Pig's Eye Lake and the heron rookery. This is the heart of the natural landscape of the Floodplain Reach, where the river corridor reaches its greatest width. The *Great River Passage Interpretive Plan* recommends three new overlooks along the Highwood Bluff Trail (North, Middle and South, views 44, 45 and 46) with seating, interpretation, a drinking fountain, wayside and one bike maintenance station.

*This site is not publicly accessible because the Highwood Bluff Trail has not yet been constructed at this location. The image indicates the planned location of future the overlook as identified in the *Great River Passage Interpretive Plan*.

View 46: Highwood Bluffs South*



This is the third viewing spot along the Highwood Bluff Trail (in addition to Highwood Bluffs North and Middle, views 44 and 45) with views of downtown Saint Paul, Pig's Eye Lake and the heron rookery. This is the heart of the natural landscape of the Floodplain Reach, where the river corridor reaches its greatest width. The *Great River Passage Interpretive Plan* recommends a new overlook here with seating, interpretation, a drinking fountain, wayside and one bike maintenance station.

*This site is not publicly accessible because the Highwood Bluff Trail has not yet been constructed at this location. The image indicates the planned location of future the overlook as identified in the *Great River Passage Interpretive Plan*.