

Metropolitan Parks and Open Space Commission

Meeting date: October 4, 2016

For the Community Development Committee meeting of October 17, 2016

For the Metropolitan Council meeting of October 26, 2016

Subject: Central Mississippi Riverfront Regional Park Master Plan, Minneapolis Park and Recreation Board, Review File No. 50056-3

District(s), Member(s): MPOSC District D, Anthony Taylor

Policy/Legal Reference: MN Statutes 473.313; Planning Strategy 1 *2040 Regional Parks Policy Plan*

Staff Prepared/Presented: Jan Youngquist, AICP, Planning Analyst (651-602-1029)

Division/Department: Community Development/Regional Parks and Natural Resources

Proposed Action

That the Metropolitan Council:

1. Approve the Central Mississippi Riverfront Regional Park Master Plan.
2. Require that the Minneapolis Park and Recreation Board submit estimated land acquisition costs that were not quantified in this master plan as an amendment to the master plan for Metropolitan Council review and approval prior to seeking grants for acquisition of applicable parcels.
3. Inform the Minneapolis Park and Recreation Board that in order to be eligible for future regional parks funding for soil contamination remediation, the project requests must meet the specific criteria delineated in the Regional Parks Policy Plan that is in effect at the time of the request.
4. Require that prior to initiating development within the regional park, the Minneapolis Park and Recreation Board must send preliminary plans to Scott Dentz, Interceptor Engineering Manager at Metropolitan Council Environmental Services, for review in order to assess the potential impacts to the regional interceptor system.

Background

Central Mississippi Riverfront Regional Park is located along both sides of the Mississippi River in the core of Minneapolis between the Plymouth Avenue Bridge and the I-35W Bridge. The regional park is adjacent to Above the Falls Regional Park to the northwest and Mississippi Gorge Regional Park to the southeast and includes Nicollet Island, Saint Anthony Falls, and the Stone Arch Bridge. The regional park is owned and operated by the Minneapolis Park and Recreation Board (MPRB).

Areas within and around the regional park have a rich cultural history dating back to Native Americans relying on the river for transportation and sustenance, to the sawmills and grain mills of the late 1800s and early 1900s, to the more recent conversion of the area into parkland, restaurants, and shops. Some properties within the regional park are on the National Register of Historic Places or may be eligible for national designation but are not officially listed. There are also areas within the regional park that are identified as National Register Individually Designated Properties, National Historic Landmarks, and Minneapolis Heritage Preservation Commission Landmarks.



The master plan was developed to update and replace the master plan that was approved by the Council in 1983 and designed around interpreting the cultural and historic resources of the area, providing recreational opportunities, and restoring and enhancing natural resources.

Rationale

The Central Mississippi Riverfront Regional Park Master Plan is consistent with the requirements of the *2030 Regional Parks Policy Plan* and other Council policies. The master plan requirements outlined in the *2040 Regional Parks Policy Plan* had an effective date of July 1, 2015. The Central Mississippi Riverfront Regional Park Master Plan was originally submitted to the Council on June 11, 2015, so it was reviewed subject to the master plan requirements outlined in Planning Strategy 1 of the *2030 Regional Parks Policy Plan*.

Funding

The estimated costs to implement the master plan are \$58,860,000 which includes \$53,260,000 for development and partial estimated costs for land acquisition of \$5,600,000. Land acquisition costs are not quantified in the master plan for the inholding parcels that do not have a tax assessed value to be used as a basis for an acquisition estimate. Many of these parcels are publicly owned or are railroad properties.

Approval of the master plan does not commit the Council to any funding at this time. The acquisition and development costs based on this master plan may be awarded through the Park Acquisition Opportunity Fund, the Regional Parks Capital Improvement Program (CIP), and the Parks and Trails Legacy Fund. Council action is required to approve the CIP, the Parks and Trails Fund project list, and specific grants to the Minneapolis Park & Recreation Board.

Known Support / Opposition

The Minneapolis Park and Recreation Board approved the Central Mississippi Riverfront Regional Park Master Plan on April 1, 2015. There is no known opposition.

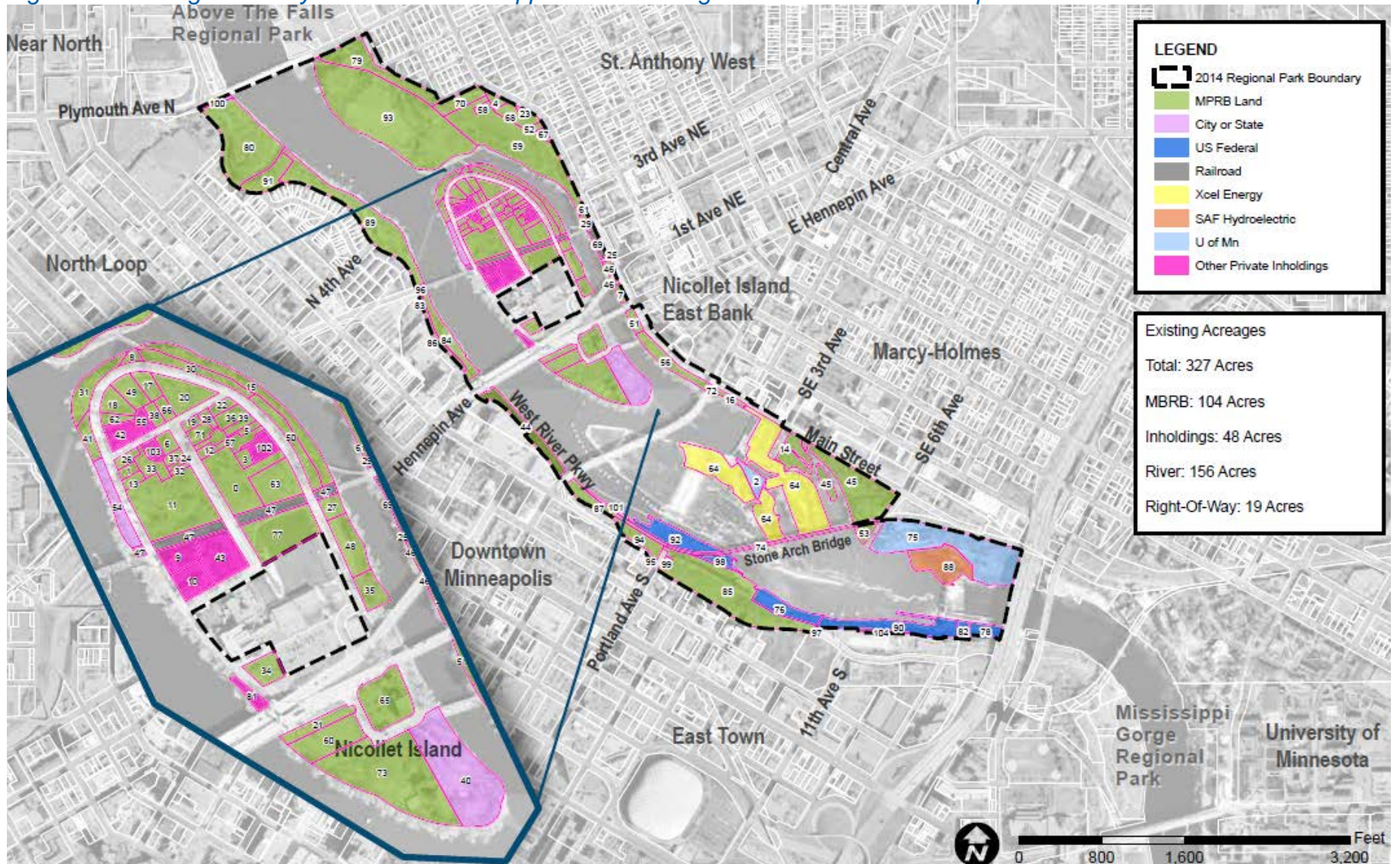
Analysis

Planning Strategy 1 of the *2030 Regional Parks Policy Plan* requires that master plans for regional parks address the eleven items listed below.

Boundaries and Acquisition

The existing boundary of Central Mississippi Riverfront Regional Park consists of 327 acres, which include 104 acres of parkland that are owned by the MRPB, 48 acres of privately owned inholding properties, 19 acres of right-of-way, and 156 acres of the river. Figure 1 depicts the existing boundary of the park and the current land ownership interests.

Figure 1: Existing Boundary of Central Mississippi Riverfront Regional Park and Ownership



A key goal that came forward through the master planning process was to connect people to the river and its stories. The master plan proposes to expand the regional park boundary to facilitate this goal. Additions to the regional park also are tied to the proposed development described in the Development Concept portion of this staff report. The areas proposed to be added to the regional park will round out the regional park boundary, create a gateway from downtown, incorporate all of Nicollet Island, allow West River Parkway to be realigned away from the river to open up usable park space and allow for restoration, and complete a missing link between Central Mississippi Riverfront Regional Park and Mississippi Gorge Regional Park. The master plan proposes to add 69 acres to the park, for a total park of 396 acres. Figure 2 delineates the acreage for the existing boundary, proposed additions, and proposed regional park boundary. The proposed regional park boundary and current property ownership of the inholding additions are depicted in Figure 3.

Figure 2: Existing and Proposed Regional Park Boundary Acreage Information

Property Type	Existing Regional Park Boundary (acres)	Proposed Additions to Regional Park (acres)	Proposed Regional Park Boundary (acres)
MPRB-owned	104	11	115
Inholdings	48	36	84
River	156	9	165
Right-of-Way	19	13	32
Total	327	69	396

Estimated land acquisition costs are typically derived from tax assessor market valuation. Many of the properties identified for future acquisition do not have valuations through Hennepin County since they are publicly owned or are railroad properties. The estimated land acquisition costs based on the inholding properties that have market valuations through Hennepin County are \$5,600,000. The Council will need to review and approve estimated acquisition costs for the parcels that are not quantified in this master plan before the MPRB seeks grants for land acquisition.

The master plan states that where it is not possible or feasible to acquire inholding lands, the MPRB will work to create partnerships with landowners, with the goal of obtaining easements to promote trail connectivity throughout the park and along the riverfront.

Figure 3: Proposed Boundary of Central Mississippi Riverfront Regional Park (outlined in blue)



Stewardship Plan

The *2030 Regional Parks Policy Plan* requires that a master plan describe how park property would be managed prior to developing the property for recreation purposes. Since Central Mississippi Riverfront is an existing regional park that is developed for recreation purposes, this requirement does not apply to this master plan. Natural resources stewardship recommendations are described in the Natural Resources section of this staff report.

Demand Forecast

Central Mississippi Riverfront Regional Park is very popular. In 2015, Central Mississippi Riverfront Regional Park was the fourth most visited park in the regional parks system with an estimated 2,115,500 visits. Visitation to the regional park has doubled since 2005, when there were 1,056,400 estimated visits.

Demographic and recreation trends were taken into consideration during the development of the master plan. The Twin Cities region is expected to grow by approximately 800,000 people from 2.69 million in 2010 to 3.7 million people by 2040. The population will change dramatically in that time. By 2040, more than one in five residents will be 65 years or older and 40 percent of the population will be people of color.

Although Central Mississippi Riverfront is a regional park, it also attracts local visitors from nearby neighborhoods. An analysis was conducted using a traditional park service model combined with 2010 census block data. The demographics of those who live within walking distance (0.5 miles), biking distance (1.0 miles) and driving distance (5 miles) were examined, as shown in Figure 4. Based on this data, 35 percent of the population living within driving distance of the park are communities of color. However, based on intercept surveys for the regional park and for the St. Anthony Falls Heritage Zone, the majority of visitors to the regional park are Caucasian (83 percent).

Figure 4: 2010 Census Data within Proximity of Central Mississippi Riverfront Regional Park

Distance to Regional Park	Total Population (2010)	Total Households (2010)	% Communities of Color (2010)	% Population Over 65 (2010)	% Population Under 18 (2010)
0.5 miles (walking)	28,121	14,037	36%	7%	9%
1.0 miles (biking)	66,375	28,022	42%	7%	12%
5.0 miles (driving)	531,205	226,824	35%	10%	20%

The MPRB's 2007-2020 Comprehensive Plan identifies trends that affect recreation in Minneapolis, including:

- Self-directed sports such as running and biking are popular among adults
- Older adults, primarily Baby Boomers, are staying active in recreation decades longer than in previous generations. They also have more discretionary income than previous generations and are increasingly applying those funds toward programming and activities for their grandchildren

- More leisure time, especially among youth, is spent enjoying a multitude of media, technology, and entertainment options
- An increase in foreign born residents requires focus on reducing language barriers and gaining better understanding of the recreational needs for these individuals

The master plan indicates that it took into consideration the design elements referenced in the *2040 Regional Parks Policy Plan* for addressing changing demographic and recreational needs, including:

- Amenities suited for the aging population and those with limited mobility
- Picnic areas that accommodate mid-sized groups of 15-25
- Large open ball fields that could accommodate a variety of pick-up games
- Clustering of amenities that allow for multi-generational groups

Development Concept

The development concept for Central Mississippi Riverfront Regional Park was informed by the following guiding principles:

- Connect people to the river by foot, bicycle, transit, boat and private vehicle
- Restore and enhance natural resources, improve wildlife habitat and water quality
- Reveal and interpret past and present, nature and culture
- Engage visitors through activities, amenities, food, and events
- Adapt within the changing social, economic, and ecological realities

Throughout the regional park, the master plan strives to complete the trail systems, including a portage system and bicycle and pedestrian trails. The portage system identifies carry-in and trailer access points as well as a proposed portage route, which will be complemented by wayfinding signage along the river. Bicycle and pedestrian trails were identified to complete the system within the park and fill in the “missing links” including connections to city streets and the Dinkytown Greenway, which provides a key connection to the University of Minnesota.

Another important effort throughout the regional park is to enhance flexible event spaces along the riverfront. These spaces could be used for a variety of programming and events, from festivals to movie nights to passive open space for unstructured recreational use.

In addition to these development recommendations that affect the entire regional park, the park was divided into eight individual areas that have specific development recommendations. The following descriptions begin with areas on the west side of the river,

Bassett Creek—enhancing wayfinding and improving connections to the park and the river are key design directives. Initiatives proposed for this area are shown in Figure 5 and include:

- Expanding picnicking area and open space functions
- Add a picnic shelter and restrooms
- Realign West River Parkway away from the sensitive bluff edge and incorporate green infrastructure
- Realign and improve trail connections to the canoe/kayak landing area
- Integrate nature play area safely along the edge of Bassett Creek Outlet
- Interpret the historic canoe ferry route to Boom Island
- Restore and enhance natural resources, improve wildlife habitat and water quality

Figure 5: Bassett Creek Area Improvements



Gateway District—this area provides the opportunity to enhance the physical and visual entrance to the regional park from downtown Minneapolis. The expansion of the Gateway toward the river was discussed in the late 1980s and would involve acquisition of the United States Postal Service (USPS) parking ramp if the property was vacated or the USPS minimized its downtown operations. Initiatives proposed for this area are shown in Figure 6 and include:

- Create terraced spaces descending from the bluff that guide visitors to the river and also treat stormwater
- Design flexible spaces to be used for formal and informal events throughout the year (such as ice skating, concerts, food trucks)
- Partner with the Federal Reserve to improve access to the riverfront and improve wayfinding
- Reduce hard space and introduce more native plant materials at Flagpole Plaza
- Add enhanced lighting and amenities under the Hennepin Avenue Bridge
- Connect Mill Ruins Park to the Gateway by an elevated balcony walkway through the USPS patio terrace

Mill Ruins Park—this area is a key visitor destination within the regional park. Initiatives proposed for this area are shown in Figures 7 and 8 and include:

- Collaborate with the Army Corps of Engineers and the National Park Service to create a visitor center on the upper lock and dam
- Develop a park building that will help facilitate vertical circulation and may include food concessions, restrooms, patios
- Remove and historically record the former Fuji-Ya building to expose historic ruins
- Expose existing walls and bridge piers of the historic inlet canal
- Expose elements of the stone seawall upstream from the canal inlet
- Enhance pedestrian and bicycle connections under the Stone Arch Bridge in a way that depict and interpret the buried mill ruins
- Modify the alignment of West River Parkway to provide a greater buffer to the intersection of 1st Street and 5th Avenue
- Provide traffic calming along the parkway that gives precedence to bicycles and pedestrians
- Create a soft landing for canoes and kayaks

Gorge Entry—key initiatives for this area will involve working with partner agencies such as the Minnesota Department of Transportation, Army Corps of Engineers, National Park Service, and Centerpoint Energy. These initiatives are shown in Figure 9 and include:

- Build a marsupial bridge under the I-35W bridge
- Provide a trail along the river edge between lower Mill Ruins Park and the I-35W bridge and incorporate overlooks
- Restore the woodland and shoreline along the bluff
- Acquire Centerpoint property when possible to increase connectivity to the riverfront and establish continuous habitat and trails

Figure 6: Gateway District Area Improvements

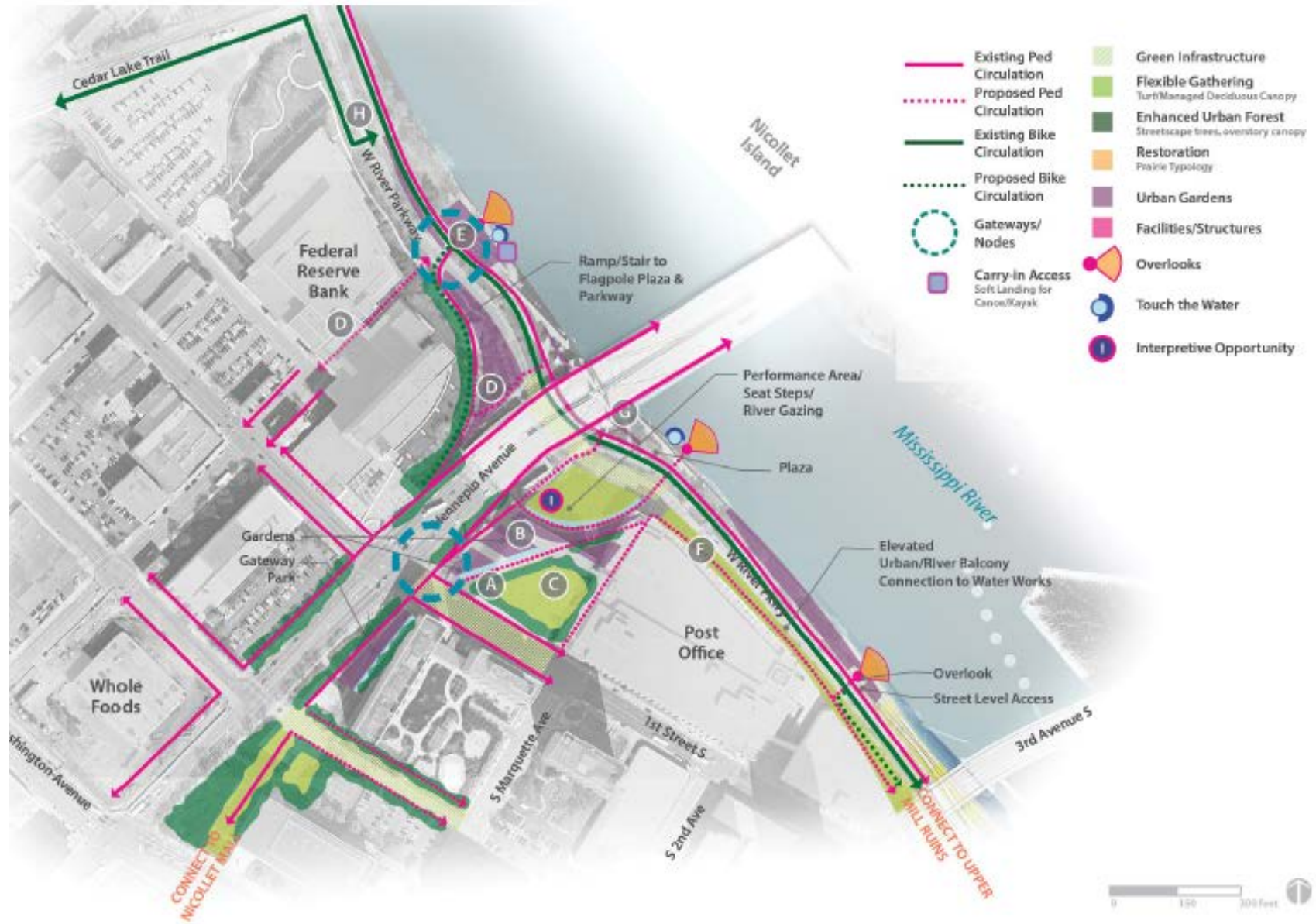


Figure 7: Upper Mill Ruins Area Improvements

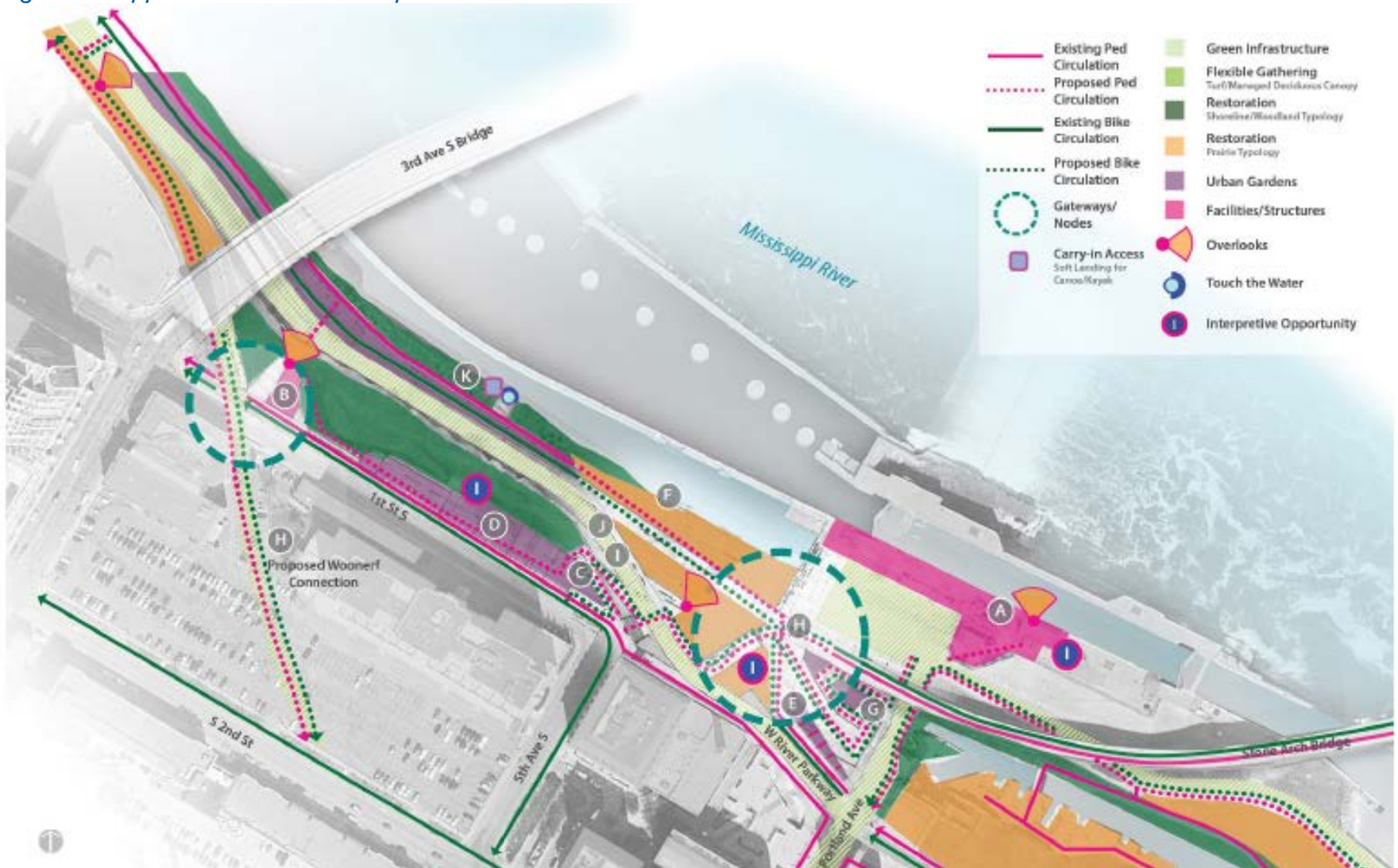


Figure 8: Lower Mill Ruins Area Improvements

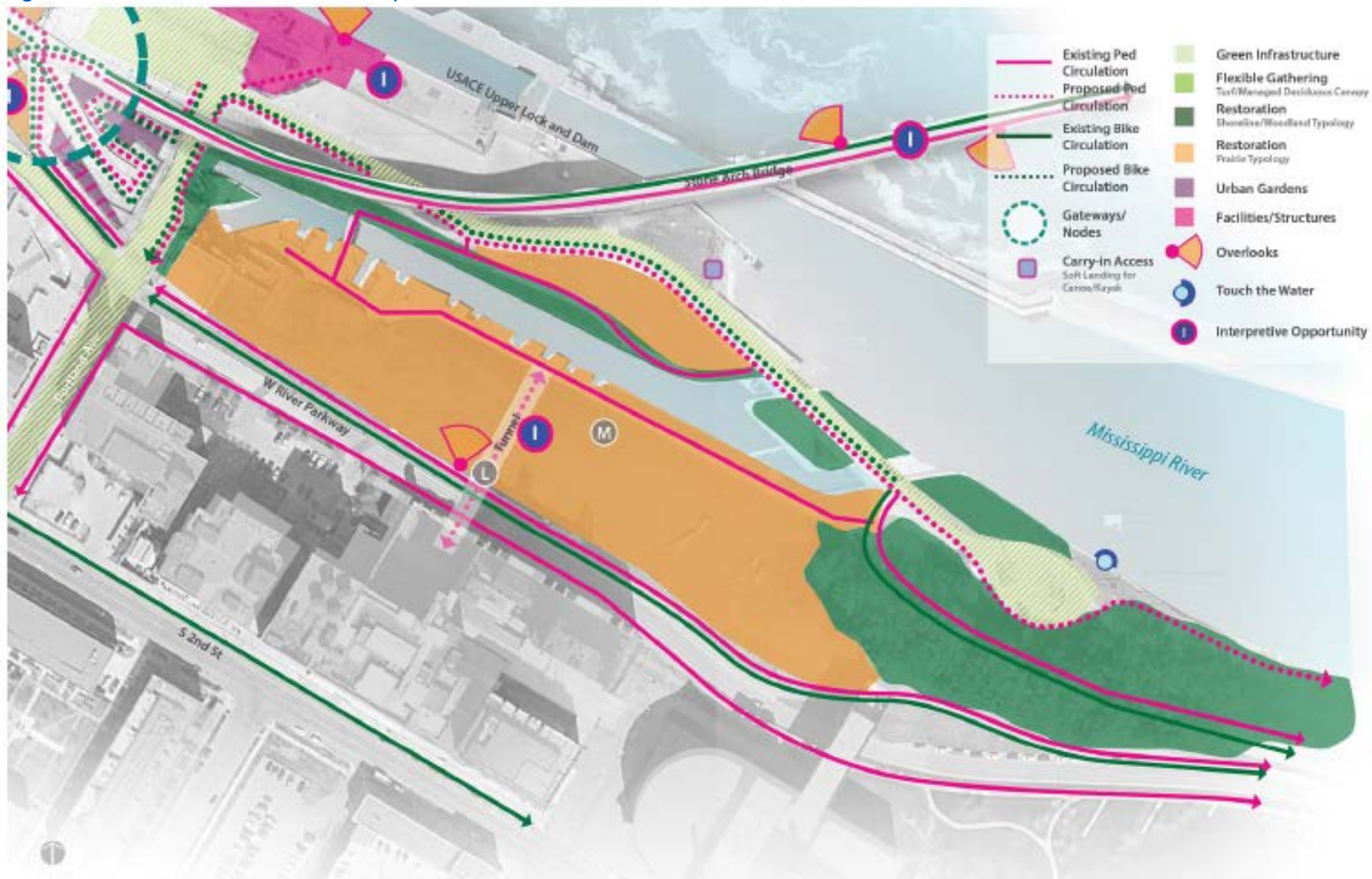
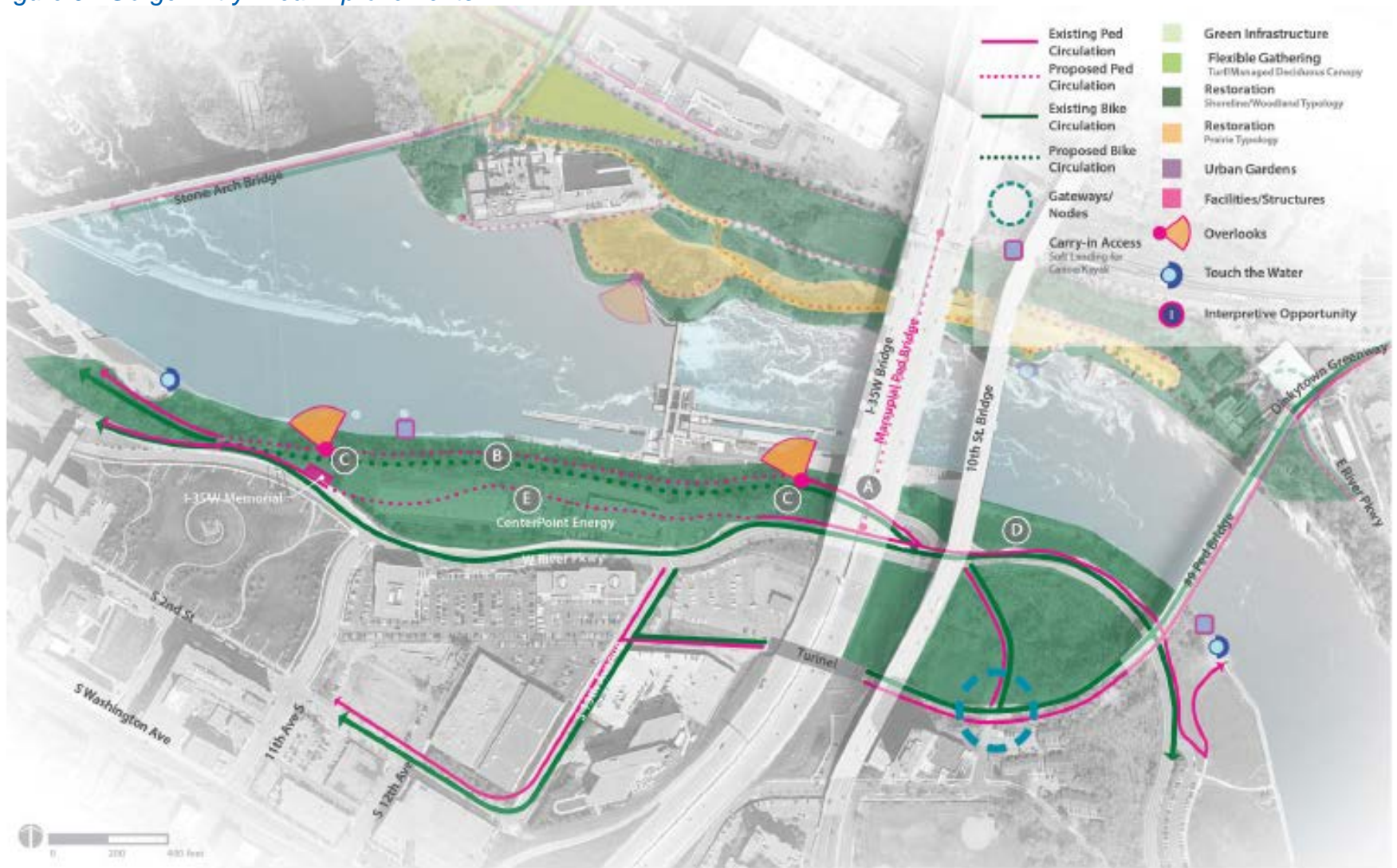


Figure 9: Gorge Entry Area Improvements



Father Hennepin Bluffs and Hennepin Island—this area is located on the east side of the river. Father Hennepin Bluffs lies on the upland portion of the bluff and Hennepin Island spans the portion of the park down the bluff to the river. Initiatives proposed for Father Hennepin Bluffs are shown in Figure 10 and include:

- Create a permeable park edge along Main Street that could entail removing berming and managing deciduous trees to maintain an overstory canopy
- Realign trails to meander close to the bluff
- Build a new band shell away from the bluff
- Add restroom facility

The goal for Hennepin Island is to preserve the character of the wild river floor while improving accessibility. The area would be used for passive recreation, wildlife viewing, and interpretation. Initiatives proposed for Hennepin Island are shown in Figure 11 and include:

- Stabilize eroded slopes and restore native vegetation on bluff and shorelines
- Restore water flow to the East Falls in a manner that maintains natural gravity flow
- Improve trail connection at the “pinch point” across from the Pillsbury A Mill
- Create a new looped trail connection along the bluff between Hennepin Island and the Stone Arch Bridge to replace the existing stairway
- Create Americans with Disabilities Act (ADA) access to Hennepin Island

Main Street—the key directive for this area is to create a continuous parkway experience and establish a continuous bike and pedestrian trail system. This area includes Main to Marshall (from Plymouth Avenue to 1st Avenue NE) and “The Seam” (from 1st Avenue NE to E Hennepin Avenue). These areas are shown in Figure 12.

The Main Street area also includes Historic Main Street. Initiatives proposed for Historic Main Street are shown in Figure 13 and include:

- Create more flexible space for everyday activities and events, while maintaining historic features and green space
- Integrate stormwater treatment to define separation between the roadway and trail system
- Create performance/event space under the 3rd Avenue Bridge by enhancing lighting and the bridge understructure
- Create public gathering areas at the water’s edge while promoting shoreline restoration
- Create separate bicycle and pedestrian trails

Main Street Portage initiatives are shown in Figure 14 and include:

- Work with partnering agencies to establish pedestrian and bicycle trails between historic Main Street and East River Road
- Work with the University of Minnesota to provide an upper trail connection to Bridge No. 9
- Work with partnering agencies and private landowners to provide public access to the water for portaging or other recreational uses

Figure 10: Father Hennepin Bluffs Area Improvements (outlined in blue)



Figure 11: Hennepin Island Area Improvements (outlined in blue)



Figure 12: Main Street—The Seam and Main to Marshall Area Improvements



Figure 13: Historic Main Street Area Improvements

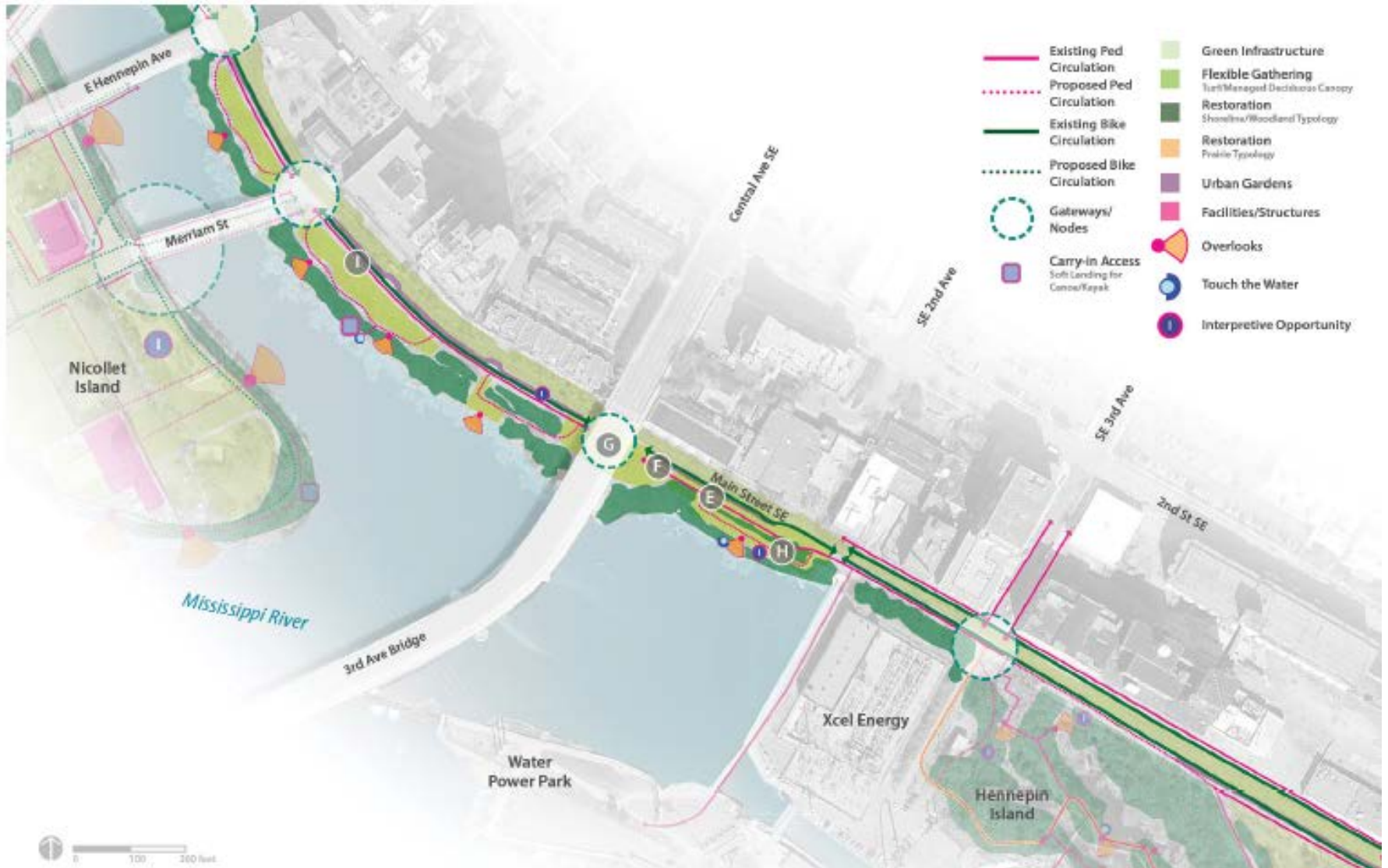


Figure 14: Main Street Portage Area Improvements



Nicollet Island—the main initiatives for this area include promoting green infrastructure, restoration, and more accessible public use while maintaining the island’s overall experience and historical character. Initiatives proposed for this area are shown in Figure 15 and include:

- Promote pedestrian connections to Nicollet Island from E Hennepin Avenue
- Create a Green Street Loop with shared bicycle and roadway circulation along Island Avenue and Merriam Street
- Remove gravel parking area along Island Avenue
- Remove invasive species and restore woodland habitat
- Utilize alternative, non-asphalt trail surfaces such as crushed limestone to preserve the unpaved and natural feel of the Merriam Street to Boom Island trail on Nicollet Island
- Promote open public use of the Nicollet Island Pavilion, which has a current catering contract that runs through 2026
- Retrofit existing parking lot to include green infrastructure
- Convert Power Street to a “woonerf” to treat stormwater and provide service access to the Nicollet Island Pavilion
- Restore shoreline and remove invasive species
- Support historical interpretation on the island
- Support the restoration of the Grain Belt sign. Discourage any new signage facing the island or the regional park.

Boom Island and BF Nelson—this area, along with the Scherer site that is adjacent to the north in Above the Falls Regional Park, provide the largest continuous swath of park space along this portion of the riverfront. Initiatives proposed for this area are shown in Figure 16 and include:

- Consolidate parking at entry points and incorporate green infrastructure
- Create dry creek channel that would recall the historic Boom Island channel and provide stormwater treatment
- Create a shared use trail between the Scherer site and Boom Island under the Plymouth Avenue bridge
- Cluster picnic areas to better accommodate small or large groups
- Redesign the shoreline’s hard edge to remove excess pavement and restore ecological function while still providing visitors the ability to experience the water
- Retain a multi-purpose lawn area to accommodate large groups and gatherings
- Improve wayfinding
- Interpret railroad history at the play area/old roundhouse area and throughout BF Nelson
- Update the play area
- Interpret historic canoe ferry route to Bassett Creek
- Promote woodland and prairie restoration at BF Nelson
- Incorporate public art

Figure 15: Nicollet Island Area Improvements

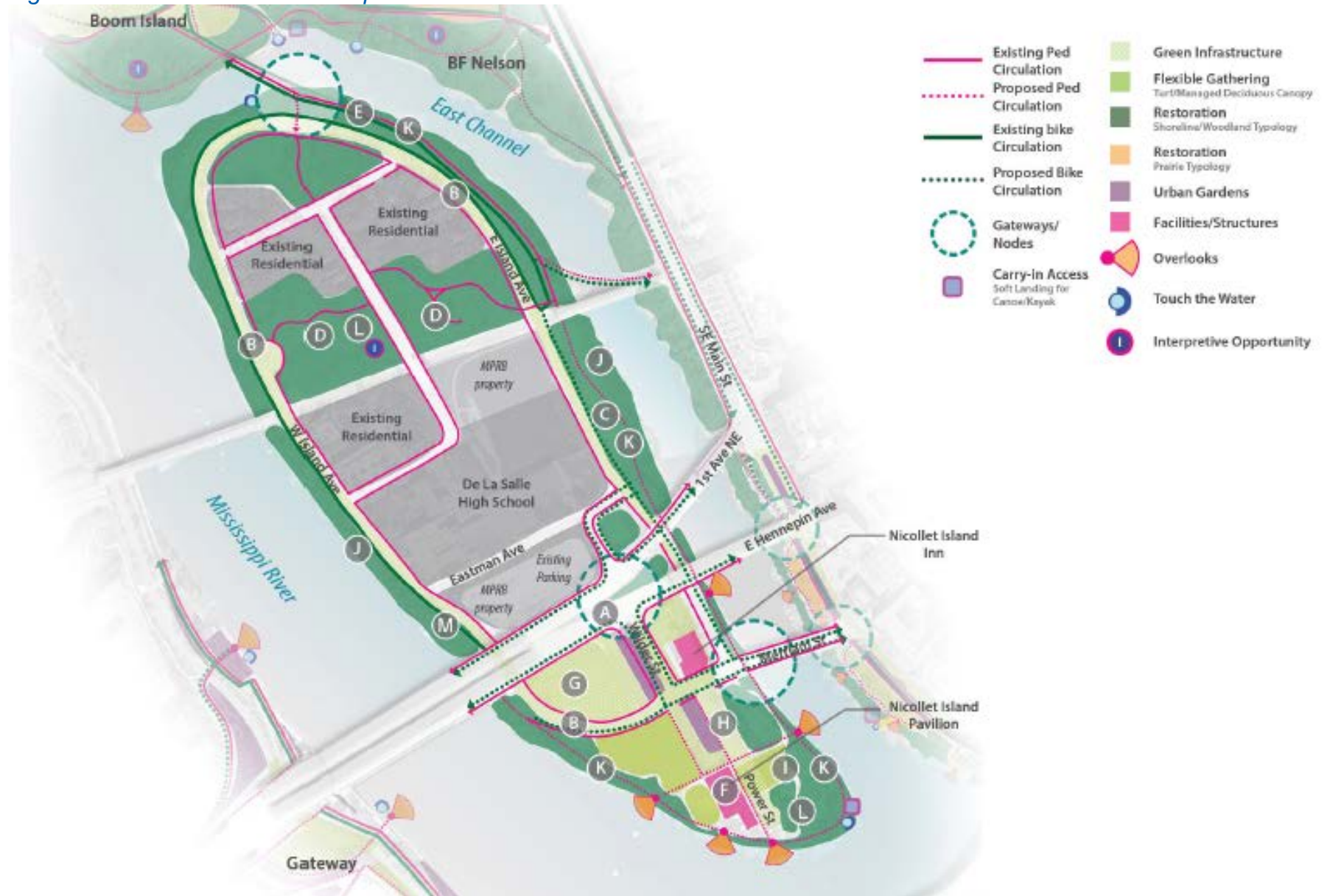


Figure 16: Boom Island and BF Nelson Area Improvements



The total estimated costs to implement the development proposed in the master plan are \$53,260,000, which are broken down by focus area in Figure 17. Additional detail for each focus area was provided in the master plan. The master plan acknowledges that the vision put forward will rely on partnerships and coordination with many agencies related to implementation and funding.

Figure 17: Central Mississippi Riverfront Regional Park Estimated Development Costs by Focus Area

Focus Area	Estimated Cost
Water Works/Mill Ruins Park	\$23,800,000
Father Hennepin Bluffs/Hennepin Island	\$3,850,000
Main Street Portage (6 th Avenue to East River Parkway)	\$1,700,000
Historic Main Street (East Hennepin Avenue to 6 th Avenue SE)	\$1,275,000
The Seam (1 st Avenue to East Hennepin Avenue)	\$125,000
Main to Marshall (Plymouth Avenue to 1 st Avenue NE)	\$330,000
Nicollet Island	\$2,630,000
Boom Island/BF Nelson	\$2,550,000
Bassett Creek	\$1,975,000
Gateway District	\$4,975,000
Lower Mill Ruins Park	\$1,425,000
Gorge Entry	\$8,625,000
TOTAL	\$53,260,000

Conflicts

The area surrounding Central Mississippi Riverfront Regional Park contains a diversity of land uses, including industrial and institutional on the southern edge of the park with residential and commercial interspersed further north. In order to avoid potential conflicts with other existing or proposed projects or land uses, a review of previous and ongoing planning efforts around the regional park was conducted. These include plans developed by the MPRB, City of Minneapolis, National Park Service, Saint Anthony Falls Heritage Board, University of Minnesota, Department of Natural Resources, and others. A complete listing of plans that were reviewed is included in the master plan. These plans helped inform the development concept within the regional park.

Public Services

Central Mississippi Riverfront Regional Park is located in the fully developed urban core of Minneapolis; therefore, amenities within the regional park can be developed without extensive investments in new public infrastructure, services, and utilities.

Operations

The MPRB Ordinances address the use, operations, and maintenance of MPRB parkland. The MPRB Ordinances are adopted as part of the Code of Ordinances for the City of Minneapolis.

The MPRB is responsible for providing daily and long term operations and maintenance within Central Mississippi Riverfront Regional Park. Typical park maintenance activities include mowing, debris removal, and restroom maintenance. Solid waste such as litter or garbage is collected by MPRB staff on a scheduled basis. The outdoor recycling program is co-mingled, where users can recycle glass, plastic, and aluminum together in blue recycling containers throughout the park.

The MPRB will inspect bicycle and pedestrian trails within the park annually and will complete repairs such as bituminous overlays and crack sealing. Sweeping, plowing, or other routine maintenance will also be provided by the MPRB.

Maintenance of parkway roadways and lighting is a major budget item for the MPRB. In 1999, the MPRB and the City of Minneapolis established a joint services agreement whereby the City maintains and improves parkway roadways and parkway lighting. All other functions of parkway maintenance and operations within the Central Mississippi Riverfront Regional Park are the responsibility of the MPRB.

Operations and maintenance expenditures for Central Mississippi Riverfront Regional Park are funded through the MPRB's annual operations and maintenance budget, with supplemental funding from State appropriations administered by the Metropolitan Council. Revenue generated by parking fees, special events, or programs are typically placed in the MPRB's general revenue budget and do not fund regional park operations and maintenance.

The master plan indicates that the total current annual costs to operate and maintain Central Mississippi Riverfront Regional Park are approximately \$381,000. This includes staff time, operations equipment, environmental programming, administration and other activities. The estimated annual operations and maintenance costs upon full build-out of the master plan are approximately \$5,331,000. The MPRB estimates that annual maintenance should cost ten percent of the project's development cost in order to ensure high quality facilities and sustainable replacement after an average ten-year life. The estimated costs take into account that some plan elements such as lawns, paths and natural habitats will require more regular and ongoing maintenance, while others like parking lots and buildings will have little annual maintenance but will require major capital inputs over time.

Public Participation

The public engagement process was organized around three main themes:

- Affirm the Big Picture: public survey, inventory analysis and visioning
- Narrow the Focus: concept development
- Finalize the Vision: master plan refinement

To inform the planning process, the MPRB Board of Commissioners appointed a Citizen Advisory Committee (CAC) to represent neighborhood interests in the planning process. The CAC met 13 times and also participated in design charrettes and open houses. Common interests of the CAC included the need to recognize Saint Anthony Falls as the primary character defining element of the riverfront, preserve and enhance the natural qualities of the regional park, and recognize the history of the riverfront.

A Technical Advisory Committee (TAC) was also established that consisted of staff from MPRB and partner agencies to bring forward policy, regulatory, and planning perspectives. The TAC meet 11 times and provided insight on the historical, cultural, and natural resource components of the area in and around the regional park.

The concept development phase of the community engagement involved a series of two-day onsite charrette work sessions. Five charters were conducted, each focusing on a specific planning area of the regional park.

Four public open houses were held during the master planning process. The open houses included time for the public to view the work in progress, an overview presentation, and a question/answer session. Input collected at the open houses resulted in adjustments being made, including:

- Revisiting the positioning of key design elements for the Water Works project
- Directing options for Nicollet Island that focused clearly on public uses and opportunities for the south end of the island
- Creating more explicit links between the regional park and neighboring areas, especially at the East Bank
- Maintaining a non-vehicular connection from Main Street to downstream portions of East River Road
- Affirming the need for a connection between the riverfront and downtown
- Establishing areas of regional park expansion

Public Awareness

The MPRB will publicize and promote development and programming of Central Mississippi Riverfront Regional Park through its website, maps, and promotional publications as well as community newspapers and other media. Grand openings, press releases and integrating the park with school and recreational programs will also help build awareness.

Partner agencies also promote MPRB parks. For example, the National Park Service conducts programs along the river corridor and will be critical in publicizing the regional park and its resources. Other partners include Meet Minneapolis and Explore Minnesota, which will help direct people to the regional park.

Accessibility

The MPRB's 2007-2020 Comprehensive Plan identifies strategies that are related to accessibility. These strategies include:

- Build or renew facilities to meet or exceed standards for accessibility
- Ensure recreation opportunities are available for persons with disabilities
- Identify and reduce physical and financial barriers to participation in programming

The master plan indicates that care will be taken to design facilities within Central Mississippi Riverfront Regional Park to meet the requirements of the Americans with Disabilities Act (ADA) as well as principles for universal accessibility. Some existing facilities, such as the steps to the riverbank at the Father Hennepin Park unit, do not meet ADA standards, but will be rehabilitated in the future to meet these standards.

Most of the facilities at the regional park, such as multi-use trails, community gathering areas, and public water accesses, do not require a fee for public use. Some of the existing facilities require a minimal user fee, including fees for boat storage at the Boom Island marina and event fees for reserving large gathering spaces. With the park's location in the core of Minneapolis, there are fees for parking. The MPRB offers users the option of purchasing a permit or using meters for parking and offers arrangements for reduced fees for recreational programming. The regional park is also well served by bus routes.

Natural Resources

The defining feature of Central Mississippi Riverfront Regional Park is the Mississippi River, which is a vital ecological feature on a regional, national and global scale. It is part of the Mississippi Flyway—a migratory corridor that extends from the Canadian tundra to the South American Patagonia—and is used by nearly half of the North American bird species and about 40 percent of its waterfowl. Saint Anthony Falls is a key feature of the river within the regional park.

Friends of the Mississippi River and the National Park Service issued the “State of the River Report” which found that river flow has increased significantly and continues to increase over time. High river flows can cause increased erosion, flooding risk, habitat degradation and can carry pollutants into the river. Flow increases may be attributed to urban runoff from impervious surfaces and changes in precipitation patterns. The Mississippi River is on the federal list of impaired waters for fecal coliform, mercury, and polychlorinated biphenyls (PCBs). Within the regional park, fecal coliform and PCBs are the major pollutants found. Bacterial pollution can create health concerns for recreational use, which limits swimming in the regional park, although recreational boating is permitted.

Because of the riverfront's past industrial use and the regional park's location in a densely developed urban area, the majority of soils have been heavily disturbed by cutting and filling. According to the Minnesota Pollution Control Agency's “What's in My Neighborhood” database, there are several sites within the regional park that may be contaminated, including lands associated with the St. Anthony Falls Lock and Dam, Mill Ruins Park, and the Centerpoint Energy property on the west side of the river. On the east side of the river, potentially contaminated sites include lands associated with the University of Minnesota (U of M) Steam Plant, Drummond Property at 600 Main Street, U of M St. Anthony Falls Hydro Lab, Xcel Energy power plant, South Nicollet Island, Main Street Bridge over the BNSF Railroad, and BF Nelson and Boom Island Parks.

The master plan states that any new park projects must account for potential remediation needs and include an analysis to determine if construction activities are likely to encounter contaminated soils or groundwater. System Protection Strategy 3 from the *2040 Regional Parks Policy Plan* outlines specific criteria that must be met in order for a regional park implementing agency to be eligible for regional parks funding for soil contamination remediation.

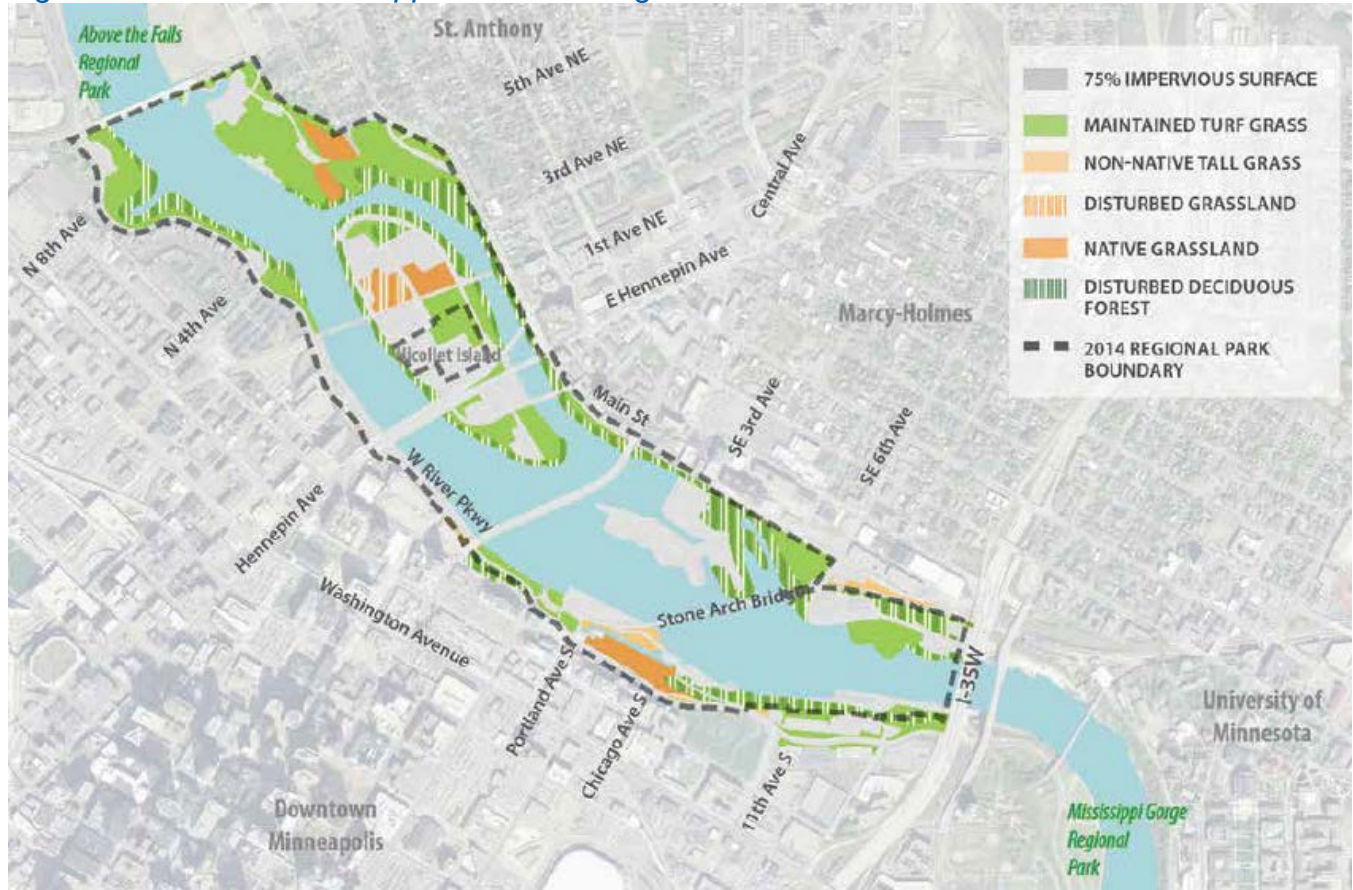
The Minnesota Land Cover Classification System (MLCCS) identifies the majority of the regional park to be “urban with little vegetation cover”, which is defined as an artificial surface that is altered, human-made, or impervious (paved or built). Other MLCCS classifications found within the regional park include:

- **Grasslands**—native mesic prairies are located at Lower Mill Ruins Park, the north side of Nicollet Island, and Boom Island.
- **Forests**—are typically found along the shoreline and on steep slopes and bluffs. The woodlands are altered deciduous, riparian areas that contain non-native species.

- **Built/impervious cover**—approximately 25 percent of the regional park is considered more than 50 percent impervious.

Figure 18 depicts the existing MLCCS land cover within Central Mississippi Riverfront Regional Park.

Figure 18: Central Mississippi Riverfront Regional Park MLCCS Land Cover

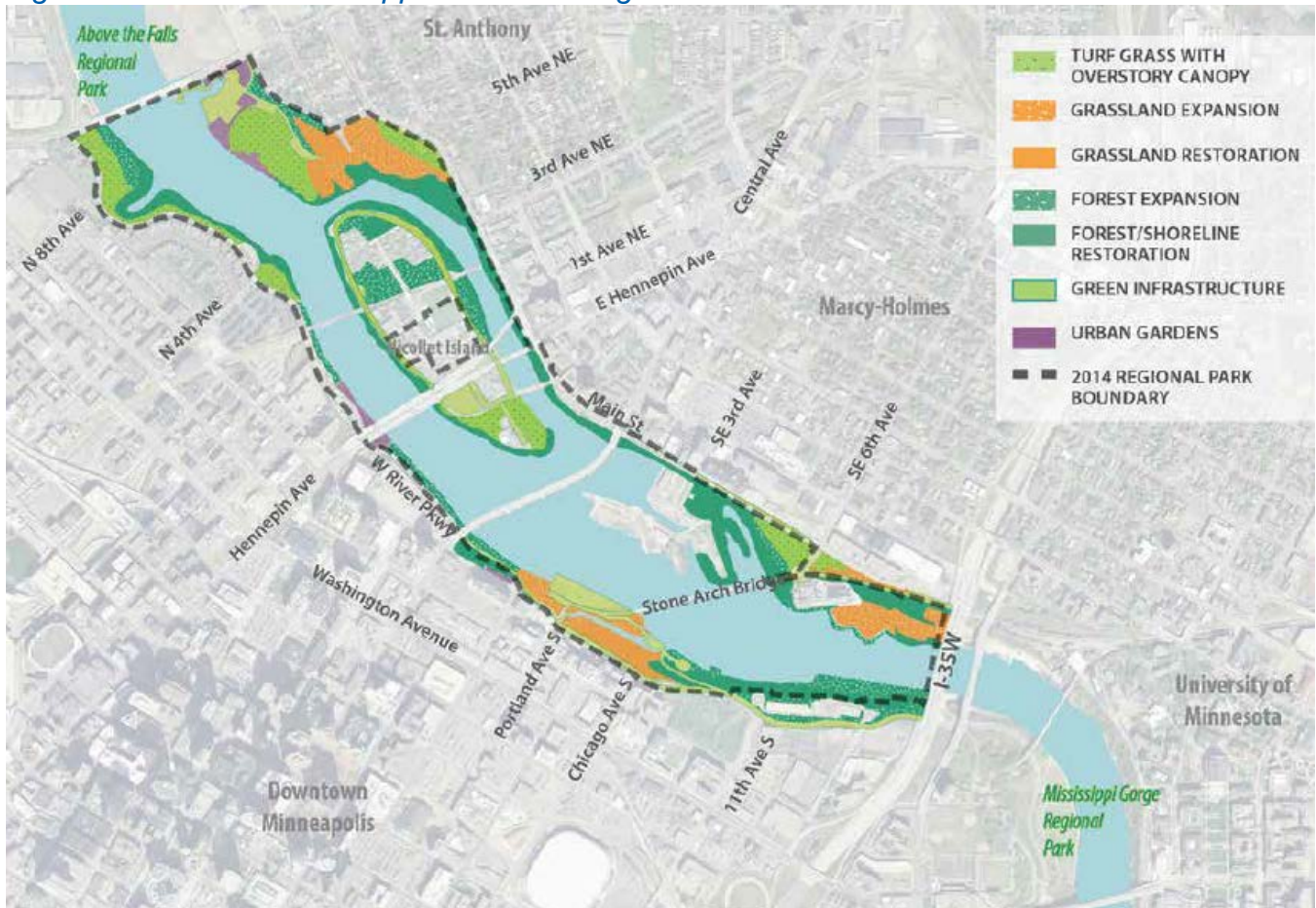


The master plan identifies opportunities to restore existing habitat, increase restoration areas and connect habitat patches to help create a healthier ecological corridor along the Mississippi River. The natural resources recommendations focus on restoration, expansion of native vegetation, reduction of impervious surfaces and incorporation of green infrastructure. Recommendations are depicted in Figure 19 and are identified under five general categories:

- **Turf with Overstory Canopy**—existing areas of turf grass with canopy trees should have the deciduous tree population managed. Ash trees should be removed over time to prevent the spread of emerald ash borer.
- **Urban Garden**—hardscaped areas should be softened by eliminating excess paving and by integrating native plantings to reduce stormwater runoff. Green infrastructure, such as pervious pavers, could be used in areas that are reconstructed to protect the river’s water quality.
- **Grassland Restoration and Expansion**—the native mesic prairies that have been planted should be maintained for invasive species removal. The patches of prairie on the north side of Nicollet Island were historically wooded and community feedback indicated a desire to see them reforested. These areas are recommended to be transitioned over time to native woodlands. Expansion of prairie is recommended for BF Nelson, Upper Mill Ruins, and the Main Street portage area.

- **Woodland/Shoreline Restoration and Expansion**—invasive species should be removed and erosion control should be implemented to preserve the bluff and river edges. As the invasive species are removed, additional native plants should be reintroduced. Overstory, understory, shrub and forest floor species should be considered to promote a healthy forest ecosystem and contribute to an improved habitat for migratory birds and other river wildlife.

Figure 19: Central Mississippi Riverfront Regional Park Natural Resource Recommendations



Green infrastructure is a key part of the master plan. Stormwater improvements will occur as part of new park development projects, which will be implemented with partner organizations such as the Mississippi Watershed Management Organization. Since stormwater management technology is constantly evolving, the master plan does not identify specific strategies, but provides a set of principles that will guide the development of stormwater management infrastructure. These principles are:

- Continue to pursue a range of stormwater best management practices (BMPs) in new development, such as rain gardens, impervious surface reduction, pervious pavement, underground treatment structures, and green roofs.
- Support retrofits of existing sites with stormwater BMPs.
- Consider partnerships and coordinate between private development and parks to maximize the efficiency of stormwater systems, explore shared solutions, and increase the greening of the public area.
- Coordinate the design of stormwater management facilities and parks to enhance public connectivity and preserve scenic views.

Review by Other Council Divisions

Community Development – Environment and Surface Water Management (Jim Larsen 651-602-1159) – The master plan proposal for ‘Green Infrastructure’ components to be included in all future existing facility retrofits and new park development projects and close coordination with the Mississippi Watershed Management Organization to improve stormwater management and incorporate shoreline habitat restoration are consistent with Council’s *2040 Water Resources Policy Plan* guidance.

The master plan makes several references to planned connections to the proposed reconstruction of Hall’s Island within the Above the Falls Regional Park to the north of this park. Those connections at this point in time are all simply proposals, as that project has not yet undergone any of the public environmental review that will be necessary to determine its potential benefits, impacts, and authorization for construction.

Environmental Services – Sewers (Roger Janzig 651-602-1119) – This project may have potential impacts on several Metropolitan Council interceptors in multiple locations. To assess the potential impacts to our interceptor system, prior to initiating any construction within this project location, preliminary plans should be sent to Scott Dentz, Interceptor Engineering Manager (651-602-4503) at the Metropolitan Council Environmental Services for review and comment.

Transportation/Transit Planning (Steve Mahowald 612-349-7775) – From a transit perspective, the master plan looks fine. We appreciate the emphasis on improving pedestrian connections to the riverfront.