



# MOORHEAD RIVER CORRIDOR MASTER PLAN

**Moorhead, Minnesota**

**CITY OF MOORHEAD**

**FARGO-MOORHEAD  
METROPOLITAN COUNCIL OF  
GOVERNMENTS**

**April 30, 2014**





# Table of Contents

<b>1. INTRODUCTION</b>	<b>1</b>
Overview	1
Master Plan Purpose	2
Planning Context	4
Planning Process	4
<b>2. EXISTING CONDITIONS</b>	<b>7</b>
Overview	7
Existing Conditions	8
Needs and Opportunities	15
Landscape Sensitivity	19
<b>3. VISION &amp; GOALS</b>	<b>21</b>
Overview	21
A Vision for the Moorhead River Corridor	22
<b>4. VISION &amp; GOALS</b>	<b>27</b>
Overview	27
Flood Protection	29
Attractive River Corridor	29
Connectivity	33
Recreation Plan	43
Habitat Enhancement and Water Quality Plan	48
Interpretation Plan	55
<b>5. IMPLEMENTATION &amp; MANAGEMENT</b>	<b>59</b>
Overview	59
Phasing and Priorities	62
Land Protection and Public Land Holdings	72
Operations and Maintenance – Sustainability	73
Funding Sources, Capital, and Operating Budgets	76
Funding Sources	78
Cost Estimate	83

## TABLES AND FIGURES

FIGURE 3. MASTER PLAN AREA MAP.....	3	FIGURE 39. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 2....	39
TABLE 8.1 CITY OF MOORHEAD RIVER PROPERTY ACQUISITION BY FUNDING SOURCE (ACREAGE).....	8	FIGURE 41. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 3....	41
TABLE 8 CITY OF MOORHEAD RIVER PROPERTY ACQUISITION BY YEAR (ACREAGE).....	8	FIGURE 42. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 4....	42
FIGURE 9. EXISTING EASEMENT LOCATIONS.....	9	FIGURE 43. REC NODES & PARK IMPROVEMENTS.....	43
TABLE 10. FARGO-MOORHEAD BRIDGES.....	10	FIGURE 44. NEW RECREATION NODE PLAN (R-1).....	44
FIGURE 11. EXISTING CONDITIONS.....	11	FIGURE 44.1. M.B. JOHNSON PARK PLAN.....	44
FIGURE 13. EXISTING CULTURAL & HISTORIC FEATURES.....	13	FIGURE 44.2. NEW RECREATION NODE PLAN (R-3).....	44
FIGURE 14. EXISTING VEGETATION.....	14	FIGURE 45. IMPROVEMENTS TO ORIGINAL HOMESTEAD/VIKING SHIP /MEMORIAL/RIVERFRONT PARK PLANS (R-5 & R-6).....	45
FIGURE 18. NEEDS AND OPPORTUNITIES.....	18	FIGURE 45.1. IMPROVEMENTS TO WOODLAWN PARK PLAN (R-7).....	45
FIGURE 19. LANDSCAPE SENSITIVITY ANALYSIS.....	19	FIGURE 46. IMPROVEMENTS TO GOOSEBERRY MOUND/HORN PARK PLANS (R-8 & R-9).....	46
FIGURE 19.1 TYPICAL SECTION – POTENTIAL TRAIL SCENARIOS.....	19	FIGURE 46.1. IMPROVEMENTS TO RIVER OAKS PARK PLAN (R10).....	46
FIGURE 28. CONNECTIVITY AND RECREATION OVERVIEW.....	28	FIGURE 47. NEW RECREATION NODE PLAN (R11).....	47
FIGURE 30. TYPICAL ROADSIDE TRAIL.....	30	FIGURE 47.1. BLUESTEM PARK & PERFORMING ARTS PLAN (R12).....	47
FIGURE 30.1. TYPICAL RIVERSIDE TRAIL.....	30	FIGURE 52. PROPOSED HABITAT & WATER QUALITY IMPROVEMENTS (STUDY AREAS 1 & 2).....	52
FIGURE 30.2. TYPICAL RESTORATION AREA TRAIL.....	30	FIGURE 54. PROPOSED HABITAT & WATER QUALITY IMPROVEMENTS (STUDY AREAS 3 & 4).....	54
FIGURE 31. TYPICAL TRAIL EDGE BETWEEN PRIVATE PROPERTY AND RIVER EDGE.....	31	TABLE 64. PROJECT PHASING AND PRIORITY.....	64
FIGURE 31.1. TYPICAL DELINEATION BETWEEN PUBLIC AND PRIVATE PROPERTY.....	31	FIGURE 65. STUDY AREA 1 - PROJECT PHASING DIAGRAM.....	65
FIGURE 31.2. TYPICAL TRAIL EDGE BETWEEN PRIVATE PROPERTY AND ROAD EDGE.....	31	FIGURE 66. STUDY AREA 2 - PROJECT PHASING DIAGRAM.....	66
FIGURE 32. PROPOSED SIGN DESIGN.....	32	FIGURE 67. STUDY AREA 3 - PROJECT PHASING DIAGRAM.....	67
FIGURE 32.1. TOOLS & TECHNIQUES FOR DELINEATING PUBLIC AND PRIVATE PROPERTY.....	32	FIGURE 68. STUDY AREA 4 - PROJECT PHASING DIAGRAM.....	68
FIGURE 33. SECTION - TRAIL ON DRY SIDE OF LEVEE.....	33	TABLE 69. PRIORITY NATURAL RESOURCE ACTIVITIES.....	69
FIGURE 33.1. SECTION - ON ROAD BIKE LANE.....	33	TABLE 70. 10 YR PRIORITY PROJECTS WITHIN CURRENT CITY BUDGETS.....	70
FIGURE 34. SECTION - TRAIL ON LEVEE.....	34	FIGURE 71. PROJECT REVIEW PROCESS.....	71
FIGURE 34.1. SECTION - TRAIL ON RIVER SIDE OF LEVEE.....	34	TABLE 77. POTENTIAL FUNDING SOURCES BY PROJECT TYPE.....	77
FIGURE 35. WELL MARKED TRAIL CROSSING.....	35	TABLE 83. GENERAL RECREATION & PARKS CAPITAL, OPERATIONS, & MAINTENANCE COSTS.....	83
FIGURE 35.1. ROAD CROSSINGS AND BRIDGES.....	35	TABLE 84. RIVER CORRIDOR COST ESTIMATES .....	84
FIGURE 38. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 1....	38	FIGURE 86. ON-GOING MAINTENANCE EFFORT.....	86
		TABLE 87. ON-GOING MAINTENANCE COST ESTIMATES.....	87



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# Introduction

## Overview

Traveling through the heart of the Fargo-Moorhead metropolitan area, the Red River of the North is a defining natural feature in both cities and provides life-giving water, scenic views, and natural habitat. However, floods have raised a constant concern and posed a threat to public and private development along the River Corridor. In response, the City of Moorhead has initiated a number of flood mitigation actions. One of the most visible actions has been the purchase of flood prone properties for flood mitigation measures, notably the construction of floodwalls and levees. There is widespread community recognition that the new public land along the river is a unique opportunity for the City to not only achieve flood mitigation goals, but also transform the River Corridor to a visible and publicly accessible source of pride, beauty, culture, and recreation for residents.

This Master Plan considers how the Moorhead community embraces the River Corridor both now and in the future. It presents a long-term vision for the corridor side by side with implementation actions that can be undertaken in the near term, within current budgets, land ownership, and flood protection infrastructure. The study is a guide to future public access, recreation development, and vegetation restoration for the nine-mile Red River Corridor between approximately 60th Avenue South and County Road 22/Wall Street (Fig 3).

## BENEFITS OF PUBLIC OPEN SPACE

The benefits of public open space for property values, public health, and quality of life have been documented in numerous studies and publications.

### Increased Property Value

Close proximity to public open space increases property values. Evidence has shown that large, natural areas in urban locations have the greatest positive impact on property values – up to a 15% increase in home value – compared to active, neighborhood parks and parks in suburban or rural areas.

### Improved Health

Quality of open spaces and quantity of parks in a community equals healthy residents. People who live near parks and open spaces tend to get more exercise and be healthier. In addition, the natural landscapes and vegetation in parks and open space contribute to a healthier planet. Trees provide shade, wildlife habitat, and evapotranspiration of stormwater.

### Quality of Life

Parks and public open space are unique in that they are places that are free for people of all ages, abilities, and incomes to enjoy. They provide spaces for intimate contemplation and community wide events. Parks can be community symbols of pride and beauty. They attract tourists, benefitting the local economy (ie. Central Park in New York, Yellowstone Park in Wyoming, and Yosemite in California, among others). Their welcoming nature and social functionality contribute to high quality of life.

In Minnesota, people place a high value on outdoor recreation. The lakes, parks, and trails provide opportunities for boating, fishing, skating, skiing, running, biking, and many other year-round activities. Minnesotans have proven their interest in investing in parks and open spaces by the passing of the Clean Water, Land and Legacy Amendment.

Sources:

*“The Economic Value of Open Space: A Review and Synthesis,”* by Charles J. Fausold and Robert J. Lilieholm. Lincoln Land Institute, Paper.WP96CF1, 1996.

*“The Proximate Principle,”* by John L. Crompton. National Recreation and Park Association, 2004.

*“The Value of Open Space: Evidence from Studies of Nonmarket Behavior,”* by Virginia McConnell and Margaret Wells. Resources for the Future, January, 2005.

Anton, Paul A. *“The Economic Value of Open Space: Implications for Land Use Decisions,”* Wilder Research, December, 2005. pg. 12.

# Master Plan Purpose

As a result of significant floods of 2009, 2010, and 2011, the City of Moorhead initiated a number of interrelated flood mitigation actions. One of the most visible actions is the proactive (but voluntary) acquisition of flood-prone properties adjacent to the river. Through that effort, over 225 acres in the past ten years along the Red River has been transferred to public ownership. While the priority use for this property is flood risk reduction, there has been significant public interest in how these areas will be maintained, managed, and transformed into a community asset.

The purpose of the River Corridor Master Plan is to present a long term (25+ years) community vision and comprehensive strategy to guide sustainable management and maintenance of the River Corridor in Moorhead. The Master Plan has five chapters. These include:

1. **Introduction** includes project background and needs
2. **Existing Conditions**
3. **Vision & Goals**
4. **The Plan**, addresses how the corridor will be used by the public and what it will look like
5. **Implementation & Management.** This chapter addresses multiple timeframes: actions that can be undertaken immediately and near-term (1-5 years); projects that require additional planning and consideration and longer lead times (5-10 years); and visionary projects (10+ years) that may not be possible today but are desired to completely achieve the vision for the corridor.

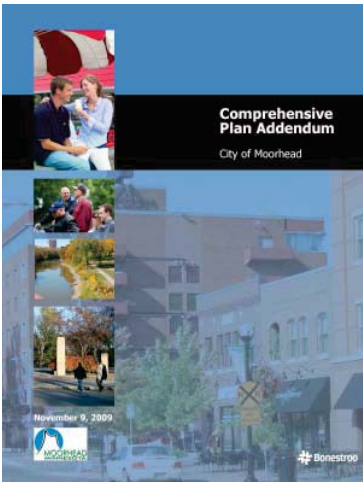
Within these chapters, the Master Plan:

- » Addresses flood mitigation strategies
- » Proposes policy for lease/sale of public lands along the River Corridor
- » Outlines strategies for the delineation of public & private land
- » Identifies a continuous river trail alignment, pedestrian bridge locations, and priorities
- » Defines activities and concepts at recreation nodes
- » Guides natural resource stewardship and restoration
- » Recommends interpretive themes and strategies
- » Guides implementation: priorities and phasing, capital and operational budgets, funding, and partnership opportunities



FIGURE 3. MASTER PLAN AREA MAP

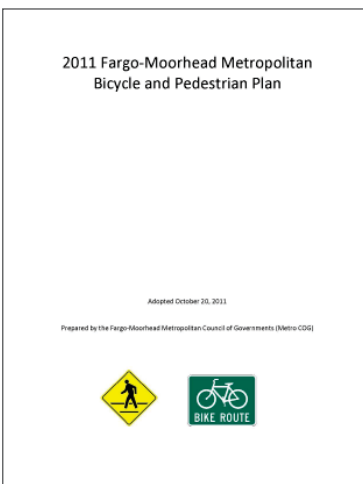




# Planning Context

Over the last several decades more than forty plans and studies have either directly or indirectly discussed issues related to the River Corridor in Moorhead. The following prior planning documents and related studies have been reviewed as part of this effort:

1. Red River Vision 1989 – a product of the American Institute of Architects
2. Red River Action Plan (1989)
3. FM Perceptions of the Red River & Surrounding Area (1992)
4. Moorhead Comprehensive Plan (2004) & Addendum (2009)
5. Fargo-Moorhead Metropolitan Bicycle and Pedestrian Plan (2011)



# Planning Process

The Moorhead River Corridor Master Plan is the result of an 18 month planning process which involved cooperation and discussion among a number of project partners and stakeholders, as well as direct consultation with the community at large.

## ROLES AND RESPONSIBILITIES

**Metro COG & City of Moorhead Staff** - Metro COG served as the principal investigator for the River Corridor Master Plan and worked closely with staff from the City of Moorhead. To ensure participation from a range of municipal departments, a Technical Advisory Group was formed, with representation from Metro COG and Moorhead’s planning, engineering, and parks departments. Metro COG and City of Moorhead staff, along with Hoisington Koegler Group Inc. (HKGi) and Emmons and Olivier Resources (EOR), planning and natural resource consultants hired mid-way through the project, are responsible for data analysis, meeting and stakeholder coordination, and drafting of the Master Plan.

**River Corridor Advisory Committee** - The River Corridor Advisory Committee (RCAC) was appointed by the City Council in October of 2012 to assist with providing input into the development of the overall River Corridor Master Plan. The Advisory Committee consists of representation from each of Moorhead’s eight (8) flood zones and City Council representation from Wards 1 and 3. The RCAC provided input and feedback on concepts, policies, and recommendations developed as part of the River Corridor Master Plan. The RCAC met four (4) times throughout the development of the River Corridor Master Plan.

**Moorhead City Council** - The Council was updated on the River Corridor Master Plan at the conclusion of each phase of the Master Plan. The Council was kept apprised of the River Corridor Master Plan through direct representation on the River Corridor Advisory Committee and through informal communication with City and Metro COG staff.

**City Residents at Large** - Three (3) public input meetings were held during the planning process. The meetings were structured to gather input and feedback from Moorhead residents and the general public regarding various aspects of the River Corridor. Public input meetings were held at key milestones within the overall project.

**Stakeholders** - Outreach and coordination with public agencies, recreation providers and other key stakeholders was conducted during the planning process. These groups included: City of Fargo, Oakport Township, Buffalo Red River Watershed District, Clay County, Minnesota Department of Natural Resources (MN DNR), Fargo Moorhead Trailbuilders, Fargo-Moorhead River Keepers, Prairie's Edge Nordic Skiers (PENS), River Corridor Advisory Committee, and Trollwood Performing Arts School.

## PROJECT PROCESS

### PHASE I – NEEDS AND ISSUES (NOVEMBER 2012 - APRIL 2013)

This phase identified the needs and issues related to the River Corridor. The Phase I work included documentation of existing conditions, public input, identification of limitations, needs, and opportunities along the River Corridor, and presents a range of needs and opportunities as identified by the public, residents, and City staff. Metro COG, in close collaboration with City of Moorhead staff, led the Phase I work. During this phase of the project the following outreach activities were conducted:

*Summaries from community outreach activities can be found in Appendix C*

- » **River Corridor Advisory Committee (RCAC) Meeting (December 2012)**
- » **Community Open House (December 2012)**
- » **Public Survey (January 2013)**
- » **River Corridor Advisory Committee Meeting (March 2013)**

### PHASE II –ALTERNATIVE POLICIES & STRATEGIES (JUNE 2013- APRIL 2014)

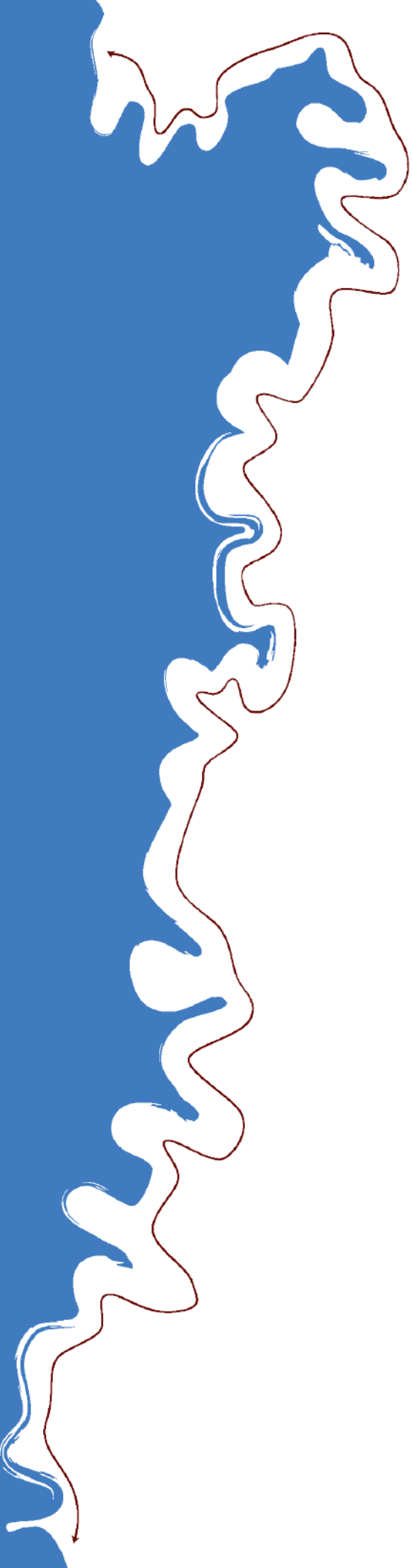
This phase established a set of policy and strategy alternatives that could be used to address the issues, needs and opportunities identified along the River Corridor and developed the Red River Corridor Master Plan. At this phase of the project Hoisington Koepler Group Inc. was hired to work closely with Metro COG and the City on the remainder of the Master Plan. As part of Phase II, a River Corridor Summit was held in late October 2013. Meetings Include:

- » **Agency Partners Roundtable:** Metro COG, City of Moorhead, City of Fargo, Fargo Park District, Oakport Township, MN DNR, Buffalo Red River Watershed District, Clay County (October 28, 2013)
- » **Recreation Partners Roundtable:** Fargo/Moorhead River Keepers, Prairie's Edge Nordic Skiers (PENS), Fargo Moorhead Trailbuilders, Moorhead Country Club, Fargo Park District, Trollwood Performing Arts School (October 28,2013)
- » **River Corridor Advisory Committee (RCAC) Meetings** (October 28, 2013)
- » **River Corridor Field Day:** Project Technical Advisory Group, RCAC, City Council/Commissions, and the public were invited to see key areas of the corridor first hand; approximately 15-20 people visited each stop (October 29, 2013)
- » **Community Open House** (October 29, 2013)

Input on the Draft Plan was obtained in March and April of 2014. Meetings included:

- » **RCAC Meeting** (March 5, 2014)
- » **River Corridor Residents Workshop** (March 5, 2014)
- » **Committee of the Whole** (March 17, 2014)
- » **Park Advisory Board** (March 18, 2014)
- » **Open House** (April 15, 2014)

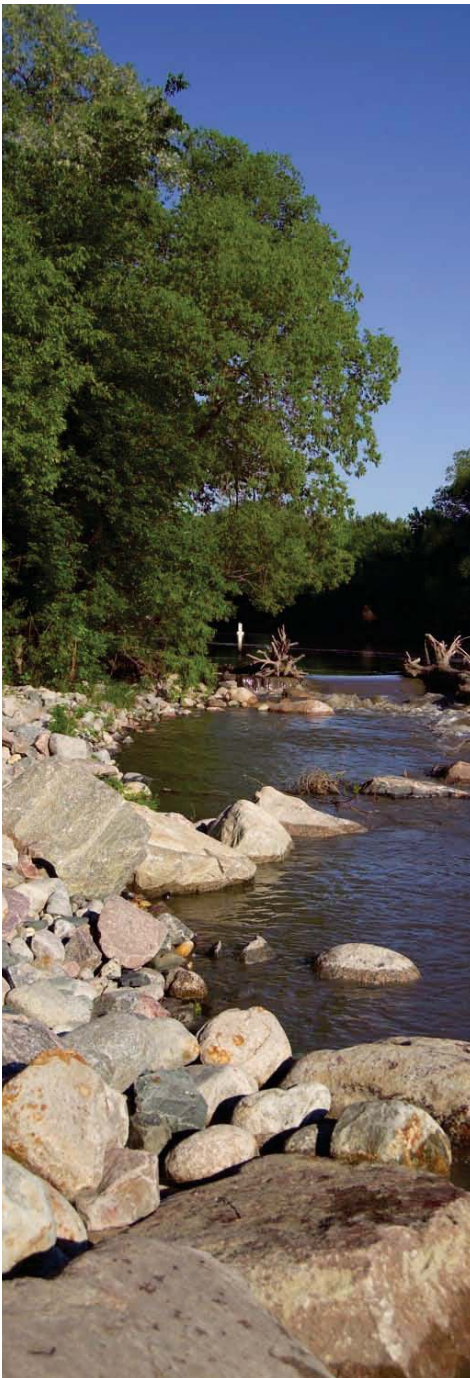




# Existing Conditions

## Overview

Today, Moorhead’s River Corridor is in a state of change. During the last decade, over 225 acres of land has been transferred to public ownership and levee construction has been ongoing. In the process, streets that were once lined with homes and landscaping now are new open spaces and levees providing permanent flood protection. At the same time, residents are ready to embrace the new public river edge and seek clarity in the delineation of public and private property along the river. Remaining residents want to make sure that their property rights are respected and also have varying opinions about how the adjacent public land is maintained. This section provides an overview of existing conditions and needs along the River Corridor.



# Existing Conditions

## FLOOD PROTECTION LEVELS

Existing, proposed, and flood levees that are under construction are mapped on Figure 9. Proposed levees are those that are desired by the City, but for which easements and acquisitions are required for project completion.

## PUBLIC PROPERTY

The City of Moorhead has acquired approximately 225 acres of property along the River Corridor for flood mitigation since 1990, shown in Table 8 and in Figure 9. Table 8 depicts approximate acquisition acreage by year. It is important to note that additional acquisition by the City of Moorhead is ongoing.

Table 8.1 separates acquisitions by funding source. It is important to note that acreage acquired with Federal Emergency Management Agency (FEMA) funds and Minnesota Department of Natural Resource (DNR) funds have deed restrictions attached, as noted below.

YEAR	ACERAGE
1990	26.69
1995	5.97
1997	12.33
2003 & 2004	0.39
2009	32.47
2010	23.04
2011	103.15
2012	23.04
2013	12.96

Table 8.1 City of Moorhead River Property Acquisition by Funding Source (Acreage)

SOURCE	ACREAGE	DEED RESTRICTIONS
Federal Emergency Agency (FEMA)	20.70	Property can only be used for open space, recreational or wetland management practices
Minnesota Department of Natural Resources (DNR) & City (General Fund, Assessments, etc.)	183.49	Property can only be used for open space, recreational or wetland management practices. No new structures except park facilities for outdoor activities, pervious parking areas, public utility infrastructure, flood improvement structures, public trails, public restrooms
Community Block Grant Funds (CDBG)/FEMA	0.17	
Unknown / Unidentified	21.62	
<b>Total</b>	<b>225.98</b>	

Source: Acreage Deed Restriction

FIGURE 9. EXISTING EASEMENT LOCATIONS

**TRAIL EASEMENTS**

There are existing trail easements on private river corridor properties as illustrated in Figure 9. The location, width, and provisions of these easements vary and are tied to each specific property or plat, but may be of use in establishing a continuous public river corridor.

**LEASED PUBLIC LAND HOLDINGS**

Based on prior River Corridor buy outs, the City has leased remnants of parcels of land adjacent to the River Corridor. The majority of these leases were an efficient means of managing a few disparately located areas that were remaining after the flood mitigation improvements were completed. These leases are short term leases between City and the adjacent land owners in which the lessee provides maintenance and upkeep that would otherwise be provided by the City. In the past, when most of the corridor was in private ownership, this was an efficient way for the City to absorb additional maintenance responsibility without significantly increasing maintenance budgets. The standard term limit for lease agreements has been set as year to year and can be terminated by the tenant or City at any time with proper notification. Rent payments per the agreements are in the form of maintaining the property as a vacant residential lot; which includes mowing, spraying for weeds, general lawn care, and snow removal where applicable. The City currently has two (2) types of leases which include:

- » **Full Lease** - These leases allow the tenant to make improvements generally limited to gardening and some landscaping, with City approval.
- » **Leased (Mow Only)** – These leases allow for maintenance only. No additional trees/shrubs, landscaping, gardening, or structures are permitted; the lessee may only maintain the property as is.

As flood mitigation projects have been completed along the Corridor, and as Corridor planning continues to clarify a vision for the Corridor’s public use and function, the conditions that support the notion of leasing lands continues to change. One of the outcomes of the River Corridor Master Plan is to determine if it is in the best interest of the City to lease or sell any of these remnant lands back to adjacent property owners, and if so, under what conditions.

**PUBLIC / PRIVATE DELINEATION**

As shown on Figure 11, land along the River Corridor is a mix of public parks, acquired public property (much of which has new flood protection levees on it), and private property. Some of the private property is still desired for flood mitigation, and some is not needed and will remain in private ownership. One of the issues with the inconsistent, and since 2009, constantly changing, ownership is that there is not clear delineation between public and private land. This has led to conflicts and frustration from both the landowners, who do not want the public trespassing on their land, and from the public, who want to use and are using the public open space along the river for informal recreation.



## CONNECTIVITY - BICYCLE AND PEDESTRIAN FACILITIES

Today, there are 22 miles of pedestrian and bicycle facilities along the Moorhead River Corridor including: 1) 14 miles of separated shared use paths; 2) 8 miles of signed or striped roadways; 3) and bridges. These facilities are shown in Figure 11. A significant issue with these facilities is persistent flooding of existing paved trails below the 24' flood elevation, which results in trail closures during flooding, increased maintenance to clear trails of silt and debris, and shortened pavement life. In addition, in some areas, notably the Woodlawn Park area, there is the need to review options for permanent relocation of the existing river trail due to bank instability and slumping issues. Today, there are three dedicated bicycle and pedestrian bridges linking Moorhead to Fargo, including:

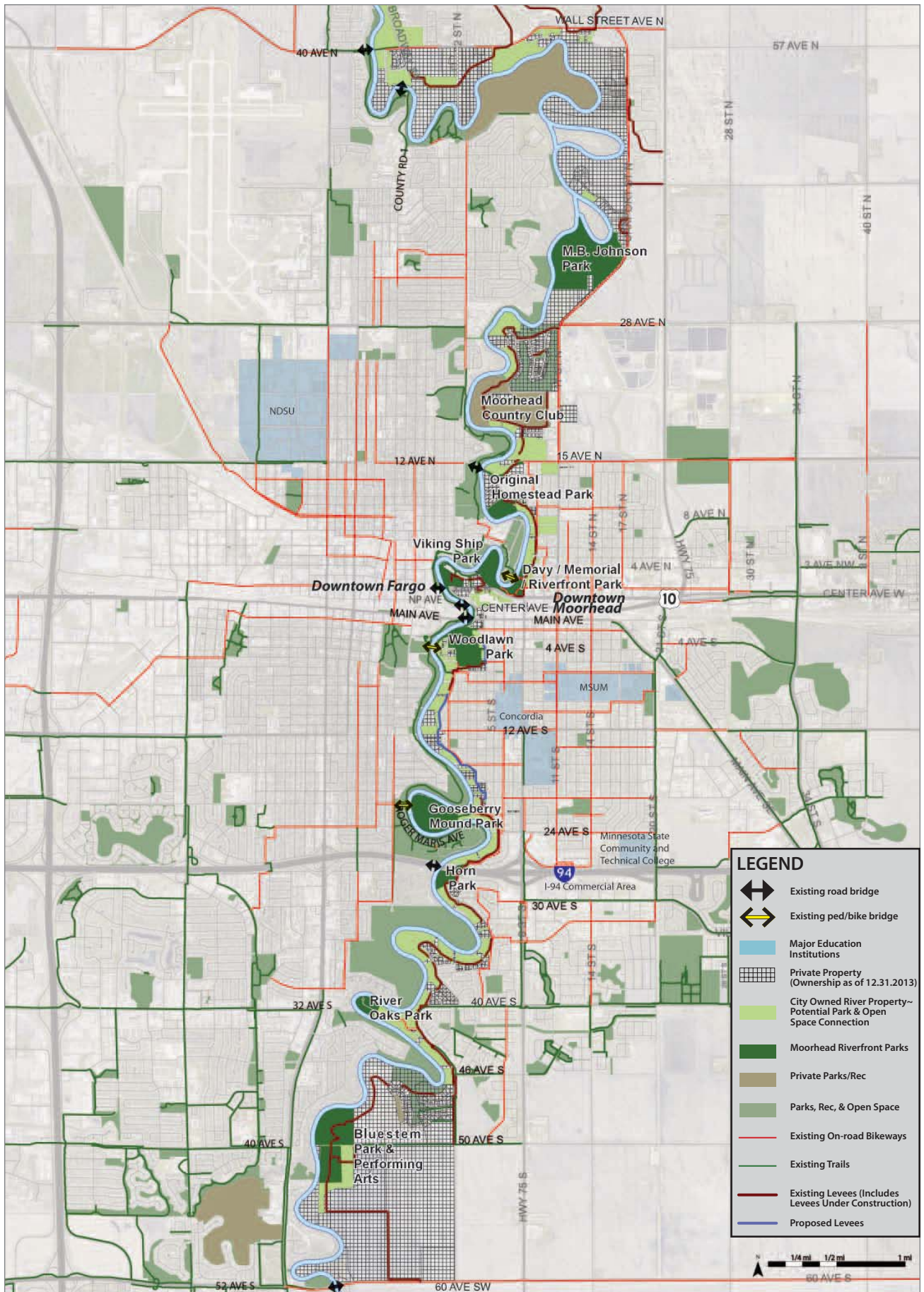
- » **Memorial/Oak Grove Bicycle and Pedestrian Bridge** - this bridge is anticipated to be replaced in 2016-2018 following the 2009 Project Concept Report (PCR) prepared for this structure. A number of existing limitations were identified: steel trusses have minor bowing; treated timber decking shows signs of cracking and is considered a maintenance issue; location and elevation of the bridge is problematic due to its length and elevation relationship to the river. The bridge structure itself is in sound condition.
- » **Power Plant / Dike East Floating Pedestrian Bridge** - when operational this is a popular crossing point for recreational and commuting purposes and it provides a direct connection between existing river trails in Moorhead and Fargo. There is a high volume of river related recreational activity around this location due to its proximity to the Midtown Dam, Woodlawn Park, and Dike West/East Parks. This floating bridge is currently a maintenance concern for both the City and the Fargo Park District. The bridge is required to be removed when the river goes above 17' stage; and at 19' stage the river levels compromise the integrity of the structure. In the near term, the City has indicated a desire to review options for the potential relocation of the bridge further upstream.
- » **Gooseberry Mound / Lindenwood Pedestrian Bridge** - this bridge was constructed in 2012 and is in good condition. It is not high enough to ensure boat travel under the bridge during high water conditions.

Table 10. FARGO-MOORHEAD BRIDGES

ROAD BRIDGE LOCATION (MN/ND)	AVAILABLE BIKE/PED FACILITIES
County 22 – Wall Street Avenue NW/County 20	Yes – Dedicated segment
Broadway Street North	On road
15th Avenue North (private)/12th Ave N – Toll Bridge	Yes – Dedicated segment (narrow)
Memorial /Oak Grove Bicycle and Pedestrian Bridge	Yes – Ped-Bike Only (removed during floods)
1st Avenue North	Yes – Dedicated segment
Center Avenue North/NP Ave	Yes – Dedicated segment (narrow)
Main Avenue	Yes – Dedicated segment
Floating Bridge Power Plant - Dike East	Yes – Ped-Bike Only (seasonal)
Gooseberry Mound Park – Lindenwood Park	Yes-Ped-Bike Only
Interstate 94	None
60th Avenue South/52nd Ave S	On road



FIGURE 11. EXISTING CONDITIONS





## RECREATION AND PARKS

The City of Moorhead has identified several classes of parks, including: Neighborhood Parks, Community Parks, and Regional Parks. Existing parks and recreational areas within Moorhead comprise approximately 1,088 acres. Since 2009, the City has added 225 acres of newly acquired property through flood mitigation efforts. This has effectively increased the amount of acreage that must be managed and maintained by 22%. Moorhead's park classification system follows.

### NEIGHBORHOOD PARK

- » One to ten acres in size
- » Serves the immediate areas within two miles of the park
- » Features typically include a tot lot, benches, some open play areas, and sports facilities such as tennis courts, ball diamonds, soccer fields, hockey rinks, etc.
- » Moorhead currently has thirty-four (34) neighborhood parks throughout the City

### COMMUNITY PARK

- » 10 to 20 acres in size
- » Attracts residents from throughout the community
- » Moorhead currently has four (4) community parks all within the River Corridor, including:
  - Davy-Memorial/Riverfront Park
  - Viking Ship Park
  - Woodlawn Park (impacted by river flooding)
  - Gooseberry Mound Park (impacted by river flooding)

### REGIONAL PARKS

- » 20 acres or larger
- » Attracts patrons from throughout the City and larger regional area
- » Moorhead currently has four (4) Regional Parks including:
  - M.B. Johnson Park (located within the River Corridor)
  - Horizon Shores Park
  - Southside Regional Park
  - Robert A. Fogel Riparian Forest/Bluestem Park (located within the River Corridor)

## 24' FLOOD ELEVATION

The 24' river flood stage has been identified as a recommended minimum elevation for new park buildings and recreation facilities and trails to avoid minor flooding due to spring runoff and heavy summer rains. The Red River has exceeded the 24' stage sixteen (16) times in the last 30 years (1982-2013) during spring flooding (March-May). Over this same time frame, the Red River has exceeded 24' two (2) times during the summer months (June – August).

## INTERPRETATION

Moorhead's River Corridor has numerous cultural amenities and historic sites that provide opportunities for interpretation. In some cases, there is still existing physical evidence of a historical feature along the River Corridor in Moorhead (e.g. Probstfield Farm, etc.). Appendix 2 summarizes the highlights of the cultural/historic points. This data was developed by the Clay County Historical Society in 1990 and has not been formally updated.

FIGURE 13. EXISTING CULTURAL & HISTORIC FEATURES

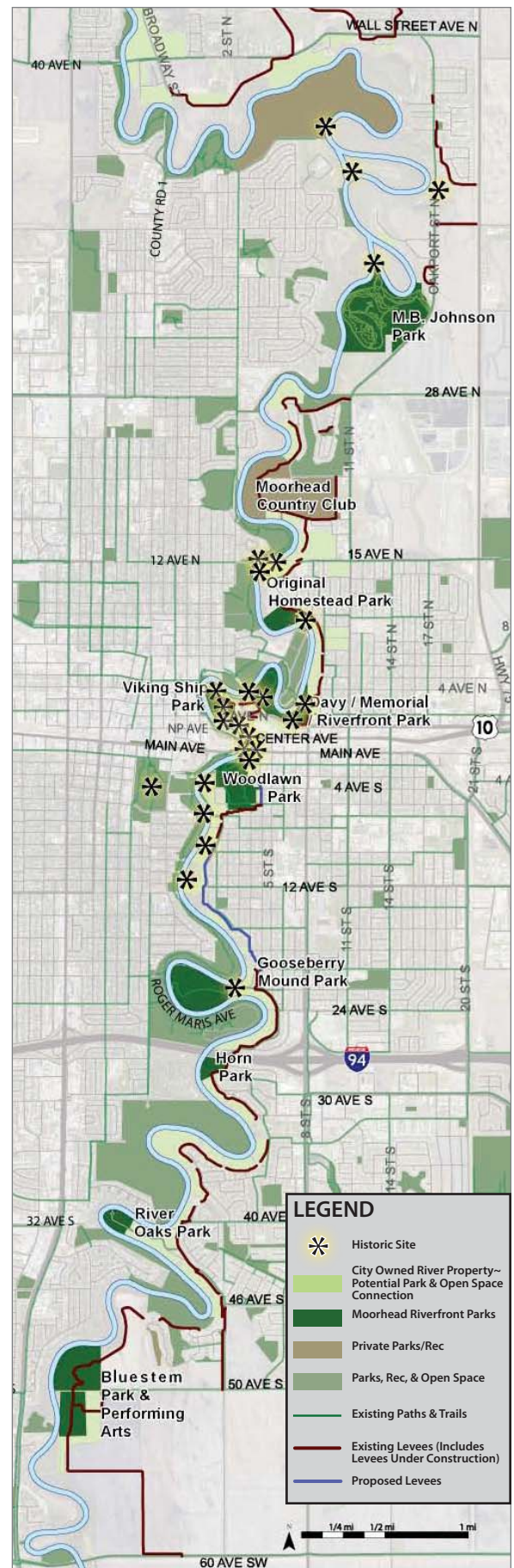
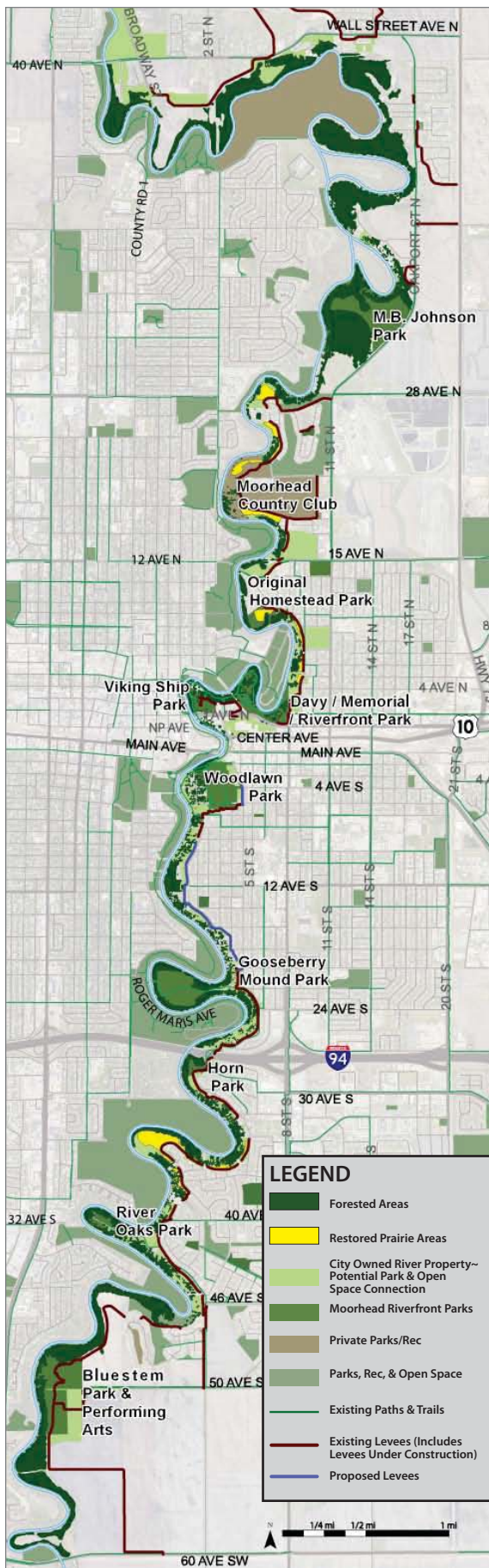


FIGURE 14. EXISTING VEGETATION



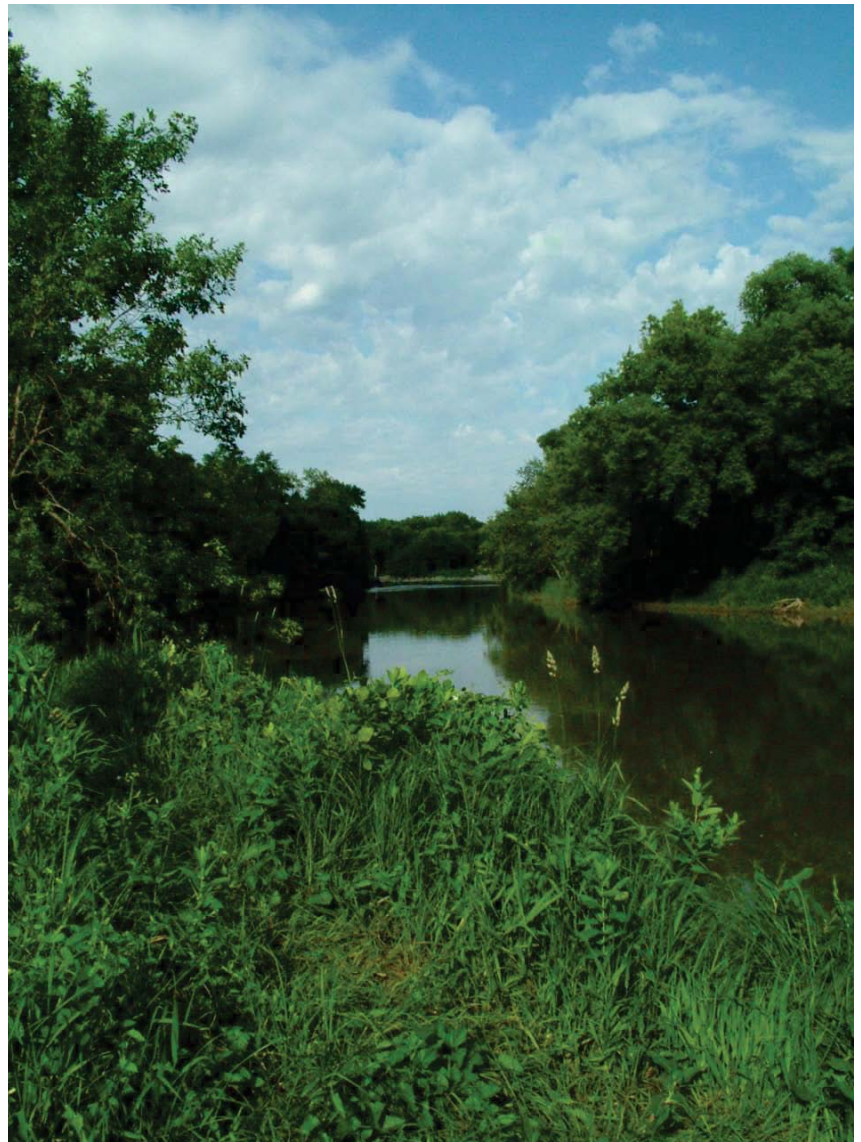
## NATURAL RESOURCES

### TOPOGRAPHY

The River Corridor is a mix of steep slopes and flat lowlands. Construction on and adjacent to slopes greater than 10% presents limitations regarding slumping and increased construction costs related to grading, filling, and other issues, and can have negative vegetative/riparian impacts and introduce erosion control issues. Development of less formalized off-road mountain biking or unpaved nature trails are not as constrained by steep slopes.

### VEGETATION

Today the River Corridor is a mix of natural habitat, maintained areas, and restored prairie communities. Recent construction of flood control structures has changed the landscape with the removal of homes and in some areas, there has been significant tree loss as a result of levee construction. Existing vegetation is shown in Figure 14.



# Needs and Opportunities

The needs, shown in Figure 18. and in the following discussion are related to the future of the River Corridor and are representative of: existing conditions; input from Metro COG, City of Moorhead Staff, the RCAC, the public; and guidance from past river corridor planning studies. These address what the River Corridor will look like in the future, how the public will use the corridor, and how the corridor will be managed.

## ATTRACTIVE RIVER CORRIDOR

The overarching public desire is that the River Corridor should be developed as a public resource open for year round activities that will have a positive social and economic impact on the City of Moorhead. Residents noted recreational features along the River Corridor and how they might serve to attract and retain new residents to the community.

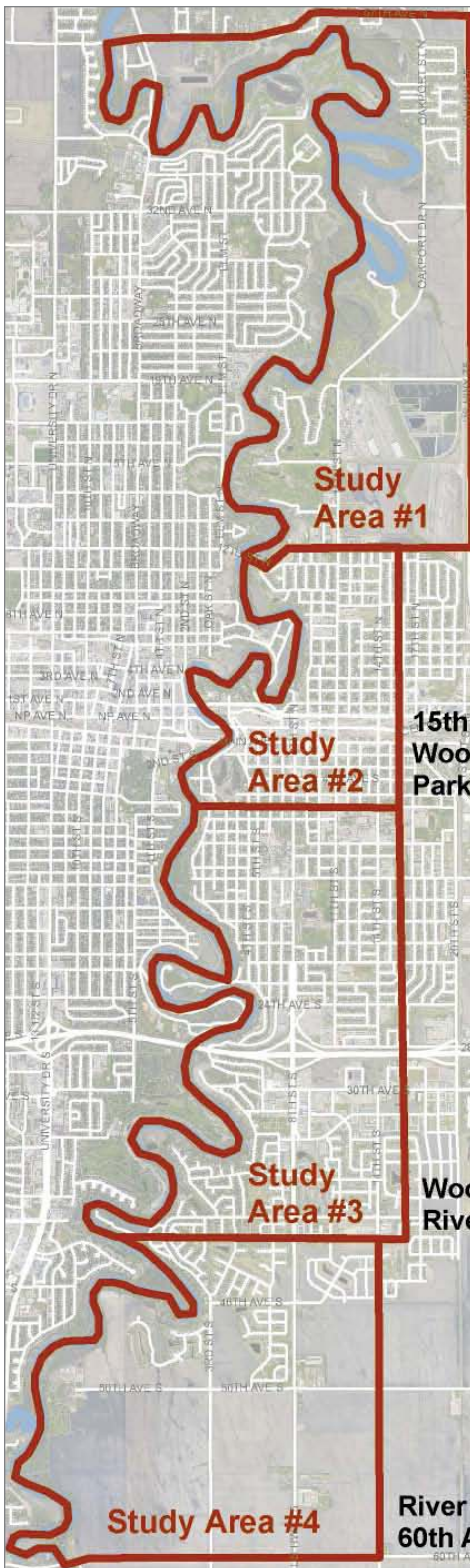
Residents expressed concern over how the maintenance and management of the River Corridor has and will continue to affect surrounding real estate. There is a general expectation that River Corridor development will stabilize adjacent neighborhoods that have been most impacted by residential property removal. Along with development of the River Corridor as a public resource, there is a need to provide clarification in two areas:

- » **Lease/Sell (Public Land Holdings) Analysis** – there is a need for a clear policy regarding the potential lease or resale of public land holdings that are remnants of parcels along the River Corridor and are no longer required for flood mitigation or other public purposes.
- » **Public/Private Delineation** – there is a need to develop design solutions that delineate private property adjacent to public land, so impacts to private lands can be minimized.

## CONNECTIVITY

There is a strong desire to build upon and expand existing connections between Moorhead and Fargo by linking existing and future bicycle and pedestrian paths for recreation, commuting (transportation), and supporting an active community. There is also the need and desire to link existing recreational features along the River Corridor (e.g. M.B. Johnson Park, Davy/Memorial Park, Bluestem Park) as part of a connected park and trail network that supports outdoor activity. The following are specific needs, desires and opportunities for connectivity organized by Study Area.





### STUDY AREA 1

- » Opportunity to expand mountain bike trails to the north and south of M.B. Johnson Park. Installing the former Gooseberry Mound Park bicycle bridge over Snaky Creek could provide access to land south of existing trails in M.B. Johnson Park.
- » Need for a trail connection between 15th Ave. N. and M.B. Johnson Park, using either the Fargo or Moorhead sides of the river
- » Desire for a bridge connection to Fargo perpendicular to River Drive in the Moorhead Country Club addition
- » Desire for a bridge connection from M.B. Johnson Park to the north to connect to Edgewood Golf Course, which would allow expansion of cross country ski trails into Fargo
- » Potential to expand the cross country ski trails to the north and south of M.B. Johnson Park – dependent on easements

### STUDY AREA 2

- » Opportunity for a trail connection between 15th Ave. N. and Davy/Memorial Park through Original Homestead Park
- » Need to replace the Memorial/Oak Grove bicycle and pedestrian bridge
- » Need to reduce conflicts that exist between cross country skiers and trail users in Davy/Memorial/ Riverfront and Viking Ship Parks
- » Opportunity to expand cross country ski trails south of Woodlawn Park
- » Need to relocate the floating bridge between the old Power Plant in Moorhead and Dike East Park in Fargo upstream in the near term. Long term need to replace the bridge with a permanent structure

### STUDY AREA 3

- » Desire for a trail connection along the river between Woodlawn and Gooseberry Mound Parks
- » Opportunity for a connected network of cross country ski trails from Dike West Park in Fargo through Lindenwood Park, Gooseberry Mound Park, and south to Horn Park, along with a warming house and equipment rental opportunities
- » Need for a trail connection along the river between Gooseberry Mound and River Oaks Park
- » Desire for natural surface, cross country ski, mountain bike, or hiking trails along the river between Gooseberry Mound and River Oaks Park, that could be constructed prior to constructing a paved, multi-use trail

### STUDY AREA 4

- » Need for bridges between River Oaks Park and 60th Ave. South. Opportunities from River Oaks Park to Lemke Park/32nd Ave. S. in Fargo and from Bluestem Park to 40th Ave. S. in Fargo
- » Opportunity for a trail connection along the river in concert with levee construction easements between Bluestem Park and 60th Ave. S.
- » Desire to explore the potential for easements for mountain biking trails, cross country ski trails, and nature trails along the river between Bluestem Park and 60th Ave. S.

## RECREATION OPPORTUNITIES

In addition to connected, linear recreation there is a need for additional facilities and activities along the River Corridor. Needs and opportunities include:

- » Permanent trail support facilities such as benches and lighting
- » Restrooms, gazebo shelters, and concession stands to further increase use of the River Corridor and promote positive public activity
- » A community gathering and/or congregational space (such as a small scale amphitheater) developed for music and other community events and programming
- » Increased use of the River Corridor during the winter months
- » Continuation and expansion of river boat tours (e.g. SS Ruby) as well as canoe and kayak rentals
- » Better utility of boat launches and portages along the River Corridor to support user safety and to increase accessibility for low impact water based recreation
- » Designate River Oaks Park as a Community Park and provide community facilities (there currently are no recreation buildings or facilities in the park)

## VEGETATION AND HABITAT

There is a need for re-vegetation, reforestation, and habitat restoration along the River Corridor to improve aesthetics as well as wildlife habitat. There is a strong desire to replace trees lost due to levee construction as well as a desire to identify and enhance key natural and ecological characteristics of the River Corridor.

## INTERPRETIVE OPPORTUNITIES

There is a need and desire to integrate interpretation of the River Corridor's cultural, ecological and historic context into the River Corridor experience. Interpretive opportunities may be place specific, incorporated into signage, or program based. All methods offer an opportunity to educate the community about the historical and ecological significance of the Red River.

### 2012 RIVER CORRIDOR SURVEY

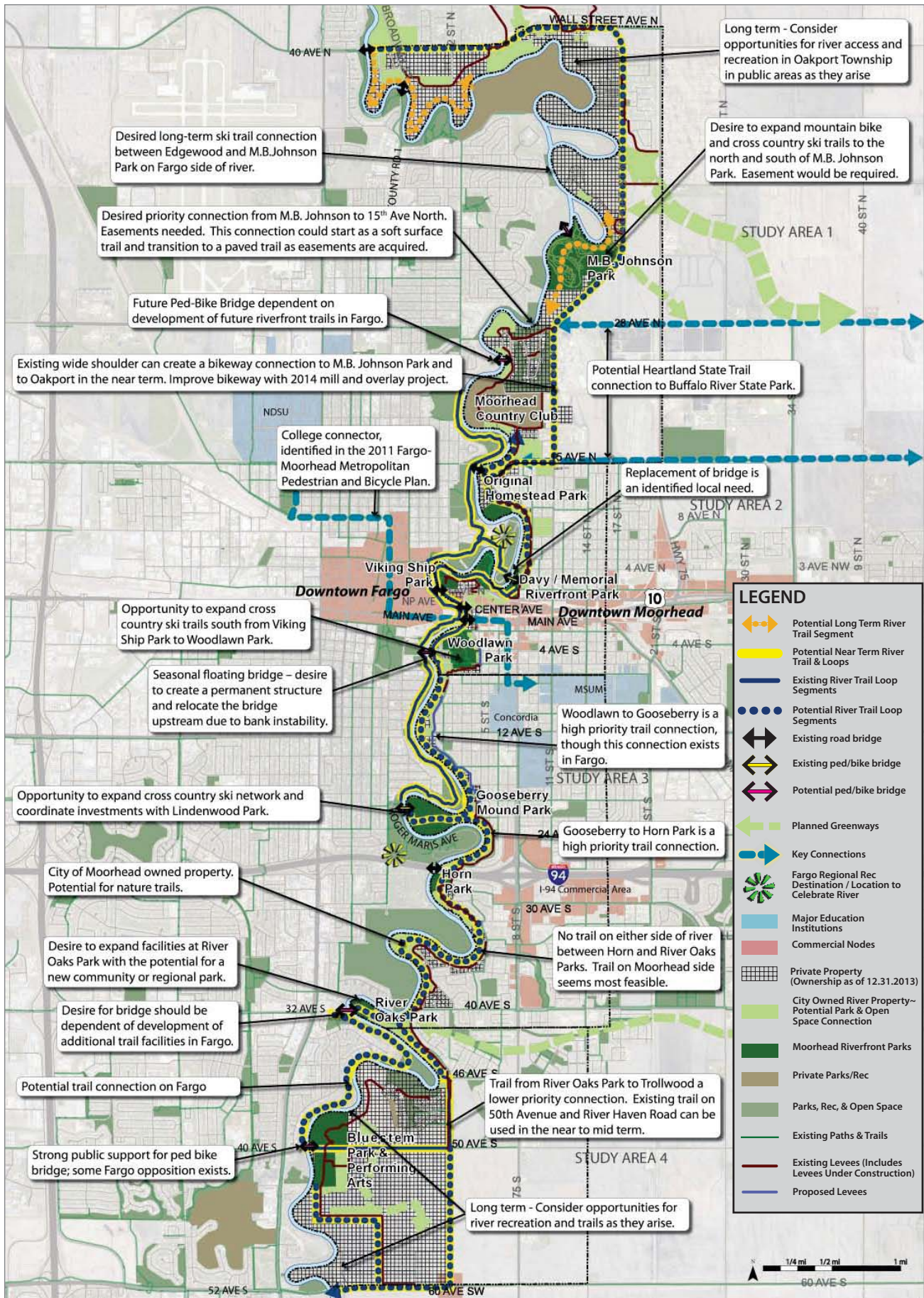
In December 2012, as part of the planning process, an on-line survey was conducted. When asked to rate priorities for potential investments along the River Corridor, the top three were:

- » Expanded bicycle and pedestrian trails;
- » Development of additional bicycle/ pedestrian bridges;
- » Expanded winter recreational activities.

The top three trail connections priorities were:

- » Downtown to Gooseberry Park;
- » Gooseberry Park to Horn Park;
- » MB Johnson to 15th Avenue North.

FIGURE 18. NEEDS AND OPPORTUNITIES



### LEGEND

- Potential Long Term River Trail Segment
- Potential Near Term River Trail & Loops
- Existing River Trail Loop Segments
- Potential River Trail Loop Segments
- Existing road bridge
- Existing ped/bike bridge
- Potential ped/bike bridge
- Planned Greenways
- Key Connections
- Fargo Regional Rec Destination / Location to Celebrate River
- Major Education Institutions
- Commercial Nodes
- Private Property (Ownership as of 12.31.2013)
- City Owned River Property~ Potential Park & Open Space Connection
- Moorhead Riverfront Parks
- Private Parks/Rec
- Parks, Rec, & Open Space
- Existing Paths & Trails
- Existing Levees (Includes Levees Under Construction)
- Proposed Levees





# Landscape Sensitivity

To determine which areas of the River Corridor are appropriate for recreation development and which are most appropriate for re-vegetation and habitat restoration, a comprehensive analysis of the River Corridor landscape was completed based on topography, habitat, and flood frequency. Areas with low, moderate, and high sensitivity to human impact have been identified and are shown in Figure 19.

1. High Sensitivity areas are most sensitive to human impact and are least suitable for recreation because of impact to resources or frequent flooding. These areas represent:
  - Slopes of 10% or greater
  - Areas where geotechnical analysis has deemed the soils unstable and prone to slumping
  - Areas of sensitive habitat based on tree cover, patch size, and flood frequency
2. Moderate Sensitivity areas are somewhat sensitive to human impact and recreational use. These areas represent:
  - Areas of moderately sensitive habitat based on tree cover, patch size (smaller than in the High category), and flood frequency
  - Areas within the 100-year floodplain below the levee, but above the 24' flood elevation
3. All other areas are considered low sensitivity and are appropriate for a variety of recreational activities and other land uses.

FIGURE 19. LANDSCAPE SENSITIVITY ANALYSIS

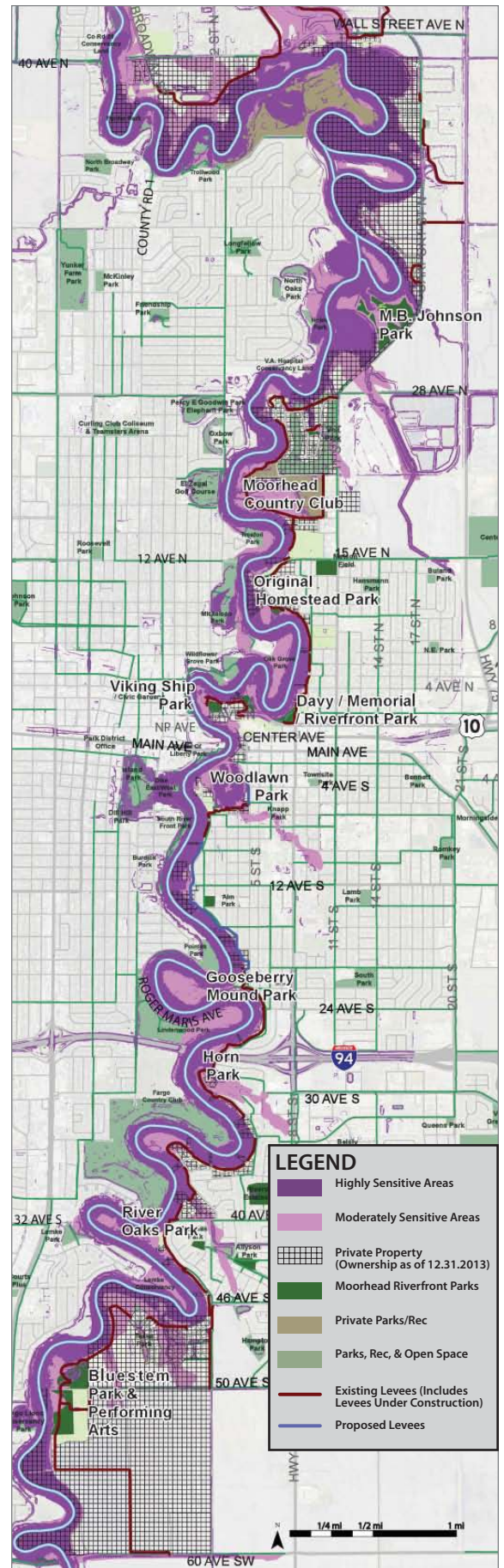
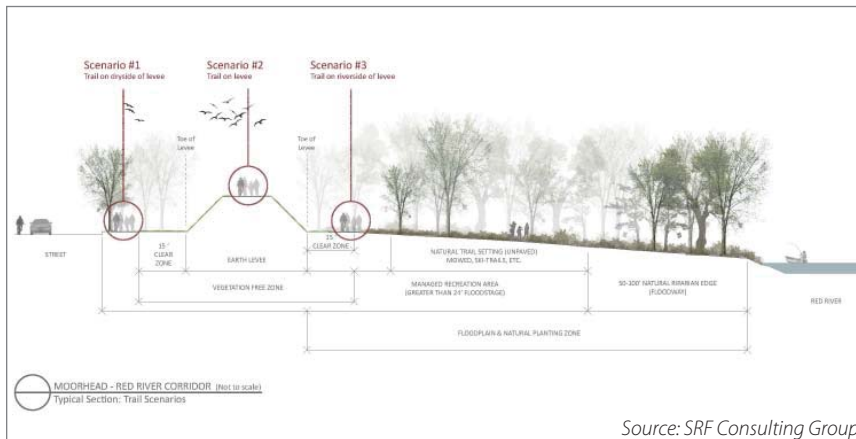
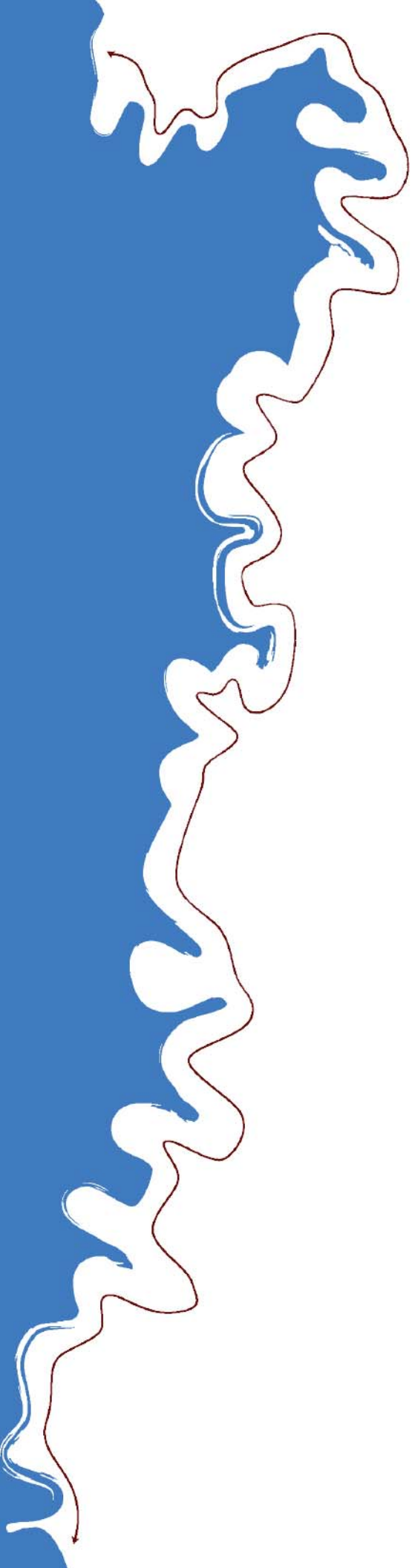


FIG 19.1 TYPICAL SECTION – POTENTIAL TRAIL SCENARIOS



Depending on landscape sensitivity a paved trail has the potential to be located in one of three locations: on the dry side of the levee, on the levee, or on the river side of the levee. Section 5 of this plan shows recommended trail placement along the corridor.





# Vision



## Overview

Due to recent property acquisitions to support flood mitigation, the City of Moorhead now has its best opportunity to redefine the River Corridor for the next generation. This Chapter presents the long term vision for the corridor along with supporting principles and goals.

The recommendations in this Master Plan focus on six (6) basic principles for Moorhead's River Corridor: flood protection, an attractive river corridor, connectivity, recreation, interpretation, and habitat enhancement and water quality. Each principle is expanded upon with goals and strategies. Goals support the vision and principles. Strategies are specific actions designed to make goal achievement an attainable and step-by-step process.

The vision, principles, goals, and strategies are based on River Corridor Advisory Committee and community input, current plans, and evaluation of the opportunities and challenges facing the River Corridor. Goals and strategies provide a framework for recommendations in Chapters 4 and 5.

## VISIONS FOR THE RIVER CORRIDOR

Visions for the River Corridor have been varied over the years. However, they have generally coalesced into a finite set of key themes. Input during the planning process reaffirmed the following themes. The themes are reflected in the principles outlined in this chapter.

- » **Flood Mitigation** – Provide unified flood mitigation measures throughout the City of Moorhead;
- » **Attractive River Front** - Maintain a river front that is embraced as a safe and secure environment, which is an attractive destination to the community as a whole and has a positive social and economic impact on the City of Moorhead and the region;
- » **Enhanced Connectivity to the River** - Focus investments along the River Corridor to increase sustainable interaction between the community and river;
- » **Enhanced Recreational Opportunities** - Increase the utility of the River Corridor as a year-round recreational and transportation amenity with pedestrian, bicycle, and ski trails linking existing recreational features along the river for adjacent neighborhoods and the community as a whole;
- » **Protection and Enhancement of Designated Natural Areas** - Identify and enhance key natural and ecological characteristics of the River Corridor;
- » **Encouragement of Cultural and Historic Interpretation of the River** - Utilize the River Corridor as an opportunity to increase community interaction with the cultural and historic significance of the Red River.

# A Vision for the Moorhead River Corridor

*“The Moorhead River Corridor will serve as a flood risk reduction asset for the City of Moorhead. The River Corridor provides opportunities for economic vitality, improves and restores ecological stability of the River Corridor, links residents and tourists to four seasons of recreation and transportation facilities, balances the desire for public uses with adjacent private property, provides linkage between the cities of Moorhead and Fargo, preserves and promotes the history and culture of the region through education, and improves the quality of life for future generations.”*



## PRINCIPLE 1: FLOOD PROTECTION

First and foremost, the purpose of the River Corridor is to provide a unified flood mitigation strategy. The purpose of this Master Plan is to recognize the corridor's role in flood mitigation while guiding how the corridor can simultaneously function as an attractive, accessible public asset.

**GOAL:** The Moorhead River Corridor will continue to serve first and foremost as flood mitigation infrastructure.

- **STRATEGY:** Ensure consideration of flood mitigation facilities during recreation planning.



## PRINCIPLE 2: ATTRACTIVE RIVER CORRIDOR

An attractive River Corridor means creating a destination for the community with attention to clear delineation of public and private land, aesthetics, and safety, in order to create a positive economic impact. Attractiveness of the River Corridor is measured by the acceptance, enjoyment, and admiration by the people who use and view the spaces.

**GOAL:** The Moorhead River Corridor will be an economic asset to the City of Moorhead.

- **STRATEGY:** Develop a recreation programming and events plan for the River Corridor that will be affordable to Moorhead residents and attract new park users.
- **STRATEGY:** Research innovative partnerships with local business owners and entrepreneurs to incorporate recreational events, day-to-day programming, and additional services into the parks.



**GOAL:** The Moorhead River Corridor will be a safe recreation area for all users.

- **STRATEGY:** Implement safety lighting and emergency posts at appropriate places (as determined by need and resident input) along the river, using context sensitive design strategies.
- **STRATEGY:** Include signage with recommendations for safe use of the parks and trails and open and closing times.
- **STRATEGY:** Consider parking and vehicle accessibility barriers in the parks.
- **STRATEGY:** Increase park 'clean team' visits at prioritized locations along the river.

**GOAL:** The Moorhead River Corridor will have a unified look, a natural signature, and an overall unique brand.

- **STRATEGY:** Common signage (wayfinding plan) to be used for all River Corridor parks and recreation areas.
- **STRATEGY:** Develop a unique logo to be used on all River Corridor signage and published information to help develop a unique brand. Coordinate this with efforts for Metro Trails branding.
- **STRATEGY:** Preserve and restore tallgrass prairie, bur oak savanna, and forested floodplains along the riparian corridor.
- **STRATEGY:** Establish native vegetation to create a discernible transition from maintained park space and natural areas.

**GOAL:** The Moorhead River Corridor will contain a clear distinction between public and private lands.

- » **STRATEGY:** Define land uses within the River Corridor – active park areas and passive park areas (yards vs. habitat/vegetative restoration) and identify potential redevelopment opportunities adjacent to the River Corridor (commercial/residential) that are protected by levees.
- » **STRATEGY:** Develop design guidelines to define land use and ownership boundaries with physical barriers, such as, split rail fencing and tree and shrub lines.
- » **STRATEGY:** Create a standardized signage set to delineate property ownership boundaries and explain River Corridor rules and expectations.



### **PRINCIPLE 3: CONNECTIVITY**

Connectivity refers to the non-motorized routes between social nodes, recreation areas, schools, workplaces, and residential areas. These routes include: on-road and off-road bikeways, trails, and sidewalks. These routes enable safe, non-motorized recreation and transportation.

**GOAL:** A continuous regional trail along the Red River and within the cities of Fargo and Moorhead will exist.

- » **STRATEGY:** Define the continuous trail alignment and focus on filling trail gaps from the downtown area first.
- » **STRATEGY:** Coordinate trail construction projects with the City of Fargo & Fargo Park District, Clay County, Buffalo Red River Watershed District, Oakport Township, MN DNR, and Minnesota Department of Transportation.
- » **STRATEGY:** Prioritize trail and bridge projects biennially in order to reposition funding and focus on grants or other funding sources.
- » **STRATEGY:** Acquire property or easements (from willing sellers) necessary to construct trail gaps and bridges, as opportunities arise.
- » **STRATEGY:** Follow City of Moorhead trail design standards to construct new trail segments and, if necessary, to retrofit existing trail segments.

**GOAL:** The Moorhead River Corridor will be easily accessible and connected to people of all ages and abilities.

- » **STRATEGY:** Increase pedestrian and bicycle crossings of the river.
- » **STRATEGY:** Identify opportunities to strengthen connections between the River Corridor and key destinations in the community (physical trail/sidewalk connections, parks, as well as greenways/drainage ways).

**GOAL:** The Moorhead River Corridor will include directional wayfinding signage.

- » **STRATEGY:** Work with the City of Fargo, Fargo Park District, recreational organizations, and other stakeholders to determine the best placement and information for wayfinding signage.
- » **STRATEGY:** Use the unique Moorhead River Corridor brand to create consistent wayfinding signage.

## PRINCIPLE 4: RECREATION

Recreation is activity done for personal health and wellness or for enjoyment or pleasure. Within the River Corridor, enhanced and varied outdoor recreation opportunities are recommended to draw people to the River Corridor.

**GOAL:** The River Corridor recreation nodes will include unique community and regional parks.

- » **STRATEGY:** Follow existing park master plans and create/update concept master plans for park areas, as needed, in the River Corridor; Master Plan should include: programmed elements, planning level cost estimates, maintenance strategy/program, and prioritized/phased improvements.
- » **STRATEGY:** Incorporate new and innovative recreation facilities.

**GOAL:** The River Corridor recreation nodes (parks and open spaces) will be adaptable and flexible.

- » **STRATEGY:** Include funding for park improvements.
- » **STRATEGY:** Continually solicit input from park users (survey) on satisfaction of existing facilities and ideas for adaptive reuse.
- » **STRATEGY:** Designate River Oaks Park as a new community park.

**GOAL:** The River Corridor will include a wide range of four-season activities.

- » **STRATEGY:** Communicate and partner with recreational organizations (e.g. River Keepers, Prairie's Edge Nordic Skiers, Fargo Moorhead Trailbuilders) to update the Corridor's recreation needs and desires.
- » **STRATEGY:** Expand winter offerings in the River Corridor.



## PRINCIPLE 5: HABITAT ENHANCEMENT & WATER QUALITY

Habitat enhancement includes the restoration and preservation of native landscapes, as well as establishing key patch and corridor connections to create a well-functioning ecological matrix. Water quality can be thought of as a measure of the suitability of water for a particular use. Stormwater that is discharged into a public body of water is frequently cited as a cause of poor water quality due to the pollutants that are carried in the stormwater. Improvements to open space areas must consider opportunities to treat stormwater before it enters the river.

**GOAL:** A healthy Red River that is advocated for by the community.

- » **STRATEGY:** Share success and failures with down and upstream communities.
- » **STRATEGY:** Support sustainable solutions to stormwater and vegetation management.

**GOAL:** The Moorhead River Corridor will include attractive and sustainable landscape types.

- » **STRATEGY:** Utilize native plant species of local ecotypes for all restoration activities.
- » **STRATEGY:** Manage invasive exotic species that create maintenance issues and degrade open space areas.
- » **STRATEGY:** Preserve current large tracts of forested areas along the corridor to provide critical interior space habitat for wildlife, including passerine bird species.



- » **STRATEGY:** Develop an implementation plan that identifies priority natural resource enhancement projects and schedule.
- » **STRATEGY:** Investigate funding sources and potential partners to help with implementation costs.
- » **STRATEGY:** Target restoration and preservation projects on habitat types that are compatible with the riparian corridor and require the least amount of maintenance, such as prairie, oak savanna, and floodplain forests.
- » **STRATEGY:** Include maintenance requirements and costs in all planning efforts.

**GOAL:** The Moorhead River Corridor will include water quality enhancement features where appropriate in order to improve water quality before it enters the Red River.

- » **STRATEGY:** Work with the Buffalo Red River Watershed District to determine construction and maintenance funding options for future water quality improvement projects.
- » **STRATEGY:** Target water quality improvement projects that provide additional benefits such as habitat improvement, public education, and aesthetic enhancement.
- » **STRATEGY:** Develop projects that can be used to enhance habitat and aesthetics in the corridor as well as contribute to the City of Moorhead stormwater management needs.



## PRINCIPLE 6: INTERPRETATION

Interpretation is the action of explaining the meaning of something. Informational, cultural, historical, and environmental interpretation can be communicated in many ways, including: signage, organized events and programs, classes, tours, interactive technology, and brochures.

**GOAL:** The Moorhead River Corridor will include dynamic and interactive learning opportunities for all ages.

- » **STRATEGY:** Create an educational program plan open to residents and visitors of Moorhead.
- » **STRATEGY:** Work with the local universities/colleges, school district, and recreational organizations to establish educational programming.
- » **STRATEGY:** Recognize and interpret the power and morphology of the Red River.
- » **STRATEGY:** Provide interpretive and educational information on natural river processes such as flooding, erosion and channel evolution.

**GOAL:** The Moorhead River Corridor will include interpretive opportunities pertaining to the local communities, natural environment, local culture, and history of the area.

- » **STRATEGY:** Identify landscape remnants from homes relocated along the corridor, and identify the significance of remaining features (such as trees) to the families which had lived there.
- » **STRATEGY:** Provide opportunities for park users to harvest fruits, nuts, and berries from remnant perennial plants found in former residential yards.
- » **STRATEGY:** Create informational materials that identify uses of plants and animals in the local region by native American and European settlers.
- » **STRATEGY:** Identify and exemplify historic landscape character in signage and posters.





# The Plan

# 4

## Overview

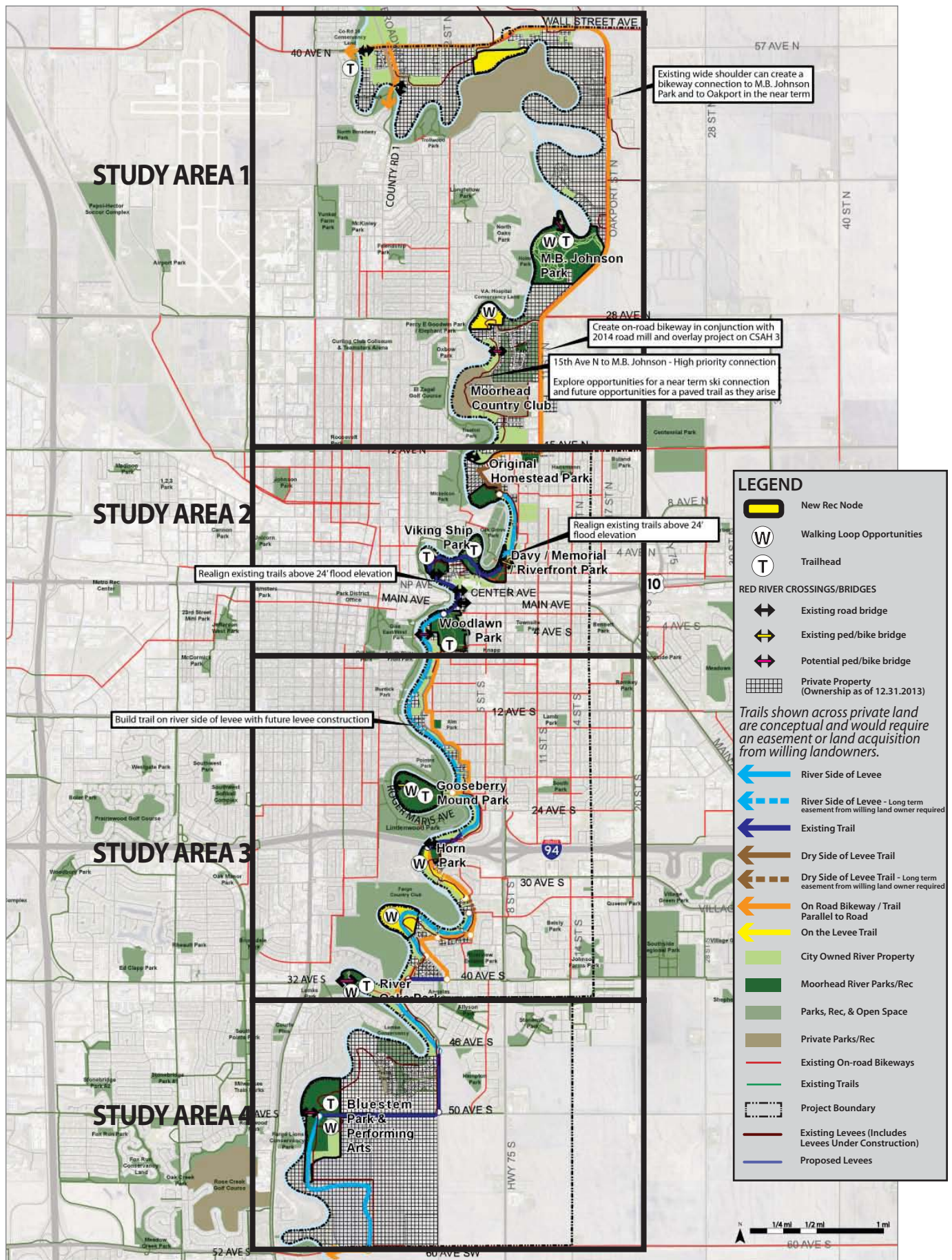
An attractive riverfront that contributes positively to property values, a connected trail system, vibrant recreation areas, restored natural landscape, and interpretation are key features of the Moorhead River Corridor Vision. This section provides recommendations and projects needed to achieve the vision.

The Plan is organized by the following six topic areas:

1. Flood Protection
2. Attractive River Corridor
3. Connectivity
4. Recreation
5. Habitat Enhancement and Water Quality
6. Interpretation

Each topic starts with a general, corridor wide discussion followed by specific projects, as identified by a unique letter and number I.D., which are organized by study area (Figure 32).

FIGURE 28. CONNECTIVITY AND RECREATION OVERVIEW



# Flood Protection

First and foremost, the River Corridor's purpose is flood protection. This Master Plan recognizes this primary role. The purpose of this Master Plan is not to describe how the corridor will function for flood protection, but how it can go beyond flood protection to be an attractive, publicly accessible, and ecologically functioning community asset. All recommendations in this Master Plan support flood protection.

## Attractive River Corridor

The purpose of an attractive River Corridor is to create a place that is aesthetically pleasing and is an asset to the surrounding neighborhoods and larger community. This includes clarifying policy on public landholdings and clearly delineating public and private property.

### LAND HOLDINGS

The acquisition of property by the City of Moorhead, and subsequent construction of flood mitigation infrastructure, has created remnants of parcels that are not required for flood mitigation purposes or other public River Corridor uses. The sale or lease of these parcel remnants reduces the public cost for on-going maintenance and, if sold and combined with abutting properties, may provide opportunities to increase private property values and augment the City's property tax base. The following objectives are critical to the decision of leasing or selling these remnant public land holdings:

- » Maintain the integrity of the City's flood mitigation infrastructure.
- » Maintain unrestricted access to deploy temporary measures needed to implement the City's emergency flood plan.
- » Maintain neighborhood character and discourage absentee ownership or lease of remnant parcels.
- » Discourage additional private development and/or construction in areas not protected up to the standards of the City's flood mitigation goals.
- » Maintain public ownership of properties identified as part of this Master Plan for public use areas within the River Corridor.

Many, if not all, of the parcel remnants were part of a larger parcel acquired with State of Minnesota grant funding. The terms of the grant agreement do not allow sale or lease of property acquired with grant funds. Therefore, the sale or lease of parcel remnants has a budgetary impact on flood mitigation funding that must be considered by the City Council.

Remnant land areas should be considered for sale to adjacent land owners. Each sale must be carefully considered relative to the stated goals and to the implications of the original grant terms used to acquire the parcel. The practice of leasing public lands within the corridor should be greatly limited to circumstances where entering into such a lease will only enhance the ability of the City to achieve all of its flood mitigation goals as well as the vision for the River Corridor outlined in this Master Plan.

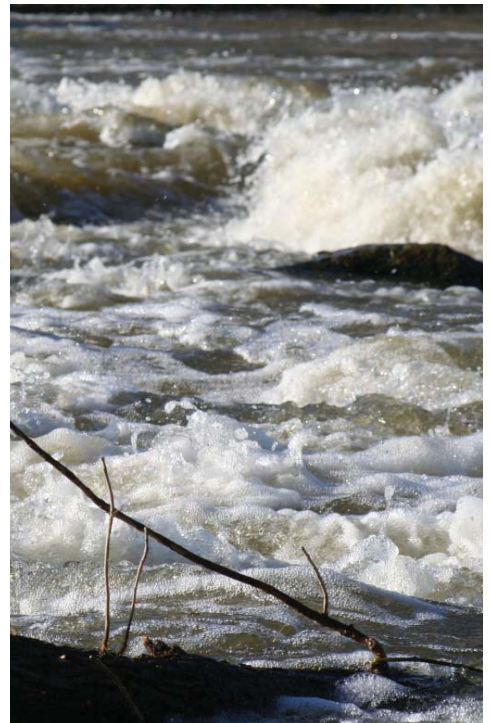


FIGURE 30. TYPICAL ROADSIDE TRAIL



FIGURE 30.1. TYPICAL RIVERSIDE TRAIL

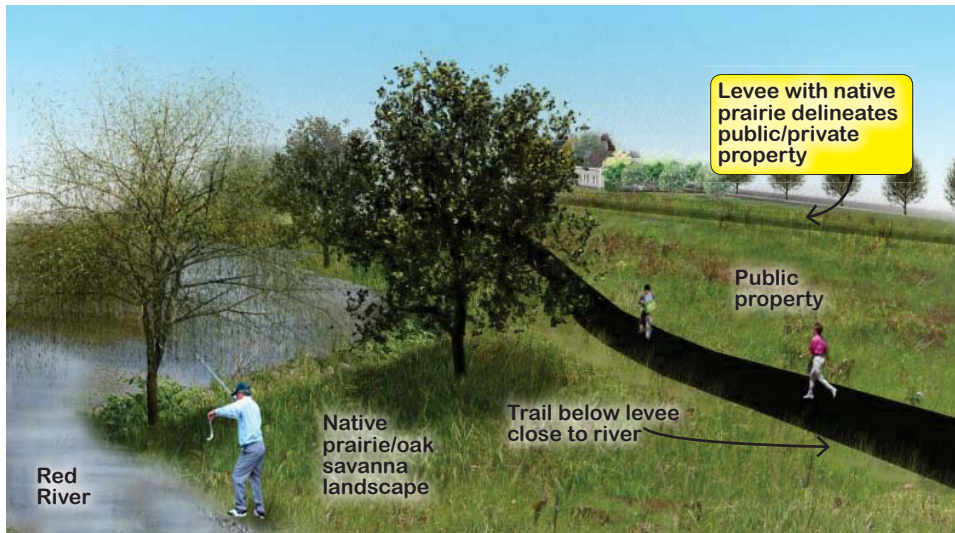
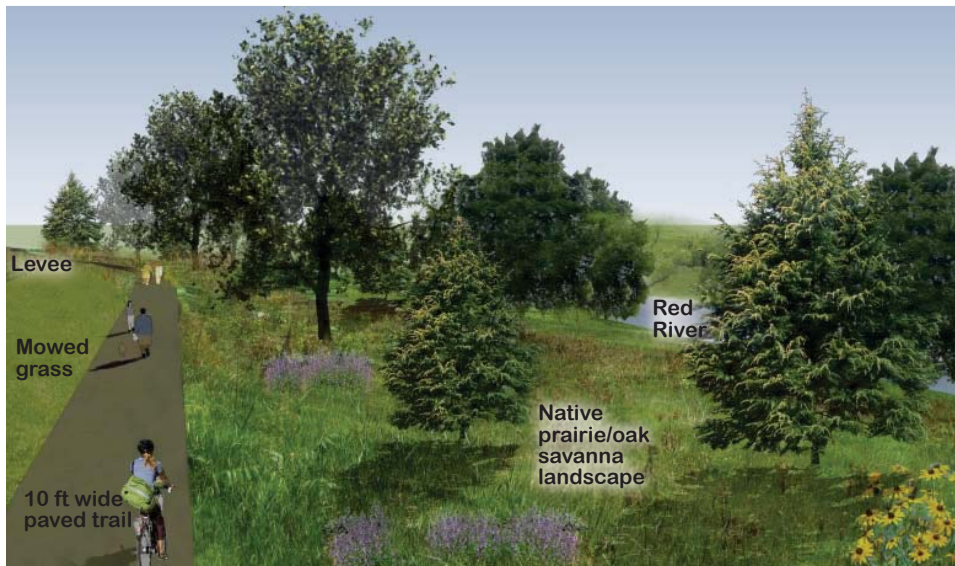


FIGURE 30.2. TYPICAL RESTORATION AREA TRAIL



## UNIFIED AESTHETICS

A unified, welcoming, beautiful, and safe River Corridor will contribute positively to the attractiveness of adjacent neighborhoods and the City as a whole. Recommendations for enhancing the aesthetic value of the River Corridor include the following efforts:

- » Creating and maintaining a natural signature along the entire corridor by restoring large areas of native habitats and utilizing a native plant pallet for trees, shrubs, and garden areas in high visibility locations (at the street edge, in parks, near trails, and at public/private transitions).
- » Including ‘cues to care’ at the street edges and the transitions between maintained and natural areas. “Cues to care” are maintenance efforts in natural areas that make an area look cared for even when it is wild. Edge treatments, such as a two foot strip of mowed turf grass next to a prairie, brick or stone edging, trees planted in a row, or a planting pattern, can be used to show that a landscape is cared for.
- » Installing a consistent pallet of furnishings such as lighting, benches, waste receptacles, picnic tables, kiosks, etc. that unify the corridor and help support a ‘sense of place’.
- » Creating unified signage that designates park names, corridor rules and regulations, and other pertinent information.

## PUBLIC/PRIVATE PROPERTY DELINEATION

Clear delineation of the boundary between public and private property is needed to clarify the public realm and respect the privacy and property rights of River Corridor land owners. Two strategies are recommended for boundary delineation: installation of consistent signage and landscape buffers. Used together these techniques will create consistent and visible boundaries.

### ATTRACTIVE RIVER CORRIDOR PROJECTS

#### CORRIDOR WIDE

##### A-1 DESIGN UNIFIED PROPERTY BOUNDARY SIGNAGE

Standardized property boundary signage will go a long way to reduce tension between the public and River Corridor landowners. Signage, provided by the City at property owner's request and expense, will be made of sturdy materials with consistent language and the City of Moorhead logo (Figure 32).

##### A-2 DEVELOP AND ADOPT LANDSCAPE BUFFER DESIGN GUIDELINES AND A LANDSCAPE BUFFER POLICY

Buffering tools and techniques can be customized to individual property owners along the corridor. Figure 32 illustrates design options for public/private property delineation. These include formal landscaping, natural vegetation, and fencing. Depending on whether the property line needing to be buffered is in the front yard, rear yard, or side yard, one or more treatments may be appropriate per property.

Landscape buffer design guidelines. This plan recommends that individual landowners be allowed to install landscape buffers that comply with adopted design guidelines. All screening would be by the homeowner at their own expense, must follow City adopted design guidelines, and be approved by the City of Moorhead Planning Department.

FIGURE 31. TYPICAL TRAIL EDGE BETWEEN PRIVATE PROPERTY AND RIVER EDGE

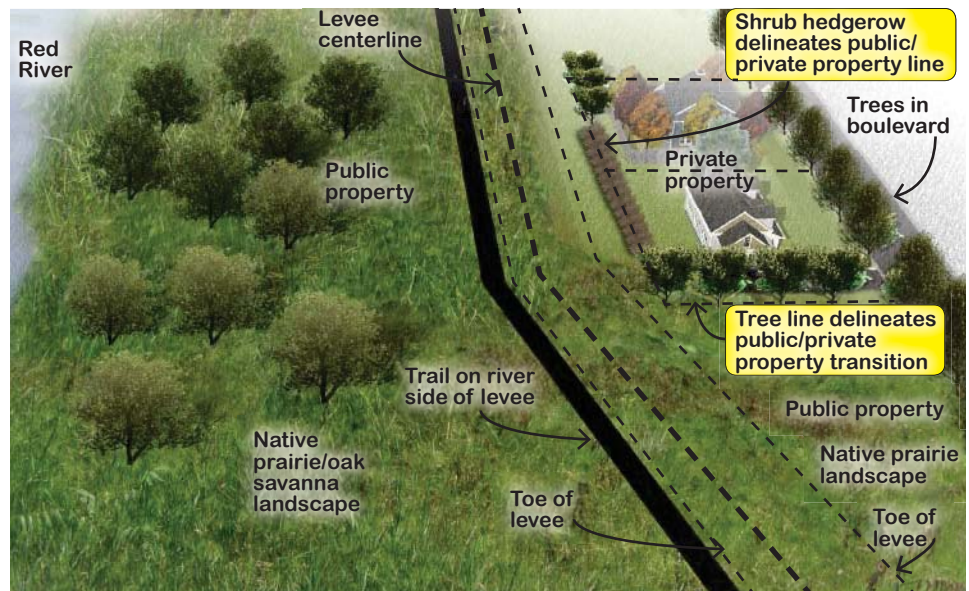


FIGURE 31.1. TYPICAL DELINEATION BETWEEN PUBLIC AND PRIVATE PROPERTY

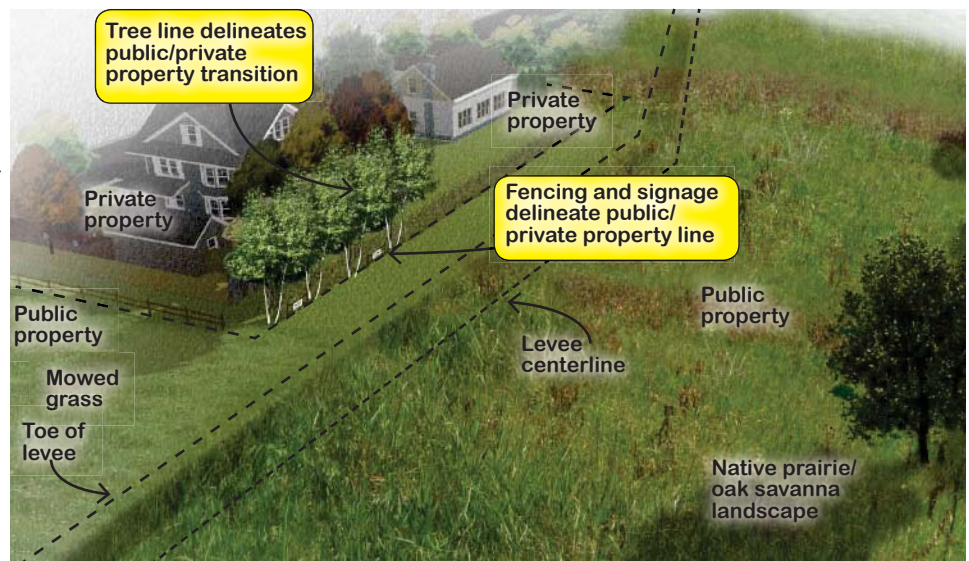


FIGURE 31.2. TYPICAL TRAIL EDGE BETWEEN PRIVATE PROPERTY AND ROAD EDGE

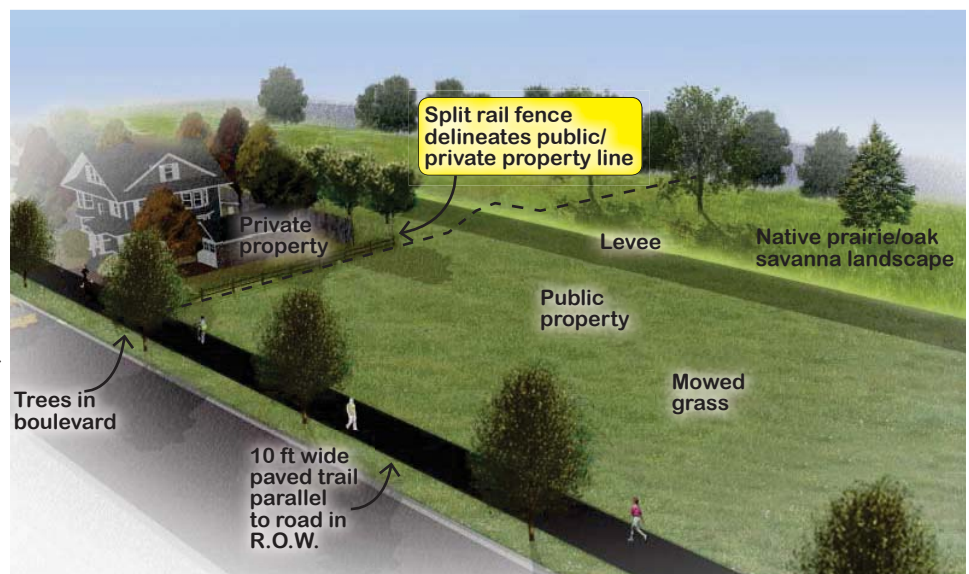


FIGURE 32. PROPOSED SIGN DESIGN

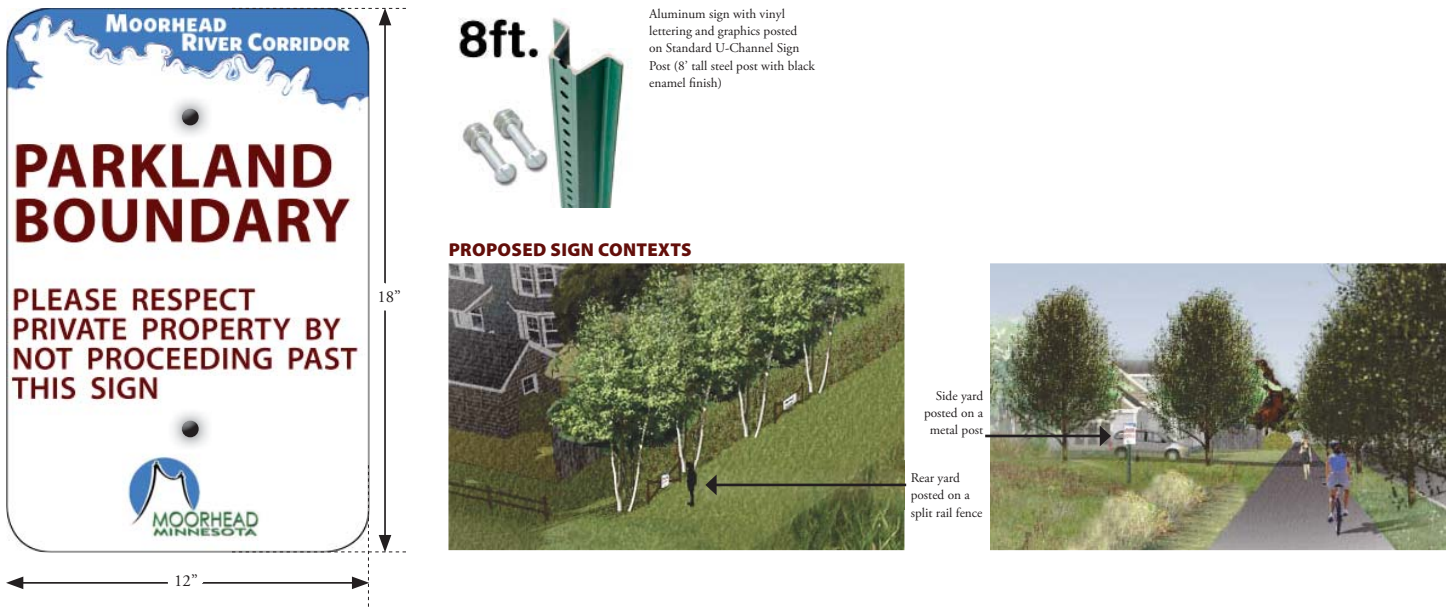











FIGURE 32.1. TOOLS AND TECHNIQUES FOR DELINEATING PUBLIC AND PRIVATE PROPERTY

Public/Private Transition	MOWED LAWN / FORMAL LANDSCAPING	NATURAL VEGETATION	FENCING AND SIGNAGE
Public/Private transition occurs in REAR YARD	<ul style="list-style-type: none"> <li>Mow from top of levee to property line (distance varies)</li> </ul> 	<ul style="list-style-type: none"> <li>Prairie on levee up to property line</li> </ul> 	<ul style="list-style-type: none"> <li>Fencing and/or signage delineate the property line</li> </ul> 
Public/Private transition occurs in SIDE YARD	<ul style="list-style-type: none"> <li>Mow 10 feet buffer with tree line</li> </ul> 	<ul style="list-style-type: none"> <li>Woody vegetation buffer (shrubs/trees)</li> <li>Prairie vegetation up to property line</li> </ul>  	<ul style="list-style-type: none"> <li>Fencing and/or signage delineate the property line</li> </ul> 
Public/Private transition occurs at ROAD / STREET	<ul style="list-style-type: none"> <li>Tree line and mowed turf along street</li> </ul> 	<ul style="list-style-type: none"> <li>Native vegetation with narrowed mowed turf shoulder at curb</li> </ul> 	<ul style="list-style-type: none"> <li>Does not apply</li> </ul>

# Connectivity

Connectivity refers to connecting destinations in the River Corridor as well as bringing people to the River. This section describes the bikeways, trails, and bridges needed for a fully connected River Corridor. Though a continuous trail is the long term vision, recommendations recognize that today much of the River Corridor is privately owned. Therefore, recommendations are a combination of visionary and interim measures that will create a connected corridor in the near term.

## PAVED TRAILS AND BRIDGES

The visionary concept is a continuous River Corridor paved regional trail, which will serve as a recreational spine and non-motorized transportation route. The trail will be multipurpose, bituminous or concrete, and designed in line with the City of Moorhead trail standards and MnDOT trail design standards.

FIGURE 33. SECTION - TRAIL ON DRY SIDE OF LEVEE

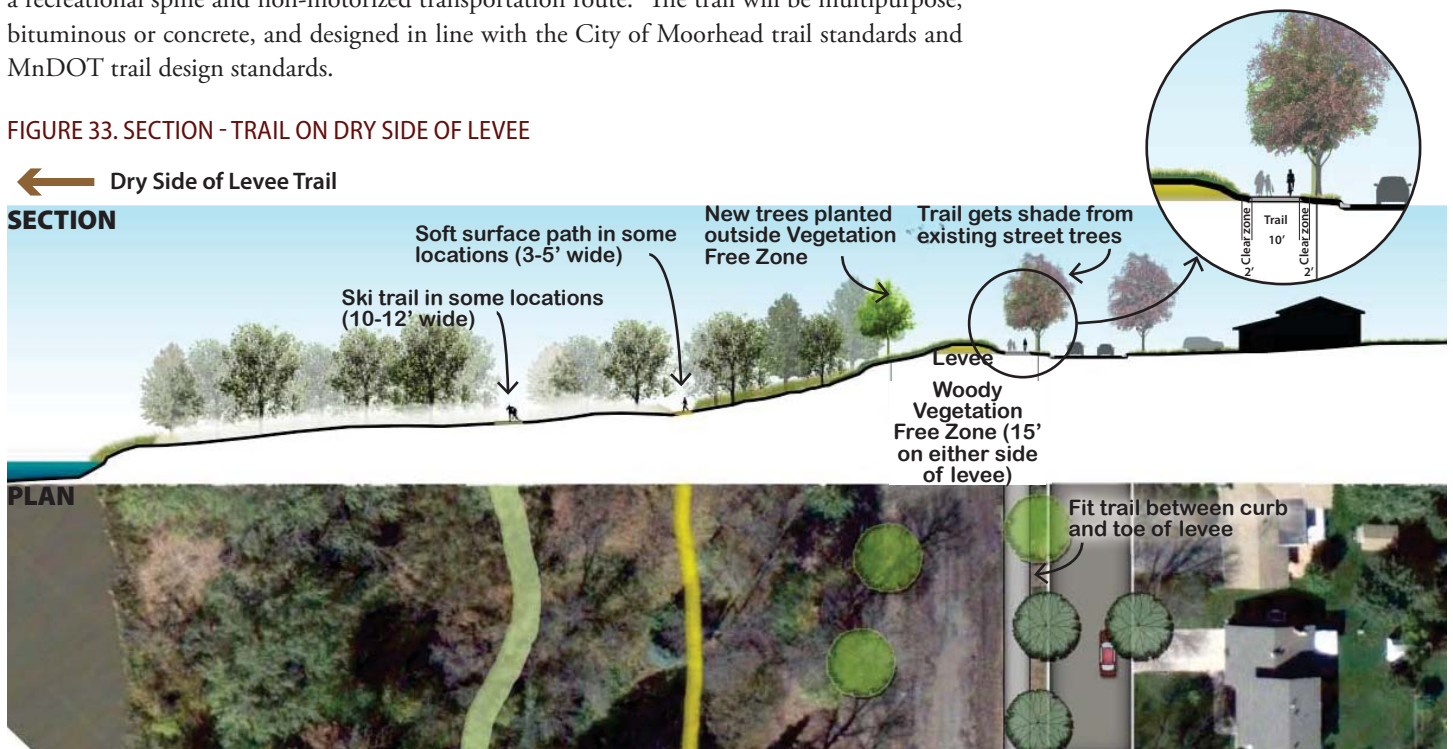


FIGURE 33.1. SECTION - ON ROAD BIKE LANE

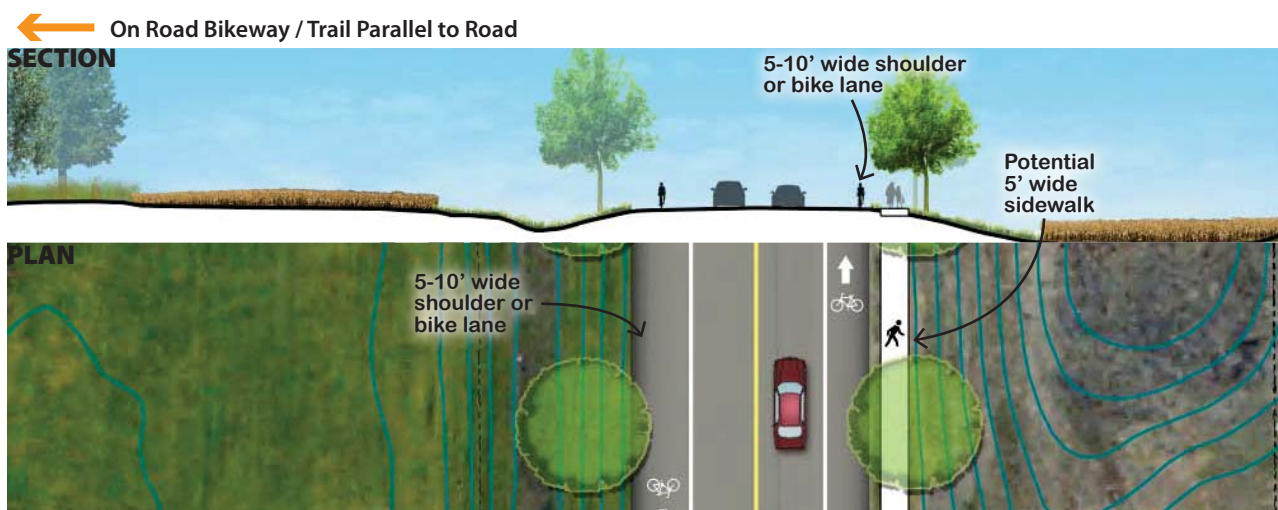


FIGURE 34. SECTION - TRAIL ON LEVEE

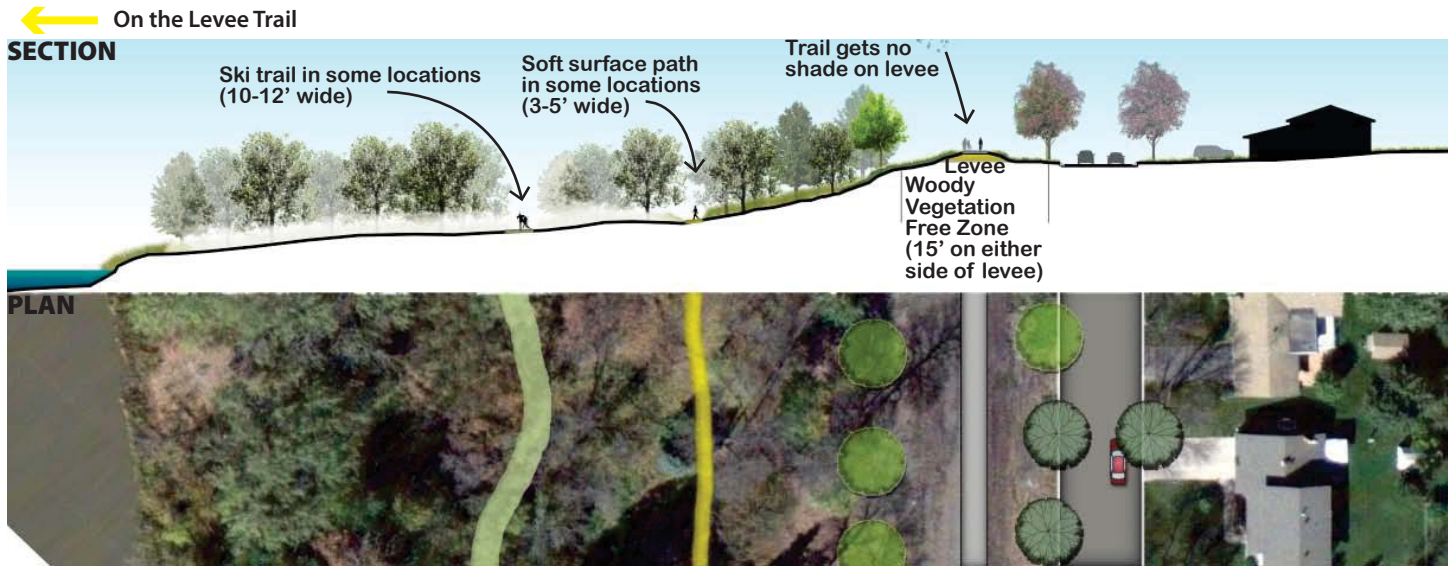


FIGURE 34.1. SECTION - TRAIL ON RIVER SIDE OF LEVEE

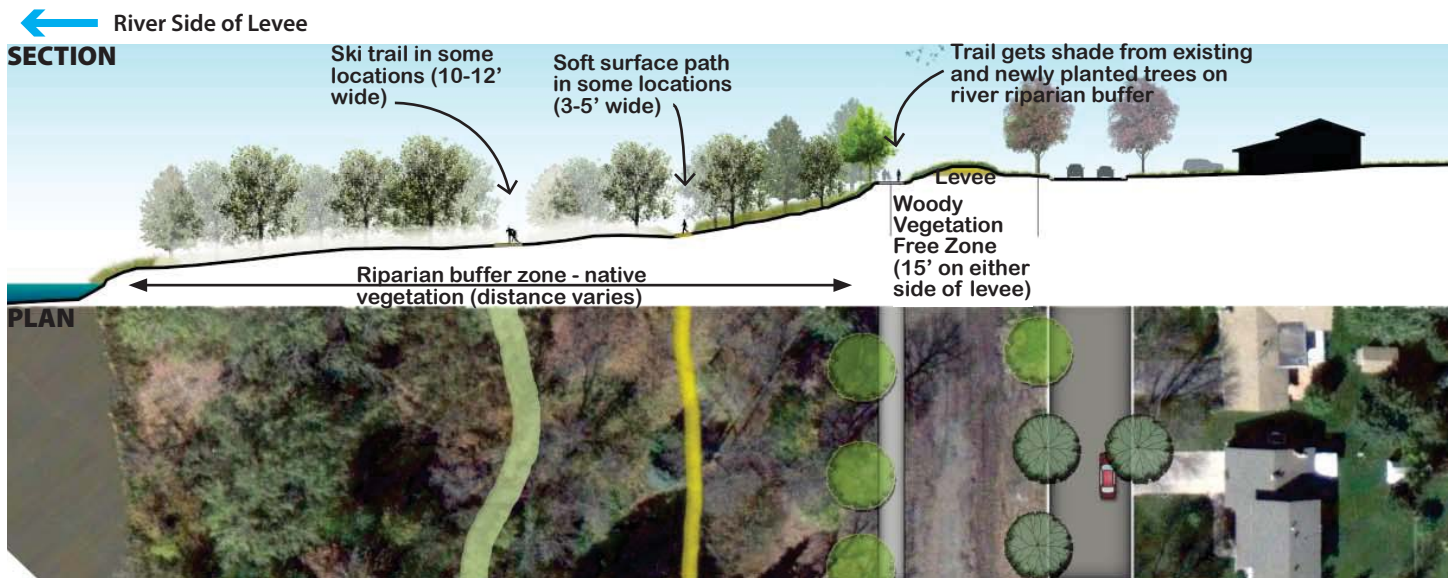




FIGURE 35. WELL MARKED TRAIL CROSSING



The trail will be designed with suitable grades and curves for multi-use recreational activities, including: walking, running, bicycling, and rollerblading. The trail may be built on the river side of the levee or the dry side of the levee. In special situations, a trail on the levee will be considered.

**ROAD CROSSINGS**

The inclusion of well-marked road crossings within the corridor increases the continuity of the trail experience for all users. Crossing treatments such as pavement painting and striping, different paving types, refuge islands, and signage, are suggested at the road crossings on the map in Figure 35.1.

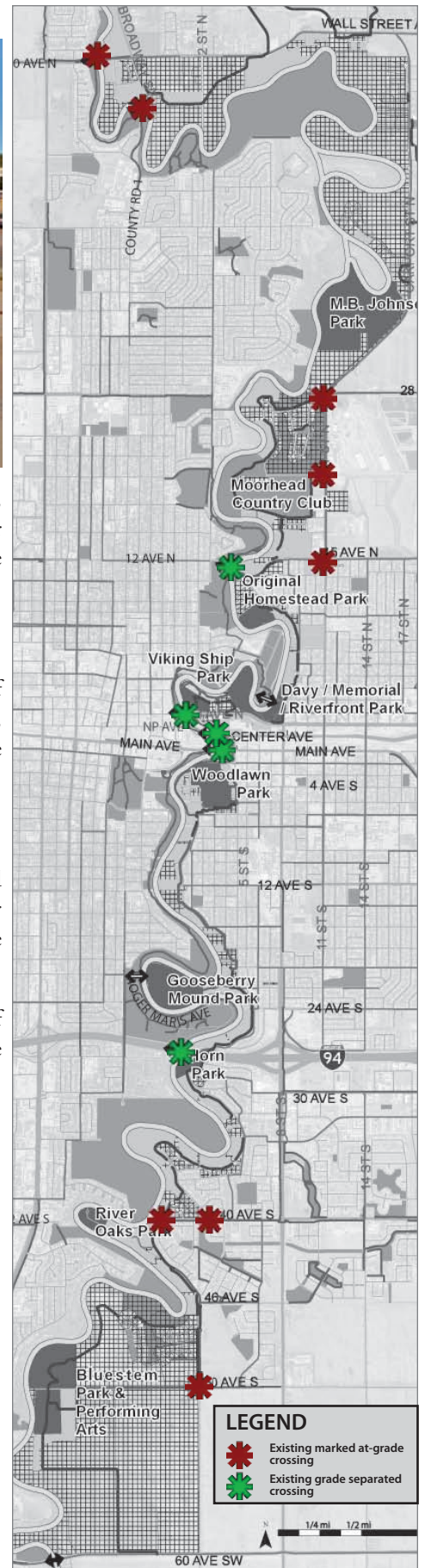
**BRIDGES**

Fargo and Moorhead are tightly connected communities. Many residents live in one city and work, shop, recreate, or go to school in the other. Frequent trips across the Red River occur multiple times a day. Reliable and convenient bridges support a seamless recreation experience and non-motorized commuting between the two cities.

Bridge improvements should be coordinated with corresponding trail links on both sides of the river. Priority will be placed on bridges that help to complete a continuous trail experience utilizing trails on both Fargo and Moorhead sides of the Red River.



FIGURE 35.1. ROAD CROSSINGS AND BRIDGES



## WAYFINDING SIGNAGE

Wayfinding signs typically show destination, direction and distance. Signs are placed where routes change and periodically along the route. For cyclists, pavement markings can be easier to see and can be used to supplement signage. Types of wayfinding signs are described below.



### Kiosk

**Role:** route maps, information about the destination and interpretation

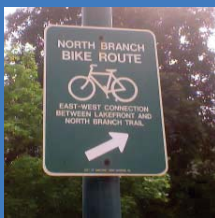
**Placement:** trail heads and destinations such as parks



### Directional Sign

**Role:** identify turns, route destination choices and distance.

**Placement:** route intersections and decision points



### Route Sign

**Role:** identify route name and major destination

**Placement:** every 1/2 mile along on-road bike routes and at major intersections



### Button

**Role:** identify bikeways

**Placement:** on existing street signs along bikeway



### Pavement Markings

**Role:** identify on-road bike routes, in addition to route signs

**Placement:** pavement

## NATURAL SURFACE: WALK, BIKE, CROSS COUNTRY SKI

Mountain biking, hiking, and cross country skiing are popular activities in Moorhead parks. Many natural surface trails exist in community and regional parks within the River Corridor. Volunteer organizations maintain many of these trails in coordination with the City of Moorhead staff partner organizations include: Prairie's Edge Nordic Skiers, and Fargo Moorhead Trailbuilders. Natural surface trails are recommended throughout the River Corridor to expand existing hiking, skiing, and off-road biking offerings. Natural surface trails are recommended close to the river (Figure 33 & 34), allowing for a more nature based experience.

As natural surface trails are less expensive and alignments are more flexible than paved trails, in many cases a natural surface trail accommodating summer walking and winter cross country skiing can be created in advance of paved trail segments. Creation of natural surface trails will in some cases require securing easements from willing landowners or, if easements cannot be secured, routing trails over the levee to the public road right of way.

## RED RIVER WATER TRAIL

The Red River of the North is a designated Minnesota DNR State Water Trail. Three dams within the Fargo-Moorhead boundaries require portages, and the Gooseberry Mound Park bridge and the Memorial/Oak Grove Bridge can be barriers to watercraft depending on the water level. Any new bridge construction should accommodate boat clearance during high water.

## TRAILHEADS

Trailheads will be located at all community and regional parks along the river. These parks are M.B. Johnson Park, Davy/Memorial/Riverfront Parks, Viking Ship Park, Woodlawn Park, Gooseberry Mound Park, River Oaks Park, and Bluestem Park. Trail support facilities, such as parking, wayfinding kiosks, restrooms, water, and bike racks will be shared with existing facilities in each park. In River Oaks Park, where these facilities do not currently exist, trailhead development would occur in conjunction with the addition of other community scale facilities.

Secondary trail access, including connections over levees, should be located approximately every ¼ mile. Trail access will occur at logical locations such as the intersections of major roadways, existing city trails and bikeways, and bridges. Wayfinding signage should clearly indicate access points. Other amenities, such as benches, bike racks, and water can be incorporated into trail access points where logical.

## WAYFINDING

Ease of navigation throughout the Corridor is important to the experience of the River Corridor. Direct trail routes are a high priority to reduce the amount of directional and informational signage needed. At trail intersections, recreation nodes, and road crossings, unified signage will be essential to orient and inform users. Signage content should be developed in coordination with the City of Fargo, Fargo Park District, and local business organizations in order to highlight and guide corridor users to local businesses, trail connections, social and cultural destinations, recreation nodes, trail loops, and neighborhoods. Metro COG is currently undertaking a bicycle signage implementation plan for kiosks and guide signs; future River Corridor signage style should be coordinated and consistent with this effort.

# CONNECTIVITY PROJECTS

## CORRIDOR WIDE

### C1- DEVELOP WAYFINDING DESIGN STANDARDS AND INSTALL WAYFINDING SIGNS

## STUDY AREA 1

### PAVED TRAIL AND BIKEWAYS

#### C-2 BIKEWAY – RED RIVER TO 15TH AVENUE NORTH (WALL STREET NORTH, OAKPORT ROAD NORTH AND NORTH 11TH STREET)

A connection from 15th Avenue to M.B. Johnson Park has been identified by the public as a high priority.

Near term, formal designation of the road shoulder as an on-road bikeway and wayfinding signage and pavement markings are recommended to increase awareness. The 2014 mill and overlay project for North 11th Street should include designation and striping of the bikeway on the road shoulder.

Long term, exploration of creating a side path (paved multi-use trail parallel to but separated from the road) on the west side of North 11th Street and Oakport Street North is recommended.

Most of the river land in this area is expected to remain privately owned making a river trail alignment challenging. If, in the future, ownership patterns in this area significantly change, riverside trails should be considered.

### BRIDGES

#### C-3 NEW BICYCLE – PEDESTRIAN BRIDGE AT M.B. JOHNSON PARK

This bridge is dependent on the ability of both Fargo and Moorhead to secure funding and create trail connections along the river.

#### C-4 NEW BICYCLE – PEDESTRIAN BRIDGE NORTH OF MOORHEAD COUNTRY CLUB PERPENDICULAR TO NORTH RIVER DRIVE

This bridge is dependent on the ability of both Fargo and Moorhead to secure funding and create trail connections along the river.

### NATURAL SURFACE TRAILS

#### C-5 BRIDGE OVER SNAKY CREEK

Relocation of the former Gooseberry Mound Park Bridge over the Snaky Creek in M.B. Johnson Park will provide access to expanded mountain biking and cross country ski trails.

#### C-6 CROSS COUNTRY SKI EXPANSION SOUTH OF M.B. JOHNSON PARK

Expansion of the cross country ski network south of Snaky Creek to the Moorhead Country Club is recommended in cooperation with the Prairie's Edge Nordic Skiers, Riverside Cemetery, and Moorhead Country Club.

#### C-7 MOUNTAIN BIKE TRAIL EXPANSION SOUTH OF SNAKY CREEK WITHIN M.B. JOHNSON PARK

Expansion of the mountain bike trail network south of Snaky Creek within M.B. Johnson Park is recommended in cooperation with Fargo Moorhead Trailbuilders.

FIGURE 38. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 1

Corridor wide:

C-1

**LEGEND**

- New Recreation Node
- Walking Loop Opportunities
- Trailhead

**RED RIVER CROSSINGS/BRIDGES**

- Existing road bridge
- Existing ped/bike bridge
- Potential ped/bike bridge

Private Property (Ownership as of 12.31.2013)

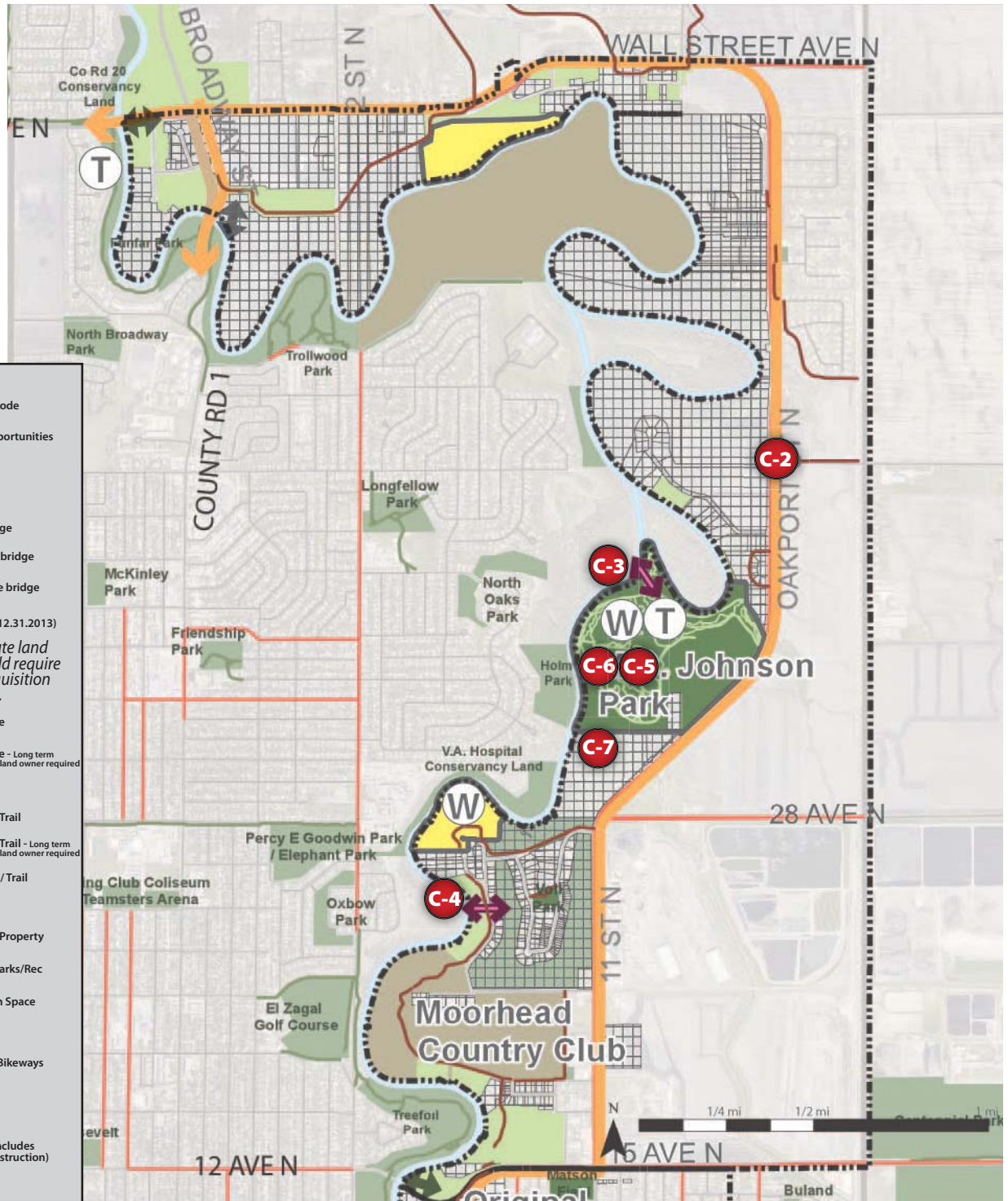
*Trails shown across private land are conceptual and would require an easement or land acquisition from willing landowners.*

- River Side of Levee
- River Side of Levee - Long term easement from willing land owner required
- Existing Trail
- Dry Side of Levee Trail
- Dry Side of Levee Trail - Long term easement from willing land owner required
- On Road Bikeway / Trail Parallel to Road
- On the Levee Trail

- City Owned River Property
- Moorhead River Parks/Rec
- Parks, Rec, & Open Space
- Private Parks/Rec

- Existing On-road Bikeways
- Existing Trails

- Project Boundary
- Existing Levees (Includes Levees Under Construction)
- Proposed Levees



## STUDY AREA 2

### PAVED TRAIL AND BIKEWAYS

#### C-8 & C-8.1 BIKEWAY BETWEEN 15TH AVENUE NORTH AND HOMESTEAD PARK

Between 15th Avenue North and Homestead Park near term and visionary options exist.

- » C-8 On-road Bikeway - today, an on-road bikeway is possible on 11th Avenue N. and 13th Avenue N. connecting to the existing paved trail on 15th Avenue North between the Toll Bridge and 9th Street North. The existing 15th Avenue North trail is only 6-8 feet wide and in disrepair and should be rebuilt to meet regional trail standards, and can be used to connect to the suggested bikeway on 11th Street North.
- » C-8.1 Riverside Trail - to fully realize the vision for connectivity, a paved, river side trail is recommended between Homestead Park and 15th Avenue North. There are currently residential homes in this area that are expected to remain. A paved trail here will only be possible if easements from willing landowners can be acquired above the 24 foot flood elevation.

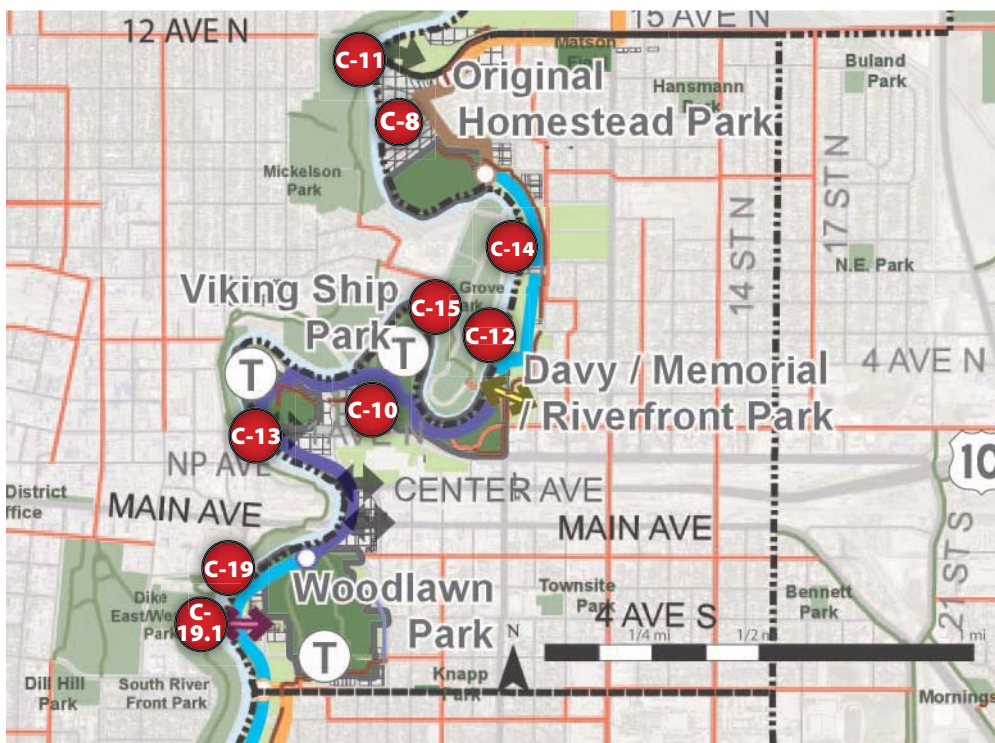
#### C-9 PAVED TRAIL HOMESTEAD PARK TO DAVY/MEMORIAL PARK

The City owns most of the property along the Red River between Original Homestead Park and Davy/Memorial/Riverfront Park. A paved regional trail is recommended on the river side of the levee in this location. Three private homes currently exist south of Original Homestead Park. A trail easement should be explored with landowners or the trail can be routed within the street right-of-way.

#### C-10 RECONSTRUCT PAVED TRAILS FROM DAVY/MEMORIAL PARK TO WOODLAWN PARK

A paved, multipurpose trail exists through Davy/Memorial/Riverfront Park, Viking Ship Parks, and Woodlawn Park. In several areas this trail is heaving and shifting and will be realigned above the 24 foot flood elevation.

FIGURE 39. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 2



## BRIDGES

### **C-11 15TH AVENUE NORTH TOLL BRIDGE IMPROVEMENTS**

This bridge forms an important connection between Moorhead and existing trails in Fargo. It is recommended that this bridge be improved with a dedicated, separate pedestrian and bicycle zone with future reconstruction.

### **C-12 REPLACE MEMORIAL/OAK GROVE BRIDGE**

### **C-13 PEDESTRIAN AND BICYCLE IMPROVEMENT TO 1ST AVENUE BRIDGE**

Improvements to the 1st Avenue North bridge for pedestrian and bicycle comfort and safety will facilitate connections between Downtown Fargo and the Hjemkmost Center.

## NATURAL SURFACE TRAIL PROJECTS

### **C-14 NATURAL SURFACE HIKING AND CROSS COUNTRY SKI TRAIL FROM HOMESTEAD PARK TO DAVY/MEMORIAL PARK**

A summer hiking/winter cross country ski trail is recommended. Easements or agreement from willing landowners would be required at private properties.

### **C-15 REALIGN CROSS COUNTRY SKI TRAILS IN DAVY/MEMORIAL PARK, RIVERFRONT PARK AND VIKING SHIP PARK**

This project will be completed in conjunction with realignment of the paved trails in these parks. Care will be taken to reduce paved trail/ski trail crossings.

## STUDY AREA 3

### PAVED TRAIL AND BIKEWAYS

### **C-16 AND C-16.1 PAVED TRAIL FROM WOODLAWN PARK TO GOOSEBERRY MOUND PARK**

- » C-16 in the near term an on road bikeway is recommended on River Drive and 4th Street South
- » C-16.1 to complete the vision for the corridor, a multi-purpose, paved trail connection between Woodlawn Park and Gooseberry Mound Park is recommended on the River Side of the corridor. At time of implementation, easements or agreement from willing landowners would be required at private properties.

### **C-17 PAVED TRAIL FROM GOOSEBERRY MOUND PARK TO HORN PARK**

From Gooseberry Mound Park south to Horn Park a paved trail is recommended on the river side of the levee. Challenges in this area include steep slopes associated with the levee, swale/ backwater south of the Interstate, and one private property. More detailed, feasibility level study is needed here to assess best trail location and potential for a boardwalk over the low areas. At I-94, a paved trail exists under the Interstate.

### **C-18 PAVED TRAIL FROM HORN PARK TO RIVER OAKS PARK**

Steep slopes and private land ownership pose significant challenges to paved trail construction from Horn Park to 40th Avenue South for the foreseeable future. In the near term, an on road bikeway is suggested using Rivershore Dr. S. and 37th Avenue South and 4th Street South. To complete the vision for a continuous paved trail along the river, options shown in Figure 41 should be explored.

From between 37th and 39th Avenue South to River Oaks Park, a combination of existing trails, paved trail on the dry side of the levee and on road trail are recommended.

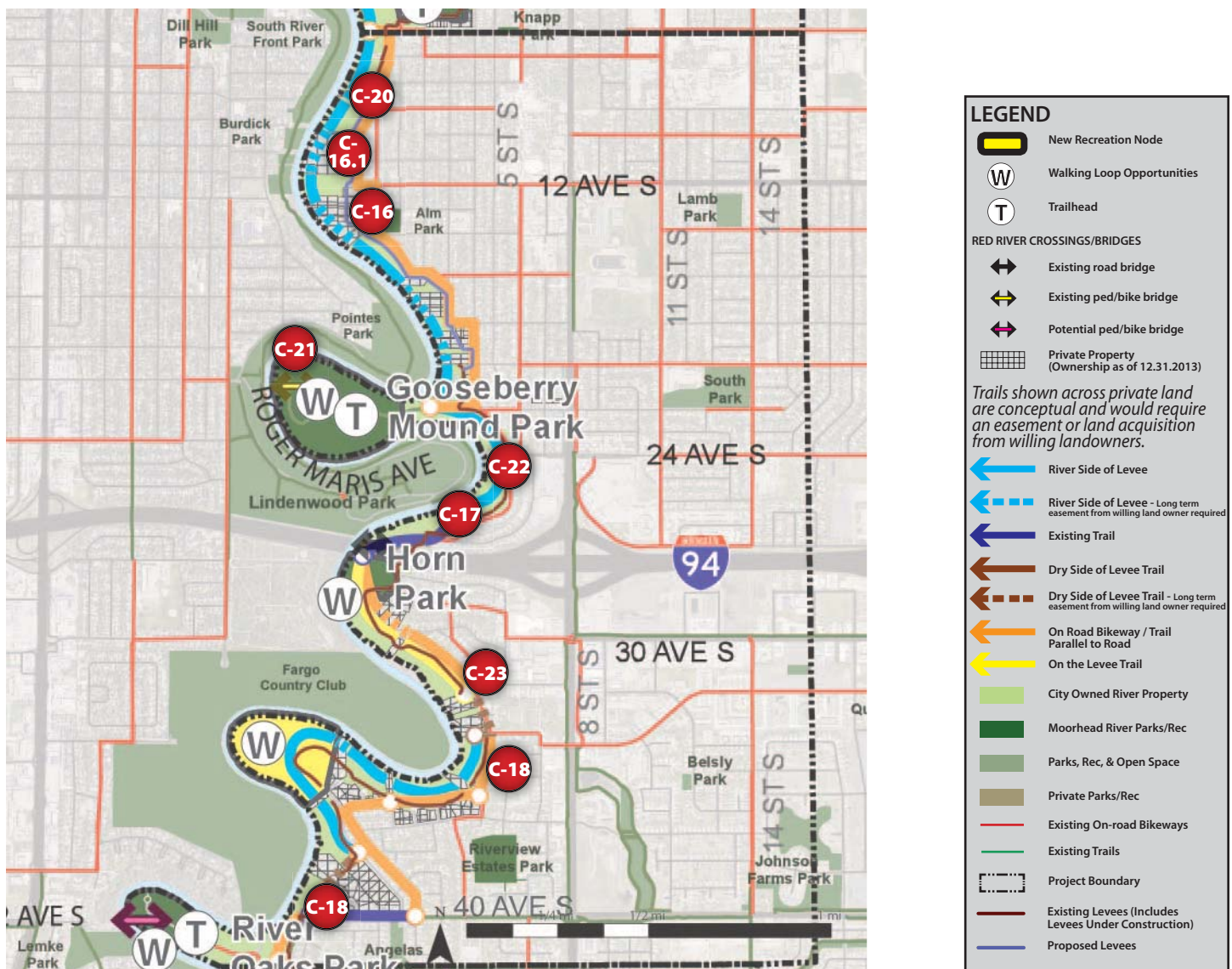
## BRIDGES

### **C-19 & C-19.1 PEDESTRIAN AND BICYCLE BRIDGE FROM WOODLAWN PARK TO DIKE EAST PARK IN FARGO**

Near term and visionary solutions are recommended for this crossing.

- » C-19 In the near term, relocate the floating bridge upstream to more stable soils.
- » C-19.1 Long term, replace the bridge with a permanent structure.

FIGURE 41. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 3



**NATURAL SURFACE TRAIL PROJECTS**

**C-20 NATURAL SURFACE CROSS COUNTRY SKI/HIKING TRAIL FROM WOODLAWN PARK TO GOOSEBERRY MOUND PARK**

Today, a significant amount of private property exists in this area. A continuous natural surface trail is dependent on acquisition of private properties for flood mitigation.

**C-21 HIKING LOOP IN GOOSEBERRY MOUND PARK**

A natural surface hiking loop at the river's edge is recommended.

**C-22 CROSS COUNTRY SKI/HIKING TRAIL FROM GOOSEBERRY MOUND PARK TO HORN PARK**

Only one private property remains in this area. A use agreement or easement should be explored with the landowner. If the landowner is not willing, a hiking trail can be routed around this property and ski trails should be expanded from Gooseberry Mound Park as far as this property.

**C-23 CROSS COUNTRY SKI/HIKING TRAIL FROM HORN PARK TO RIVER OAKS PARK**

This area contains several privately owned homes and access issues that would make continuous trails difficult in the near term, but hiking trails can be extended from each park until private property is reached.

## STUDY AREA 4

### PAVED TRAIL AND BIKEWAYS

#### C-24 PAVED TRAIL FROM RIVER OAKS PARK TO 46TH AVENUE SOUTH

A paved trail is recommended on the river side of the levee. There is an existing trail easement in this area but, as long as private properties exist along the river, it is likely the existing trail on the east side of South River Haven Drive will be used.

#### C-25 PAVED TRAIL FROM 46TH AVENUE SOUTH TO BLUESTEM PARK

The existing trail on South River Haven Drive and 50th Street South will be used. If in the future, the Tessa Terrace Development is interested in a public, riverside trail, the City will consider the opportunity.

#### C-26 BLUESTEM PARK TO 60TH AVENUE SOUTHWEST

A trail along the recently constructed levee is recommended.

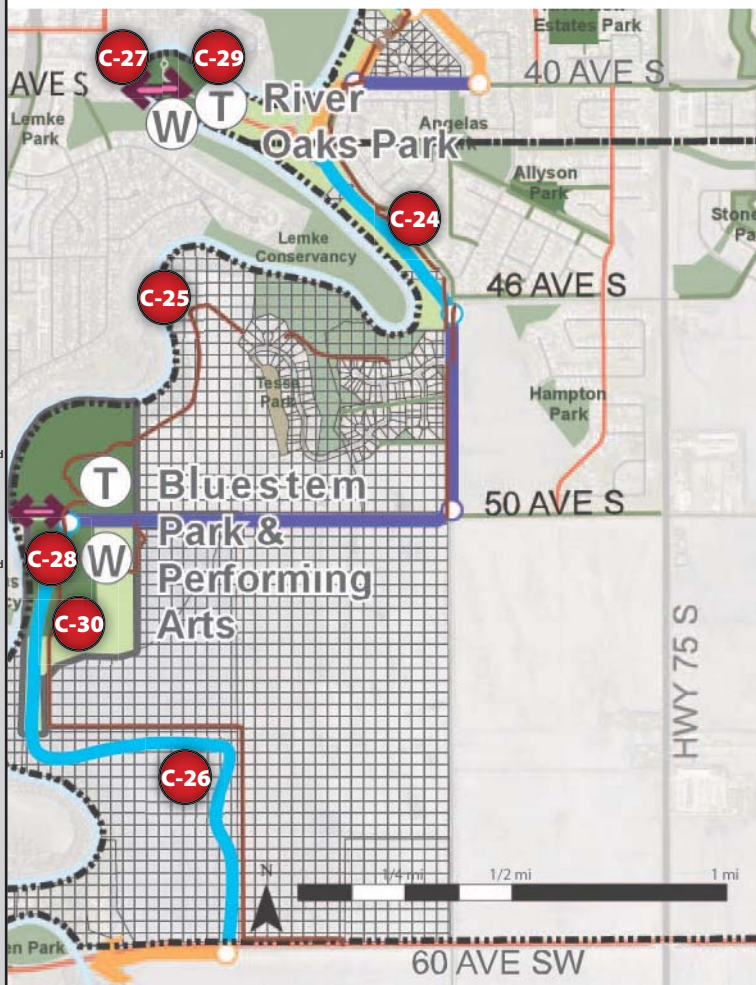
### BRIDGES

#### C-27 NEW PEDESTRIAN AND BICYCLE BRIDGE AT RIVER OAKS PARK -OR-

#### C-28 NEW PEDESTRIAN AND BICYCLE BRIDGE AT BLUESTEM PARK



FIGURE 42. CONNECTIVITY AND RECREATION PROJECTS STUDY AREA 4



### NATURAL SURFACE TRAIL PROJECTS

#### C-29 CROSS COUNTRY SKI/HIKING TRAIL IN RIVER OAKS PARK

Hiking trails and ski trails are recommended within the park and north and south of the park on public land.

#### C-30 CROSS COUNTRY SKI/HIKING TRAILS WITHIN BLUESTEM PARK

Work with the Trollwood Performing Arts School to develop a natural surface trail loop in Bluestem Park.



# Recreation Plan

Today, the River Corridor contains a concentration of regional and community parks. The River and its natural resources create an idyllic setting for hiking, cross country skiing, picnicking, and other recreation pursuits. The future vision for existing parks, along the River Corridor is to enhance what is already there. The aim is to make parks more distinct from each other in their recreational offerings and character. In addition, three new recreation nodes are recommended to provide more opportunities to interact with the river. All River Corridor Parks are envisioned to have:

- » Simple and well-constructed facilities;
- » Low maintenance, natural landscapes;
- » Ecologically-stable riverbank treatments;
- » Flexible turf areas for sports, picnicking and special events; and
- » Four-season recreation.

The focus for each River Corridor Park is summarized below.

- » **M.B. Johnson Park (Regional Park)** will be a center for mountain bike trails, and a hub for winter recreation, including: the winter festival, ice skating, and cross country skiing.
- » **Original Homestead Park (Neighborhood Park)** will focus on historical interpretation of the Bergquist Cabin, ecological restoration, and passive outdoor recreation.
- » **Davy/Memorial/Riverfront and Viking Ship Parks (Community Parks)** In keeping with their location between the Fargo and Moorhead Downtowns, focus will be on regional attractions, community gatherings and events, high quality park amenities, historical interpretation, these parks will have more manicured/higher maintenance landscaping than other parks along the River.
- » **Woodlawn Park (Community Park)** will be an extension of the downtown parks with activities that have a community-wide draw, including the possibility of a performance space.
- » **Gooseberry Mound Park (Community Park)** will continue to serve as a location for picnicking and outdoor gatherings, unique children's play area and bridge connection to Fargo. This park can become a neighborhood facility and winter cross country ski hub if warming house facilities can be shared with Fargo's Lindenwood Park.
- » **Horn Park (Neighborhood Park)** will be a passive park focusing on natural restoration.
- » **River Oaks Park (Community Park)** will have a natural resource focus.
- » **Bluestem Park (Regional Park)** will continue to be the hub for summer events and expand into a southern hub for winter recreation in partnership with Trollwood Performing Arts School.

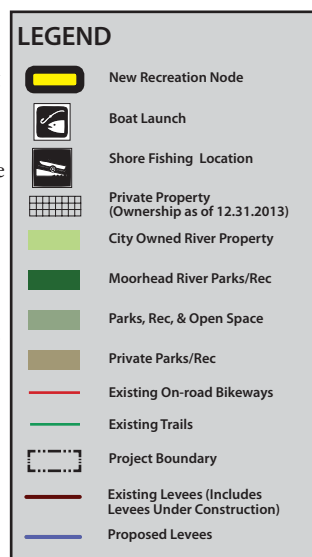


FIGURE 43. REC NODES & PARK IMPROVEMENTS

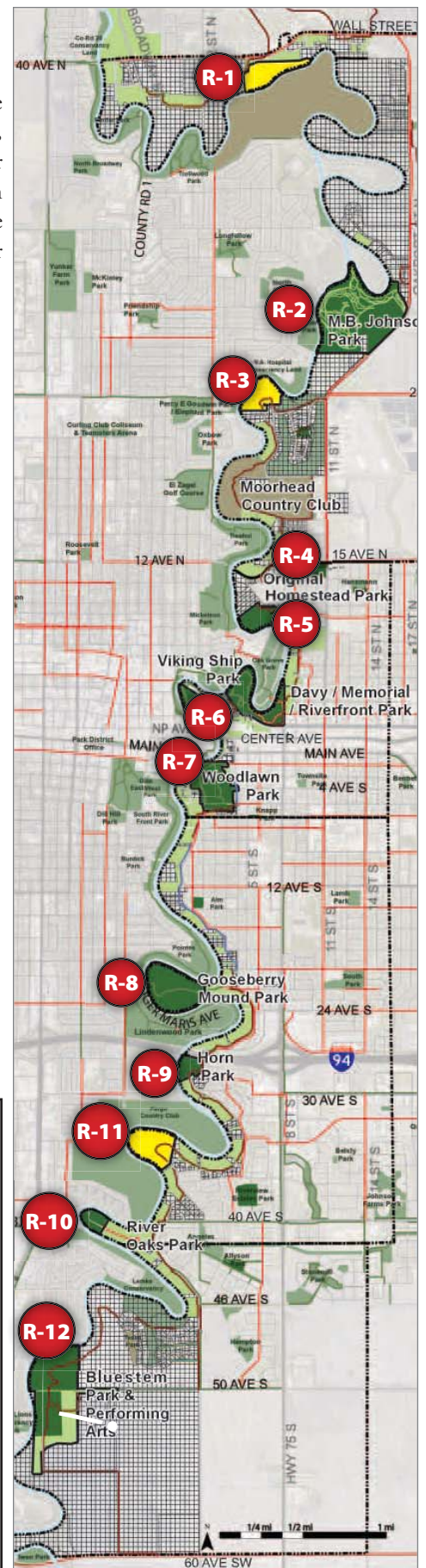


FIGURE 44. NEW RECREATION NODE PLAN (R-1)

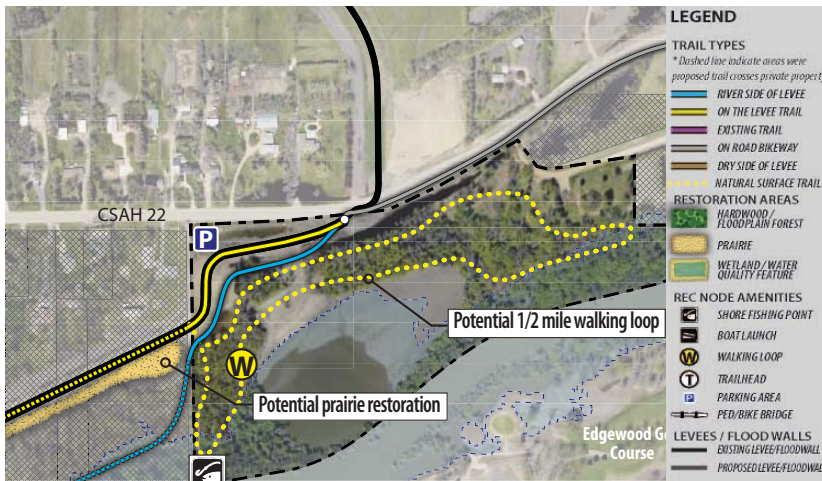


FIGURE 44.1. M.B. JOHNSON PARK PLAN

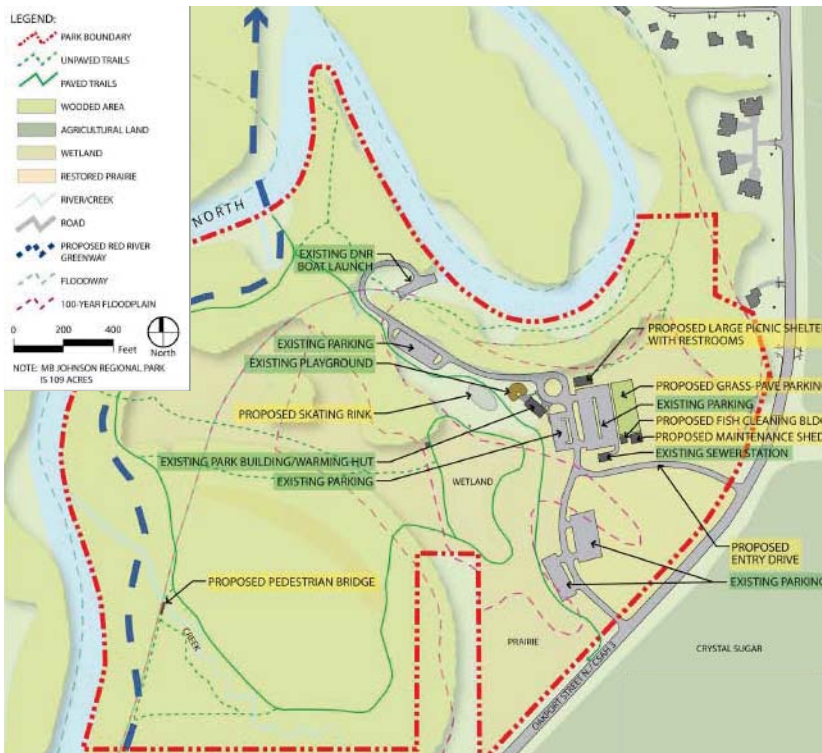


FIGURE 44.2. NEW RECREATION NODE PLAN (R-3)



## RECREATION PROJECTS

### STUDY AREA 1

#### R-1 NEW RECREATION NODE ON BUFFALO - RED RIVER WATERSHED LAND

A new recreation node is proposed on this land. Improvements will include prairie restoration, half mile walking loop, and a connection to the bikeway on CSAH 22.

#### R-2 IMPROVEMENTS TO M.B. JOHNSON PARK

This regional park will be improved according to its 2012 Master Plan. Improvements include: ice skating rink, fish cleaning station, new picnic shelter with restrooms, expanded parking, new maintenance shed, and expanded hiking and mountain biking trails south of Snaky Creek. Expansion of cross country ski trails south of the park to Moorhead Country Club Golf Course are a possibility (requires easements from willing landowners). In addition, if trail connections on the Fargo side of the river are built, there is potential for a ped/bike/ski bridge over the river that would allow cross-country skiing to Edgewood Golf Course in Fargo.

#### R-3 NEW RECREATION NODE NORTH OF MOORHEAD COUNTRY CLUB

A new recreation node is proposed on the City land at N. River Drive north of Moorhead Country Club. Improvements include: forest/floodplain forest restoration, half mile nature trail, and river access.

#### R-4 DNR CANOE PORTAGE AND PARKING IMPROVEMENTS 15TH AVENUE NORTH

The DNR has indicated they will be redesigning and rebuilding the flood damaged parking area and portage.

## STUDY AREA 2

### R-5 IMPROVEMENTS TO ORIGINAL HOMESTEAD PARK

The focus of this park, containing the historic Bergquist Cabin, will be interpretation. Other improvements include: paved regional trail link and a natural surface hiking/ski link to Davy/Memorial/Riverfront Parks, and expanded historical interpretation.

### R-6 IMPROVEMENTS TO VIKING SHIP/DAVY/MEMORIAL/RIVERFRONT PARKS

These downtown parks will continue to provide community and regional scale activities. Other potential improvements include: disc golf expansion connected to Fargo's Oak Grove Park disc golf course, replacement of the Oak Grove/Memorial bicycle and pedestrian bridge, trailhead facilities including upgraded recreation center, expanded place based historic interpretation, upgraded and realigned paved trail, restored riparian shoreline, and small water quality or rain garden features.

### R-7 IMPROVEMENTS TO WOODLAWN PARK

Possible future redevelopment of the power plant site, along with the potential for park expansion to include land acquired for flood mitigation has sparked community interest in this park. In addition, frequent flooding has left some of the facilities, such as the baseball field and courts in poor condition.

It is recommended the City prepare a master plan specifically for this park, the power plant site, and newly acquired flood mitigation properties. As part of that plan, the following improvements should be explored:

- Replacement of the floating bridge with permanent bridge upstream
- Natural surface trails
- Restored natural areas
- The potential to create a lake in low areas
- An amphitheater
- Gardens in partnership with the Plains Art Museum (Defiant Garden)
- Gardens and a conservatory in partnership with the Northern Plains Botanic Garden Society

FIGURE 45. IMPROVEMENTS TO ORIGINAL HOMESTEAD/VIKING SHIP/MEMORIAL/RIVERFRONT PARK PLANS (R-5 & R-6)

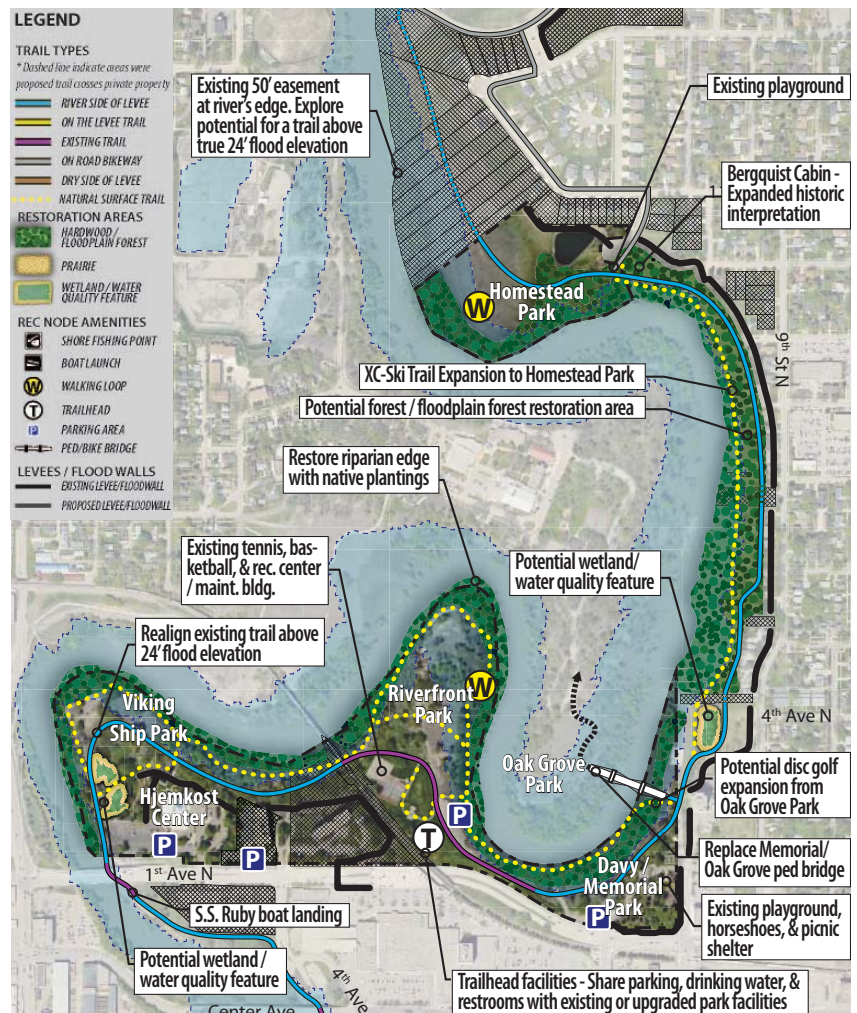


FIGURE 45.1. IMPROVEMENTS TO WOODLAWN PARK PLAN (R-7)



FIGURE 46. IMPROVEMENTS TO GOOSEBERRY MOUND/HORN PARK PLANS (R-8 & R-9)

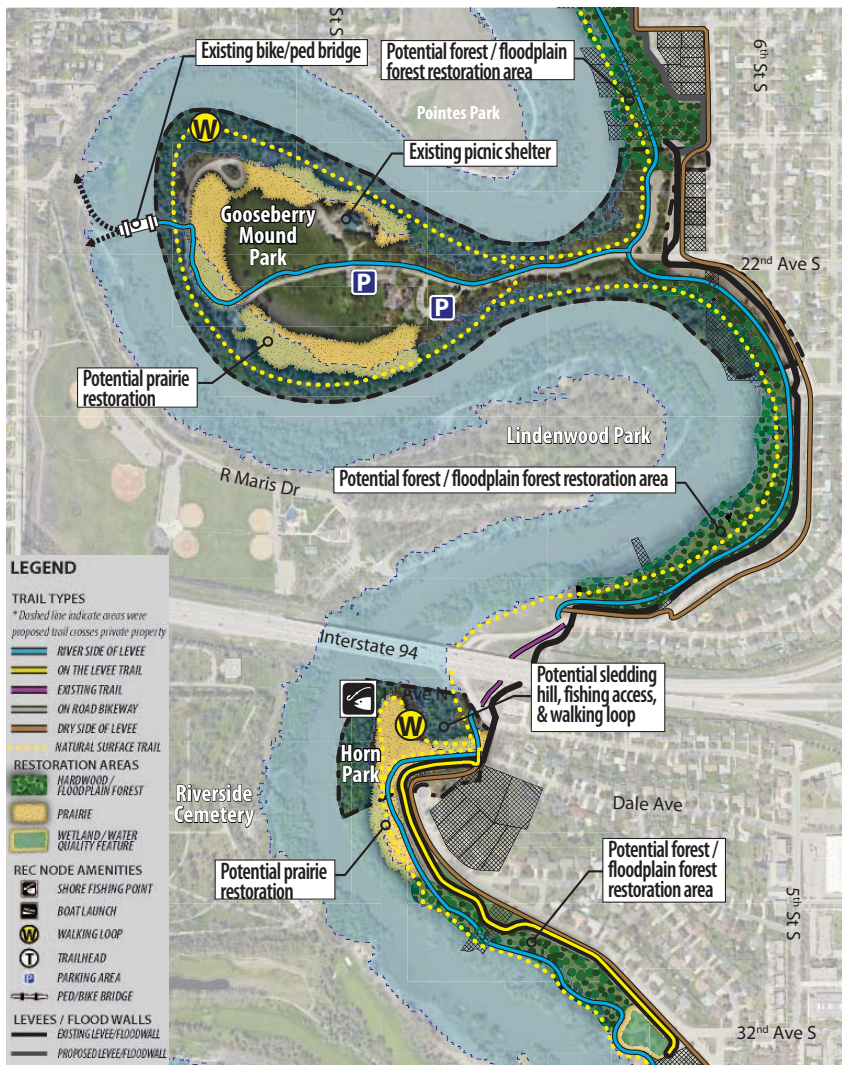
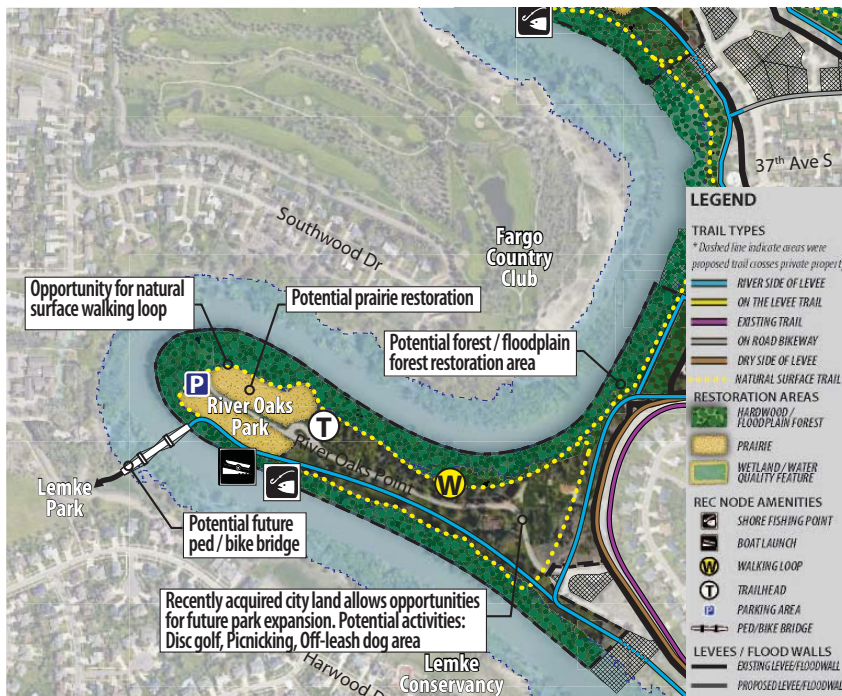


FIGURE 46.1. IMPROVEMENTS TO RIVER OAKS PARK PLAN (R10)



### STUDY AREA 3

#### R-8 IMPROVEMENTS TO HORN PARK

Visual and physical access to this park have been reduced with the construction of flood mitigation structures. As such, focus of this park will be on passive neighborhood-scale recreation. Improvements include: shore fishing access, half mile nature trail and boardwalk, and sledding hill.

#### R-9 IMPROVEMENTS TO GOOSEBERRY MOUND PARK

This park will continue to specialize in community-scale picnicking and river access. As cross country ski trails are expanded along the River to the north and south, the park has the potential to become a cross country ski hub, provided the warming house in Fargo's Lindenwood Park can serve both parks. Other improvements include: reconstructed entry drive and paved trail connection, natural surface walking trail at river's edge, and prairie restoration.

#### R-10 IMPROVEMENTS TO RIVER OAKS PARK

River Oaks Park is currently a neighborhood park, but with recent land acquisition related to flood mitigation has more than doubled in acreage. This park should be reclassified as a Community Park, recognizing that due to size and river location, it is appropriate for community-scale activities. Because road access to the park is somewhat indirect and on local streets, and the land is prone to frequent flooding, it is recommended that the focus of the park remain on passive, natural resource based activities. Potential improvements include: natural surface walking trails with river access, shoreline fishing areas, fish cleaning station, interpretive elements, improved parking area, accessible trails, picnic tables, picnic shelter, and playground. Community wide facilities such as an off leash dog area, reservation picnicking, and disc golf are also appropriate here but would require support facilities such as improved parking, water, and restrooms. River Oaks Park is a potential location for a pedestrian/bicycle bridge over the River.

**R-11 NEW RECREATION NODE AT RIVERVIEW CIRCLE SOUTH**

The large area of City owned open space at the end of Riverview Circle is unique in that the land is free of woody vegetation and there is a small lake between the levee and the River. The area's scenic qualities make it a desirable local destination. Improvements to this new recreation node include: shoreline fishing access, habitat restoration, nature trails, wildlife viewing opportunities and interpretation, and a potential outdoor learning lab for students and educational groups in partnership with the River Keepers.

**STUDY AREA 4**

**R-12 IMPROVEMENTS TO BLUESTEM PARK AND EVENTS CENTER**

Increased public access to this park is recommended. Improvements will be made in partnership with Trollwood Performing Arts School and have the potential to include: expanded hiking and cross country ski trails, ice skating, possible warming area in Trollwood Performing Arts School, location for events such as charity walks, and a pedestrian/bicycle bridge connection to Lions Conservancy Park in Fargo.

FIGURE 47. NEW RECREATION NODE PLAN (R11)

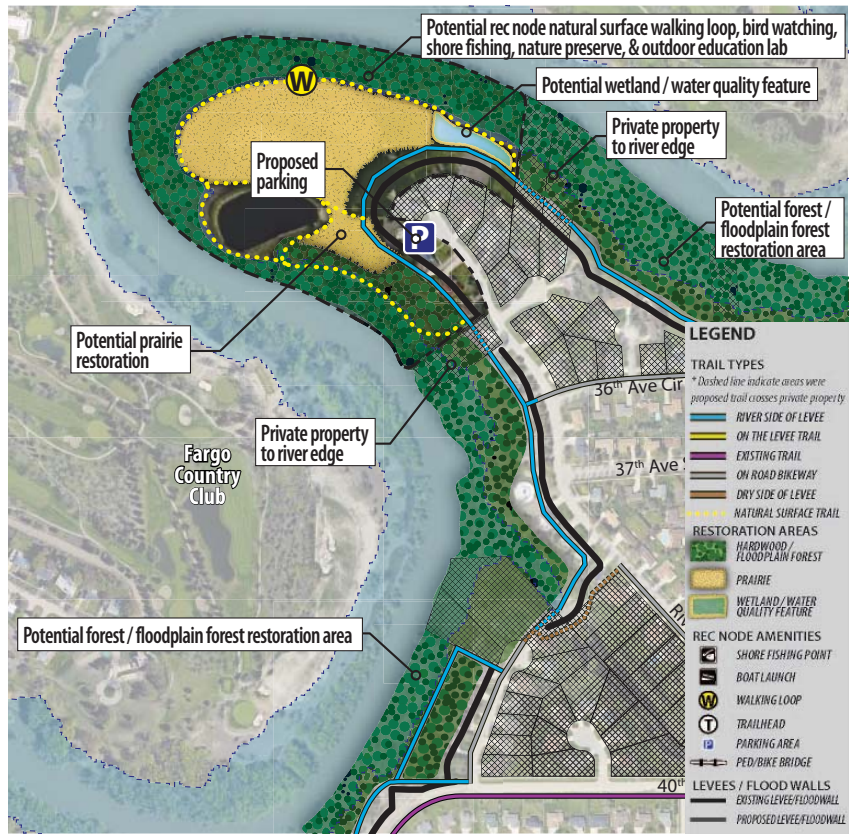
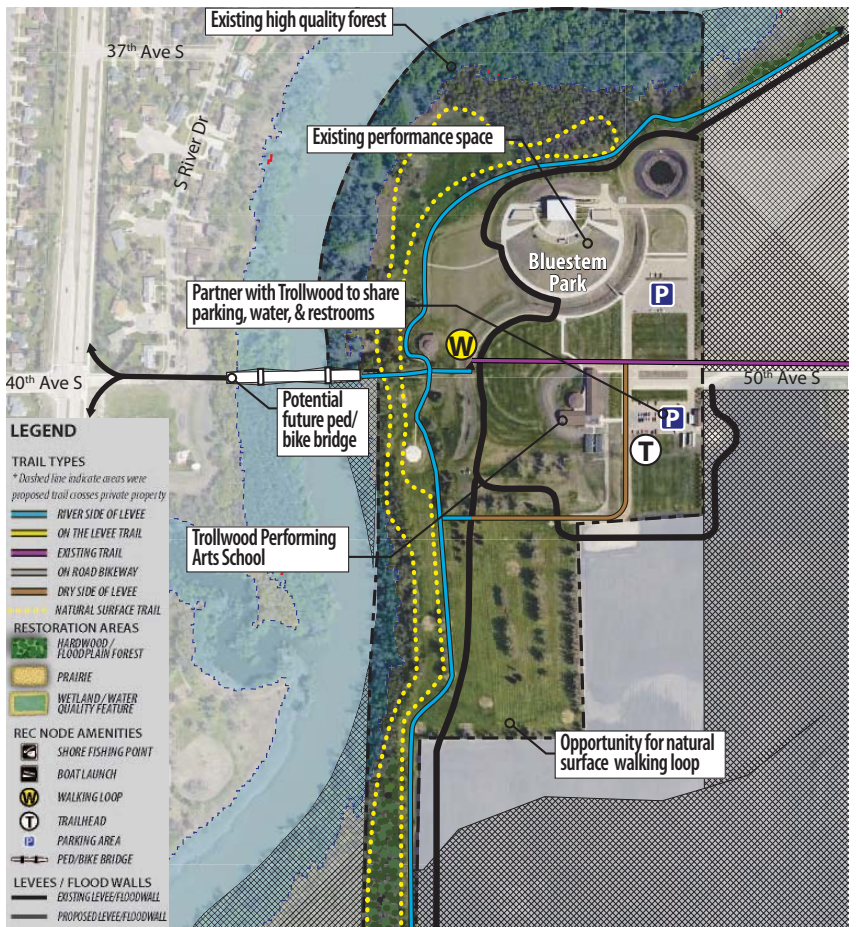


FIGURE 47.1. BLUESTEM PARK & PERFORMING ARTS PLAN (R12)



# Habitat Enhancement and Water Quality Plan

## HABITAT ENHANCEMENT

The primary goal of habitat enhancement is to increase the area of native vegetation through preservation and restoration, while maintaining an overall natural feel that appears cared for and intentional. Native vegetation provides several benefits including wildlife habitat, erosion and flood control, recreational opportunities, such as birding and wildflower viewing, and is an important component to the natural history of the Fargo-Moorhead area. Target restoration and preservation areas have been identified along the Red River Corridor in the Moorhead area and include restoration of habitats that are compatible with the riparian corridor and require minimal amounts of maintenance. Specifically, habitats that are proposed for restoration along the River Corridor include prairie, oak savanna, and floodplain forest. A description of each habitat type along with strategies for restoration and enhancement are below.



### PRAIRIE

Prairies once covered 18 million acres of Minnesota although due to agriculture and development, only 235,000 acres of original prairie remain. The prairies of western Minnesota were tallgrass prairies that were dominated by grass species such as big bluestem and Indiangrass, as well as wildflowers such as sunflowers, blazing stars, and many aster species. Prairies were historically maintained by fire, drought, and grazing by native herbivores such as bison and elk, meaning that these types of disturbances were necessary for maintaining the vast grasslands. Without such disturbances, trees and shrubs encroach on the prairies converting them to forests.

Prairies provide a number of ecosystem services that benefit both humans and wildlife. The plants of prairies are adapted to the conditions of Minnesota, including droughts and flooding. The strong roots of these plants provide stabilization and erosion control of the soils. As prairies were the natural vegetative plant communities that once covered 1/3 of the state of Minnesota, they are important for our natural history and provide a sense of place. Prairies are important for wildlife, including many rare species such as the state-listed regal fritillary and Dakota skipper. Prairies also offer aesthetic value to our landscapes with plants in flower from the early spring to the late fall, as well as recreational birding and butterfly observation opportunities.

### RECOMMENDATIONS

Several areas along the Red River Corridor in the Moorhead area are proposed to be restored to prairie, including:

- » Many areas along the corridor that were formerly residential have already been and will continue to be seeded with prairie plants by the City of Moorhead, including north and south of the Moorhead Country Club, Homestead Park, and north of River Oaks Park.
- » Restored prairie along the levees in many areas will serve as a transition between maintained turf and forested areas along the corridor and in several parks.
- » Portions of public parks including M.B. Johnson Park, Gooseberry Mound Park, and River Oaks Park.

Restoring and maintaining prairies in urban environments is relatively easy because once established, prairies require little maintenance compared to high maintenance turf which requires frequent mowing. Restoring prairies on land that has been used for other purposes, such as residential properties and areas currently maintained as turf, includes removing existing vegetation, such as turf grass or invasive species. After vegetation removal, the selected areas will be seeded with a local ecotype prairie seed mix. Because native plants are adapted to local climatic conditions, such as drought, once established they will require minimal maintenance, such as watering. During initial establishment, selective weed control will be implemented to remove invasive and undesirable species. After the prairie vegetation has become established, it should be mowed or prescribed burned every 3-5 years.

## OAK SAVANNA

Oak savannas are among the rarest habitats in North America. They are a transition habitat between the tallgrass prairie and woodlands. Oak savanna is comprised of prairie plant species with a sparse canopy of trees (typically bur oak) and shrubs. Similar to prairies, oak savanna was historically maintained by fire, drought, and grazing. Without such disturbances, oak savannas would fill in with trees and become forests.

Because oak savannas are a transition habitat, they are important for both forest dwelling species as well as prairie species (including both plants and animals). For example, red-headed woodpecker, indigo bunting, eastern kingbird, and karner blue butterflies occur in oak savannas. As such, this ecosystem provides an aesthetic and accessible landscape for birding and searching for insects, such as butterflies.

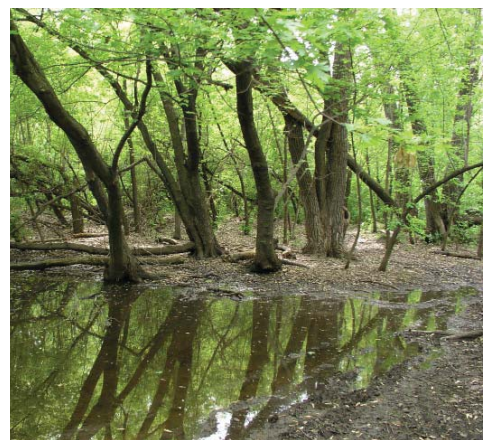
## RECOMMENDATIONS

Many areas along the River Corridor have bur oak saplings that have naturally recruited. Restoring bur oak savanna in these areas would entail protecting the saplings that are already growing, by enclosing them in tubes or mesh wiring. Protecting saplings will ensure survival and growth and will eliminate costs associated with purchasing, planting, and maintaining new trees. In addition to protecting existing bur oak saplings, native prairie plants will be seeded in these areas. As mentioned above, native plants are adapted to local climatic conditions which minimize the need for watering. During establishment of native plants, selective weed control will have to be implemented. Similar to prairie, once oak savanna becomes established, maintenance is minimal, and would include mowing or prescribed burning every 3-5 years.

## FLOODPLAIN FOREST

Floodplains are the broad, flat, low-lying areas at the bottom of river valleys that typically flood in spring and during periods of unseasonably high rainfall. Floodplain forests are dominated by trees such as cottonwood, silver maple, and black willow. The understory of these forests is typically sparse with many areas of bare ground due to the high frequency of flooding. These forests are important along rivers with a high frequency of flooding, such as the Red River, because the trees help stabilize the river banks and prevent excessive erosion.

Floodplain forests provide important habitat for many wildlife species, including migrating songbirds that rely on vegetative corridors. Ephemeral pools within the forest provide habitat for amphibians and invertebrates. Examples of wildlife include: wood duck, black-crowned night-heron, cerulean warbler, acadian flycatcher, warbling vireo, blue-winged warbler, prothonotary warbler.



## RECOMMENDATIONS

Floodplain forests provide many public use and recreational benefits including birding during spring and fall migrations, fishing along the Red River, and dog walking and passive recreation on hiking trails. Floodplain forests occur along many parts of the Red River in the Moorhead area, especially in parks and north and south of the core urban areas of the city. Restoring and maintaining these areas would entail maintaining permanent tree cover and allowing some areas to naturally succeed back to forest. Additionally, controlling invasive species, such as buckthorn, may be required.

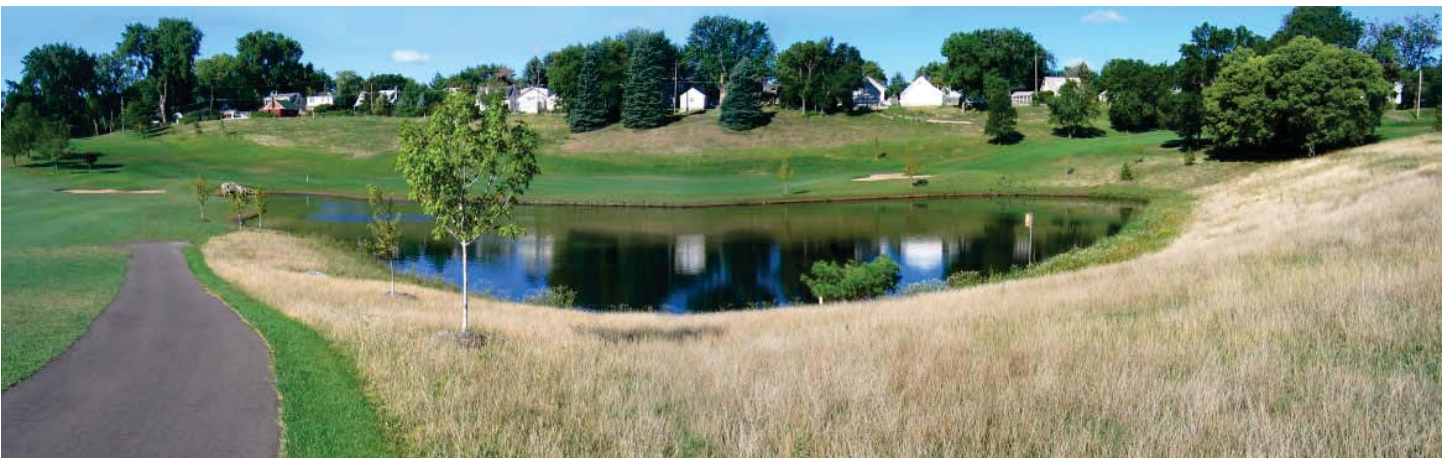
## WATER QUALITY

Creating wetland features along the Red River Corridor will provide ecosystem services such as water storage during large rain events, improve water quality through infiltration, and provide habitat for wildlife. Wetland features include wetland restoration, rain gardens, and created wetlands. Adding wetland features will increase heterogeneity in the landscape and add interest, as well as ensure the City of Moorhead meets its stormwater management needs. Such water quality improvement projects can also provide public education opportunities.

## RECOMMENDATIONS

- » Identifying areas where wetlands can be restored or water quality improvement features can be added is the first step. Recommendations for water quality improvement features include:
  - » Restoring a degraded wetland at M.B. Johnson Park.
  - » Wetland restoration/creation in a poorly drained area at Woodlawn Park.
  - » Decentralized stormwater best management practices, such as raingardens throughout and within the fabric of the corridor and contributing drainage.
  - » Finally, several stormwater outlets along the corridor serve as potential wetland feature creation sites that would improve water quality of stormwater that flows into the Red River.

Restoring existing wetlands will entail removing invasive species, such as reed canary grass and cattails, and planting native wetland plant species. Maintenance for restored wetlands will include invasive species control and monitoring establishment of native species and supplemental plantings as needed. Constructing rain gardens and created wetlands will involve dredging the target area, installing drainage and filtration systems, and planting native wetland species. Similar to restored wetlands, invasive species will have to be controlled as needed and native species establishment will have to be monitored and supplemented as necessary.





# HABITAT ENHANCEMENT & WATER QUALITY PROJECTS

## STUDY AREA 1

### H-1 PRAIRIE/SAVANNA RESTORATION AT THE NEW RECREATION NODE ON BUFFALO RIVER WATERSHED DISTRICT LAND

Maintenance of the existing seeded area is most important followed by protection of naturally recruited tree saplings.

### H-2 PRAIRIE RESTORATION AT M.B. JOHNSON PARK

### H-3 WETLAND RESTORATION AT M.B. JOHNSON PARK

### H-4 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST NORTH OF MOORHEAD COUNTRY CLUB

Maintenance of the existing seeded area is most important followed by protection of naturally recruited tree saplings.

### H-5 PRAIRIE/SAVANNA RESTORATION NORTH OF 15TH AVENUE NORTH

## STUDY AREA 2

### H-6 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST BETWEEN HOMESTEAD AND DAVY/MEMORIAL PARKS

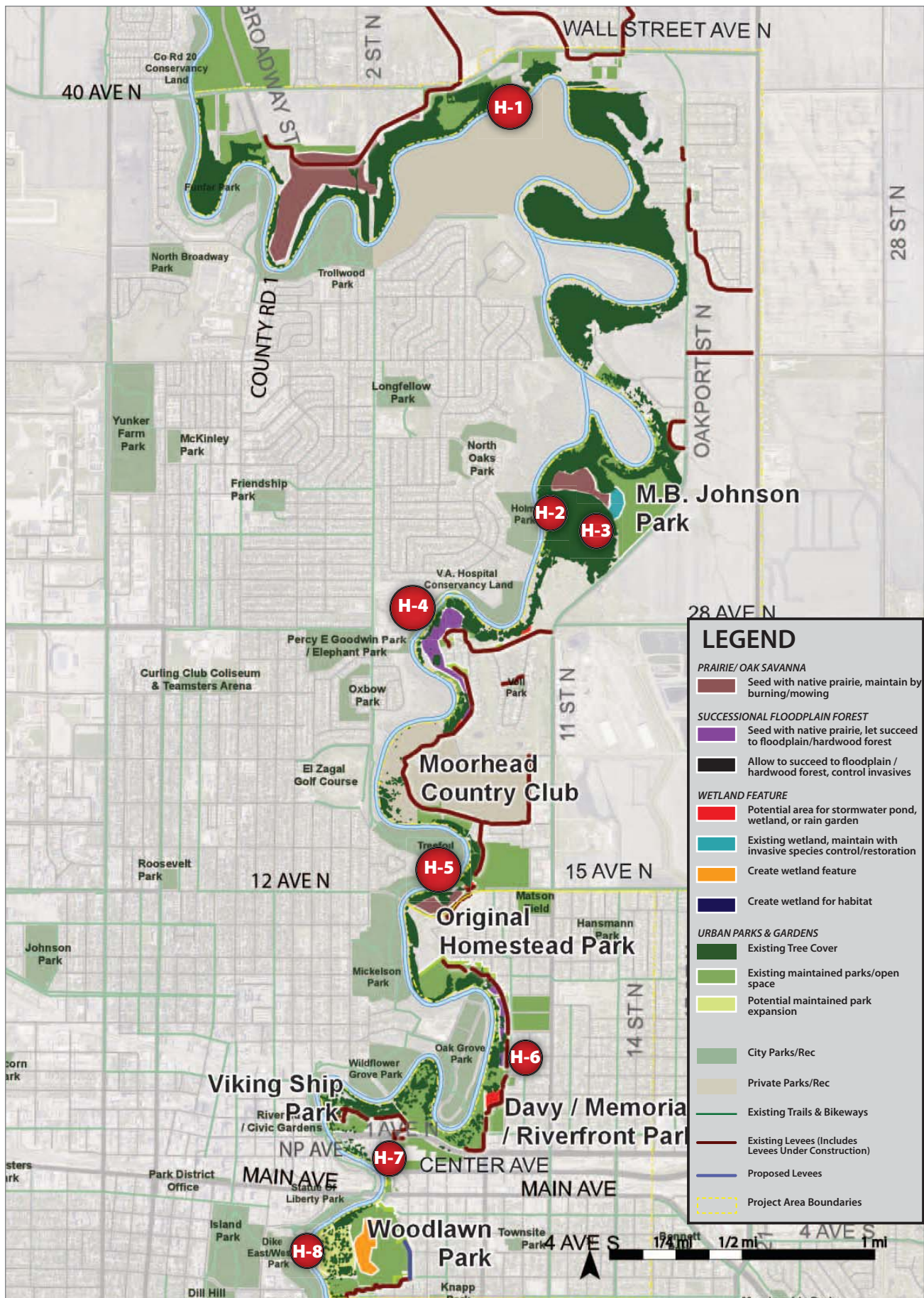
Maintenance of the existing seeded area is most important followed by protection of naturally recruited tree saplings.

### H-7 WATER QUALITY IMPROVEMENTS AT DAVY/MEMORIAL PARK, RIVERFRONT PARK, AND VIKING SHIP PARK

### H-8 RESTORED WETLAND IN WOODLAND PARK



FIGURE 52. PROPOSED HABITAT AND WATER QUALITY IMPROVEMENTS (STUDY AREAS 1 & 2)



### **STUDY AREA 3**

#### **H-9 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST SOUTH OF WOODLAWN PARK**

Maintenance of the existing seeded area is most important followed by protection of naturally recruited tree saplings.

#### **H-10 PRAIRIE/OAK SAVANNA RESTORATION IN GOOSEBERRY MOUND PARK**

#### **H-11 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST FROM GOOSEBERRY MOUND PARK TO HORN PARK**

#### **H-12 PRAIRIE/OAK SAVANNA RESTORATION IN HORN PARK**

#### **H-13 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST SOUTH OF HORN PARK**

Maintenance of the existing seeded area is most important followed by protection of naturally recruited tree saplings.

#### **H-14 PRAIRIE/OAK SAVANNA RESTORATION AT NEW RECREATION NODE AT RIVERVIEW CIRCLE SOUTH**

Tree protection should occur within 0-5 years, invasive species control and maintenance of the seeded area are all important in the near term to maintain the landscape.

#### **H-15 PRAIRIE/SUCCESSIONAL FLOODPLAIN FOREST IN RIVER CORRIDOR NORTH OF RIVER OAKS PARK**

Maintenance of the existing seeded area is most important followed by protection of recruited tree saplings.

### **STUDY AREA 4**

#### **H-16 PRAIRIE/OAK SAVANNA RESTORATION IN RIVER OAKS PARK**

#### **H-17 PRAIRIE SEEDING/SUCCESSIONAL FLOODPLAIN AND POTENTIAL WETLAND FEATURE IN TESSA TERRACE DEVELOPMENT**

#### **H-18 PRAIRIE SEEDING/SUCCESSIONAL FLOODPLAIN FOREST SOUTH OF BLUESTEM PARK**



FIGURE 54. PROPOSED HABITAT AND WATER QUALITY IMPROVEMENTS (STUDY AREAS 3 & 4)



# Interpretation Plan

In a constantly changing world, connections between people and their community, culture, land, and nature are becoming more important to maintain and recreate. Events that give identity and significance to a place are not self-evident and frequently become lost to time. Place-based interpretation allows for the rediscovery of these ‘places’, revealing and reaffirming important connections between a community’s social and natural systems. It is an approach rooted in the belief that people seek to understand the stories of the places they live and explore.

As Moorhead works to recapture the value of the Red River, the City will work to improve awareness and appreciation of the River Corridor and its history, culture, and role in nature. As part of these efforts, recreation in the River Corridor will be enhanced by dynamic and interactive educational opportunities, as well as an attractive and consistent interpretive signage.

Interpretive planning designs educational experiences that support an organization’s vision and mission. The process considers place-specific historical, cultural and natural resources to be interpreted and the characteristics and interests of the people who use the site in order to develop relevant messages and media.

In the context of the Red River Corridor, fostering an understanding of the relationships between social and natural systems can nurture an interest in environmental stewardship. In other words, helping visitors understand the connections between history, culture, and nature is at the core of fostering stewardship of these resources.



## INTERPRETIVE THEMES

Taking stock of the corridor's unique attributes is a central task in creating the backdrop against which the corridor's story is framed and interpretive themes are developed. These stories create a unique setting, or sense of place, and are places where stories of nature, history, and culture intersect in ways that are meaningful to visitors. The following interpretive themes are suggested as a framework for future interpretive development.



### RIVER RECREATION

Renewed interest in river recreation is an opportunity for interpretation. Interpretive opportunities include:

- » River Oriented Recreation

### THE CHANGING LANDSCAPE

Understanding and appreciating the natural history of an area provides a sense of place and perspective. Natural resources include the river and the habitat that the river's frequent flooding has created and maintained. The story of the recent transition of the River Corridor landscape from quiet streets lined with single family homes to the current open space and levees may provoke questions and new ideas about the ways people live and interact with the natural environment. Interpretive opportunities include:

- » Geology and Hydrology
- » The Evolving Landscape



### THE CHANGING RIVER

The ever changing dynamics of the Red River of the North is a powerful story. Interpretive and educational information about the Red River could include information on natural river processes, such as flooding, erosion, and channel evolution. Interpretive opportunities include:

- » Oxbows and the River Channel
- » Flood History
- » Flood Mitigation



### RIVER HISTORY

Historic and cultural resources include several historically significant sites along the River Corridor, with the greatest concentration near downtown. Many of these historic resources, such as the Ice Cutting on the River area, Moorhead Power Plant, and the Moorhead Brewery owe their existence and location to their reliance on the river as a resource, while others are connected to the river in other ways. The Hjemkomst Center is an example of the local pride for and attention to the Nordic cultural heritage. Interpretive opportunities include:

- » Settlement Era
- » River Crossing
- » Structures
- » Sites



## TRANSPORTATION

Throughout history, river transportation has been a key component of settlement. Interpretive opportunities include:

- » River Transportation

## AGRICULTURAL HISTORY

The relationship of the River to early settlement and agriculture is an important part of Moorhead's history. Remnant perennial plants from residential yards provide opportunities to harvest fruits, nuts, and berries and spark new interest in urban foraging. Interpretive opportunities include:

- » The Edible Landscape
- » Food Production

## RECOMMENDATIONS

Interpretation can be integrated into the River Corridor using multiple methods. Following are options for interpretive methods and media.

- » **Traditional Interpretive Signage** - integrate interpretive media into wayfinding orientation signs.
- » **Performance** – partner with the Trollwood Performing Arts School on theatrical interpretation and performances in parks throughout the River Corridor. Performances could interpret Moorhead history, wildlife stories, and natural history.
- » **Tours and Classes** – work with the local school district, colleges, and universities, to create educational programming in the parks. Develop a Red River Steward program for those interested in serving at a higher level.
- » **Art Installations** – temporary and fixed installations could portray historical figures or environmental situations. Art could be solicited from local artists, schools, and universities.
- » **Outdoor Learning Lab** –an educational facility with access to the river, floodplain ponds, soils, and vegetation; the proposed recreation node at Riverview Circle is a possible location.
- » **Technology** – develop phone based audio tours and use QR codes for updated information at key locations, capture River Corridor photos and distribute them using Facebook, Twitter, and Instagram.
- » **Interactivity** – interpretation can be integrated into play features, water fountains, moveable items, and large scale maps or formations.
- » **Site Design** – use the designed environment to frame and highlight attractive views, hide undesirable views, and guide appropriate activity.
- » **Visitor Center** – Hjemkomst Center could be utilized as the hub for River Corridor visitor information.
- » **Publications** – brochures, maps, scavenger hunts, and a variety of printed materials can serve interpretive purposes.



# INTERPRETATION PROJECTS

## CORRIDOR WIDE

### I-1 DEVELOP A COMPREHENSIVE RIVER CORRIDOR INTERPRETATION PLAN

Undertake a system-wide interpretive planning effort that:

- » Establishes guiding principles for River Corridor interpretation.
- » Establishes goals and objectives for River Corridor interpretation.
- » Develops interpretive themes.
- » Establishes consistent design standards for media.







# Implementation & Management

## Overview

This chapter outlines approaches for the Red River Corridor Master Plan implementation, including:

- » Phasing and Priorities
- » Land Protection and Public Land Holdings
- » Operations and Management – Sustainability
- » Funding Sources, Capital, and Operating Budgets

## TAKING THE LONG VIEW

The Red River Corridor Master Plan is a long-range vision that includes recommendations for near term actions, long term projects, and more visionary ideals. The long term nature of this plan should not be underemphasized. The Red River has taken a very long time to become what it is today, and future change within the corridor cannot be expected to occur overnight. Near term actions, while tangible, exciting, and more easily understood, must be completed in the context of the larger vision. For example, a short trail segment might be envisioned as closing a gap, but in the long term, that gap might be better completed in an area that still requires a property acquisition to occur on the time frame of the property owner. The vision may include a trail corridor through private property. The near term view finds an acceptable solution today.

## COMMITMENT

The vision outlined in this plan comes with the price of commitment of significant additional resources of money and staff time to build, manage and operate the River Corridor. Today, within current City budgets, the potential funding dedicated to River Corridor projects is roughly \$90,000 a year. This is based on an estimated \$40,000 available from the current Park and Recreation Capital Improvement funding devoted to capital projects along the river and a possible \$50,000 a year available as matching funds for grants from the Capital Improvement Fund. This equates to roughly \$900,000-\$1,000,000 devoted to the River Corridor over the next 10 years. With an estimated capital cost of over \$17 million to fully realize the vision of this plan there is a significant funding gap. If the River Corridor is a priority to the community, significant additional funding will need to be obtained for capital projects, on-going maintenance, and capital replacement. Additional staff time for management, operations, and maintenance will also be needed.

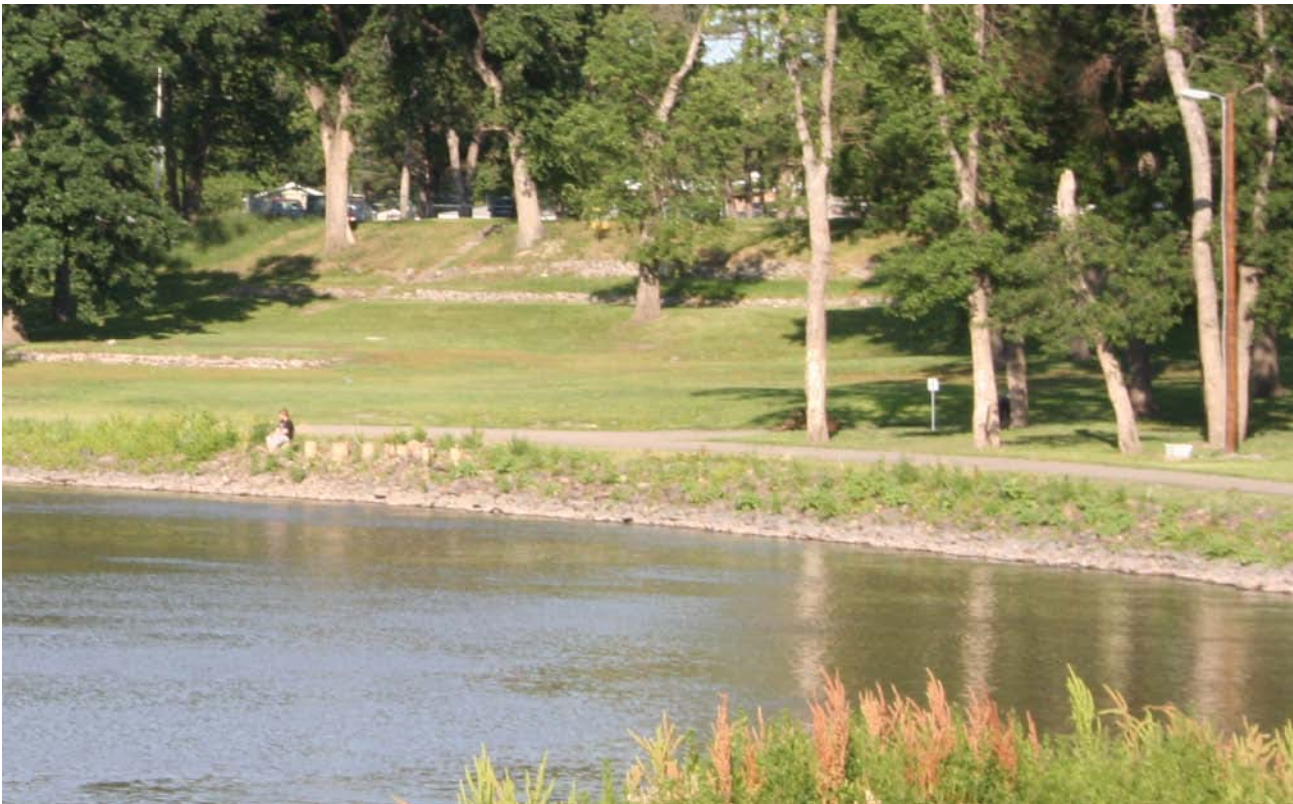


## A COLLABORATIVE EFFORT

Collaboration is essential to achieving success. There are many layers of governance that have an impact on how the corridor evolves and that have regulatory authority over certain actions and improvements within the corridor. There are also many different property owners and organizations that have a direct investment, physical connection, and/or emotional connection with the river or the River Corridor. There is also the larger community that benefits from the public nature of the corridor and is impacted by the demand of resources that managing the corridor has on the general public. Carrying out the ideas and actions defined in this master plan cannot be and will not be done by any single entity or agency. It will require partnerships, agreement, investment, and commitment from many.

## A SUSTAINABLE PERSPECTIVE

Sustainability is the use of a resource in a way that preserves it for future generations. In the context of the Moorhead River Corridor, sustainability refers to the economic, social, and environmental resilience of the open spaces and facilities. It also refers to the resources (financial and human) required to maintain the River Corridor in its desired state. Operational responsibility must not be overlooked. While the capital investment is the obvious immediate investment (land acquisition and construction), operations and maintenance require investment of people, equipment, and financial resources over an extended period of time. A commitment to the Master Plan implies a commitment to operations and maintenance. While the City of Moorhead will bear the brunt of the responsibility for maintaining and managing public lands and improvements within the corridor, regional agencies, civic groups, clubs, schools, neighborhood organizations, and others can also play an important role in operating programs or assisting with maintenance of land and facilities. Volunteerism and philanthropy can be a great asset, but it most likely will not be the primary resource.



# Phasing and Priorities

Over 60 projects have been identified and defined in the Master Plan. Key to successful implementation is establishing a basis for how these projects can be prioritized and phased over an extended period of time. The master plan breaks these projects into the following categories of timing:

- » **Near Term** - likely to begin in the next 0-5 years
- » **Long Term** – likely to take 5 to 10 years to be completed
- » **Visionary** - long term implementation that might rely on a multitude of factors largely out of the control of any one single entity. These might be projects where ownership is divided, physical and financial feasibility is more challenging, and public support is less certain.

Phasing will look to fill trail gaps (including key bridge projects) first, beginning with projects in or near the downtown areas. Prioritizing filling of trail gaps will contribute to the important goal of a continuous river trail network, utilizing both the Fargo and Moorhead sides of the River. Projects that have low capital costs but take longer time periods to establish (such as habitat restoration), are near term projects that generate long term benefits.

The following key criteria were used in prioritizing projects.

## 1. Enhances year round use: Does the project...

- Improve an existing trail or park for 4 seasons?
- Enhance outdoor winter silent sports (snow shoeing, cross country skiing)?
- Improve corridor connectivity for mobility purposes?
- Fill a gap in the trail system?
- Reduce downtime due to flooding?
- Help achieve flood mitigation?

## 2. Improves the user experience: Does the project...

- Enhance public safety?
- Provide safe pedestrian/bike movements for commuting/recreation?
- Provide interpretive interest/intrigue?
- Create loops for more functional and pleasing trail usage?
- Improve connectivity (to destinations within or outside the River Corridor)?
- Clearly define public lands to be used for public purposes?
- Fill a gap in the trail system?

## 3. Contributes positively to the corridor's character: Does the project...

- Provide a landscape pattern that delineates public and private land areas?
- Improve wayfinding?
- Enhance the definition of public lands to be used for public purposes?
- Create an aesthetic quality and well cared for natural habitat?

**4. Improves natural habitat and/or water quality and is ecologically sustainable: Does the project**

- Create opportunities to treat stormwater run off?
- Protect habitat?
- Create new habitat?
- Have the ability to be maintained in a sustainable way?

**5. Respects private property: Does the project...**

- Provide opportunities to distinguish visually between public and private property?
- Minimize the desire/lure/prospect of trespassing?
- Improve flood mitigation?

**6. Contributes to corridor safety. Does the project...**

- Improve visibility to areas not otherwise visible from public right of way?
- Clarify where lands transition between public and private ownership?
- Provide lighting to trail and park areas intended for heavier use?
- Improve upon perceived or real unsafe conditions?

**7. Is technically feasible – can the project physically be built within a reasonable cost?**

**8. Is fundable/has funding available (capital and O & M)**

- Is there political support to allocate public dollars from existing budget resources to the project either to fund its construction/operations or provide matching funds for grants?
- Is the project eligible for available grant resources?
- Is the project competitive within existing grant resources?
- Does the project align with non-profit/philanthropic interests?

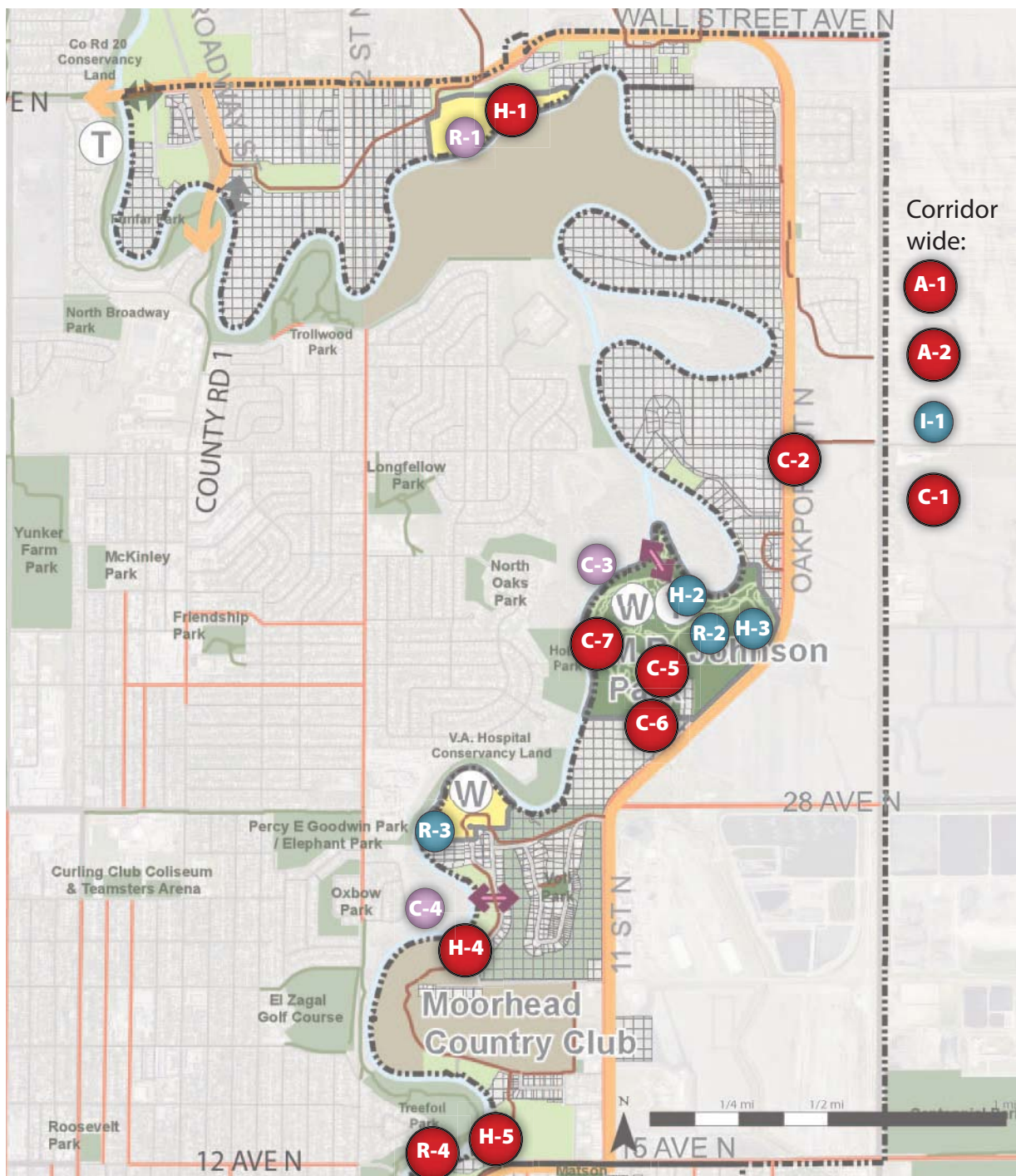
Each project outlined in Chapter 4 was considered in light of the above criteria. The results of the evaluation are provided in Table 64 and shown on Figures 65-68. It is important to note, that this phasing/prioritization list is NOT an absolute. The evaluation exercise may vary widely depending on what lens the evaluator is looking through (i.e. park advocate, trail user group, naturalist, artist, elected official, etc.). The list of projects as prioritized should be viewed as a starting point for the City and interested stakeholders to begin a coordinated approach to implementation. In addition, not every possible project has been outlined in this plan. The program and Project review process outlined in Figure 71 is intended to guide this process.

Funding availability also changes based on new funding programs, philanthropic interests, or changing priorities. As circumstances change, the evaluation criteria should be closely considered.

TABLE 64. PROJECT PHASING AND PRIORITY

ID	Project Name	Cost	Study Area	Agency/Partner	
<b>Phase: Near - Term (0-5 years)</b>					
A-1	Design unified property boundary signage	\$	ALL		High Priority
A-2	Develop and adopt landscape buffer design guidelines and a landscape buffer policy	\$	ALL		
C-1	Develop wayfinding design standards and install wayfinding signs	\$	ALL		
C-2	Bikeway – Red River to 15 <sup>th</sup> Avenue North (Wall Street North, Oakport Road North and 11th Street North)	\$	1		
C-5	Ped-Bike- Ski Bridge over Snaky Creek in M.B. Johnson Park	\$\$	1	Partnership	
C-6	Cross Country Ski Expansion within and South of M.B. Johnson Park	\$	1	Partnership	
C-7	Mountain Bike Trail Expansion South of Snaky Creek within M.B. Johnson Park	\$	1	Partnership	
C-8	On-road bikeway between 15th Avenue North and Homestead Park	\$	2		
C-9	Paved Trail Homestead Park to Davy/Memorial Park	\$\$	2		
C-10	Reconstruct Paved Trails from Davy/Memorial Park to Woodlawn Park	\$\$	2		
C-12	Replace Memorial/Oak Grove Bridge	\$\$\$	2		
C-14	Natural Surface hiking and cross country ski trail from Homestead Park to Davy/Memorial Park	\$	2	Partnership	
C-15	Realign Cross Country Ski Trails in Davy/Memorial Park, Riverfront Park and Viking Ship Park	\$	2	Partnership	
C-16	On road bikeway from Woodlawn Park to Gooseberry Mound Park (River Drive and 4 <sup>th</sup> Street South)	\$	3		
C-19	Relocate floating bridge from Woodlawn Park to Dike East Park in Fargo (Upstream)	\$\$	2		
C-21	Hiking Loop in Gooseberry Mound Park	\$	3		
C-22	Cross Country Ski/Hiking Trail from Gooseberry Mound Park and Horn Park	\$	3		
C-29	Cross Country Ski/Hiking Trail in River Oaks Park	\$	3		
R-4	DNR Canoe Portage and Parking Improvements 15th Avenue North	\$\$	1	DNR	
H-1	Prairie/Savannah Restoration at the New Recreation Node on Buffalo River Watershed District Land	\$\$	1	Partnership	
H-4	Prairie/Successional Floodplain Forest North of Moorhead Country Club	\$	1		
H-6	Prairie/Successional Floodplain Forest between Homestead and Davy/Memorial Parks	\$	2		
H-11	Prairie Restoration/Successional Floodplain Forest from Gooseberry Mound Park to Horn Park	\$	3		
H-13	Prairie/Successional Floodplain Forest /Tree Planting South of Horn Park	\$\$	3		
H-14	Prairie/Oak Savannah Restoration at New Recreation Node at Riverview Circle South	\$\$	3		
H-15	Prairie/Successional Floodplain Forest in River Corridor North of River Oaks Park	\$	3		
H-16	Prairie/Oak Savanna Restoration in River Oaks Park	\$	3		
C-17	Paved Trail from Gooseberry Mound Park to Horn Park	\$\$	3		
H-5	Prairie/Savanna Restoration North of 15th Avenue North	\$	1		
H-12	Prairie/Oak Savanna Restoration in Horn Park	\$	3		
C-26	Paved Trail Bluestem Park to 60 <sup>th</sup> Avenue Southwest	\$\$\$	4		
R-8	Improvements to Horn Park	\$	3		
R-11	New Recreation Node at Riverview Circle South	\$\$	3	Partnership	
<b>Phase: Long - Term (5-10 years)</b>					
C-27/28	Southern Pedestrian and Bicycle Bridge I (River Oaks Park or Bluestem Park)	\$\$\$	3 & 4		High Priority
C-30	Cross Country Ski/Hiking Trails within and South of Bluestem Park	\$	4	Partnership	
R-2	Improvements to M.B. Johnson Park	\$\$\$	1		Medium Priority
R-6	Improvements to Davy/Memorial/Riverfront Park/Viking Ship Park	\$\$\$	2		
R-9	Improvements to Gooseberry Mound Park	\$\$\$	3		
R-10	Improvements to River Oaks Park	\$\$	4		
R-12	Improvements to Bluestem Park and Events Center	\$\$	4	Partnership	
H-2	Prairie Restoration at M.B. Johnson Park	\$\$	1		Medium Priority
H-10	Prairie/Oak Savanna Restoration in Gooseberry Mound Park	\$	3		
I-1	Create a Comprehensive River Corridor Interpretation Plan	\$	ALL		Low Priority
R-3	New Recreation Node North of Moorhead Country Club	\$\$	1		
R-5	Improvements to Original Homestead Park	\$\$	2		
H-3	Wetland Restoration at M.B. Johnson Park	\$	1		
H-7	Water Quality Improvements at Davy/Memorial Park, Riverfront Park, and Viking Ship Park	\$	2		
H-18	Prairie seeding/Successional Floodplain Forest South of Bluestem Park	\$\$	4		
<b>Visionary (10+ years)</b>					
C-11	15 <sup>th</sup> Avenue North Toll Bridge Improvements	\$\$\$	2		High Priority
C-13	Pedestrian and Bicycle Improvement to 1st Avenue Bridge	\$\$\$	2		
C-18	Paved Trail from Horn Park to River Oaks Park	\$\$\$	3		Medium Priority
C-16.1	Paved Trail from Woodlawn Park to Gooseberry Mound Park	\$\$\$	3		
C-19.1	Replace floating bridge from Woodlawn Park to Dike East Park in Fargo with a permanent structure	\$\$\$	2		
C-20	Natural Surface Cross Country Ski/Hiking Trail from Woodlawn Park to Gooseberry Mound Park	\$\$	3		
C-27/28	Southern Pedestrian and Bicycle Bridge II (River Oaks Park or Bluestem Park)	\$\$\$	3&4		
R-1	New Recreation Node on Buffalo River Watershed Land	\$\$	1	Partnership	
R-7	Improvements to Woodlawn Park	\$\$\$	2		Medium Priority
H-17	Prairie and Potential Wetland Feature in Tessa Terrace Development	\$\$	4	Partnership	
C-3	New Bicycle – Pedestrian Bridge at M.B. Johnson Park	\$\$\$	1		Low Priority
C-4	New Bicycle – Pedestrian Bridge North of Moorhead Country Club	\$\$\$	1		
C-23	Cross Country Ski/Hiking Trail from Horn Park to River Oaks Park	\$	3		
C-24	Paved Trail from River Oaks Park to 46th Avenue South	\$\$	4		
C-25	Paved Trail from 46th Avenue South to Bluestem Park	\$\$	4		
H-8	Restored Wetland in Woodland Park	\$	2		
H-9	Prairie/Successional Floodplain Forest South of Woodlawn Park	\$	2		
\$- less than \$50,000    \$\$- \$50,000-\$500,000    \$\$\$ greater than \$500,000					

FIGURE 65. STUDY AREA 1 - PROJECT PHASING DIAGRAM



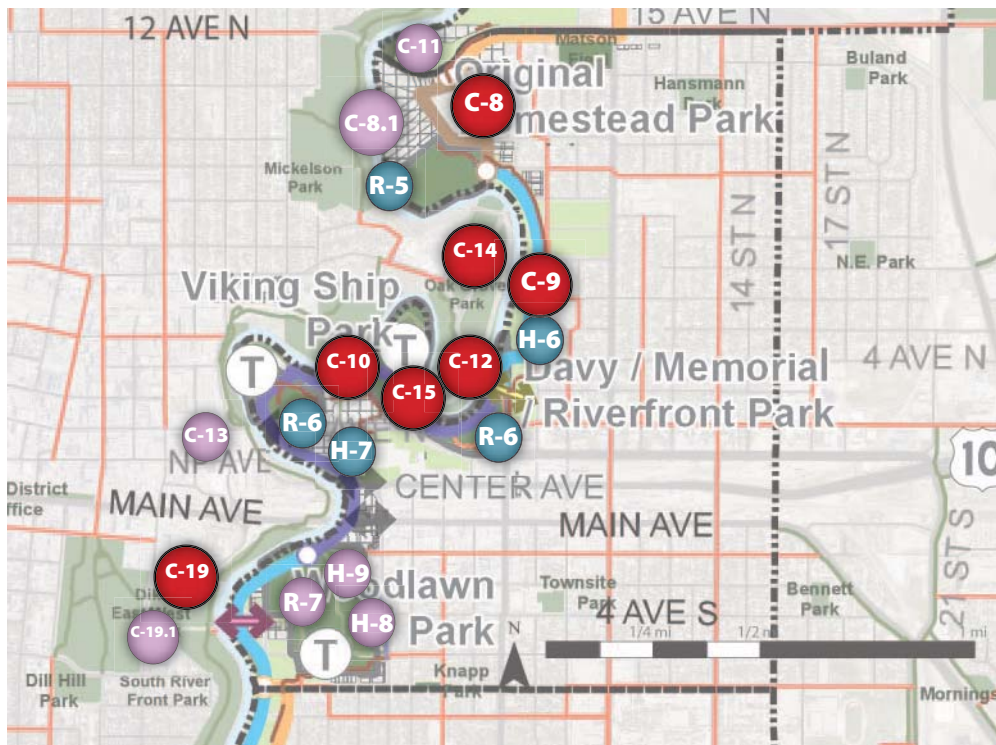
**LEGEND**

New Rec Node	River Side of Levee	City Owned River Property
Walking Loop Opportunities	River Side of Levee - Long term easement from willing land owner required	Moorhead River Parks/Rec
Trailhead	Existing Trail	Parks, Rec, & Open Space
<b>RED RIVER CROSSINGS/BRIDGES</b>		
Existing road bridge	Dry Side of Levee Trail	Private Parks/Rec
Existing ped/bike bridge	Dry Side of Levee Trail - Long term easement from willing land owner required	Existing On-road Bikeways
Potential ped/bike bridge	On Road Bikeway / Trail Parallel to Road	Existing Trails
Private Property (Ownership as of 12.31.2013)	On the Levee Trail	Project Boundary
<i>Trails shown across private land are conceptual and would require an easement or land acquisition from willing landowners.</i>		
	Existing Levees (Includes Levees Under Construction)	Proposed Levees

Phasing Diagram Legend:

- Near-term (0-5 years)
- Long-term (5-10 years)
- Visionary (10+ years)

FIGURE 66. STUDY AREA 2 - PROJECT PHASING DIAGRAM



Corridor wide:

- A-1
- A-2
- I-1
- C-1

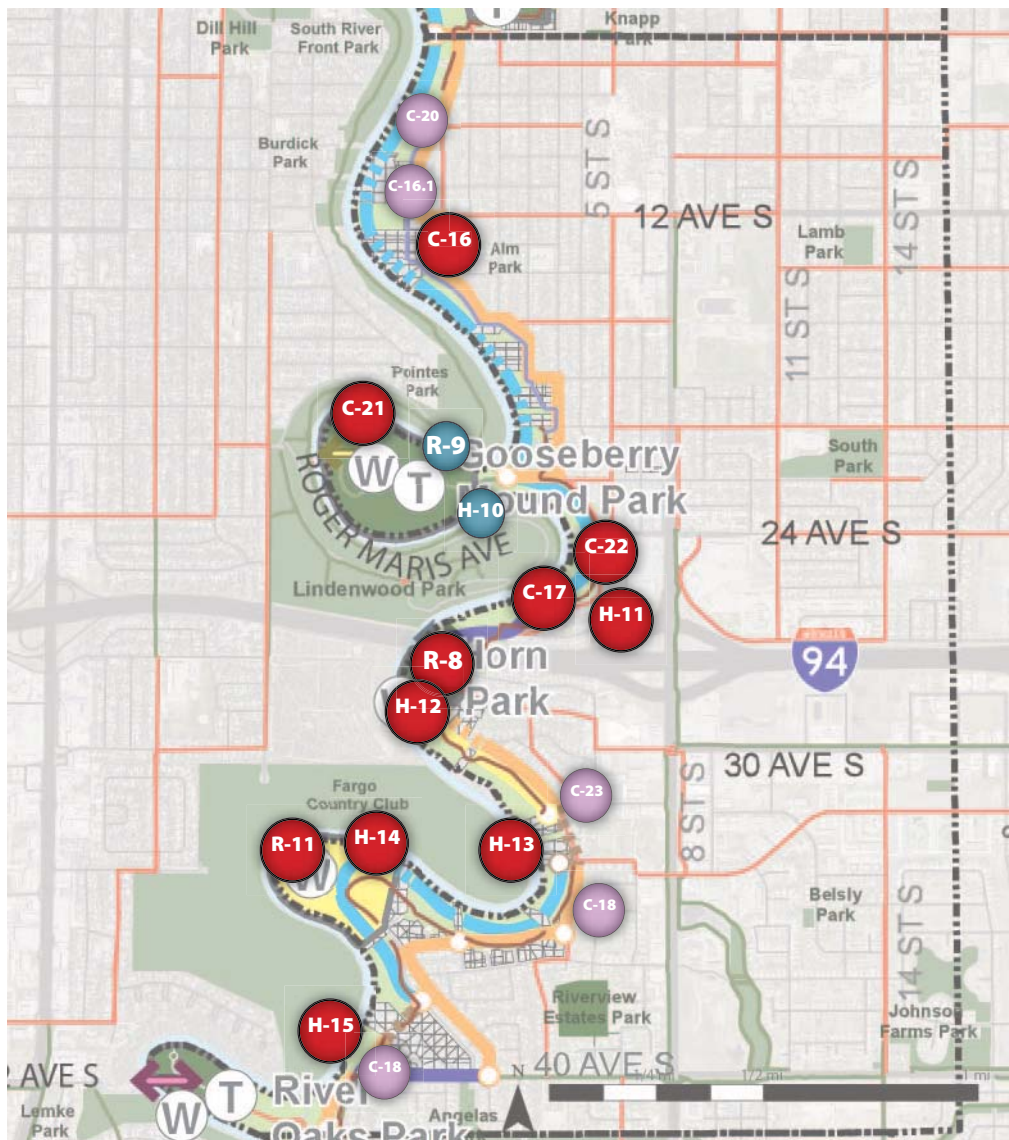
Phasing Diagram Legend:

- 22 Near-term (0-5 years)
- 22 Long-term (5-10 years)
- 22 Visionary (10+ years)

LEGEND						
	New Rec Node		River Side of Levee		City Owned River Property	
	Walking Loop Opportunities		River Side of Levee - Long term easement from willing land owner required		Moorhead River Parks/Rec	
	Trailhead		Existing Trail		Parks, Rec, & Open Space	
<b>RED RIVER CROSSINGS/BRIDGES</b>				Dry Side of Levee Trail		Private Parks/Rec
	Existing road bridge		Dry Side of Levee Trail - Long term easement from willing land owner required		Existing On-road Bikeways	
	Existing ped/bike bridge		On Road Bikeway / Trail Parallel to Road		Existing Trails	
	Potential ped/bike bridge		On the Levee Trail		Project Boundary	
	Private Property (Ownership as of 12.31.2013)				Existing Levees (Includes Levees Under Construction)	
<i>Trails shown across private land are conceptual and would require an easement or land acquisition from willing landowners.</i>					Proposed Levees	



FIGURE 67. STUDY AREA 3 - PROJECT PHASING DIAGRAM



Corridor wide:

- A-1
- A-2
- I-1
- C-1

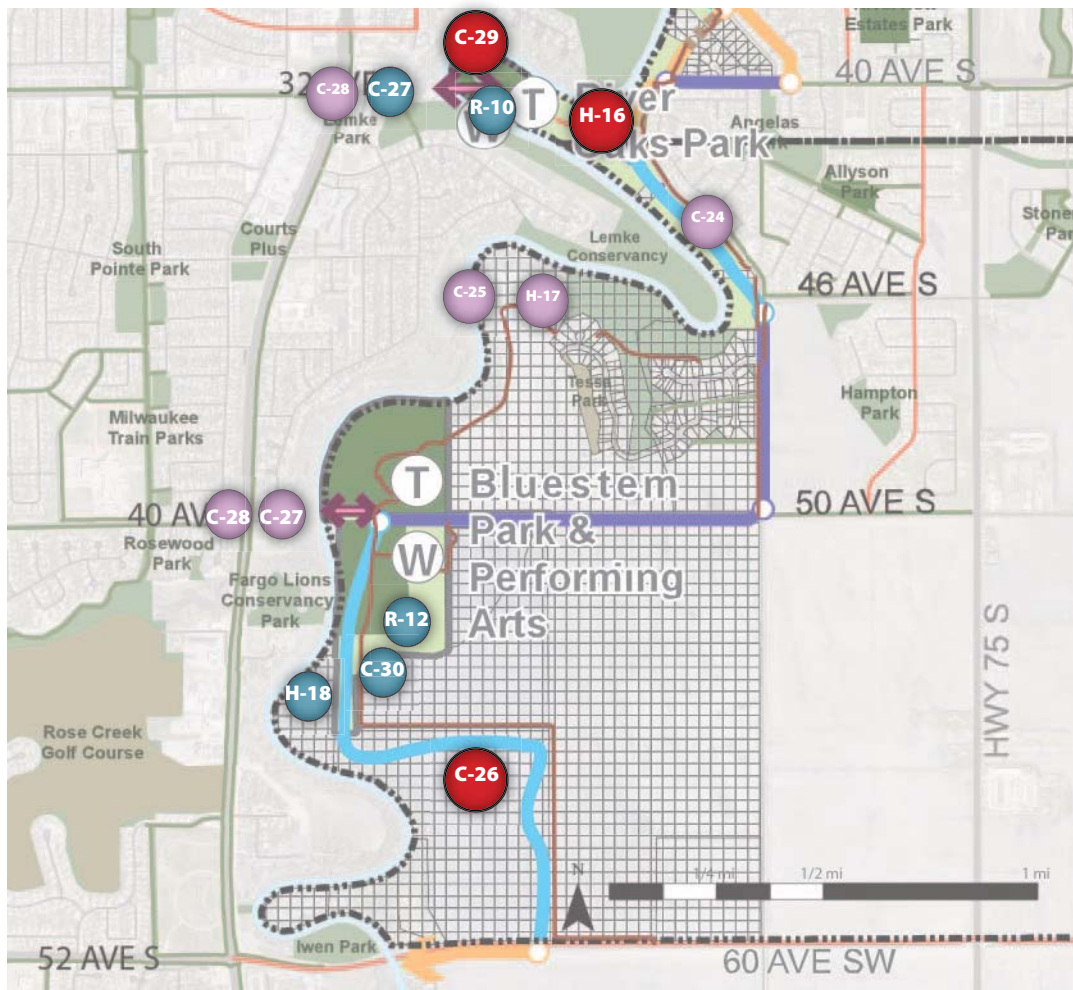
Phasing Diagram Legend:

- 22 Near-term (0-5 years)
- 22 Long-term (5-10 years)
- 22 Visionary (10+ years)

LEGEND						
	New Rec Node		River Side of Levee		City Owned River Property	
	Walking Loop Opportunities		River Side of Levee - Long term easement from willing land owner required		Moorhead River Parks/Rec	
	Trailhead		Existing Trail		Parks, Rec, & Open Space	
RED RIVER CROSSINGS/BRIDGES				Dry Side of Levee Trail		Private Parks/Rec
	Existing road bridge		Dry Side of Levee Trail - Long term easement from willing land owner required		Existing On-road Bikeways	
	Existing ped/bike bridge		On Road Bikeway / Trail Parallel to Road		Existing Trails	
	Potential ped/bike bridge		On the Levee Trail		Project Boundary	
	Private Property (Ownership as of 12.31.2013)		Existing Levees (Includes Levees Under Construction)		Proposed Levees	

*Trails shown across private land are conceptual and would require an easement or land acquisition from willing landowners.*

Figure 68. STUDY AREA 4 - PROJECT PHASING DIAGRAM



Corridor wide:

- A-1
- A-2
- I-1
- C-1

Phasing Diagram Legend:

- 22 Near-term (0-5 years)
- 22 Long-term (5-10 years)
- 22 Visionary (10+ years)

LEGEND						
	New Rec Node		River Side of Levee		City Owned River Property	
	Walking Loop Opportunities		River Side of Levee - Long term easement from willing land owner required		Moorhead River Parks/Rec	
	Trailhead		Existing Trail		Parks, Rec, & Open Space	
RED RIVER CROSSINGS/BRIDGES				Dry Side of Levee Trail		Private Parks/Rec
	Existing road bridge		Dry Side of Levee Trail - Long term easement from willing land owner required		Existing On-road Bikeways	
	Existing ped/bike bridge		On Road Bikeway / Trail Parallel to Road		Existing Trails	
	Potential ped/bike bridge		On the Levee Trail		Project Boundary	
	Private Property (Ownership as of 12.31.2013)				Existing Levees (Includes Levees Under Construction)	
					Proposed Levees	

*Trails shown across private land are conceptual and would require an easement or land acquisition from willing landowners.*

## NATURAL RESOURCE PHASING AND PRIORITIZATION

For natural resource projects, the components of each project in Table 64 are prioritized in the following order: tree protection, seeded area maintenance, and invasive species control. These activities are relatively low cost and will alleviate future expenses. Table 69 outlines where these activities are needed in the near term.

PROJECT NO.	PROJECT DESCRIPTION	PRIORITY	TREE PROTECTION	SEEDED AREA MAINTENANCE	INVASIVE SPECIES CONTROL
H-1	Prairie/Savannah Restoration at the New Recreation Node on Buffalo River Watershed District Land	High		X	
H-2	Prairie Restoration at M.B. Johnson Park	Moderate	X		
H-3	Wetland Restoration at M.B. Johnson Park	Moderate			
H-4	Prairie/Successional Floodplain Forest North of Moorhead Country Club	High	X	X	
H-5	Prairie/Savanna Restoration North of 15th Avenue North	Low			
H-6	Prairie/ Successional Floodplain Forest between Homestead and Davy/Memorial Parks	High	X	X	
H-7	Water Quality Improvements at Davy/Memorial Park, Riverfront Park, and Viking Ship Park	Low			
H-8	Restored Wetland in Woodland Park	Moderate			
H-9	Prairie/Successional Floodplain Forest South of Woodlawn Park	High	X	X	
H-10	Prairie/Oak Savanna Restoration in Gooseberry Mound Park	Moderate			
H-11	Prairie/Successional Floodplain Forest Gooseberry Mound to Horn Park	High	X	X	
H-12	Prairie/Oak Savanna Restoration in Horn Park	Moderate			
H-13	Prairie/Successional Floodplain Forest South of Horn Park	High	X	X	
H-14	Prairie/Oak Savannah Restoration at New Recreation Node at Riverview Circle South	High	X	X	X
H-15	Prairie /Successional Floodplain Forest/Tree Planting in River Corridor North of River Oaks Park	High	X	X	
H-16	Prairie and Potential Wetland Feature in Tessa Terrace Development	Moderate			
H-17	Prairie seeding/Successional Floodplain Forest South of Bluestem Park	Low			
H-18	Prairie seeding/Successional Floodplain Forest South of Bluestem Park	Low	X		

## BUDGET CONSTRAINED PRIORITIES

There is a significant funding gap between funding available within current City budgets (estimated \$900,000-\$1,000,000 over the next 10 years) and needed funding. The following table lists the projects that it is anticipated can be implemented within current budgets. These projects have been chosen based on need, cost, and potential availability of outside funding (grants or partnerships). The total cost of the projects in the list is greater than \$1,000,000 and assumes that projects many projects can be completed with grants and partnerships. For example the Memorial/Oak Grove bridge would be completed in partnership with the City of Fargo, the DNR canoe portage and parking are would be funded by the DNR, cross-country ski trails would be built and managed in partnership with PENS, etc. Note: for natural resource projects the focus would be on seeded area maintenance, tree protection and invasive species control in the areas listed in Table 69.

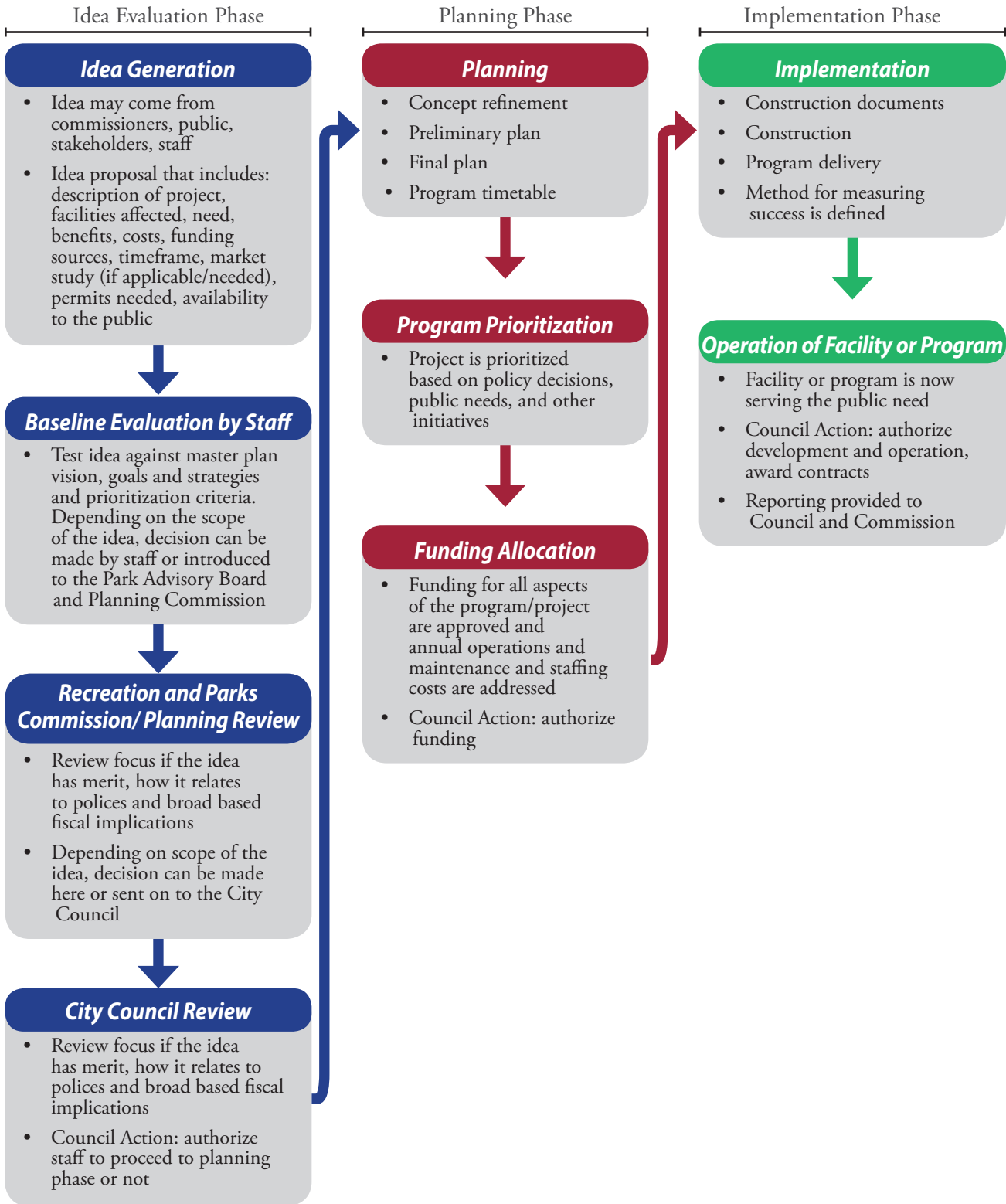
TABLE 70. 10 YEAR PRIORITY PROJECTS WITHIN CURRENT CITY BUDGETS

Project ID	Project Name
A-1	Design unified property boundary signage
A-2	Develop and adopt landscape buffer design guidelines and a landscape buffer policy
C-1	Develop wayfinding design standards and install wayfinding signs
C-2	Bikeway – Red River to 15th Avenue North (Wall Street North, Oakport Road North and North)
C-5	Ped-Bike- Ski Bridge over Snaky Creek in M.B. Johnson Park
C-6	Cross Country Ski Expansion within and South of M.B. Johnson Park
C-7	Mountain Bike Trail Expansion South of Snaky Creek within M.B. Johnson Park
C-12	Replace Memorial/Oak Grove Bridge
C-14	Natural Surface hiking and cross country ski trail from Homestead Park to Davy/Memorial Park
C-16	On road bikeway from Woodlawn Park to Gooseberry Mound Park (River Drive and 4rd Street South)
C-19	Relocate floating bridge from Woodlawn Park to Dike East Park in Fargo
C-22	Cross Country Ski/Hiking Trail from Gooseberry Mound Park and Horn Park
C-29	Cross Country Ski/Hiking Trail in River Oaks Park
R-4	DNR Canoe Portage and Parking Improvements 15th Avenue North
H-1	Prairie/Savannah Restoration at the New Recreation Node on Buffalo River Watershed District Land
H-4	Prairie/Successional Floodplain Forest North of Moorhead Country Club
H-6	Prairie/Successional Floodplain Forest between Homestead and Davy/Memorial Parks
H-11	Prairie Restoration/Successional Floodplain Forest from Gooseberry Mound Park to Horn Park
H-13	Prairie/Successional Floodplain Forest/Tree Planting South of Horn Park
H-14	Prairie/Oak Savannah Restoration at New Recreation Node at Riverview Circle South
H-15	Prairie/Successional Floodplain Forest in River Corridor North of River Oaks Park
H-16	Prairie/Oak Savanna Restoration in River Oaks Park

# PROJECT REVIEW PROCESS

With many different government and private organizations having interest in the River Corridor, a future challenge will be knowing which projects to pursue and which projects are fiscally and physically possible. The program and project review process provides a sample outline for systematic review of new requests. This will ensure that new projects are in line with the vision, goals and policies for the River Corridor and can be adequately funded, staffed, and maintained prior to implementation.

FIGURE 71. PROJECT REVIEW PROCESS



# Land Protection and Public Land Holdings

It is essential that land areas needed for flood mitigation and for implementing the vision for the corridor be secured through public ownership or easements. This means that where lands are needed for flood protection, the city continue to pursue ownership. Remnant lands that are no longer needed for any flood mitigation activities are not needed to help implement the goals and objectives of the River Corridor Master Plan, should be considered for sale to adjacent landowners. Each sale should be considered independently and on their own merits. Given the long term reality of implementing flood mitigation improvements in the corridor through voluntary land acquisitions, the leasing of lands may be a valuable strategy to reduce maintenance/management costs in limited cases. These leases provide a means to efficiently manage lands until such time as remaining acquisitions can be completed that enable the final completion of a flood mitigation improvement. The following criteria should be used to guide decisions when considering short term leasing or disposing of public land holdings:

- » Land must be protected by natural ground, fill, or flood mitigation infrastructure to an elevation equivalent to the City's flood mitigation goal of 44 feet river stage for the area.
- » Land must not be needed for temporary emergency measures and/or access to flood mitigation infrastructure.
- » Land encumbered with utility easements (storm sewer, sanitary sewer, etc.) will not be sold, but may be leased with specific lease terms governing use.
- » Land must not be identified in the Moorhead River Corridor Master Plan as a candidate area for future public project/s.



# Operations and Maintenance – Sustainability

Maintenance and sustainability are the key ingredients to the long-term success of the River Corridor. The Red River Corridor should be economically, ecologically, and socially sustainable. In addition to sustaining future River Corridor recreational facilities, maintenance of the flood protection facilities are essential to the future of the community. The City's high investment in constructing these facilities deserves consideration when planning on and around them.

## GENERAL MANAGEMENT

General operations will continue to be a coordinated effort across the City's Engineering, Planning, and Parks and Recreation Departments. The Planning Department is charged with overall coordination of River Corridor improvements and City initiatives that may impact the River Corridor. Engineering will continue to take the lead in management of all flood control structures and designing future river corridor infrastructure (such as bike trails). Parks and Recreation will continue to manage and operate the recreational facilities as well as maintain natural and landscaped vegetation.

With additional property acquisition along the River Corridor comes additional programming and maintenance of these properties. The city must provide appropriate staff and funding to maintain the corridor to appropriate levels and expectations as well as to implement and succeed with the goals outlined in the Plan.

## MULTI-JURISDICTIONAL COORDINATION AND PARTNERSHIPS

Several agencies and organizations have political and jurisdictional interests in the River Corridor: City of Moorhead, City of Fargo, Fargo Park District, and Fargo-Moorhead Metro COG. Coordination is needed among these entities in order to ensure successful projects. In addition, Clay County, the Minnesota Department of Natural Resources, the Buffalo - Red River Watershed District, and the Minnesota Department of Transportation could be involved in funding or decision making processes for various projects.

Partnerships can prove to be important economic sustainers in parks and recreation. Working with the various recreation organizations, such as the River Keepers, FM Trail Builders, and the Prairie's Edge Nordic Skiers, to provide construction and maintenance of natural surface trails and other river oriented recreation facilities, gives the residents of Moorhead a larger array of recreational options than the City alone could provide. Additional partnership opportunities include working with existing local businesses to provide services within the River Corridor parks, including: bike rental, skate rental, fishing tackle rental, canoe/kayak rental, ski rental, food and drink concessions, river tours and interpretive classes, etc.

## RIVER CORRIDOR AUTHORITY

The Cities of Moorhead and Fargo could enter into a joint powers agreement for a River Corridor Authority to coordinate, operate, and manage the River Corridor. An advantage to this is that efforts would be coordinated between the two cities by an organization focused on the River Corridor. It may be advantageous to include other Cities, Counties, and Watershed Districts that the Red River travels through for broader collaboration and to leverage the resources of multiple interested organizations. Examples of joint powers agreements related to river management include:

- the Minnesota River Board,
- the Flood Diversion Board of Authority,
- and the Crow River Joint Powers Board.



## STAINABLE OPERATIONS AND MAINTENANCE

As with many public improvement projects, capital costs are often given much more attention than operations and maintenance costs. It is easy to think of applying for a grant to build a new, facility for public use, but acquiring additional funding for mowing, hiring maintenance staff, plowing trails, or administering new or expanded programs is more complicated and must be considered. Creative fiscal thinking is required when attempting to realize a grand vision for the Red River Corridor in Moorhead.

Prior to implementation of any project outlined in this plan, planning and budgeting for operations, maintenance and capital replacement must be completed. Sometimes spending more time, effort, and money at the start of a project can pay off in the long run. High investment in planning and construction will lead to longer life facilities with lower repair and replacement costs. Operations and maintenance costs are outlined in Table 83.

### REGULAR MAINTENANCE ACTIVITIES

Maintenance of facilities and lands is essential to protect public investment, enhance natural resource and achieve the community's vision for an attractive river corridor. The City of Moorhead Parks Department has a defined maintenance program. Some maintenance, such as for cross country ski trails and mountain bike trails is done in partnership with user groups.

Regular maintenance activities for the River Corridor will include:

- » Sign maintenance
- » Trash collection
- » Sweeping and blowing
- » Trail repair
- » Bridge repair
- » Park facility repair and maintenance
- » Mowing
- » Forestry
- » Winter trail clearing
- » Winter cross-country ski trail grooming



## ECOLOGICAL SUSTAINABILITY

Low maintenance landscapes are good for the environment as well as the pocketbook. Restored native vegetation areas, such as prairies, savannas, shorelines, and floodplain forests, function as part of the natural landscape. They provide wildlife habitat, natural water filtration, windbreaks, shade, oases in urban environments and places of respite. Once established, native landscapes require minimal maintenance because the vegetation is adapted to local conditions.

In addition to maintaining native vegetation landscapes, maintaining a healthy river system is important for sustainability. A healthy river that meets its water quality goals and is allowed to ebb and flow with the seasons will also provide economic, ecological, and social benefits. Maintaining a healthy river includes properly managing and treating stormwater to reduce pollutants before they reach the river. Additionally, maintaining natural vegetation along the River Corridor is important to provide stabilization, erosion control, stormwater filtration, and flood protection.

## SOCIAL SUSTAINABILITY

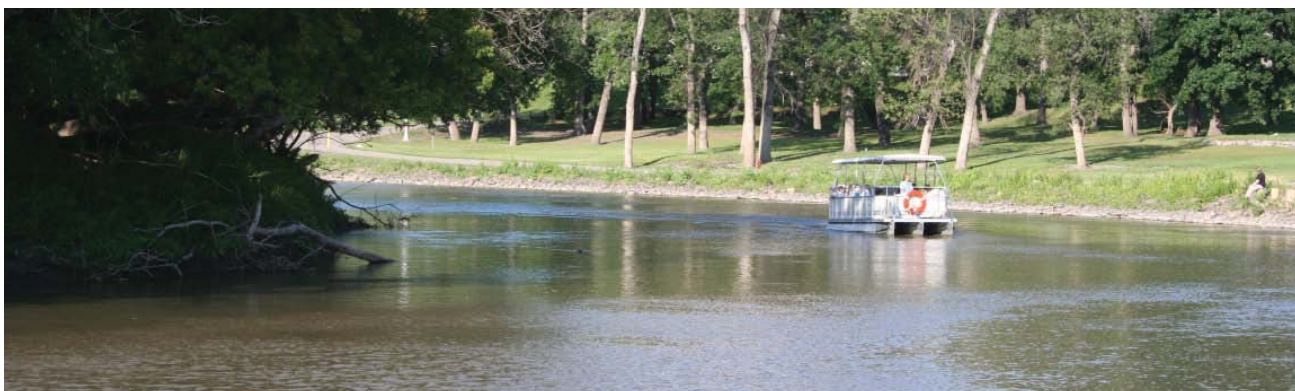
### PROGRAMS AND EVENTS

Key to creating an attractive River Corridor is not only building new facilities and restoring land, but attracting people to the River. Building on existing organized programs and creating new ones such as interpretive walks, educational classes, volunteer natural resource stewards, cross country ski-clinics etc. will add to activity within the River Corridor and foster resident champions.

Existing parks and facilities currently provide the space needed for community and regional events that attract visitors to the River Corridor. M.B. Johnson Park and Bluestem Park have parking and large open fields and already host large events. Potential future events include: farmers markets or public markets, cross country ski races, mountain bike races, 5K runs or obstacle course, fundraising walk, art fair, pond hockey tournament, tree planting event, buckthorn bust, and other events.

### SAFETY – ENFORCEMENT AND SECURITY

The perception and reality of safety on the River Corridor is essential for success. River Corridor visitors will be informed of rules and regulations through strategically located signs that address specific information about hours, permitted and prohibited activities, fees and directions. City of Moorhead Police and other city employees will also educate visitors and enforce ordinances.



# Funding Sources, Capital, and Operating Budgets

## FUNDING SOURCES

Funding for initial capital cost and ongoing operations and maintenance costs is essential in implementing the vision for the River Corridor. Funding should be a collaborative effort including local, state, and federal funding sources, grant resources, and philanthropic/local investment. In-kind contributions of land, easement, design, engineering, construction and maintenance and operations are encouraged and will be outlined in agreements among agencies and stakeholder groups. It is anticipated that many future capital projects will be well positioned to secure regional, state and federal funds for recreation, transportation, water quality, interpretation and habitat restoration.

Table 77 identifies potential funding sources for each project type. Sources are identified as possible, likely, and best depending on how well the project and the funding source are matched.

TABLE 77. POTENTIAL FUNDING SOURCES BY PROJECT TYPE

	Capital Improvement Funds	Dedicated Tax Levy	Bond Referendum	State Aid Funds	Park/Trail Dedication	Utility Fee	Grants	Partnerships	Donations	Notes
<b>FLOOD PROTECTION</b>										
Land acquisition for flood protection	●					○	●	●		FEMA, DNR
Flood control structures	●					○	●	●		FEMA
<b>ATTRACTIVE RIVER CORRIDOR</b>										
Private Property Delineation	○	○						●		Funded by property owners
Property Boundary Signage	○	○						●		
<b>CONNECTIVITY</b>										
On-road bikeways	●	○	○	●						
Paved trails	○	○	●	○	●		●			
Natural surface trails	●	○	○		○		○	●		
Bridges	●		●				●	●		City of Fargo
Wayfinding signage	●	○	○				○			
<b>RECREATION</b>										
Park improvements	●	○	●		●		●	○		
Programs	●						●	●		
<b>HABITAT ENHANCEMENT &amp; WATER QUALITY</b>										
Habitat restoration	●	○	○				●	●		Soil and Water Conservation District
Water quality projects	●	○	○			●	●	●		Soil and Water Conservation District
<b>INTERPRETATION</b>										
Physical projects (signage, site design)	○	○	●				●	●	○	
<b>OPERATIONS &amp; MAINTENANCE</b>										
Regular maintenance						●		●		

Key

Best Funding Source	Likely Funding Source	Possible Funding Source
●	●	○

# Funding Sources

## AD VALOREM TAXES

Ad Valorem Taxes can and should be used to develop and maintain the River Corridor. Ad Valorem Taxes are the primary funding source for on-going maintenance, operations, and amenities.

## CAPITAL IMPROVEMENT FUND

Utilize to fund capital infrastructure improvements and use for grant matches.

## DEDICATED TAX LEVY

A city can hold a referendum for a dedicated tax levy with proceeds directed specifically for recreation and parks. This levy can be used for capital projects as well as operations and maintenance. The proceeds may be in place of Ad Valorem Taxes or may be supplemented by Ad Valorem Taxes. The advantage of a dedicated tax levy is that recreation and parks receives a more stable source of funding and does not have to compete with other city priorities for funding on an annual basis.

## BONDING

General Obligation Bonds and Revenue Bonds provide another source of implementation funding for new public facilities, as well as repairs and/or upgrades to existing facilities.

## GENERAL PARK BOND ISSUE

Residents can decide to raise revenue through a permanent or temporary tax increase dedicated for specific purposes such as park, trail, and bikeway improvements and maintenance. These funds are usually provided through bonds approved as part of a voter referendum. Park bond referendums are most successful for projects that can garner significant public support. Preparation of the referendum should be done with care and public involvement.

## STATE AID FUNDS

State aid funds are available for pedestrian and bicycle improvements on state aid streets. This funding source is particularly useful at the time of street construction or re-construction. The City of Moorhead should have a process for evaluating needed trail and sidewalk improvements as part of capital improvement projects.

## PARK AND TRAIL DEDICATION

Minnesota Statutes allow local governments to require dedication of land or cash in-lieu of land for parks and trails from new subdivisions. The dedication must be reasonable, rationally related to the recreation demand created by the development, and based on average fair market values for unplatted land. Cities can also require dedication of right-of-way or easements for sidewalks or trails. This tool will be most useful in areas of the River Corridor where adjacent new development is anticipated. Some cities, such as Chanhassen, MN, have adopted a separate trail fee or dedication requirement.

## FRANCHISE FEES

Franchise fees are a charge listed on the monthly bill that customers receive from a utility, such as natural gas, electricity or cable. This can be a flat amount each month or a percentage of the monthly bill. A franchise fee can be implemented with an ordinance which must be approved by the City Council. The City of Moorhead currently collects a 5% franchise fee on both cable and gas services which is utilized to fund activities in the General Fund.

## PARTNERSHIPS

The City of Moorhead values its partnerships with both public and private organizations. These relationships have historically led to improvements to City parks, restoration projects in the River Corridor, and other public facilities. Partnerships will be important for both facilities and programming. Organizations with partner funding can also provide assistance with design, outreach, and maintenance. Partnerships and relationships with private businesses can also result in easements and use agreements for trails across private land. Potential partnership organizations include:

- » City of Fargo
- » Fargo Park District
- » Oakport Township
- » Clay County
- » The Buffalo-Red River Watershed District
- » Red River Basin Commission
- » Red River Management Board
- » International Water Institute
- » Trollwood Performing Arts School
- » Prairie's Edge Nordic Ski Group
- » Fargo Moorhead Trail Builders
- » River Keepers
- » Northern Plain Botanic Garden Society
- » MN Extension
- » Pheasants Forever
- » Local Fishing Groups

## DONATIONS

Private donations are another potential funding source. These may be financial donations from individuals or area corporations or donations of labor from recreation clubs or use agreements. Programs such as “adopt-a-trail” or “adopt-a-park” by an organization, business, or individuals have successfully been used in many communities to help with maintenance tasks and raise awareness.

## GRANTS

Grants are a way to make the City of Moorhead's dollars go further. The City has been successful in securing grant funding. Below is a sample of some grant opportunities that may be available along with websites to visit for more information.

### MINNESOTA DNR

Website: [www.dnr.state.mn.us/grants/index.html](http://www.dnr.state.mn.us/grants/index.html)

The Minnesota DNR is one of the most comprehensive resources when it comes to state funding for park and trail programs. They offer a variety of grant programs and technical assistance. Current programs provide assistance for cross country skiing trails, mountain biking trails, horseback riding trails, recreational trails, habitat improvements, water and land conservation. Some programs also offer assistance for the development of parks or for trail amenities such as restrooms, lighting, benches, etc. Each of the Minnesota DNR grant programs is unique. The DNR should be consulted before pursuing a grant to clarify funding availability and qualifications.

### MINNESOTA DOT & MAP- 21

Website: <http://www.dot.state.mn.us/grants/>

Most trail or bikeway improvement projects funded through Minnesota DOT also have a portion which is federal dollars. MAP-21, the Moving Ahead for Progress in the 21st Century Act is the first long-term highway authorization enacted since 2005. MAP-21 establishes a new program to provide for a variety of alternative transportation projects. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and several other discretionary programs, wrapping them into a single funding source. Eligible activities include:

- » Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation.
- » Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
- » Construction of turnouts, overlooks, and viewing areas.
- » Community improvement activities, including—
  - Historic preservation and rehabilitation of historic transportation facilities;
  - Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control; and
  - Archaeological activities relating to impacts from implementation of a transportation project.
- » The City should begin collaborating with other local jurisdictions and organizations with focuses on the Red River to prioritize projects for the next round of federal transportation dollars. Building early support across multiple jurisdictions will better position the City in obtaining federal dollars.

Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to—

- » Address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff; or reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.

### CLEAN WATER, LAND AND LEGACY AMENDMENT

On November 4, 2008, Minnesota voters approved the Clean Water, Land and Legacy Amendment to the Minnesota State Constitution which increased the general sales and use tax rate by three-eighths of one percentage point (0.375%) to 6.875% and dedicated the additional proceeds as follows:

- » 19.75% to a newly created Arts and Cultural Heritage Fund to be spent only for arts, arts education, and arts access, and to preserve Minnesota's history and cultural heritage.
- » 33% to a newly created Outdoor Heritage Fund to be spent only to restore, protect, and enhance wetlands, prairies, forests and habitat for game, fish and wildlife.
- » 33% to a newly-created Clean Water Fund to be spent only to protect, enhance, and restore water quality in lakes, rivers, streams and groundwater, with at least 5% of the fund spent to protect drinking water sources.
- » 14.25% to a newly created Parks and Trails Fund to support parks and trails of regional or statewide significance.

Funding from the Legacy Amendment is administered by a variety of agencies such as the Department of Natural Resources, Pollution Control Agency, Board of Water and Soil Resources, Department of Health, Historical Society, Minnesota State Arts Board and regional art councils. A number of new grant programs were created. Information about grant opportunities can be found on individual state department and organization websites.

### **BOARD OF WATER AND SOIL RESOURCES- CLEAN WATER FUND**

Website: <http://www.bwsr.state.mn.us/cleanwaterfund/index.html>

Clean water legacy money dedicated to implementation of projects.

### **MINNESOTA POLLUTION CONTROL AGENCY- CLEAN WATER PARTNERSHIP & 319 PROGRAMS**

Website: <http://www.pca.state.mn.us/index.php/water/water-types-and-programs/water-nonpoint-source-issues/clean-water-partnership/financial-assistance-for-nonpoint-source-water-pollution-projects-clean-water-partnership-and-section-319-programs.html>

The MPCA provides financial and technical assistance to local government and other water resource managers to address nonpoint-source water pollution through the State Clean Water Partnership (CWP) and Federal Clean Water Act Section 319 (Section 319) programs.

### **NPS RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM**

Website: [www.nps.gov/ncrc/programs/rtca/](http://www.nps.gov/ncrc/programs/rtca/)

The National Parks Service's (NPS) "Rivers, Trails and Conservation Assistance Program" (RTCA) is designed to provide communities technical assistance to conserve rivers, preserve open space, and develop trails and greenways. The RTCA program also implements the natural resource conservation and outdoor recreation mission of the National Park Service in communities across America. The NPS highly encourages communities to contact them before submitting an application for assistance.

### **THE ENVIRONMENTAL AND NATURAL RESOURCES TRUST FUND**

Website: <http://www.legacy.leg.mn/funds/environment-natural-resources-trust-fund>

The Environment and Natural Resources Trust Fund was established following voter approval of a constitutional amendment in 1988. The money in the Trust Fund is generated by the Minnesota State Lottery. The Trust Fund holds assets that can be appropriated, "for the public purpose of protection, conservation, preservation, and enhancement of the state's air, water, land, fish, wildlife, and other natural resources."

Since 1991, the ENRTF has provided more than \$360 million to more than 800 projects around the state.

## STATEWIDE HEALTH IMPROVEMENT PROGRAM

<http://www.health.state.mn.us/news/pressrel/2013/ship110413.html>

Continuing the effort to improve the health of Minnesotans, and reduce health care costs through low-cost, preventive measures, the Minnesota Department of Health (MDH) has awarded more than \$21.2 million in Statewide Health Improvement Program (SHIP) grants to counties and cities across Minnesota. The grants are by communities – in partnership with local businesses, schools, and local governments – to implement projects and programs that will promote exercise and physical activity, improve nutrition, and decrease tobacco use. Typically, eligible projects include:

- » Working with schools to encourage “Safe Routes to School” programs, so that kids arrive safely to school focused and ready to learn, and “Farm to School” programs, so that kids get healthy Minnesota produce and learn where their food comes from, all while benefiting local farmers.
- » Working with communities to encourage biking and walking, including “Complete Streets” with sidewalks and crosswalks, all designed to make it easier for people of all ages to get the physical activity they need.
- » Better access to healthy fruits and vegetables in corner stores in cities and convenience stores in greater Minnesota, and through more farmers markets, especially those accepting Electronic Benefit Transfer (EBT) so that more people can get the healthy food their families need.

For 2014-2015, Clay County (along with Wilkin, Becker and Otter Tail Counties) was awarded an ‘Innovation’ grant to explore new opportunities to improve health on a community wide-scale.

## FOUNDATIONS & NON-PROFITS

There are foundations and non-profits that are interested in fulfilling their missions by supporting local projects. There are a number of on-line tools that can assist with the process of identifying additional foundations that may financially support park, trail, and bikeway improvements. The Minnesota Council of Foundations is a great starting point for identifying foundations. Another good starting point is to consider the businesses within Moorhead and using their websites to see if they have a foundation or charitable giving department. In addition to retailers and manufacturers, be sure to consider businesses such as the railroad, energy providers and communications companies.



# COST ESTIMATES

## GENERAL RECREATION & PARK CAPITAL, OPERATION, & MAINTENANCE COSTS

TABLE 83. CAPITAL, OPERATION, & MAINTENANCE COSTS

The following table is a tool that the City can use to initially evaluate and budget for new improvements and quickly grasp the general cost for new improvements. Equally important to the initial capital cost for a project are the on-going operations and maintenance costs. Adequately budgeting operations and maintenance ensures that facilities last their expected life and the River Corridor remains safe and welcoming.

	ELEMENT	CAPITAL COST	ANNUAL O&M COST	ESTIMATED LIFE (YEARS)
PARKS	<b>Neighborhood Park (3-14 Acres)</b>	no new neighborhood parks recommended	\$550 Per Acre	25-50
	<b>Community Park (30+ Acres)</b>	\$115,000 Per Acre	\$550 Per Acre	25-50
	<b>New River Corridor Rec Node</b>	\$50,000 Per Area	\$300 Per Area (assumes small parking area, natural surface loop trail, informational kiosk)	25-50
VEGETATION	<b>Mowed Turfgrass (Non Irrigated)</b>	\$25,000 Per Acre New Sod \$1,500 Per Acre New Seed	\$800 Per Acre (Includes: mowing, trimming, fertilizing, weed control, aerating & overseeding). \$400/ Acre (mowing and trimming only)	15-30
	<b>Wetland Restoration</b>	\$10,000 Per Acre	\$900 Per Acre	-
	<b>Prairie - Savanna</b>	\$5,000 Per Acre	\$300 Per Acre	-
	<b>Floodplain Forest</b>	\$4,000 Per Acre	\$400 Per Acre	-
	<b>Invasive Species Management</b>	\$500 Per Acre	\$200 Per Acre	-
	<b>Tree Protection</b>	\$20 Per Tree	Negligible	20
PARK BUILDING/ SHELTERS	<b>Restrooms</b>	\$250,000 (\$350-\$400 Sq. Ft.)	\$11,000 Per Bldg./Yr.	40
	<b>Picnic Shelters (24-120 Capacity)</b>	\$40,000-\$300,000 (\$125-\$150 Sq. Ft.)	\$3,800 Per Shelter/Yr.	40
TRAILS & SURFACES	<b>Trails (10 Ft. Wide Asphalt)</b>	\$140,000 Per Mile	\$5,280 Per Mile	30
	<b>On-Road Bikeway</b>	\$10,000-\$50,000 Per Mile	Re-striping and sign maintenance	-
	<b>Natural Surface Hike/Ski Trail</b>	\$30,000 Per Mile	\$500 Per Mile	-
	<b>Parking Lots (Asphalt)</b>	\$2,500-\$3,000 Per Stall	\$20-\$25 Per Stall	40
	<b>Pedestrian Bridges</b>	\$1,200 Lin. Ft.	\$3.50 Ln. Ft.	30

## CAPITAL COST ESTIMATE

With a total estimated cost of over \$17 million prioritization and phasing will be essential to successful implementation. Planning level estimated capital, operations/maintenance, and long term capital replacement costs are identified in Table 84. While the table identifies phasing for projects, development will occur as funding becomes available and at the discretion of the City Council. The table identifies the full anticipated costs of the plan elements, though it is not anticipated that the City of Moorhead will be responsible for the full costs of improvements outlined.

TABLE 84. RIVER CORRIDOR COST ESTIMATES

Project ID	Project Name	Priority	Project Capital Cost	Operations & Maintenance Cost (Annual)	Capital Replacement Cost (Annual)
A-1	Design unified property boundary signage	Near Term	\$10,000.00	\$0.00	\$0.00
A-2	Develop and adopt landscape buffer design guidelines and a landscape buffer policy	Near Term	\$30,000.00	\$0.00	\$0.00
C-1	Develop wayfinding design standards and install wayfinding signs	Near Term	\$50,000.00	\$500.00	\$2,000.00
C-2	Bikeway – Red River to 15 <sup>th</sup> Avenue North (Wall Street North, Oakport Road North and North)	Near Term	\$312,000.00	\$23,636.36	\$0.00
C-4	New Bicycle – Pedestrian Bridge North of Moorhead Country Club	Visionary	\$1,200,000.00	\$500.00	\$1,000.00
C-6	Cross Country Ski Expansion within and South of M.B. Johnson Park	Near Term	\$30,000.00	\$568.18	\$1,500.00
C-7	Mountain Bike Trail Expansion South of Snaky Creek within M.B. Johnson Park	Near Term	\$50,000.00	\$946.97	\$2,500.00
C-8	On-road bikeway between 15th Avenue North and Homestead Park	Near Term	\$20,500.00	\$1,553.03	\$0.00
C-9	Paved Trail Homestead Park to Davy/Memorial Park	Near Term	\$365,750.00	\$3,850.00	\$18,287.50
C-10	Reconstruct Paved Trails from Davy/Memorial Park to Woodlawn Park	Near Term	\$893,000.00	\$9,400.00	\$44,650.00
C-14	Natural Surface hiking and cross country ski trail from Homestead Park to Davy/Memorial Park	Near Term	\$12,500.00	\$236.74	\$625.00
C-15	Realign Cross Country Ski Trails in Davy/Memorial Park, Riverfront Park and Viking Ship Park	Near Term	\$31,500.00	\$596.59	\$1,575.00
C-12	Replace Memorial/Oak Grove Bridge	Near Term	\$1,200,000.00	\$2,000.00	\$24,000.00
C-19	Relocate floating bridge from Woodlawn Park to Dike East Park in Fargo	Near Term	\$200,000.00	\$2,000.00	\$4,000.00
C-16	On road bikeway from Woodlawn Park to Gooseberry Mound Park (River Drive and 4 <sup>th</sup> Street South)	Near Term	\$20,500.00	\$0.00	\$0.00
C-17	Paved Trail from Gooseberry Mound Park to Horn Park	Near Term	\$427,500.00	\$4,500.00	\$21,375.00
C-21	Hiking Loop in Gooseberry Mound Park	Near Term	\$30,500.00	\$577.65	\$1,525.00
C-22	Cross Country Ski/Hiking Trail from Gooseberry Mound Park and Horn Park	Near Term	\$21,750.00	\$411.93	\$1,087.50
C-26	Bluestem Park to 60 <sup>th</sup> Avenue Southwest	Near Term	\$888,250.00	\$9,350.00	\$44,412.50
C-29	Cross Country Ski/Hiking Trail in River Oaks Park	Near Term	\$29,500.00	\$558.71	\$1,475.00
R-4	DNR Canoe Portage and Parking Improvements 15th Avenue North	Near Term	\$50,000.00	\$550.00	\$2,500.00
R-8	Improvements to Horn Park	Near Term	\$50,000.00	\$550.00	\$25,000.00
R-11	New Recreation Node at Riverview Circle South	Near Term	\$50,000.00	\$550.00	\$25,000.00
H-1	Prairie/Savannah Restoration at the New Recreation Node on Buffalo River Watershed District Land	Near Term	\$146,125.00	\$781.25	N/A
H-4	Prairie/Successional Floodplain Forest North of Moorhead Country Club	Near Term	\$61,300.00	\$375.00	N/A
H-5	Prairie/Savanna Restoration North of 15th Avenue North	Near Term	\$22,400.00	\$156.25	N/A
H-6	Prairie/Successional Floodplain Forest between Homestead and Davy/Memorial Parks	Near Term	\$9,800.00	\$93.75	N/A
H-11	Prairie Restoration/Successional Floodplain Forest from Gooseberry Mound Park to Horn Park	Near Term	\$39,600.00	\$312.50	N/A
H-12	Prairie/Oak Savanna Restoration in Horn Park	Near Term	\$22,990.00	\$125.00	N/A
H-13	Prairie/Successional Floodplain Forest/Tree Planting South of Horn Park	Near Term	\$70,125.00	\$468.75	N/A
H-14	Prairie/Oak Savannah Restoration at New Recreation Node at Riverview Circle South	Near Term	\$96,125.00	\$468.75	N/A
H-15	Prairie/Successional Floodplain Forest in River Corridor North of River Oaks Park	Near Term	\$18,315.00	\$93.75	N/A
H-16	Prairie/Oak Savanna Restoration in River Oaks Park	Near Term	\$22,725.00	\$156.25	N/A
<b>Sub-total:</b>			<b>\$6,482,755.00</b>	<b>\$65,867.42</b>	<b>\$222,512.50</b>

Funding will be a collaboration between the City, partner agencies, and organizations. In addition, all cost estimates are planning level, based on the level of detail outlined in this plan. Prior to implementation, refined cost estimates associated with desired design and anticipated operations and maintenance activities should be prepared.

The table identifies annual maintenance/operations costs for River Corridor improvements. It is important to note that for natural resource projects, a higher level of maintenance is anticipated for the first 5 years. For the purposes of this table, that additional maintenance cost is wrapped into the capital cost. Table 87 includes a breakdown of total capital and maintenance costs for natural resource projects for the 1-5 year time frame and 5-10 year timeframes.

Table 84 also includes yearly amortization of costs for major capital maintenance, or full facility replacement at the end of the lifecycle of each project (typically 25 years with 50 years for bridges).

Project ID	Project Name	Priority	Project Capital Cost	Operations & Maintenance Cost (Annual)	Capital Replacement Cost (Annual)
C-30	Cross Country Ski/Hiking Trails within and South of Bluestem Park	Long Term	\$91,750.00	\$1,737.69	\$4,587.50
C-27	Southern Pedestrian and Bicycle Bridge I (River Oaks Park)	Long Term	\$1,200,000.00	\$2,000.00	\$24,000.00
R-2	Improvements to M.B. Johnson Park	Long Term	\$636,000.00	\$3,400.00	\$31,800.00
R-3	New Recreation Node North of Moorhead Country Club	Long Term	\$50,000.00	\$550.00	\$2,500.00
R-5	Improvements to Original Homestead Park	Long Term	\$50,000.00	\$946.97	\$2,500.00
R-6	Improvements to Davy/Memorial/Riverfront Park/Viking Ship Park	Long Term	\$500,000.00	\$550.00	\$25,000.00
R-9	Improvements to Gooseberry Mound Park	Long Term	\$500,000.00	\$550.00	\$2,500.00
R-10	Improvements to River Oaks Park	Long Term	\$500,000.00	\$550.00	\$2,500.00
R-12	Improvements to Bluestem Park and Events Center	Long Term	\$500,000.00	\$550.00	\$25,000.00
I-1	Create a Comprehensive River Corridor Interpretation Plan	Long Term	\$75,000.00	\$0.00	\$0.00
H-2	Prairie Restoration at M.B. Johnson Park	Long Term	\$51,565.00	\$281.25	N/A
H-3	Wetland Restoration at M.B. Johnson Park	Long Term	\$31,025.00	\$281.25	N/A
H-7	Water Quality Improvements at Davy/Memorial Park, Riverfront Park, and Viking Ship Park	Long Term	\$27,405.00	\$156.25	N/A
H-10	Prairie/Oak Savanna Restoration in Gooseberry Mound Park	Long Term	\$44,945.00	\$218.75	N/A
H-18	Prairie seeding/Successional Floodplain Forest South of Bluestem Park	Long Term	\$88,975.00	\$468.75	N/A
<b>Sub-total:</b>			<b>\$4,346,665.00</b>	<b>\$12,240.91</b>	<b>\$120,387.50</b>
C-3	New Bicycle – Pedestrian Bridge at M.B. Johnson Park	Visionary	\$1,200,000.00	\$2,000.00	\$24,000.00
C-5	Ped-Bike- Ski Bride over Snaky Creek in M.B. Johnson Park	Near Term	\$100,000.00	\$2,000.00	\$24,000.00
C-8.1	Riverside Trail 15th Avenue North and Homestead Park	Visionary	\$194,750.00	\$2,050.00	\$9,737.50
C-11	15 <sup>th</sup> Avenue North Toll Bridge Improvements	Visionary	\$38,000.00	\$400.00	\$1,900.00
C-13	Pedestrian and Bicycle Improvement to 1st Avenue Bridge	Visionary	\$38,000.00	\$400.00	\$1,900.00
C-19.1	Replace floating bridge from Woodlawn Park to Dike East Park in Fargo with a permanent structure	Visionary	\$1,200,000.00	\$2,000.00	\$24,000.00
C-16.1	Paved Trail from Woodlawn Park to Gooseberry Mound Park	Visionary	\$560,500.00	\$5,900.00	\$28,025.00
C-18	Paved Trail from Horn Park to River Oaks Park	Visionary	\$1,021,250.00	\$10,750.00	\$51,062.50
C-20	Natural Surface Cross Country Ski/Hiking Trail from Woodlawn Park to Gooseberry Mound Park	Visionary	\$62,250.00	\$1,178.98	\$3,112.50
C-23	Cross Country Ski/Hiking Trail from Horn Park to River Oaks Park	Visionary	\$51,000.00	\$965.91	\$2,550.00
C-24	Paved Trail from River Oaks Park to 46th Avenue South	Visionary	\$289,750.00	\$3,050.00	\$14,487.50
C-25	Paved Trail from 46th Avenue South to Bluestem Park	Visionary	\$41,000.00	\$776.52	\$2,050.00
C-28	Southern Pedestrian and Bicycle Bridge II (Bluestem Park)	Visionary	\$1,200,000.00	\$2,000.00	\$24,000.00
R-1	New Recreation Node on Buffalo River Watershed Land	Visionary	\$50,000.00	\$550.00	\$2,500.00
R-7	Improvements to Woodlawn Park	Visionary	\$500,000.00	\$550.00	\$25,000.00
H-8	Restored Wetland in Woodland Park	Visionary	\$51,700.00	\$250.00	N/A
H-9	Prairie/Successional Floodplain Forest South of Woodlawn Park	Visionary	\$47,300.00	\$937.50	N/A
H-17	Prairie and Potential Wetland Feature in Tessa Terrace Development	Visionary	\$90,650.00	\$562.50	N/A
<b>Sub-total:</b>			<b>\$6,736,150.00</b>	<b>\$36,321.40</b>	<b>\$238,325.00</b>
<b>Total:</b>			<b>\$17,565,570.00</b>	<b>\$114,429.73</b>	<b>\$581,225.00</b>

## NATURAL RESOURCE PROJECTS – ONGOING MAINTENANCE

Natural resource restoration require a large investment at start up with potential cost savings in the long term (compared to mowed grass). Annual maintenance costs are higher during the first 5 years, when a native community is being established. After a establishment, these costs are lower. In areas that are currently being mowed, restoration can result in significant reductions in maintenance costs over the long term. As shown in the Table 84, it takes approximately 10 years for the initial investment in restoration to ‘pay-off’ with reduced annual maintenance costs. Figure 86 indicates the frequency of maintenance needed for natural and maintained landscapes. Maintained park areas require a continuous maintenance effort, while natural areas require maintenance one year or less.

FIGURE 86. ON-GOING MAINTENANCE EFFORT

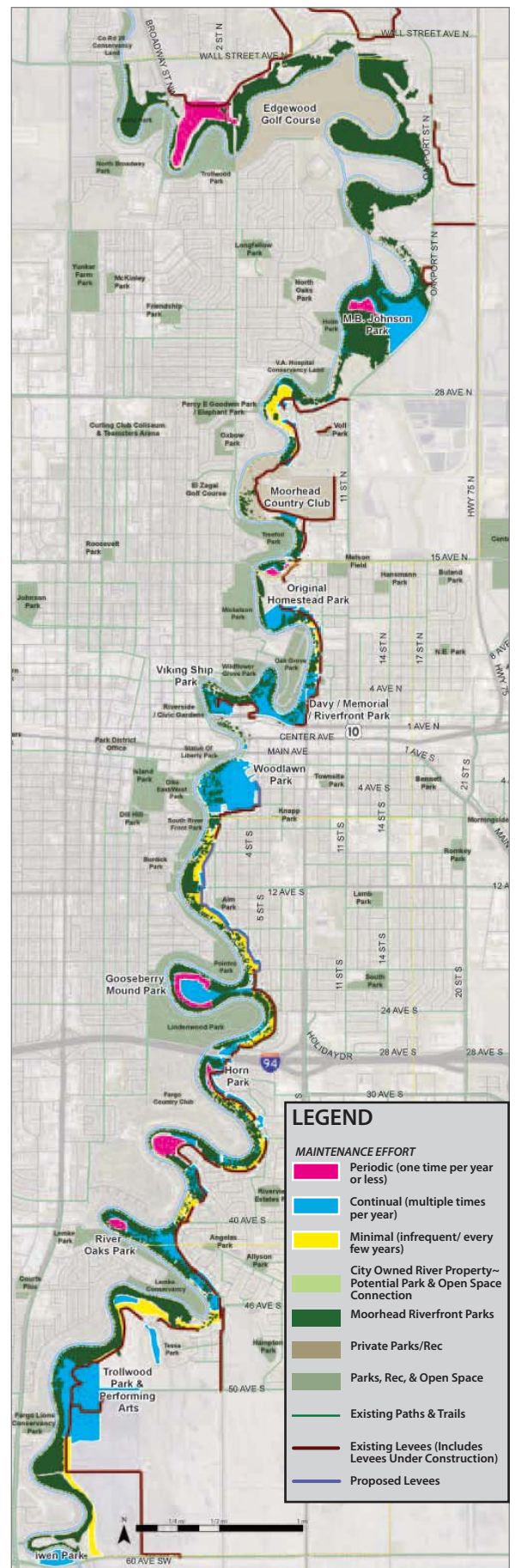


TABLE 87. ON-GOING MAINTENANCE COST ESTIMATES

Project #	Project	0-5		5-10		Total	
		Restoration	Mowing	Restoration	Mowing	Restoration	Mowing
H-1	Prairie/oak savanna restoration at the new recreation node on Buffalo Red River Watershed District Land	\$150,800		\$ 3,900		\$3,900	
H-2	Prairie/oak savanna restoration in M.B. Johnson Park	\$ 53,000	\$ 24,800	\$ 1,400	\$ 24,800	\$54,400	\$ 49,600
H-3	Wetland restoration in M.B. Johnson Park	\$ 32,400		\$ 1,400		\$33,800	\$ -
H-4	Prairie seeding/successional floodplain forest at area just north of Moorhead Country Club at N. River Dr.	\$ 51,900		\$ 1,000		\$52,900	\$ -
H-5	Prairie/oak savanna restoration at river just north of 15th Ave. N.	\$ 23,200	\$ 13,800	\$ 800	\$ 13,800	\$24,000	\$ 27,600
H-6	Prairie seeding/successional floodplain forest and tree planting on river corridor between Homestead Park and Davy/Memorial Park	\$ 21,100		\$ 900		\$22,000	\$ -
H-7	Water quality landscape improvements in Davy/Memorial/Riverfront and Viking Ship Parks	\$ 2,900		\$ 1,600		\$4,500	\$ -
H-8	Restored wetland in Woodlawn Park	\$ 54,200		\$ 1,500		\$55,700	\$ -
H-9	Native prairie seeding/ successional floodplain forest in corridor south of Woodlawn Park	\$ 50,000		\$ 3,100		\$53,100	\$ -
H-10	Prairie/oak savanna restoration in Gooseberry Mound Park	\$ 47,100	\$ 19,300	\$ 2,200	\$ 19,300	\$49,300	\$ 38,600
H-11	Prairie seeding/ successional floodplain forest in corridor between Gooseberry Mound Park and Horn Park	\$ 42,700		\$ 3,100		\$45,800	\$ -
H-12	Prairie/oak savanna restoration in Horn Park	\$ 24,200	\$ 11,000	\$ 1,300	\$ 11,000	\$25,500	\$ 22,000
H-13	Prairie seeding/ successional floodplain forest in corridor south of Horn Park	\$ 73,300		\$ 2,500		\$75,800	\$ -
H-14	Prairie/oak savanna restoration at open space at end of Riverview Circle South	\$ 98,500	\$ 41,300	\$ 2,300	\$ 41,300	\$100,800	\$ 82,600
H-15	Prairie seeding/ successional floodplain forest in corridor north of River Oaks Park	\$ 19,300		\$ 900		\$20,200	\$ -
H-16	Prairie/oak savanna restoration in River Oaks Park	\$ 24,300	\$ 13,800	\$ 1,600	\$ 13,800	\$25,900	\$ 27,600
H-17	Native prairie seeding and potential wetland feature in Tessa Terrace development	\$ 103,600		\$ 1,600		\$105,200	\$ -
H-18	Prairie seeding/ successional floodplain forest in corridor south of Bluestem Park	\$ 91,400		\$ 2,300		\$93,700	\$ -

*Initial investment in project start-up, but in long term, costs associated with maintenance of restoration projects are significantly lower than costs associated with continued mowing*

*Does not include native plantings already installed along with flood mitigation structures, initial restoration costs may lower.*

*Cost estimates assume all work is to be done by contractors. If City staff, non-profits, volunteers, etc. do the work (implementation/maintenance), costs may be significantly reduced.*

*Estimates for mowing were only provided for park areas that are currently maintained as turf grass. Costs for mowing were based on \$550/acre (most areas with mowing and trimming only, some with fertilizing, weed control, aerating, and over seeding).*

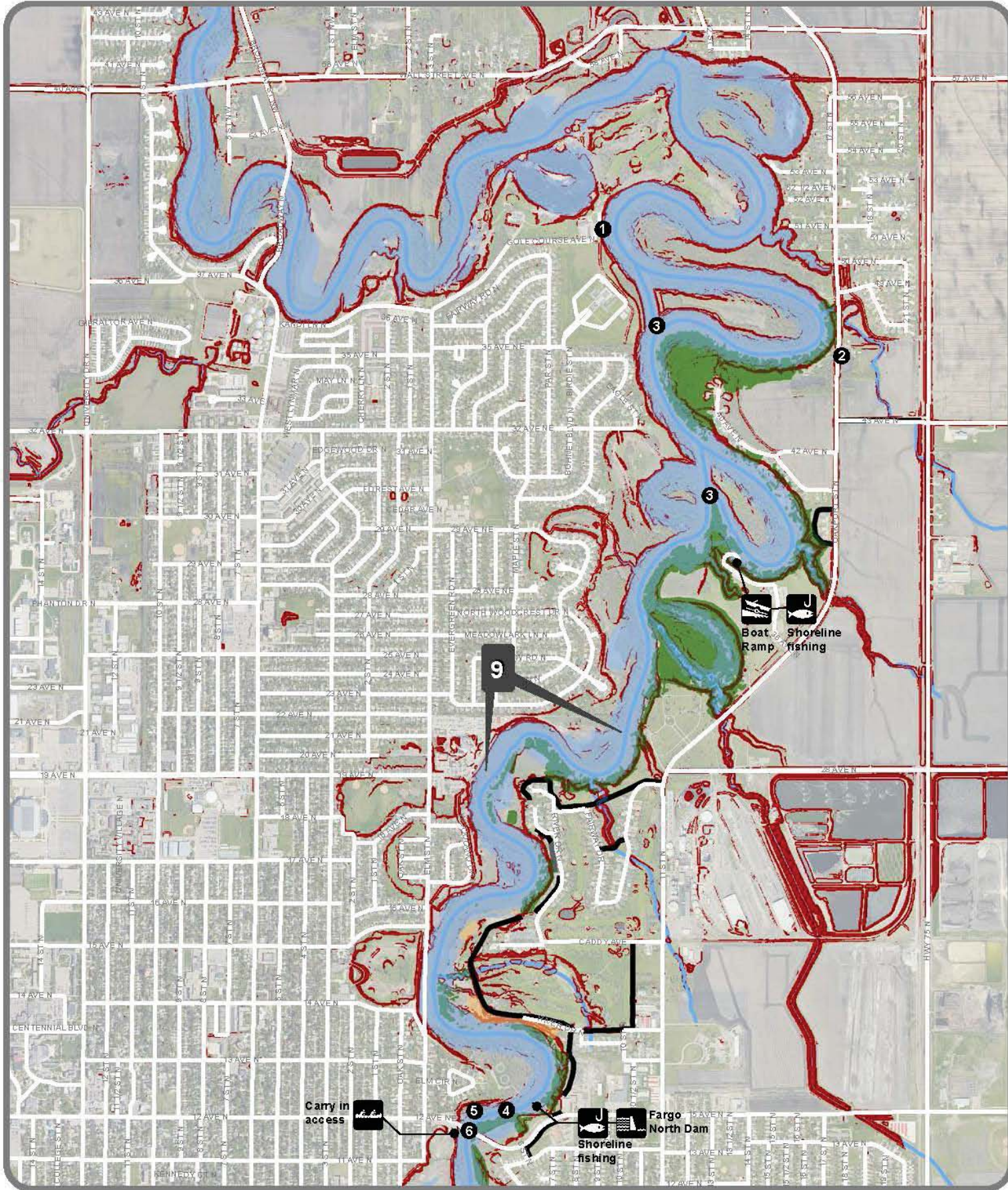




# Appendix A

## Natural Features

This chapter outlines a mapped inventory of natural resources along the Red River Corridor.



**Study Area #1 (Natural & Cultural Features) - 60th Ave N. - 15th Ave. N**

**Map 1**

**Vegetation**

- Ex. Tree Canopies
- Ex. Native Grass Seeded Areas

**Slope & Flood Information**

- 10% Slope or Greater
- 24' Flood Stage [Nuisance Flooding]
- Red River Corridor

**Flood Protection Levels**

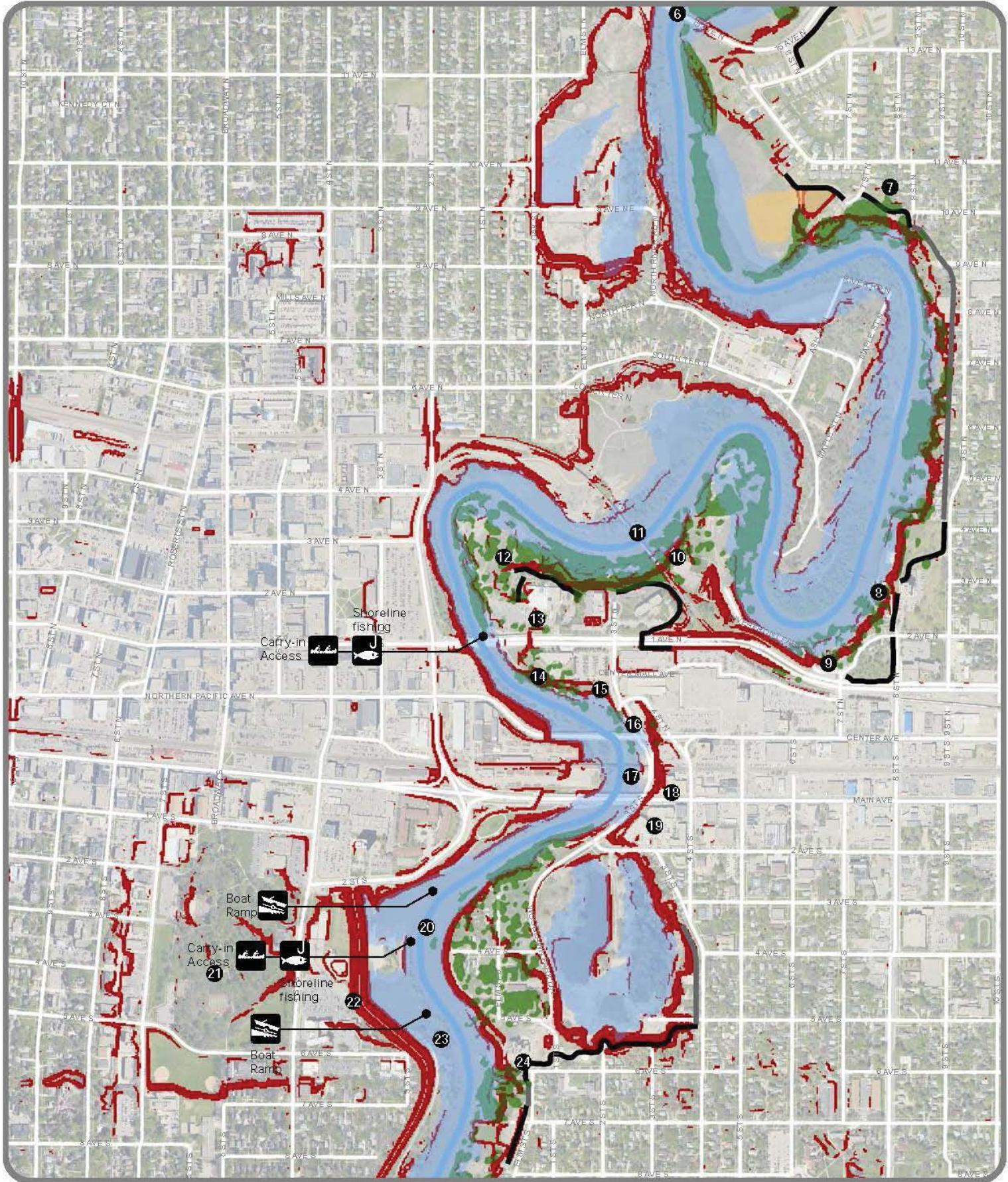
- Existing Flood Protection Levels
- Pending Flood Protection Levels
- Proposed Flood Protection Levels

**Cultural Features**

- Historical Sites





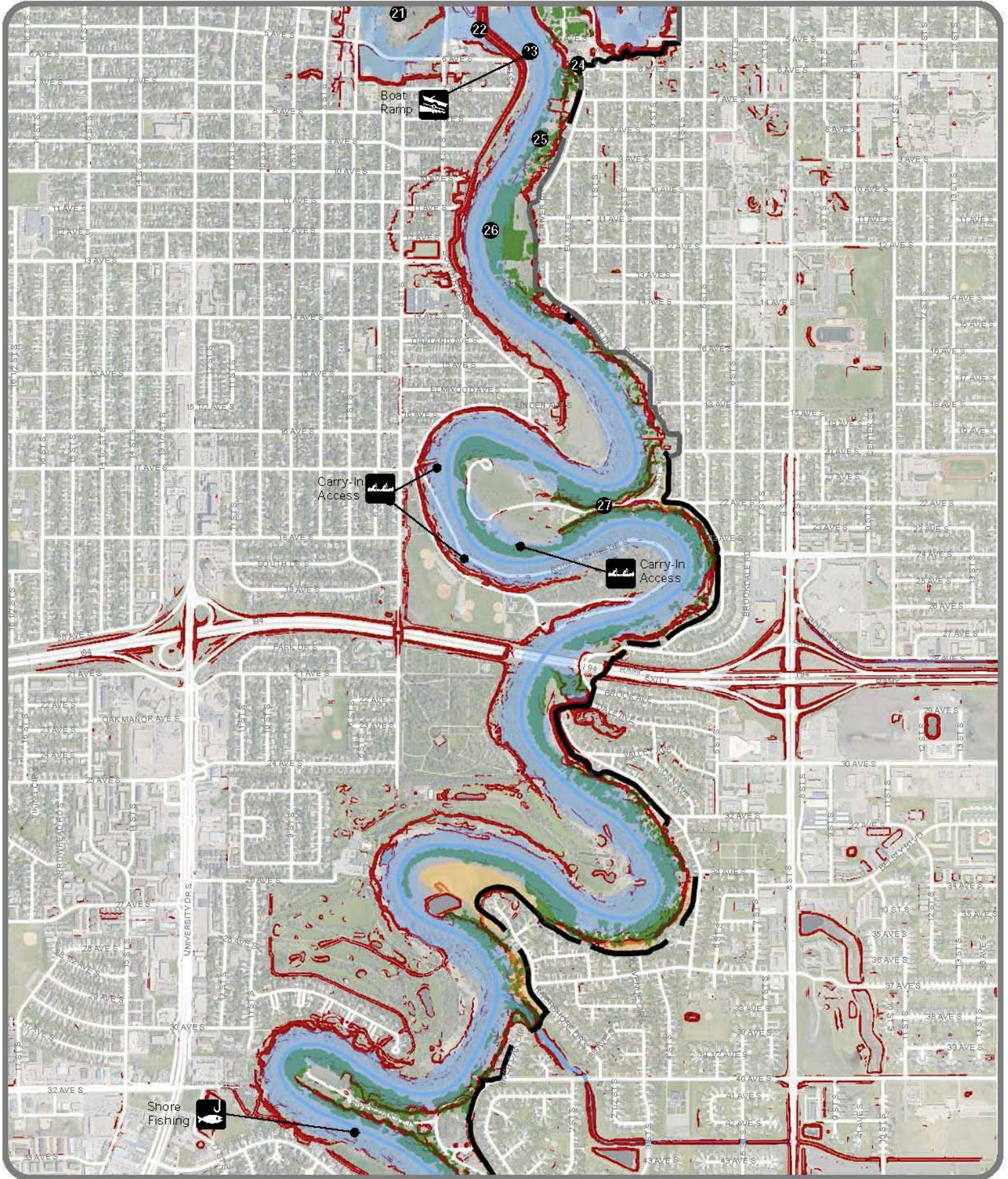


Study Area #2 (Natural & Cultural Features) - 15th Ave N - Woodlawn Park

- |   |   |   |   |
|---|---|---|---|
| <b>Vegetation</b>   | <b>Slope &amp; Flood Information</b>  | <b>Flood Protection Levees</b>  | <b>Cultural Features</b>  |
| <ul style="list-style-type: none"> <li><span style="color: green;">■</span> Ex. Tree Canopies</li> <li><span style="color: orange;">■</span> Ex. Native Grass Seeded Areas</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: red;">■</span> 10% Slope or Greater</li> <li><span style="color: blue;">■</span> 24" Flood Stage (Nuisance Flooding)</li> <li><span style="color: lightblue;">■</span> Red River Corridor</li> </ul> | <ul style="list-style-type: none"> <li><span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> Existing Flood Protection Levees</li> <li><span style="border-bottom: 2px solid black; width: 20px; display: inline-block;"></span> Pending Flood Protection Levees</li> <li><span style="border-bottom: 3px solid black; width: 20px; display: inline-block;"></span> Proposed Flood Protection Levees</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: black;">●</span> Historical Sites</li> </ul> |

Map 2





**Zone # 3 (Natural & Cultural Features) - Woodlawn Park - River Oaks Pt.**

**Vegetation**

- Ex. Tree Canopies
- Ex. Native Grass Seeded Areas

**Slope & Flood Information**

- 10% Slope or Greater
- 24' Flood Stage (Nuisance Flooding)
- Red River Corridor

**Flood Protection Levees**

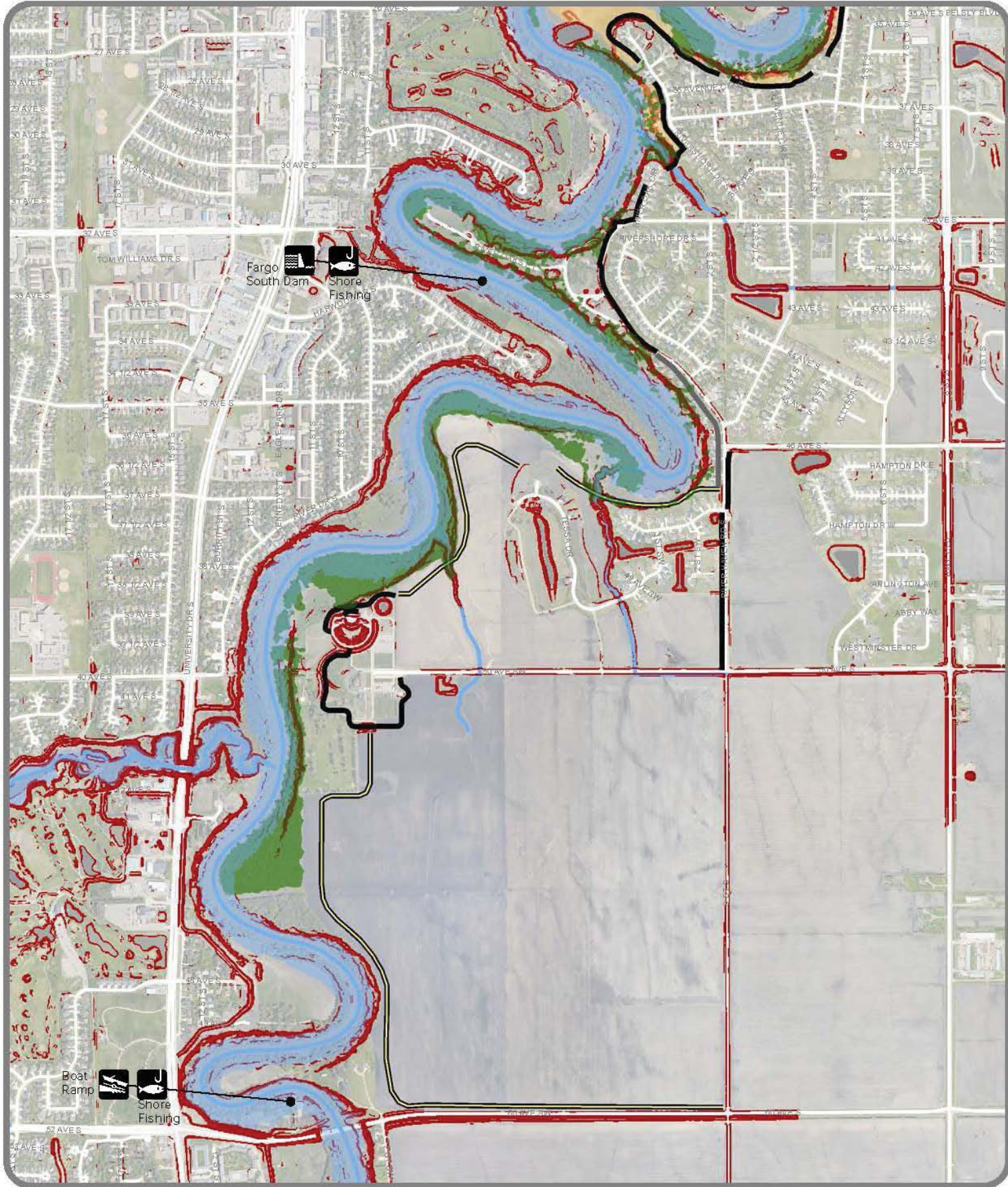
- Existing Flood Protection Levees
- Pending Flood Protection Levees
- Proposed Flood Protection Levees

**Cultural Features**

- Historical Sites

Map 3





**Study Area #4 (Natural & Cultural Features) - River Oaks Pt. - 60th Ave S**

**Vegetation**

- Ex. Tree Canopies
- Ex. Native Grass Seeded Areas

**Slope & Flood Information**

- 10% Slope or Greater
- 24' Flood Stage (Nuisance Flooding)
- Red River Corridor

**Flood Protection Levees**

- Existing Flood Protection Levees
- Pending Flood Protection Levees
- Proposed Flood Protection Levees

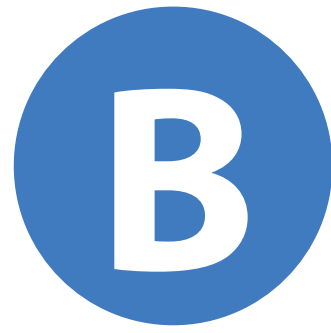
**Cultural Features**

- Historical Sites

**Map 4**







# Appendix B

## Historic Inventory

This chapter catalogs the inventory of culturally and historically significant sites along the Red River Corridor.

## RED RIVER CORRIDOR HISTORIC AND CULTURAL SITES

In 1990, Gary Goodrich and Mark Peihl developed a self-guided tour of historic sites along the Red River for canoeists, bicyclists and pedestrians. This was further updated by Metro COG in cooperation with Clay County Historical Society (CCHS) as part of developing the Moorhead River Corridor Study. Based on information provided by CCHS, Metro COG outlined existing historic/cultural sites along the Red River.

1 EDGEWOOD CLUB HOUSE

Established in the mid-1920s, Edgewood is the only tree-lined public course in the Fargo-Moorhead metro area. In the winter, the course also offers cross-country skiing, ski rental, snowshoe rental and sliding hill. Located on these grounds is the Edgewood Clubhouse. The clubhouse is open year round, serving as a warming facility with an interior fireplace and snack bar in the winter. The clubhouse also houses Divots, a year round, full scale restaurant.

2 THE PROBSTFIELD FARM

German immigrant Randolph Probstfield was one of the first permanent white settlers in what is now Clay County. Arriving in 1859, he went to work for the Hudson's Bay Company at Georgetown. In 1868 he built a log home on this point and began farming. Probstfield experimented with a wide variety of vegetables and other crops including his own tobacco. The Probstfield house is on the National Register of Historic Places and is owned by the Probstfield Living History Farm.

3 THE CHIMNEY BEND FLOOD CONTROL PROJECT

In addition to the downtown dike and dam construction, 1959 also saw a flood control project on Fargo's north side. To hurry flood water out of the city, engineers cut channels across the necks of three oxbow bends. The channels over two are stabilized by concrete weirs which allow high water to rush through the artificial channels but keep the river in its natural bed during normal flows. The third, named "chimney Bend" by 19<sup>th</sup> century steamboat pilots, was cut off completely requiring the transfer of about 10 acres of Minnesota to North Dakota.

4 THE NORTH DAM

Built as a depression relief project, the north dam was completed in 1936. Nearly half a million tons of rock and concrete held back a seven foot head of water. This was an extremely dangerous dam. In 2002 the dam was replaced with a series of rock ledges. Now much safer, it provides white water canoeing and fish passage. Deep holes just downstream help make this a popular fishing spot. The concrete building just upstream from the dam on the Moorhead side is a pumping station for the American Crystal Sugar plant. Water is pumped from the river for washing sugar beets.

5 DOVRE SKI CLUB'S FIRST JUMP

At the time of its construction in 1935, this ski jump was the largest in the United States, rising 140 feet above the prairie with a 200 foot long runway. The Dovre Ski Club constructed the jump with materials supplied by S.L. Chesley of Chesley Lumber and Coal using 2x6 lumber, bolted together and supported by a series of guide-wire cables. Its height was inevitably its downfall for

in 1942 the structure was torn down when the United States Civil Aeronautics Authority decided that it was a potential hazard for airplanes landing at the nearby Hector Airfield.

6 THE TOLL BRIDGE

The toll bridge joining Moorhead and Fargo's north side is the only privately owned bridge on the Red River. The span was completed by The Bridge Company in 1988 at a cost of \$1.9 million. It was the first privately funded toll ridge built in the United States since 1948. The toll bridge is designed as a floodable structure, with removable lights and toll booth. Incidentally, the toll is 75 cents per vehicle. Pedestrians and bicycles cross for free.

7 THE BERGQUIST CABIN

In 1870, a year before Moorhead was established; 18-year-old Swedish immigrant John Bergquist homesteaded this site along the river. He cut logs in what is now Fargo's Oak Grove Park and skid them across the frozen Red to build his cabin. In addition to farming, Bergquist made – and lost – a fortune manufacturing bricks from local clay. The Bergquist Cabin is Moorhead's oldest structure on its original location. It is now on the National Register of Historic Places and is owned by the Clay County Historical Society.

8 THE MINNESOTA STAGE COMPANY'S BURBANK STATION STAGECOACH STOP

Built along the Red River in 1859, the cabin served as a stagecoach stop on the Minnesota Stage Company's route. In 1878, the cabin was purchased by Charles Whitcomb and moved to 10<sup>th</sup> Street North in Moorhead. The cabin moved again in 1933 when former Parks Director Adolph Bowman and the Moorhead Garden Club moved it to its current location. In 1999, local artists, Gloria Weisgram, Gary Paulsen and the City of Moorhead began to use it as a folk art center. This was recently moved to Davy Memorial Park in 2010.

9 THE AMERICAN LEGION HALL – USHER'S HOUSE

The Moorhead Legion Hall was built in 1936 as a WPA depression relief project. The WPA mandated that the project put as many people as possible and the cost of the materials be kept to a minimum. With that mandate in mind, architects George Carter and Allen Meinecke decided to teach workmen to cut fieldstone – donated by area farmers – into square building blocks for the exterior walls. The idea worked so well that the WPA hired Carter and Meinecke to design similar buildings all over the region. Today the Legion Hall is home to the Usher's House.

10 THE MOORHEAD BREWERY

In 1875, the Larkin brothers of Winnipeg built a brewery almost exactly on the site of today's tennis courts in Moorhead's Riverfront Park. They soon sold their business to hotel owner John Erickson who served the local brew in his saloon. Erickson also shipped kegs and bottles of the suds up and down the NP Railway line. Ole Aslesen bought the brewery in the late 1890s and continued the operation until it burned in 1901.

11 THE GREAT NORTHERN BRIDGE

During the winter of 1880-81, a second railroad reached the Red River and had a significant

effect on Moorhead and Fargo. James J. Hill's St. Paul, Minneapolis and Manitoba gave the North Pacific immediate competition by building branch lines all directions throughout the Red River Valley. This system linked several smaller communities and made Fargo-Moorhead a key transportation hub. The St. P, M. &M. become the Great Northern in 1889. Today it's the Burlington Northern-Santa Fe. Notice the iron-clad timber barrier built to protect the bridge from spring ice damage.

## 12 THE POINT

This sharp bend in the river was Moorhead's original residential district. In the 1870s, Moorhead's early elite built substantial homes on the high ground in the center of the Point. Working class families occupied modest homes on the wooded floodplain nearby. As the 1870s drew to a close, most of the wealthy residents had moved to more fashionable (and drier) areas of the city.

Victimized by repeated spring flooding, the homes fell into disrepair and vacancy. In 1971, homes on the point were leveled in an urban renewal project.

The point remained vacant until the Hjemkomst Center was built on the site in 1986. Today the areas are maintained as Viking Ship Park. However, scattered fire hydrants and trees that once lined Elm Street and 3<sup>rd</sup> Avenue remain to remind us of the Point's residential past.

## 13 HJEMKOMST CENTER

Surrounded by the Red River and Viking Ship Park, the Hjemkomst Center hosts a variety of special exhibits and events including Taste of the Valley, River Splash, and the Scandinavian Hjemkomst Festival. Permanently housed in the center is the Hjemkomst Viking ship which had been built by Robert Asp and his family and sailed to Norway in 1982. In addition to the museum and ship, the facility houses the Historical and Cultural Society of Clay County; the Chamber of Commerce of Fargo, Moorhead and West Fargo; and Senior Connections. The center is available for business meetings, weddings, anniversaries, birthday parties, and special occasions.

## 14 MOORHEAD'S SALOON DISTRICT

In 1889, North Dakota entered the union as a dry state. The state's Constitution contained a provision requiring the closing of all saloons on June 30, 1890. As of that date, thirsty North Dakotans filled the Red River bridges as they flocked to the Minnesota side. A thriving saloon district quickly sprang up on the banks of the Red. To be as close to North Dakota as possible, several saloons were built on piers and actually hung out over the river. The saloon business boomed until 1915 when Clay County finally went dry. Today, except for lingering rumors of bawdy houses and connecting tunnels, all that remains is the occasional broken bottle eroding from the river bank.

## 15 THE MOORHEAD TOURIST CAMP

With improved roads and more reliable automobiles, vacationers in the 1920s tried something new: auto camping. To cash in on this craze, Moorhead built a tourist camp near its downtown riverfront. The camp included tent sites, a recreation center, laundry facilities, and for the less



adventurous: cabins. During the crunch following World War II, many returning GIs and their families used the main lodge as temporary housing. Today, all that remains are sections of the concrete apron that lined the river bank in front of the camp.

16 THE FARGO-MOORHEAD RIVERFRONT

Steamboat Traffic began on the Red River June 8, 1859, when the *Anson Northup* set out on her maiden voyage bound for Fort Garry. But it wasn't until the NP Railroad reached the river in 1871 that the river commerce really came into its own. Railroad spurs reached from the mainline down to both the Moorhead and Fargo river banks. Goods bound for Grand Forks and Winnipeg were loaded directly from the H.W. Alsop on the Moorhead side. The Grandin Farms based their *J.L. Grandin* on the Fargo side. These and several other boats plied the Fargo-Moorhead reach of the river for over 20 years, until the spreading railroad put them out of business in the mid-1880s.

17 THE DOWNTOWN BRIDGES

The mainline of the Northern Pacific Railroad reached the Red River in 1871. The following winter the NP built the first permanent bridge over the river, creating the towns of Moorhead and Fargo at either end. In the beginning, the railroad bridge also carried pedestrian and wagon traffic, but crossing was dangerous and, officially permission from the NP was required. In 1874, a wagon bridge was built below and just north of the railroad bridge, but it had to be dismantled every spring before break up and then rebuilt. After years of sometimes bitter dispute, the cities built two permanent wagon bridges in 1883. The original NP Railroad Bridge was also rebuilt in 1883 when the wooden pilings were replaced with the massive stonework that we see today. Like all Red River bridges built during the 1880s, the new NP Bridge rotated to allow the passing of steamboats.

The south wagon bridge crossed at the present site of the Main Avenue Bridge. Although this bridge was in serious need of repair by the turn of the century, it wasn't replaced until 1936. The 1936 structure was replaced in 2006 with the present Veterans' Memorial Bridge.

The Center Avenue Bridge, a Works Progress Administration (WPA) project, was completed in 1938. It was rebuilt in 1987 and renamed the Bicentennial Bridge to commemorate the 200<sup>th</sup> anniversary of the United States' Constitution.

The original north bridge ran from Kennedy Street in Moorhead (just south of the present day 1<sup>st</sup> Avenue North) to NP Avenue in Fargo. After the turn of the century, this bridge also carried the Fargo-Moorhead Electric Street Railways' street cars. The north bridge was replaced in 1930 by a span connecting 1<sup>st</sup> Avenue North in Moorhead with 1<sup>st</sup> Avenue North in Fargo. Although the old north bridge was torn down for scrap during World War II, the concrete-filled iron footings are still visible. Today's 1<sup>st</sup> Avenue bridge was rebuilt in the 1980s to accommodate increased traffic.

18 BURNHAM BUILDING

Frank Burnham, a townsite proprietor who was partner in the platting of Glyndon, was an

important business figure during the early years of Moorhead. In 1880, he commissioned the construction of the 420 Main Avenue Commercial Building, otherwise known as the Burnham Building. As was common at the time, the commercial building had a false-front. Later commercial buildings were replaced with brick frames. The Burnham building is on the National Register of Historic Places and houses YHR Partners Architects.

19 THE MOORHEAD FLOUR MILL

In February 1874, Red River Valley businessmen Henry A. Bruns led an association of eight Moorhead men in organizing the Moorhead Manufacturing Company, which established a number of flour mills. Later in 1878, Bruns and his business partner, Henry G. Finkle, built a grain elevator that was not only the first grain elevator in Moorhead, but also the first steam-powered grain elevator in the United States. The Red River Valley became known for wheat in the 1870s, and the Bruns and Finkle grain elevator helped to establish the region's dominance. In its first harvest season, the grain elevator handled almost 250,000 bushels of wheat from more than 5,000 wagons.

20 THE MIDTOWN DAM

With both Fargo and Moorhead relying on the Red River for municipal water, the dike project and change of the river course in 1959 necessitated the construction of a new dam. The dam controls the river level and provides a stable water supply. The Army Corps of Engineers built a "low-head" dam designed to aerate the water as it passes over. This design was extremely dangerous. Water flowing over the dam created a churning underwater backwash or "hydraulic." The falling water could take any object, (including a person) to the bottom, return it to the surface and draw it back to the face of the dam where it was once again taken to the bottom. Since 1953, over 14 bodies have been pulled from the Red River between Fargo and Moorhead. In 1999, state and local agencies place boulders below the dam to break up the dangerous current. Now the dam provides white water canoeing opportunities and makes it possible for fish to swim upstream to spawn.

21 ISLAND PARK GAZEBO

Gifted to the city of Fargo in 1927 by a local businessman Newton A. Lewis, the Island Park gazebo has been an iconic landmark for 86 years. Composed entirely of concrete and steel, the structure has a ceiling arranged in such a way that music can be heard from blocks away. Close to downtown Fargo, the gazebo was once the central gathering spot of city events. The structure which was originally built as a bandstand has been the setting for many gazebo concerts, summertime festivities, and weddings.

22 THE OLD RIVERFRONT RECREATION AREA

What is now the Fargo-Moorhead Community Theater parking lot was once the center for recreation on the Red River. From 1917 to 1959 Frank Dommer operated a boat and canoe rental business on the Moorhead side just across from Island Park. Nearby was a public swimming area complete with diving tower and rope swing. A bit farther downstream was the

original dam. A floating stage on the Moorhead side was the setting for many outdoor concerts and plays. Spectators watched from boats or from the bank on the west side of the river.

23 MOVING THE RIVER

Because the elevation of Fargo is generally lower than Moorhead, Fargo has always suffered more from flooding. To ease this problem in the Island Park area, in 1959 Fargo built the dike that now stretches north from near Prairie Psychiatric Center (formerly St. John's Hospital). Early plans called for the dike to run through the middle of Island Park just west of the original river channel near 4<sup>th</sup> Street. A more workable plan was to move the river and build the dike on its present site. As a result, the City of Moorhead and the State of Minnesota actually lost about 12½ acres of land. It literally took an Act of Congress to change the state boundary to the new river bed.

24 THE OLD MOORHEAD WATER/POWER PLANT

In 1895, Moorhead citizens petitioned the City Council to build a municipal power plant to free themselves from reliance upon a privately-held electric company which provided power for both cities. The plant had few start-up problems but was, however, embroiled in corruption and city politics for the first five years of its existence as the plant continually gained and replaced superintendents. When it was built, the Electric Light and Water Plant took over the water pumping station. Water came directly from the Red River and residents were cautioned to boil water used for drinking and cooking. By the turn of the century it was understood that the city was underlaid by an artesian aquifer 30 feet beneath the surface of the Red River Valley. Population growth in the 1950s and the depleting aquifer led the plant to again divert water from the Red River and to build a new water treatment plant.

In 1925, Moorhead was one of few cities in the Northwest which owned and successfully operated its own water and electric light plant. While cities throughout the United States had consolidated their utility companies, larger investor-owned utilities absorbing those of small towns, Moorhead's power plant did not follow the trend. During the Great Depression, the water and light department was able to reduce its rates for customers hard hit by unemployment and financial problems. With a new steam turbine and increased production efficiencies, business improved. Even in the depths of the Great Depression, the plant did well enough that commissioners passed on savings to Moorhead consumers.

During World War II, electric power consumption stagnated after more than a decade of nearly continuous growth due to wartime energy conservation and the suspension of appliance manufacturing. Following the war, the plant upgraded both the water and electric plant.

For over a century, the public power plant provided clean water and reliable electricity for a growing community and proved the self-reliance of Moorhead.

25 ICE CUTTING ON THE RIVER

Before mechanical refrigeration, residents of Moorhead and Fargo used ice cut from the Red River to cool their food and drink. Companies from both cities cut huge blocks of ice from the

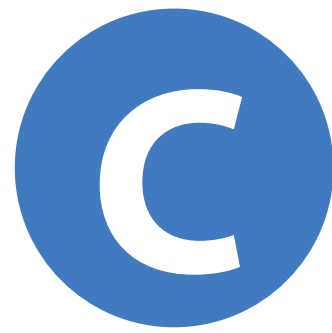
river around Christmas, before it froze too thick. During the 1920s and 30s, for example, the Moorhead Ice Company cut from the stretch of river between 8<sup>th</sup> and 12<sup>th</sup> Avenues South. The ice was stored in their icehouse on 10<sup>th</sup> Avenue South for door-to-door summertime delivery. The ice business faded rapidly with the coming of mechanical refrigeration in the 1950s.

26 WINTER HORSE RACING ON THE RIVER

During the 1890s, the racing of horse-drawn sleighs on the frozen Red River was an extremely popular entertainment. Nearly every afternoon and evening would find fast horses racing on the mile-long course from about 20<sup>th</sup> Avenue South (near Gooseberry Park) in Moorhead to 8<sup>th</sup> Avenue South. After the turn of the century, a ¼ mile track was laid out below the old north bridge, (west of today's Hjemkomst Center) complete with bleachers on the banks for spectators.

27 OXBOWS AND THE CHANGING RIVER

The course of the Red River is slowly but constantly changing. As it flows, the river applies pressure to the silty soils on the outward sides of its oxbow bends. This pressure causes a scouring of the bank and a generally northward "sliding" movement of the river bed. Over great periods of time the river can cut across the narrow "neck" of an oxbow, leaving behind lakes and islands. This has already happened at Island Park and the El Zagal golf course. The neck of Gooseberry Park is experiencing the same activity today and, in time, may become an island.



# Appendix C

## Public Input

This appendix presents a summary of community and stakeholder input collected during the master plan process. The following meetings and public input opportunities were held:

### Community Open House/Public Input Meetings:

- January 15, 2013
- October 29, 2013 (River Corridor Summit)
- April 15, 2014

### Technical Advisory Group (TAG) meetings:

- #1 - July 22, 2013
- #2 - September 4, 2013
- #3 - October 28, 2013
- #4 - October 30, 2013
- #5 – January 15, 2014 (Go to meeting)
- #6 – February 6, 2014 (Go to meeting)

### River Corridor Summit:

- Partners Roundtable (October 28, 2013)
- Recreation Stakeholders Meeting (October 28, 2013)
- River Corridor Field Day (October 29, 2013)

### River Corridor Advisory Committee (RCAC) meetings:

- December 13, 2012
- October 28, 2013 (River Corridor Summit)
- March 5, 2014

### Red River Corridor Residents Workshop:

- March 5, 2014

### The following pages include:

- River Corridor Survey Summary (January 2013)
- Compilation of Public Comments collected in late 2012 and early 2013
- Moorhead River Corridor Summit Summary (October 2013)
- RCAC and River Corridor Residents Workshop summaries (March 2014)
- Public open house summary (April 2014)

# RIVER CORRIDOR SURVEY

January 2013

1. How would you identify yourself?
  1. Moorhead resident
  2. Fargo resident
  3. Interested Stakeholder
  4. Other
2. What is the proximity of your residence to the river corridor?
  1. Within 2 blocks (typical city block equals 300 feet)
  2. 3 blocks to ½ mile
  3. More than ½ mile
  4. Not applicable
3. How often do you use existing bicycle and pedestrian facilities in the Metropolitan Area for recreational or commuting activities?
  1. Frequently (almost every day)
  2. Sometimes (a couple times per week)
  3. Rarely (once a week or less)
4. How would you qualify the extent of existing parks, recreational and open space facilities within the City of Moorhead?
  1. The City has an adequate amount
  2. The City does not have an adequate amount
  3. The City has an adequate amount, however, there is a certain facility, amenity or activity that could enhance the existing network
  4. Undecided
5. How would you rate the level of maintenance for existing parks, open space and recreational facilities within the City of Moorhead?
  1. Good
  2. Reasonable (room for improvement but does not detract from the neighborhood)
  3. Poor
  4. Undecided, not sure or not applicable
6. On a scale of 1 (strongly disagree) to 5 (strongly agree), please rate your response to the following statements:
  1. The river corridor should be returned to its natural state (ie. riparian, low maintenance) or as a passive resource with the introduction of no new or additional recreational features, trails, paths or active open space areas.
  2. The river corridor should be used as an active resource, allowing for the integration of new recreational features, access, trails paths and open space areas.
  3. The river corridor should include some combination of natural and active areas.
7. From the list below, what are the most important issues that need to be addressed by the City as part of this study? Rank from 1 (highest priority) to 8 (lowest priority).
  1. Maintenance (expectations and policy);
  2. Neighborhood safety and security;
  3. Recreational amenities and uses (expansion or enhancement of river access, bicycle and pedestrian path/trail network, open space, etc.);
  4. Planting/seeding plans and locations (natural v. turf);
  5. Tree removal and re-planting plans;
  6. Management and Programming (leases, trespassing, enforcement, community education, etc.);
  7. A comprehensive vision for the river corridor;

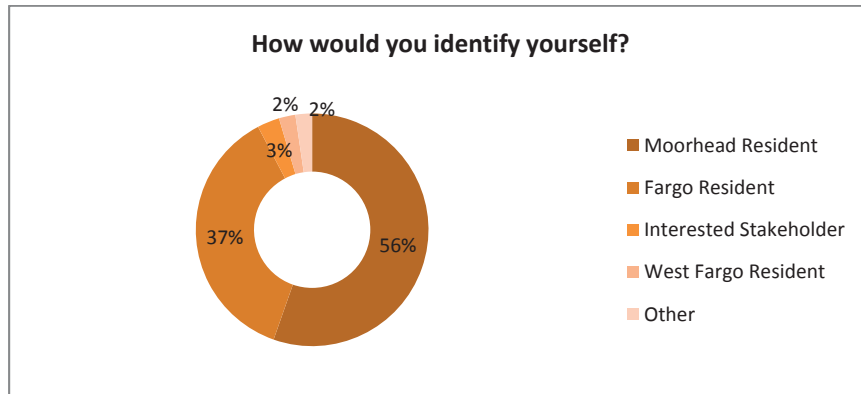
8. Other \_\_\_\_\_.
8. If investments were made by the City into the river corridor, what would be your highest priority? Rank from 1 (highest priority) to 8 (lowest priority).
1. Expanded bicycle and pedestrian pathways and trails;
  2. Expanded winter related recreational activities;
  3. Enhanced river viewing areas;
  4. Protection and enhancement of natural or riparian areas;
  5. Enhanced historical/cultural value of the river;
  6. Increased maintenance (mowing, weeds, trash, etc.) and management of the corridor.
  7. Development of additional red river bicycle/pedestrian crossing locations;
  8. None of the above.
9. If expansion of the bicycle and pedestrian path/trail network is deemed an important priority, rank the segments from 1 (highest priority) to 7 (lowest priority).
1. County Road 22/Wall St (Riverwood Park) to MB Johnson Park
  2. MB Johnson Park to 15<sup>th</sup> Ave N Toll Bridge (Mickelson Park area);
  3. MB Johnson Park to Treefoil Park (Fargo);
  4. Downtown Moorhead to Gooseberry Park;
  5. Gooseberry Park to Horn Park;
  6. Horn Park to River Oaks Park;
  7. River Oaks Park to Trollwood Park and Performing Arts;
  8. Trollwood Park and Performing Arts to 60<sup>th</sup> Ave S.
10. If additional bicycle/pedestrian bridges and connectivity (east/west) is deemed a priority, which of the following locations would you consider most beneficial to the community given existing infrastructure and potential future opportunities? Rank from 1 (highest priority) to 5 (lowest priority).
1. River Oaks Park/40<sup>th</sup> Ave S (MHD) into Lemke Park/32<sup>nd</sup> Ave S (Fargo);
  2. MB Johnson Park (MHD) into Holm Park or North Oaks Park (Fargo);
  3. Trollwood/50<sup>th</sup> Ave S (MHD) into 40<sup>th</sup> Ave S (Fargo);  
\* could connect into Milwaukee Trail which is less than 0.4 miles from the centerline of the river
  4. Viking Ship Park (MHD) into 2<sup>nd</sup> St N (Fargo)
  5. 6<sup>th</sup> Ave S (MHD) into Dike West (Fargo)
  6. 12<sup>th</sup> Ave S (MHD) into 13<sup>th</sup> Ave S (Fargo);
  7. 24<sup>th</sup> Ave S (MHD) into Lindenwood Park (Fargo).
11. Please mark any of the amenities outlined below that you believe should be considered as part of the river corridor?
1. Playground equipment;
  2. Camping or campsites;
  3. Picnic tables and shelters;
  4. Recreational attractions (sledding hills, ski trails)
  5. Off-road/mountain biking trails;
  6. Designated fishing locations;
  7. Additional boat landings;
  8. Community gardens;
  9. Outdoor educational/science labs;
  10. Specialized sport facilities (disk golf, courts);
  11. Other \_\_\_\_\_.
12. Above a base maintenance condition for the river corridor as structured within the existing city budget (general mowing of turf grass and management of natural areas), would you be willing to pay (extra) for infrastructure improvements or amenities within the river corridor?
1. Yes
  2. No
  3. Not a Moorhead resident

## RIVER CORRIDOR SURVEY RESPONSES

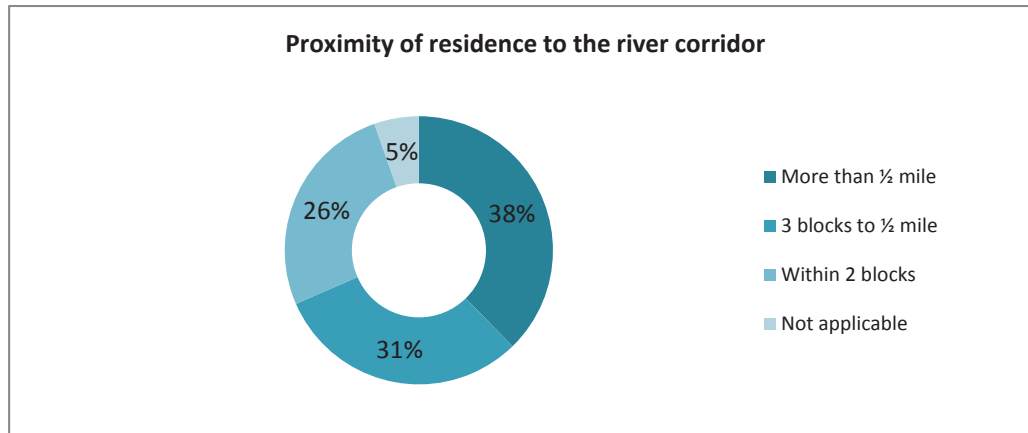
### *Detailed Responses*

What follows is a detailed summary of each of the twelve (12) questions presented as part of the Moorhead River Corridor Survey.

**Question 1:** More than half of those who responded to the Moorhead River Corridor survey were residents of Moorhead. Thirty-seven percent (37%) of respondents identified as Fargo residents. Other respondents included interested stakeholders (3%), West Fargo residents (2%) and the remaining 2% identified as other.



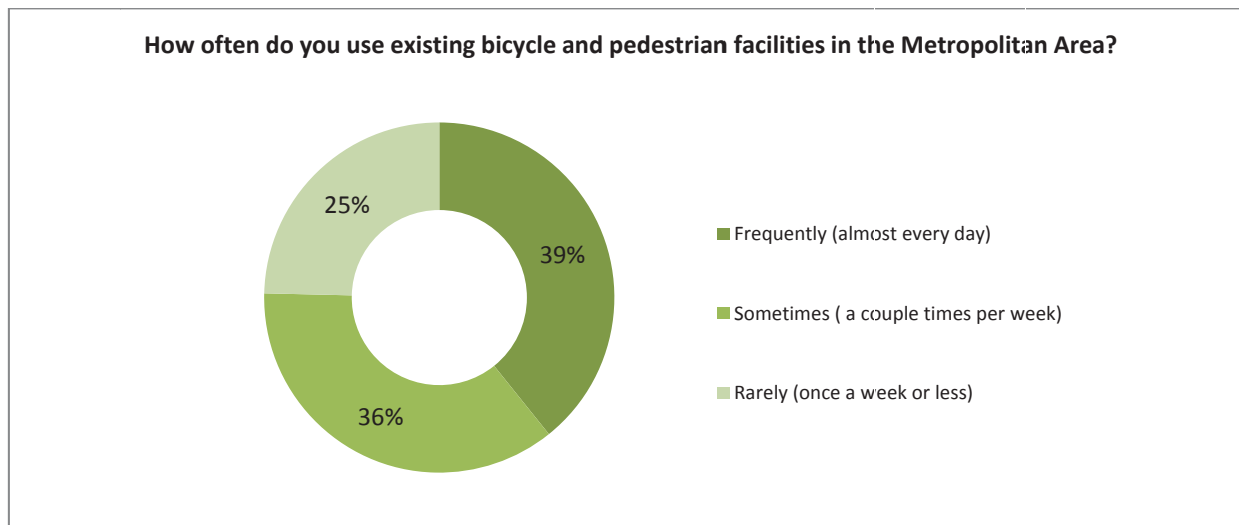
**Question 2:** Respondents to the survey varied in proximity to the corridor. Thirty-eight percent (38%) lived over ½ miles from the corridor. A total of 31% of respondents lived within 3 blocks to ½ mile of the corridor. Twenty-six percent (26%) lived within 2 blocks.



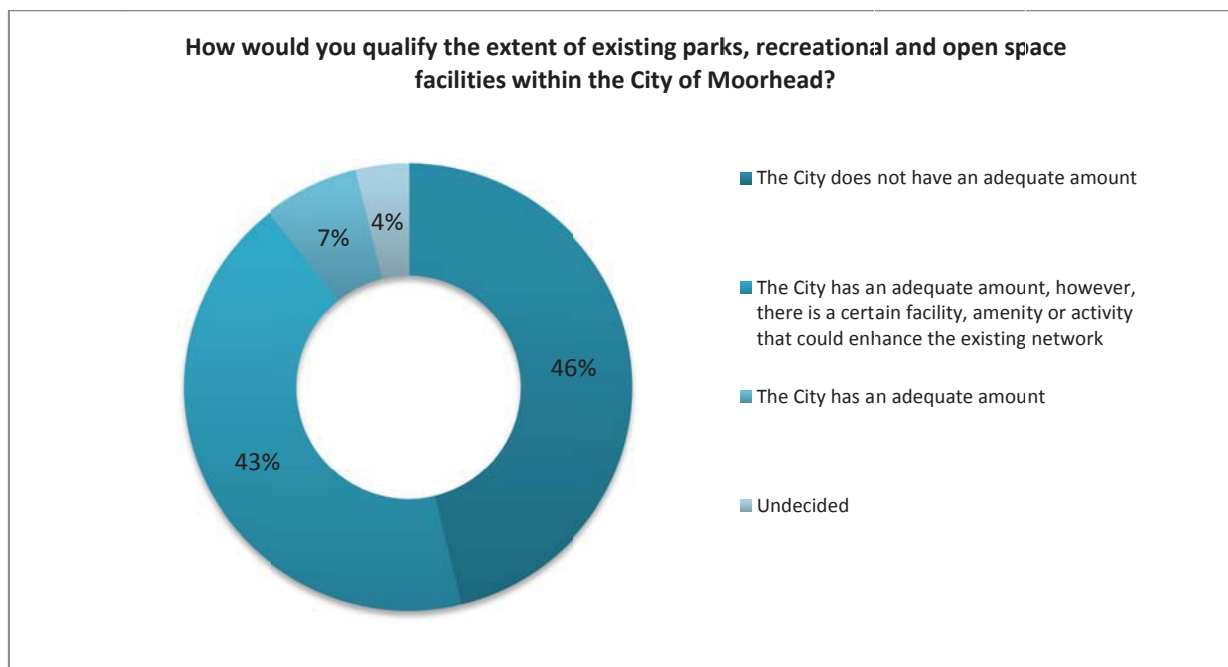
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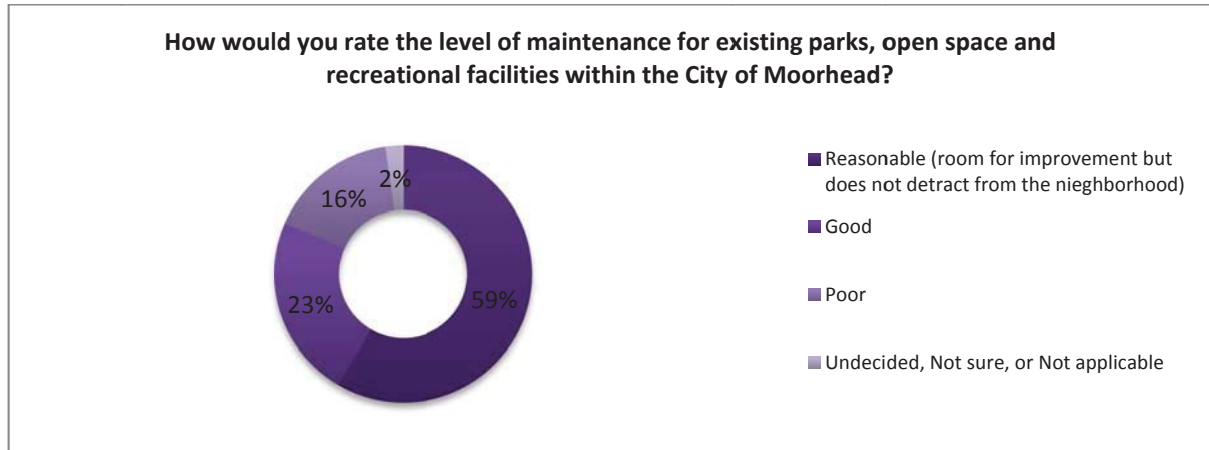
**Question 3:** According to the survey, 75% of respondents use existing bicycle and pedestrian facilities on a weekly basis. Of this 75%, 39% of respondents use these facilities every day. Twenty-five percent (25%) of respondents use these facilities once a week or less.



**Question 4:** forty-six percent (46%) of respondents feel the City of Moorhead *does not have an adequate amount of existing parks, recreational and open space facilities*. Forty-three percent (43%) of respondents disagreed; qualifying the amount of *existing parks, recreational and open space facilities is adequate*, but note additional facilities could enhance the existing network. A total of 7% of respondents believe that the no additional facilities are needed because the City has an adequate amount. A total of 4% were undecided.



**Question 5:** Twenty three percent (23%) of respondents rated the level of maintenance of existing parks, open space and recreational facilities within the City of Moorhead as *good*. Fifty-nine percent (59%) as rated existing maintenance levels as *reasonable*, suggesting there is room of improvement but that the level of maintenance does not detract from the neighborhood. Only 16% of respondents rate maintenances levels as being *poor*. The remaining 2% were undecided or unsure.

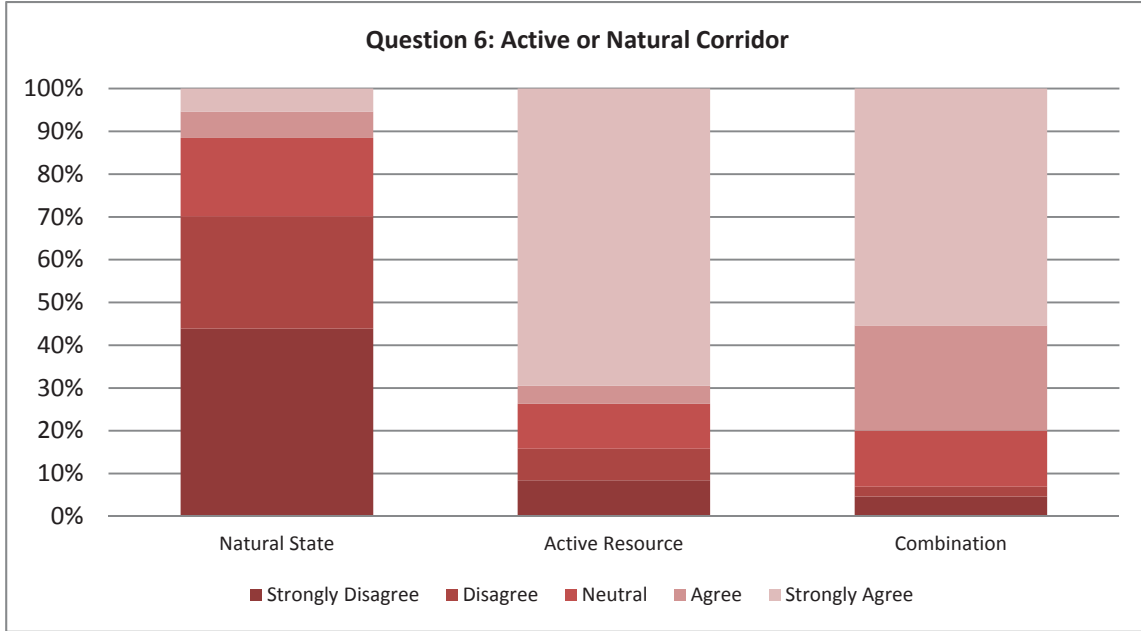


**Question 6** (chart summary on next page): Respondents were asked to rate on a scale of 1 (strongly disagree) to 5 (strongly agree), the following statements:

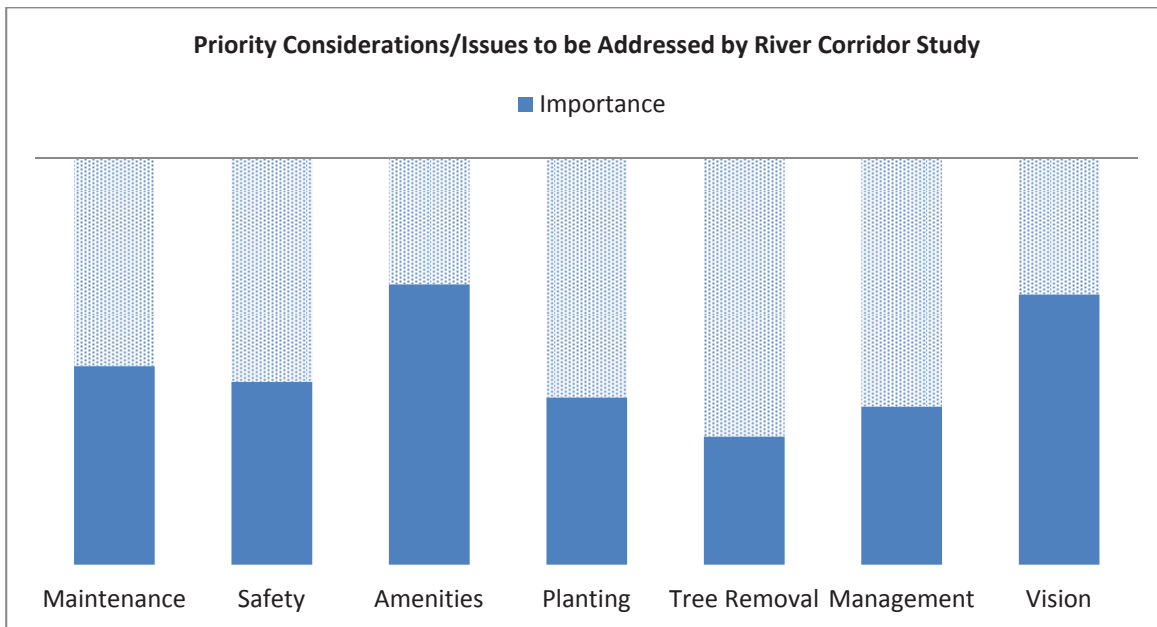
- The river corridor should be returned to its natural state (i.e. riparian, low maintenance) as a passive resource with the introduction of no new or additional recreational features, trails, paths or active open space areas.
- The river corridor should be used as an active resource, allowing for the integration of new recreational features, access, trails paths and open space areas.
- The river corridor should include some combination of natural and active areas.

In all, 44% of respondents strongly disagreed with the statement that *the river corridor should be returned to a natural state with no additional recreational features*, trails or active open space. For the second part of this question, a total of 51% of respondents strongly agreed that *the river corridor should be an active resource with new recreational features, access, and trails*. For the third and last part of, 55% of respondents strongly agreed that *the river corridor should be a combination of natural and active areas*.

*Remainder of page intentionally left blank*

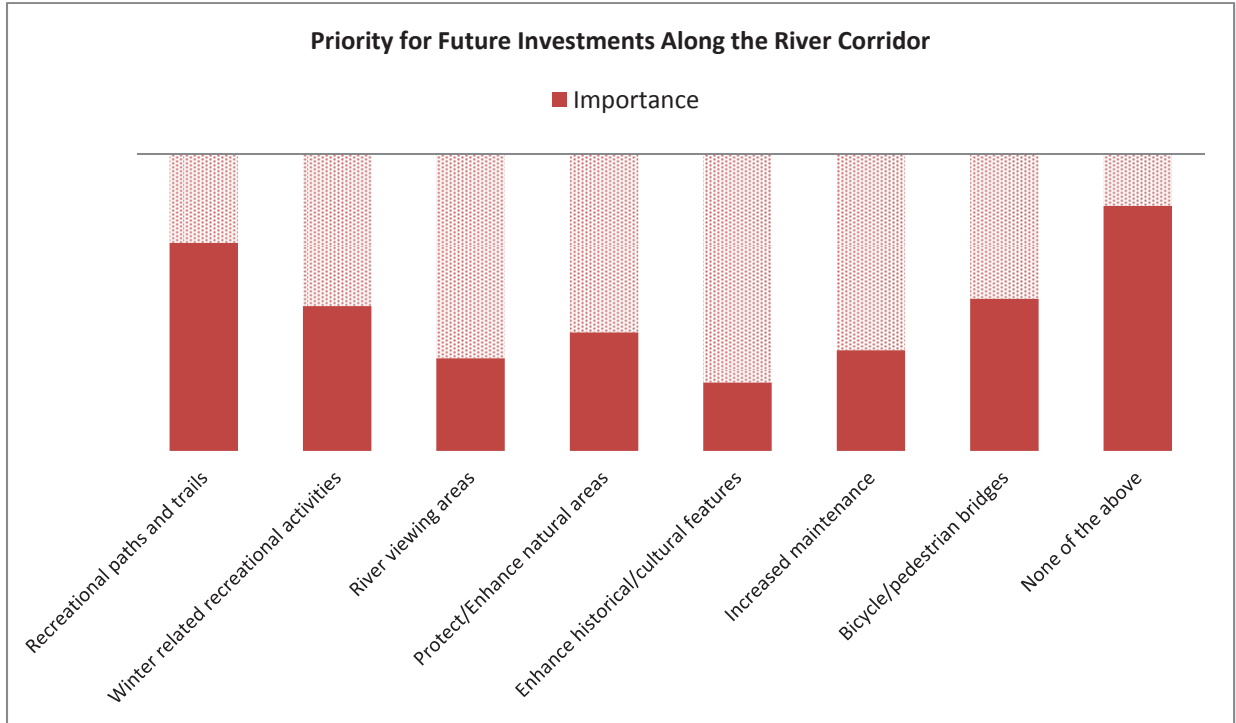


**Question 7:** On a scale of 1 (highest priority) to 8 (lowest priority), respondents were asked to rate the importance of the issues that need to be addressed by the City of Moorhead. According to this rating scale, the most important issue that needs to be addressed by the city is *recreational amenities and uses* with an average rating of 2.48. This issue includes the expansion or enhancement of river access, bicycle and pedestrian paths. The second most important issue with a rating of 2.68 was *creating a comprehensive vision for the river corridor*. The third priority consideration was *maintenance* followed closely by *security* and *planting* (vegetation efforts).



**Question 8:** Respondents were asked to rank on a scale from 1 (highest priority) to 7 (lowest priority) the importance of potential investments made by the City into the river corridor. This elicited varied responses.

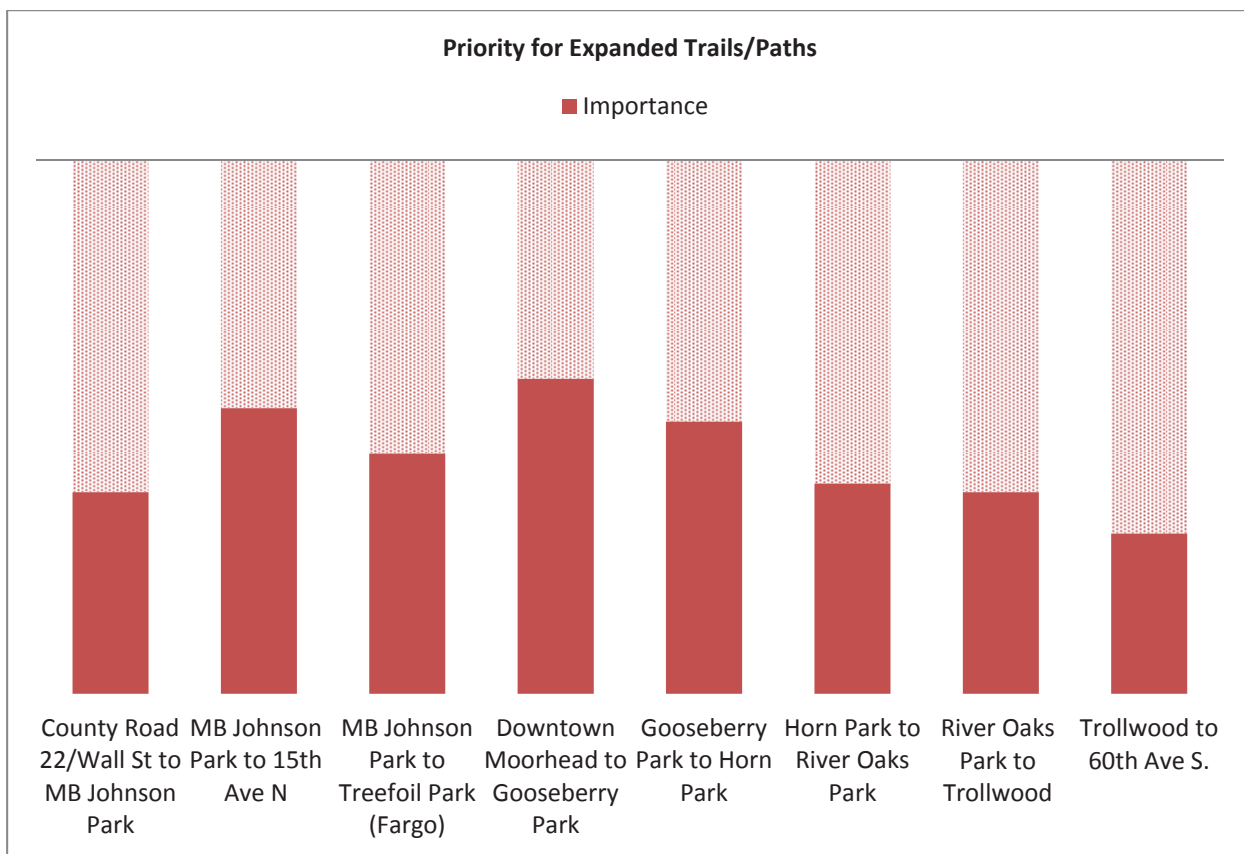
The highest priority, with an average of 1.23, was *none of the above*. The second highest priority with an average rating of 2.10 is an investment in *expanded bicycle and pedestrian pathways*. The third highest and very closely related issue is an investment in the development of *additional red river bicycle and pedestrian crossings*, with an average rating of 3.42.



*Remainder of page intentionally left blank*

**Question 9:** From a scale of 1 (highest priority) to 8 (lowest priority) respondents were asked to rank the priority of new segments of bicycle and pedestrian trail networks. The trail segment of highest priority is from Downtown to Gooseberry Park. The second highest expansion priority was MB Johnson Park to the 15<sup>th</sup> Ave North (Toll Bridge area). The third highest priority was Gooseberry Park to Horn Park.

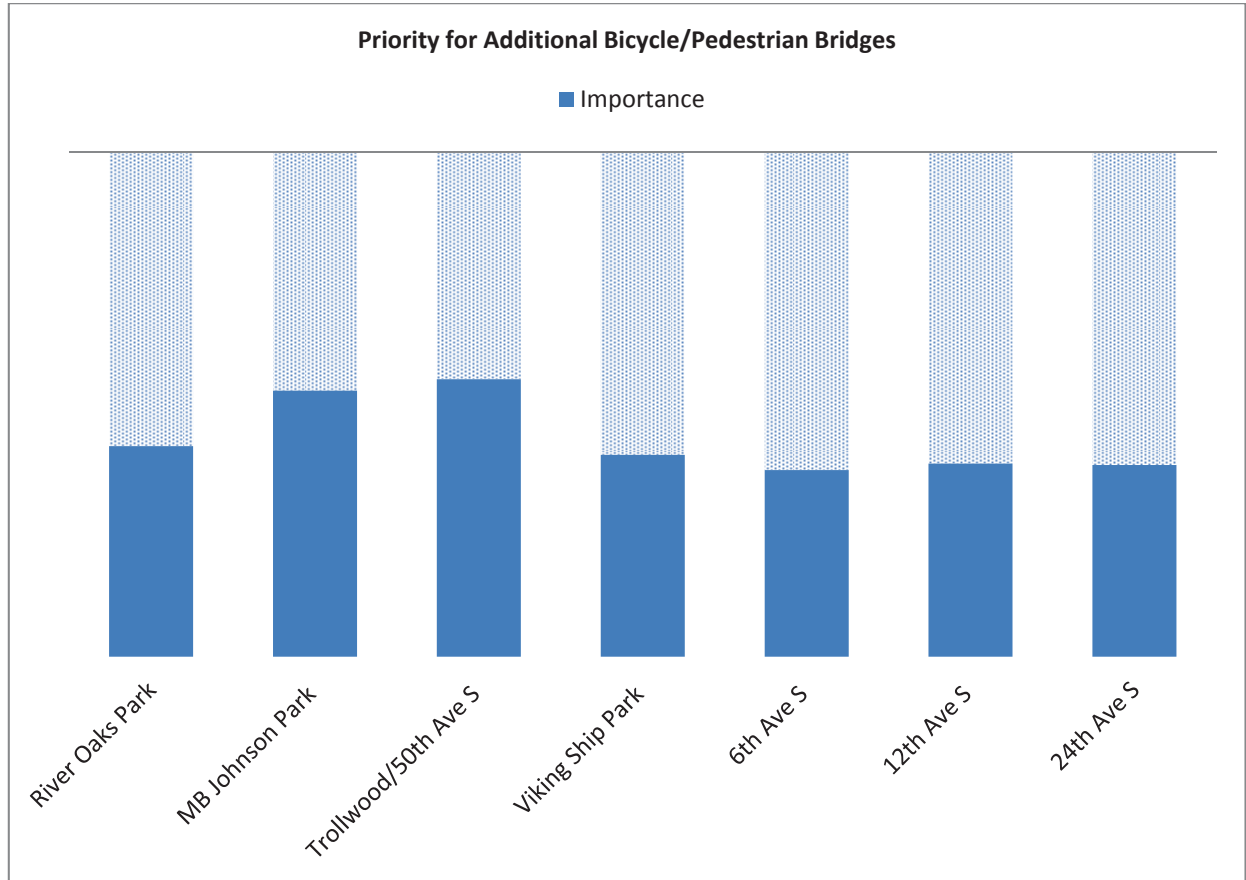
The five (5) other possible trail segments listed that were of a lower priority were closely spaced in terms of priority. It is worth noting that the preferences noted in the survey and as also resonated as part of the public comments support the development new trails segments outward from existing networks downtown to MB Johnson to the north and Gooseberry to the south. Another consideration in future phases of the River Corridor study would be looking at segments of the River Corridor where facilities may already exist in Fargo; and also looking at existing connectivity between Moorhead and Fargo to ensure that new segments of river trail provided for some measure of connectivity.



**Question 10 (summary chart on next page):** Respondents ranked on a scale of 1 (highest priority) to 7 (lowest priority), locations for additional bicycle/pedestrian bridges that would be most beneficial to the community given existing infrastructure and potential future opportunities. With an average of 3.14, Trollwood/50<sup>th</sup> Ave South Moorhead into 40<sup>th</sup> Ave South Fargo was rated the highest priority location for additional bicycle/pedestrian connectivity. The second highest rated location was at MB Johnson Park into Holm Park or North Oaks Parks in Fargo. The third highest priority was a bridge at River Oak Park, which would connect to 32<sup>nd</sup> Avenue South in Fargo. The remaining four (4) locations are very closely spaced.

The top three (3) locations listed for a bicycle and pedestrian bridge are locations which have been previously identified in past planning efforts, most recently the Red River Greenway Study and Metropolitan Bicycle and

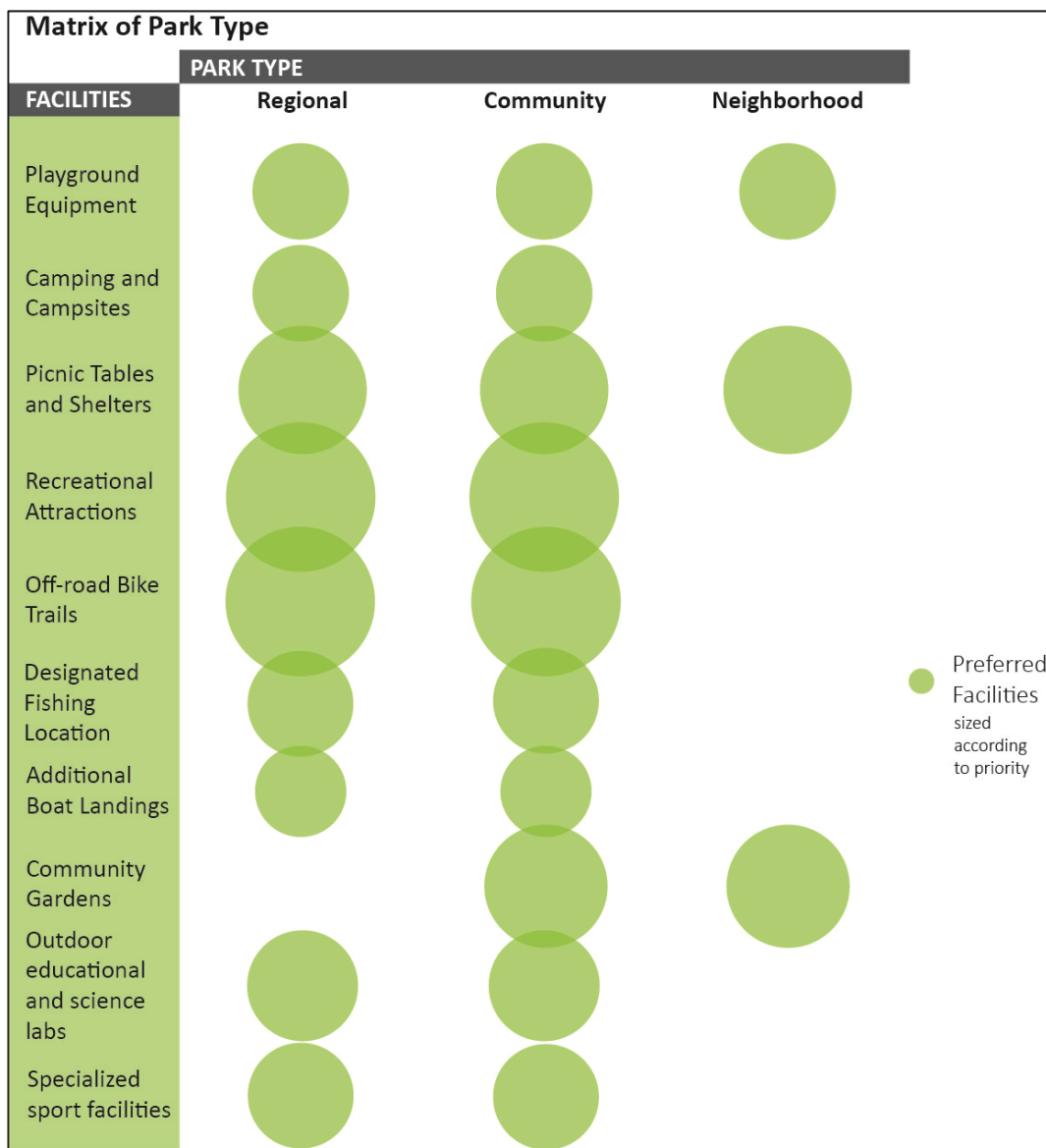
Pedestrian Plan. With the exception of a bridge at Viking Ship Park, the remaining three (3) locations (6<sup>th</sup> Avenue, 12<sup>th</sup> Avenue, and 24<sup>th</sup> Avenue) would have been technically and politically difficult prior to recent acquisitions along the River Corridor by the City of Moorhead. These three (3) locations are now feasible from a *planning perspective* given the development of a publicly owned corridor along the Red River in Moorhead.



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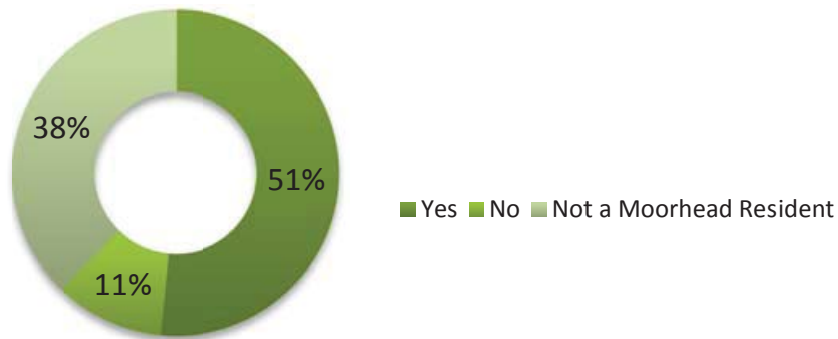
**Question 11:** Respondents identified amenities they believed should be a part of the River Corridor. The top five amenities for the river corridor were *off-road bike trails, recreational attractions, picnic areas, community gardens, and outdoor education/science labs*. Respondents *wrote in* other amenities they would like to see along the River Corridor, the most popular of which included dog parks and historic markers. It is worth noting that a dog park was identified as an ongoing need as part of the Regional Park Plan (2007) developed by the City of Moorhead.

Public comments were compared against the spectrum of City of Moorhead park types (see below). Comments suggest that if a new park were to be developed along the River Corridor in Moorhead, a regional or community park would contain the types and kind of amenities expressed by Moorhead residents. An area consistently mentioned by the Red River Advisory Committee and members of the public for possible expanded park opportunities was River Oaks Point.



**Figure 12:** Above a base maintenance condition which includes general mowing and management of respondents from Moorhead are willing to pay extra for infrastructure improvements (including) within the River Corridor. Eleven percent (11%) of Moorhead respondents indicated they are willing to pay extra for infrastructure improvements along the River Corridor. The remaining respondents were not Moorhead residents.

**Would you be willing to pay (extra) for infrastructure improvements or amenities within the river corridor?**







# Fargo-Moorhead Metropolitan Council of Governments

701.232.3242 • FAX 701.232.5043 • Case Plaza Suite 232 • One 2nd Street North • Fargo, North Dakota 58102-4807

Email: metrocog@fmmetrocog.org

http://www.fmmetrocog.org

## Red River Corridor Advisory Committee

### Meeting No. 1

December 13, 2012

Hjemkomst Center

#### Present:

Dave Thordal	Darline Swine	Tiffany Footitt	Kristie Leshovsky (City)
Bart Cahill	Jeff Andvik	Rae Halmrast	Tom Trowbridge (City)
Richard Jones	Julie Letourneau	Nancy Otto	Jake Coryell (Metro COG)
Bob Backman	John Brummer	Brenda Elmer	Joe Nigg (Metro COG)
Deb Kazmierczak	Eileen Scheel	Wade Kline (Metro COG)	Larry Anderson (City)
Larry Seljivold	Andrea Crabtree-Nayes (City)		

#### Review River Corridor Study Scope of Work and Discussion on Roles and Responsibilities:

Wade Kline opened the meeting and gave a brief explanation of the study process and intent. Mr. Kline provided a PowerPoint presentation to the committee which highlighted the roles and responsibilities of the committee, Metro COG, the City and the community at-large. Mr. Kline stated that the study would be completed in three phases, as follows: (Phase I) issues and needs identification; (Phase II) alternative policy and strategy development; and (Phase III) implementation plan development. Mr. Kline briefly discussed existing conditions on the river corridor and specifically noted a number of common themes, issues and opportunities as set forth in prior river corridor planning documents. Mr. Kline explained what a 'typical river section' could look like and highlighted the following as critical considerations as established within these past planning efforts: river contact points, expanded recreational features, expanded recreational features, continuous greenway and maintenance/operations. Mr. Kline noted there are a number of other factors that will play a role in the development of this study such as project interdependencies, river safety/security and river stewardship.

#### Discuss Corridor Vision Statement, Improvement Opportunities and Management Plan:

Mr. Kline reviewed the draft *vision* statement with the committee, which was developed in large part on a similar vision statement developed for the Grand Forks Greenway. John Brummer questioned whether there will be any interaction with the City of Fargo to ensure river corridor planning is seamless on both sides of the river. Mr. Brummer also noted private property rights and impacts to adjacent homeowners needs to be a consideration within this study. Eileen Scheel noted the river corridor in Moorhead is very different than the situation in Grand Forks/East Grand Forks. Ms. Scheel stated in GF/EGF the protection and buyouts are located in a more concentrated area whereas in Fargo-Moorhead the corridor is much more expansive. Ms. Scheel echoed Mr. Brummer's sentiment that private property rights were indeed important and that partnership/coordination opportunities with Fargo should be pursued as feasible. Council Member Brenda Elmer stated that Moorhead is probably a little ahead of Fargo in regards to flood mitigation and protection along the corridor. Mr. Kline noted that the City of Fargo will be included in the process and that Metro COG will likely intermittently meet with city staff to provide updates and gather data at appropriate times. Joe Nigg noted MAP 1 within the packet shows the extent to which acquisitions have been completed on the Moorhead side in comparison to acquisitions on the Fargo side. Mr. Nigg noted a majority of the acquisitions thus far on the Fargo side have been concentrated in areas south of 32<sup>nd</sup> Avenue South. CM Elmer questioned whether funding for recreational elements in the diversion project could be leveraged into any improvements on the river corridor? Council Member Nancy Otto stated those resources would have to be used for recreational amenities along the diversion route. CM Otto stated the study should give specific consideration to enhanced connections; such as ways to connect areas of public open space in downtown to areas such as Gooseberry Park. Ms. Otto stated these connections between points of interest could not previously happen due to private property and other associated barriers. Ms. Scheel stated the committee needs to take a look at where opportunity areas exist based on the technical data. Ms. Scheel suggested that homeowners adjacent to buyout lots previously looked at a nicely kept home and manicured yard; whereas they are now looking at a levee. Ms. Scheel stated individuals in Ward 3 are wondering what the city is going to do with all of this riverfront property? Larry Anderson stated the city has a ROW fund, which is collected as part of the Moorhead utility bill, and adequate resources should be in place for mowing and maintenance. Ms. Scheel noted that the

A PLANNING ORGANIZATION SERVING

FARGO, WEST FARGO, CASS COUNTY, NORTH DAKOTA AND MOORHEAD, DILWORTH, CLAY COUNTY, MINNESOTA

placement of natural/native plantings versus locations for turf grass seeding is a very important issue. Mr. Anderson asked the committee how the city should handle requests for leases. Rae Halmrast stated they have leased buyout lots from the city since 1997 and have used the property for bonfires, etc. Ms. Halmrast stated the city could do a better job educating the community that these leases are legitimate to deter trespassing and other inappropriate activities. Ms. Halmrast noted it should not be an issue if the city wanted to place a trail or path through a leased lot. Committee members questioned whether liability issues would exist if a trail was placed through a parcel that was leased. Tom Trowbridge noted this would be a legal question, but suggested it would be something that could be worked out. Mr. Kline asked whether priority should be given to adjacent property owners or, for example, is it ok for someone in Fargo to lease a buyout property in Moorhead? Ms. Otto stated this study needs to delineate the areas within the corridor that are appropriate for leases. Julie Letourneau asked whether a garden could be placed on the dry side of a levee. Andrea Crabtree-Nayes stated gardens will not be allowed on any buyout lots that have a levee. Ms. Halmrast stated it was unrealistic to have a garden in the river corridor due to animals and deer. Bob Backman stated the practice of leasing these buyouts parcels is interesting given the acreage was purchased with taxpayer dollars. Mr. Backman questioned the difference between leasing this open space and leasing a neighborhood park property. Mr. Seljivold stated the vision statement references “economic growth” and suggested this should be qualified. Mr. Backman stated research shows residential areas adjacent to green space have higher values. Mr. Kline summarized the discussion and noted the overall vision needs draw attention to the importance of connectivity and establishing a balance between private property rights and public open space opportunities.

Ms. Otto stated activity areas need to be identified for higher elevation locations and further suggested that a map depicting opportunity areas based on elevation would be helpful. Mr. Trowbridge stated a majority of the areas remaining where levee construction will occur are on outside bends of the river and thus have slope stability issues. Ms. Otto questioned whether a trail or path could be constructed below the geotechnical line. Mr. Trowbridge stated this was feasible. Ms. Scheel stated that proximity to residential areas and opportunity areas based on elevation need to be the initial analysis considerations. Mr. Kline noted that maps will be provided at the flood zone level which should allow the committee and the public to discuss details at the January public input meeting. Mr. Brummer stated the study needs to define what ‘active’ and ‘passive’ specifically encompasses. David Thordal stated at which time the detailed maps are produced they need to include data on the Fargo side as well; to allow the committee an opportunity to look at appropriate connections and to eliminate the possibility of duplicative infrastructure planning. Jeff Andvik asked if there was a boat landing anywhere in south Moorhead, and suggested a good location may be just north of interstate bridge on Rivershore Drive. Mr. Backman noted there is currently a boat landing between every dam, although not on both sides of the river. Mr. Andvik asked if the Moorhead Parks Department was pursuing any grant funding from the Legacy Grant Program (specifically Lessard-Sams Outdoor Heritage Grant). Mr. Anderson stated a grant was recently submitted for certain improvements to Johnson Park. Ms. Scheel stated that any improvements identified or constructed need to have a funding source to maintain it properly. Mr. Anderson noted Riverkeepers are looking to partner with the Moorhead Parks Department and Fargo Park District to improve trail maintenance. Ms. Halmrast stated local groups (such as boy-scouts) could be approached to help with some of these on-going maintenance projects.

On the subject of community gardens, Ms. Otto stated a majority of these turn into weed lots and it is not a good neighborly use to allow on the river corridor. Committee members noted a water source is needed in order to implement a community garden. Mr. Anderson stated community gardens might be most appropriate in industrial zoned areas that have vacant lots. Mr. Backman stated Moorhead needs to get rid of the deer because they are not appropriate in an urban setting. Mr. Kline asked how, and if, cultural and historical elements should be incorporated into the river corridor. Ms. Otto stated this type of information brings interest to the areas. Ms. Scheel stated this should be the final step, but first the committee and city need to figure out how to address some of the core maintenance and programming issues.

Following a formal discussion session, the meeting transitioned to an open forum where the advisory committee discussed study area maps with Metro COG and City staff. Specific comments regarding the study area maps would be integrated in with general public comments.

#### **Next Steps:**

Mr. Kline stated a public input meeting will be held in the middle of January and committee members will be kept apprised as the date/time and details are determined.

## Comments to F-M Metropolitan Council of Government

### Regarding the Red River of the North Corridor Study 1/15/2013

- **It is appropriate to consider all aspects of the corridor as it relates to surrounding real estate within the corridor. The forces of value that effect the property include, and are not limited to: Geographic, Economic, Legal, and Social.**
- **Geographic:** The corridor is unique. It consists of pieces of private property that now have become publicly held property. Previous management of the pieces varied from very well maintained irrigated and landscaped parcels, to parcels that were almost in original wild land state. Not all of the parcels are contiguous. There are still individual properties that extend to the river and thereby end the continuous nature of the corridor, placing it into segments.
- **Economic:**
  - Subdivision makeup-** The acquisition of the flood buyout properties has changed the makeup of the subdivisions as they were originally intended.
  - Street utilization-** In some cases there are cul-du-sacs that serve half of the number of households as they previously did. The amount of ownership of underutilized streets is thereby increased.
  - Lawn Maintenance-** The maintenance of the property can become a great burden upon the local governments if not planned for. If maintained as previously, the amount of grass to be mowed by the Cities is greatly increased.
- **Legal:**
  - What liabilities do adjacent property owners have as to the unintended uses of the adjacent property that may overlap onto private property?
  - What liability do the cities have for a lack of management when it affects the adjacent property owners? ie: fire suppression, weed control, forestry, wildlife management.
- **Social:**
  - What are the appropriate recreational, open space, park, nature preserve or other uses for the property that can have a positive influence in the neighborhoods and the community overall? Should the corridor be segmented as to use, or should it be broad based? How will existing police, fire, park, forestry and wildlife management resources be utilized to properly manage the corridor? Will the community willingly financially support the level of management required to create the outcomes expected?

Respectfully submitted, Gary and Valerie Bock, 110 37<sup>th</sup> Ave South, Moorhead, MN

## GERALD (GARY) & VALERIE BOCK

110 -37th Avenue South, Moorhead, MN 56560 218-233-0885

July 21, 2012

Lisa Vatnsdal  
Neighborhood Services Division  
City of Moorhead  
500 Center Avenue  
Moorhead, MN 56560

Dear Lisa,

In response to the letter we received dated July 17, 2012 regarding the Natural Environment Plan for the permanent levee, we would offer the following recommendations as affected adjacent property owners.

First of all we would like to complement the City for their diligence in pursuing this project. Griffin Construction is to be especially complimented for the efficient manner in which they have operated while constructing the levee.

Our concerns with the Natural Environment Plan are not objections as such but are intended to address or concerns regarding establishment, maintenance as well as management in the future. All of these issues are related, and should be addressed from the outset.

We are very much in favor of establishment of this type of plan, so long as it addresses State Statutes concerning control of Prohibited and Restricted Noxious weeds. Thistles are certainly a concern, but special consideration should be given to Russian Knapweed, which if allowed to propagate, will eliminate virtually

every other species of grass or forb. Additionally, the long grass will provide good habitat for Mosquitos, which are carriers of West Nile Virus.

Mosquito control of these areas should also be addressed. If the city still has mosquito control as part of its budget, it may need to be adjusted as such. If not, then those adjacent to the river may have to form a cooperative or other organization to address the issue, since it would prove to be costly and ineffective for any of the adjacent property owners to accomplish on their own.

Environmental conditions will vary from year to year, and consideration as to fire protection in these areas needs to be considered. Allowing excess growth to accumulate can provide a tremendous amount of fuel for a grass fire, which can quickly turn into an urban forest fire.

Access to the space is another concern. Is it to become public space, like parks, or is access and use going to be restricted? Since construction, we have observed bon fires along the river at the former 118 address. People have also been observed using the same location to fish from the river. Several vehicles (not related to the construction) have been driving along the wet side of the levee, and turnaround when they get to Rogers's property.

In conclusion, we are concerned about fire when we smell the smoke from the bonfires, understand how weeds spread, and have endured overpopulation of Mosquitos. A natural environment plan is a great idea, it just needs to be managed and maintained in a manner that is adapted to a metropolitan environment.

Sincerely yours,

Gary and Valerie Bock



Public Input Meeting  
Moorhead River Corridor Study  
Public Input Meeting #1



**Public Comment Form**

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Re-forest and restore!

No motorized usage, please.

Thank you for your input!



Public Input Meeting  
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From the perspective of a cross-country skier, the proposed bridge between MBS Johnson Park and Fargo would greatly expand the skiing opportunities in this area. If these two sites could be connected, we would have a 15-20 K (kilometer) trail. Currently, we have several trails (Gooseberry, Viking Ship, MBS, Edgewood, Lindenwood-Dike West) of 6K or less. Given that ski races in the region are 10K, 20K, or 50K, training on these short trails is not sufficient. With better trail systems, it would be easier to hold youth ski programs and more people would join in. We have a great climate for cross-country skiing, and with better and more expanded trails, we could really take advantage of staying active in the climate. Grooming trails is tricky, and the Prairie's Edge Nordic Ski Club is a great resource for learning this skill.

Thank you for your input!



Public Input Meeting  
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I would like the opportunity to lease the two adjacent properties to my property at 4503 River Haven Road. I would mow and maintain these properties without building on them.

Thanks Bert McRough

Thank you for your input!





Public Input Meeting  
Moorhead River Corridor Study  
Public Input Meeting #1



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Would like to see connecting paths/trail  
from Memorial Park to Gooseberry Park.

Would like to see historic markers & benches  
along the path/trail for notable areas.

Make sure to retain right of way  
south of Gooseberry to city border  
for future paths/trails.

Levees are paid with public money &  
should have public use.

Thank you for your input!



Public Input Meeting  
 Moorhead River Corridor Study  
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Whatever is decided for use of  
 public property in the river corridor,  
 access and use should be free & open  
 to everyone all year round.

There should be no restrictions since  
 the river belongs to everyone and we  
 are entitled to use it, and enjoy it.

Row Steger  
 1217 Oak St N  
 Fargo, ND 58107-2706

Thank you for your input!



Public Input Meeting  
Moorhead River Corridor Study  
Public Input Meeting #1



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There should be no leases of  
publicly owned lands adjacent to the  
river to private entities.

Thank you for your input!



Public Input Meeting  
Moorhead River Corridor Study  
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- I'd like to see more bike/walking paths <sup>along</sup> ~~along~~ the river, and connecting to Moorhead bikeways on existing streets, and Fargo's path system
- It would be good to have paths or stairways at regular points along the levees to invite people to go up + over, either to get to a path, or to get to the greenspace along the river
- I suggest having displays/signs at various points with information about
  - geology of the river
  - history - e.g. ~~Swimming~~ <sup>Swimming</sup> old area at 6th Ave S + river, where old bridges <sup>were</sup> ~~is~~, where steamboats docked, etc. including some old photos.
  - Assuming the Power Plant will be demolished, save some relics of it - equipment, etc., and make it part of a "defiant garden" then
- In terms of recreational/bicycle use, I find the 8th St/24th Ave S. intersection an impediment. I live at 24th Ave S + 12th St. I'm reluctant to bike or even walk to Gooseberry Park or <sup>Summit</sup> ~~Summit~~ →

Thank you for your input!

because it feels so dangerous to cross  
8th St. there, and it's unpleasant.  
Huge, busy intersections such as that are  
impediments to recreational use. There  
must be a way to make them safer +  
less unpleasant.

- It would be nice to establish some  
community gardens on some of the land  
the city has recently acquired -  
e.g. there's high, suitable land in the  
Woodlawn Point area

Mark Chekola  
1203 - 24 Ave, S.



Public Input Meeting  
Moorhead River Corridor Study  
Public Input Meeting #1

JAN 25 2013



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Our names are Rick & Donelle Dauner and we live at  
26 36<sup>th</sup> Avenue Circle South. We would like the possibility of buying the  
adjacent property to the North of us with the possibility of building a  
garage there in the near future. There is ample room for a garage  
to fit between the new dike and the street. We feel this would be  
a great situation for both the City of Moorhead and ourselves. This would  
provide the City with additional revenue each year because of increased  
property taxes generated and the city would not be responsible for the  
upkeep of the property. Thank you for considering our recommendation.  
We can be reached at \_\_\_\_\_

Sincerely,

Rick & Donelle Dauner

Thank you for your input!

## Wade Kline

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**From:** Joe Nigg <nigg@fmmetrocog.org>  
**Sent:** Wednesday, January 16, 2013 12:25 PM  
**To:** 'Wade Kline'; Jake Coryell; hamilton@fmmetrocog.org  
**Subject:** FW: Hello

Add this to the pile of comments received. I did respond to him and told him at which point we have some draft alternatives, strategies and recommendations we can meet up with him to further discuss.

Joe

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**From:** [tom.heilman24@gmail.com](mailto:tom.heilman24@gmail.com) [<mailto:tom.heilman24@gmail.com>]  
**Sent:** Wednesday, January 16, 2013 12:08 PM  
**To:** [nigg@fmmetrocog.org](mailto:nigg@fmmetrocog.org)  
**Subject:** Hello

Hello Joe,

It was a pleasure visiting with you last night. I appreciate you taking the time to get the public's feedback on what should be done with the riverfront corridor and wanted to follow up with my contact information. As I mentioned last night, The Fargo Moorhead Trailbuilders are a community organization in the area that are dedicated to helping expand, educate, and develop off road trail access for the community and surrounding area. We are a volunteer group of individuals who represent a growing and involved community of outdoor enthusiasts in the local region.

We've been working with Moorhead Parks and Recreation for the past couple of years in cleaning up the MB Johnson Park and developing multi use and mountain bike trails. Official signage and trail maps are now being made available with help and cooperation with Moorhead Parks and Recreation. I know I mentioned it last night, but the response has been more than I ever anticipated and many, many thanks and inquiries about expansion are coming in a frequent basis. Although the winter months tend to reduce the trail traffic, there is still a subset of people who use the trails with off-road snow bikes, xc skis, and/or snow shoes so it's fun to see the year round use.

I'd love the opportunity to meet up with you again over a cup of coffee to visit about the future of the FM riverfront corridor and what we may be able to help with.

Keep up the good work! I appreciate what you are doing!

Kind regards,

Tom Heilman  
Cell: 701.200.3443

**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, December 31, 2012 9:58 AM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Flood Buyout and Riverfront trails

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**From:** Rory Beil [mailto:[rorybeil@dakmed.org](mailto:rorybeil@dakmed.org)]  
**Sent:** Wed 12/5/2012 4:36 PM  
**To:** Mark Voxland  
**Subject:** Flood Buyout and Riverfront trails

Mayor Voxland,

Good afternoon. I hope all is well with you. I wanted to drop you a note as the City of Moorhead decides what to with the land available from the flood buyouts. You know one of my goals is the help make Moorhead and Fargo the healthiest place in the U.S. to raise a family. With that said, I hope you will consider using some of the land from the flood buyouts to create a comprehensive off-road trail network for bicyclists, runners, skiers, hikers, etc. It seems there is a continually growing demand. I have read recently that one of the most appealing traits a city can have to attract young professionals is a vibrant active community. Even if a person isn't currently physically active, seeing it in a city is very appealing. Last summer I rounded up 3 mountain bikes for my brother and 18 and 19 yr. old nephews from Florida so we could pedal the awesome trails at Johnson Park. When they needed to make an unexpected trip back in the Fall for a funeral they quickly emailed me asking to find bikes for them again. Johnson Park is tremendous. It would be even better to expand the current trail system.

Thanks.

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Rory Beil | Director of Cass Clay Healthy People Initiative | Dakota Medical Foundation  
[www.healthyc.org](http://www.healthyc.org) | [www.fmstreetsalive.org](http://www.fmstreetsalive.org)  
Tel (701) 893-6366  
[Twitter: Healthypeoplecc](https://twitter.com/Healthypeoplecc) | [Twitter: fmstreetsalive](https://twitter.com/fmstreetsalive) | [Facebook: Cass Clay Healthy People](https://facebook.com/CassClayHealthyPeople) | [Facebook: fmstreetsalive](https://facebook.com/fmstreetsalive)

*Transforming our communities to make active living and healthy eating the easy choice.*



## Wade Kline

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, December 31, 2012 9:58 AM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: River Front

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**From:** [fmtrailbuilders@gmail.com](mailto:fmtrailbuilders@gmail.com) [<mailto:fmtrailbuilders@gmail.com>]  
**Sent:** Wed 12/5/2012 8:34 AM  
**To:** Mark Voxland  
**Subject:** River Front

Hello Moorhead City Officials and Staff,

First off I want to express our groups gratitude for the team work with Moorhead Parks and Recreation and Fargo Moorhead Trailbuilders to bring the only non-paved multi-use trail system to the area at MB Johnson Park. It's been a lot of planning, time, and work to get it off the ground this year, but the response by the public has been outstanding.

If you don't already know, our International Mountain Biking Association (IMBA) associated club has teamed up with Moorhead Parks and Recreation for the last two years to create a trail system through the wonderful riverbanks of MB Johnson Park. We are finalizing the signage and maps this spring and will have a more comprehensive philosophy going forward.

As a long time participant in this cause, I've been truly amazed at the response we've had for support and appreciation of this type of environment for appreciating what the beautiful river scenery and outdoors is all about. Living fairly close to the park has given me the ability to visit it on a frequent basis as well as help to maintain the trail, see firsthand how much use the trail system has gotten, and visit with many of the patrons. Every time I visit the park there are new faces on the trail, biking, hiking, or just enjoying the outdoors nearly every person I come across is smiling and so happy to be able to enjoy a small park area away from the concrete and traffic.

I read the article in the paper a few weeks ago about the planning committees looking for ideas on what to do with the land attained via the flood buyouts. Certainly it has to be difficult to decide, but on behalf of our entire organization and everyone who has gotten a chance to ride a bike on a dirt trail up and down the river bank, I would like to suggest that whatever you decide, to please consider a comprehensive non paved trail system for biking and or hiking.

Communities all over the country are adopting this idea to great success. You may have seen the recent article in The Forum about what Duluth is doing in this regards and is using as a tool to attract young professionals to the community. I can't say enough how important this is to generation of people in their late twenties and no thirties. It's a group of individuals who grew up on BMX bikes, mountain bikes, roller blades, and skis; and one the major things they look for when picking a permanent home is access to these activities.

I would greatly appreciate the opportunity to visit with you about this and what our club may be able to do to help.

Please contact me at the information below and we can figure out a time that would work.

Kind regards,

Tom Heilman

President

Fargo Moorhead Trailbuilders

701.200.3443

[fmtrailbuilders@gmail.com](mailto:fmtrailbuilders@gmail.com)

**Wade Kline**

---

**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:35 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Moorhead's riverfront ideas

more

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**From:** Brandon Huether [mailto:huetherdesign@gmail.com]  
**Sent:** Sat 11/3/2012 10:21 PM  
**To:** Mark Voxland  
**Subject:** Moorhead's riverfront ideas

Mayor Voxland,

As a previous resident of Moorhead and now a current resident of Fort Worth, Texas, I suggest ideas similar to those implemented by my new home of Fort Worth's Trinity River Vision. The entire river front of the Trinity River in both Dallas and Fort Worth have become a booming area for residents and visitors. (<http://www.trinityrivervision.org>) Please take a serious look at this project as an influence and I promise you will come away with ideas.

Thank you,

Brandon Huether

**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:36 PM  
**To:** kline@fmmetroco.org  
**Subject:** FW: open space use

more

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**From:** david chenoweth [<mailto:davidchenoweth@yahoo.com>]  
**Sent:** Sat 11/3/2012 8:14 AM  
**To:** Mark Voxland  
**Subject:** open space use

Keep it semi park like. Put some parking places along it so the public can enjoy walking trails along the way. There are a lot of wonderful birds and animals to enjoy if we can get access to them. Also make it possible to have access for fishing. Boat ramps are not needed as the amount/number of tree limbs is outrageous which makes it unsafe for any kind of boating.

On a unrelated comment. Will the people who refuse the buyouts be charged for the city to protect them from flooding? If not, they should be charged for some of it.

Keep up the good work.

**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:38 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Riverfront Ideas

another

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**From:** dennis hoff [mailto:dehoff03@gmail.com]  
**Sent:** Sun 11/4/2012 1:21 PM  
**To:** Mark Voxland  
**Subject:** Riverfront Ideas

Mayor Voxland,

Please consider more off-road bicycle trails for the possible development along the riverfront. Offroad bicycle trails such as the ones that have been worked on at MB Johnson Park provide a great use for the land near the river.

The trails can be used for other activities as well, such as running, walking, and cross country skiing, and can be a benefit for people of all ages and help them enjoy the great outdoors while staying close to home. The increased traffic and additional ground that can be covered by a bicycle in these areas can also help deter crime.

While a paved mutl-user trail could also be of benefit to the space, the addition of offroad trails would also help keep many of the college and younger adults in the metro area instead of loading their \$5k mountain bikes on their cars and driving to either Cuyuna County State Recreation Area, or any of the other trail systems in Minneapolis or Duluth and spending their money here.

Thanks,

Dennis Hoff

**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:39 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW:

ideas

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**From:** Erin Riley [mailto:[specializedlandscaping@gmail.com](mailto:specializedlandscaping@gmail.com)]  
**Sent:** Sat 11/3/2012 11:47 AM  
**To:** Mark Voxland  
**Subject:**

Mark

I saw the story on the greenway this morning. I have spent hundreds of hours researching and designing a greenway for our city. Please visit this link and forward it to the planning committee.

<http://library.ndsu.edu/repository/handle/10365/20125>

Thanks

--

**Jesse Riley**

529 13th St. NE  
West Fargo, ND 58078  
[specializedlandscaping@gmail.com](mailto:specializedlandscaping@gmail.com)  
[www.sldfargo.com](http://www.sldfargo.com)  
**Office:** (701) 356-0160

**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:40 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Moorhead Riverfront Ideas

more

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**From:** [jeremy@gncycles.com](mailto:jeremy@gncycles.com) [mailto:[jeremy@gncycles.com](mailto:jeremy@gncycles.com)]  
**Sent:** Sun 11/4/2012 8:20 PM  
**To:** Mark Voxland  
**Subject:** Moorhead Riverfront Ideas

Mr. Voxland,

I know there are a number of people in the FM area that would love to see the Riverfront land used to create more offroad bicycle trails. The work being done at MB Johnson Park offers some great insight into the growth and interest for this type of project. Please take this into consideration. Thank you.

Jeremy Christianson, cyclist

## Wade Kline

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Monday, November 05, 2012 7:47 PM  
**To:** kline@fmmetroco.org  
**Subject:** FW: Riverfront Ideas

another

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**From:** rkolbe@kolbecompany.com [mailto:rkolbe@kolbecompany.com]  
**Sent:** Sat 11/3/2012 11:34 AM  
**To:** Mark Voxland  
**Subject:** Riverfront Ideas

- Restrooms.
- Make sure all dams have been rocked so that it forms a rapid. Fargo should help with that.
- Create ponds on the bottomland that would be replenished by spring high water. Fill with fish for the 12 & under only.
- Clear the snow off these ponds for skating in winter.
- Create small waterways to encourage wildlife to take up residency.
- Build flood (& fire) proof gazebo-like structures around these ponds for shelter with a firepit for warmth in winter.
- Trails, trails, & more trails. Follow where people have already use. Paved for bicycles. Wouldn't it be cool to be able to bicycle from the far reaches of town along the river without dealing with cars, stop signs, & traffic signals?
- Lights, Christmas type, all year round. Maybe have people sponsor lighting trees.
- Interpretive signs. Not just the nature type, but historical type, with photographs of what was there before, such as buildings, neighborhoods, industry, recreation.
- Kayak rentals for the more adventuresome.
- River cruises.
- Boat launch.
- Flood resistant consession stands where vital items can be removed easily before water gets to them.
- Could a floating restaraunt work on the Red?
- Softball fields.
- Soccer fields (pitches).
- Tennis courts.
- Basketball courts.
- Floral gardens.
- Community garderns.
- Amphitheater for music events.
- Did I mention restrooms?

Hi Mark:

I'm a former NDak'r (Wahp) & don't know much about what already is there. I do know from the my relations that still live in F/M that numerous homes, particularly on the M side, were bought out along the river. I'm assuming that makes a much wider swath of land along side the Red that can be used for something. Sounds like a good asset for the community. I've always thought that the riverfronts all up & down the Red have been under utilized. Good luck with this.

Ron Kolbe

## Wade Kline

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Thursday, November 08, 2012 6:45 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: RIVER FRONT DEVELOPMENT

for the committee

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**From:** Booker, Darryl [<mailto:Darryl.Booker@ndsu.edu>]  
**Sent:** Sat 11/3/2012 10:20 AM  
**To:** Mark Voxland  
**Cc:** Vorderbruggen, Joan; Booker, Darryl  
**Subject:** RIVER FRONT DEVELOPMENT

Hi Mark,

Joan and I would love to Join the committee you have established to generate ideas about the newly acquired river front public land. As Moorhead residents, architects, and teachers I think we can contribute to this process.

We reside at 1203 Elm St. South.  
WE look forward to hearing from you

Regards,

Darryl

--

Darryl Booker, AIA, Associate Professor  
North Dakota State University  
College of Engineering & Architecture  
Dept. of Architecture & Landscape Architecture  
Renaissance Hall  
650 NP Ave  
Fargo, ND  
58102  
701. 231.8227  
[darryl.booker@ndsu.edu](mailto:darryl.booker@ndsu.edu)



**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Saturday, November 10, 2012 3:12 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Riverfront Ideas

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**From:** Mark Voxland  
**Sent:** Thu 11/8/2012 6:47 PM  
**To:** kline@fmmetrocog.org  
**Subject:** FW: Riverfront Ideas

for the committee

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**From:** Johnson, Zachary [mailto:Zachary.Johnson@sanfordhealth.org]  
**Sent:** Thu 11/8/2012 3:45 PM  
**To:** Mark Voxland  
**Subject:** Riverfront Ideas

I love the idea of using riverfront acreage for recreational use. Specifically, off-road trails (similar to those already built and maintained in MB Johnson Park)  
I've gotten lost in the narrow patch of trees along the winding Red River right here in town! A properly built/maintained trail would be an excellent, non-invasive, health-focused, economy-stimulating use of the land.  
I could speak more to the benefits if needed, or direct you to the Fargo Moorhead Trail Builders (a group of passionate, local trailbuilders, riders, and health advocates).  
Thanks Mark!

**Zach Johnson**  
Market Intelligence  
Sanford Health  
office.701.234.4254 cellular.515.491.5499  
[zachary.johnson@sanfordhealth.org](mailto:zachary.johnson@sanfordhealth.org)

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**Wade Kline**

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**From:** Mark Voxland <mark.voxland@cityofmoorhead.com>  
**Sent:** Wednesday, November 14, 2012 4:57 PM  
**To:** Wade Kline  
**Subject:** Fwd: Green space ideas

*Sent from my Verizon Wireless 4G LTE DROID*

----- Original Message -----  
Subject: Green space ideas  
From: marty carrie <mcstravel@hotmail.com>  
To: [mark.voxland@cityofmoorhead.com](mailto:mark.voxland@cityofmoorhead.com)  
CC:

Dear Mayor Voxland,

My ideas for our new green spaces because of the homes that were bought out are:

Keep them green! Plant grass & some evergreens staggered near the dikes. Mow them & keep them weed-free. Plant trees on the "boulevard" areas to get them back to looking like part of the neighborhood again. Keep all watered until established.

Biking & walking trails would be ok.

Maybe allow people on the dry-side to plant vegetable gardens across the street if they help keep their area maintained by mowing, etc. But only charge minimal rent because they will be helping to keep city costs down.

Thank you for your time,  
Carrie

A resident on the dry-side who now looks out across the street at a boring looking mound of earthen dike

## Wade Kline

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**From:** Carolyn Lillehaugen <mcille@i29.net>  
**Sent:** Thursday, January 24, 2013 12:16 AM  
**To:** kline@fmmetrocog.org  
**Subject:** Moorhead River Corridor Study

✓ LAC  
BM  
pls AB  
Water County

Mr. Kline,

Thank you for the opportunity to submit comments regarding the future of the river corridor in Moorhead. I appreciated the open house last week to review the maps and discuss them with others.

I'd like to begin by giving you a little background about myself. I would consider myself a heavy user of the trails, especially those in the river corridor. I began using the trails as a college student in the early eighties. When I moved back to town in 1992, I purposely chose to live near the river and one reason was easy access to the bike trails. We are now in our third house in Moorhead and still live along the river. We were flood buy-outs last year, and in fact our first home is now gone as well. I work at Concordia and whenever possible, I ride my bike to work (3.3 miles) from my home in south Moorhead. Since I also use my bike for work out purposes, I usually take a less direct route home which puts me on roads and trails all over town. Biking has been a family activity as well and we enjoy the separated bike trails. This was especially true when our boys were young. I also cross-country ski 4-6 days a week (when there is enough snow – tough lately!) and most of that is on the river or in the areas next to it.

I also do some traveling for work and vacation and I usually travel with my roller-blades. When I visit different cities, I look for paved trails for blading and many of the great trails I've found have been along rivers. Therefore I am excited about a renewed interest in making use of this corridor to improve the recreational resources of this community. While I realize this is the Moorhead River Corridor Study, and I am a Moorhead resident, I most certainly view this as a community initiative involving both sides of the river. My main interests lie in additional trails and bike/pedestrian bridges to cross the river so I will focus on those areas.

### Bike Trails

I like the concept of continuous bike trails on both sides of the river. With the removal of so many homes along the river, possibilities exist today that were unthinkable just a few years ago. While this opens up new areas, I also know that it can't entirely happen as there are still private homes along the river and it seems unlikely that the Country Clubs would allow bike trails on their property. There is also this little thing called money. ☺ So, priorities need to be set and we should try to not duplicate on one side of the river what already exists on the other side. Since there is already a good trail on the Fargo side between Lindenwood Park Oak Grove Park (and actually pretty easy access to the toll bridge), and in Moorhead between the floating bridge and Oak Grove, Moorhead should concentrate on areas north to Johnson Park and south to Trollwood.

Ideally I'd like to see paved trails where possible and the section from Gooseberry to Horn Park would be a good place to start. Since this will need to be implemented in stages, could areas be cleared and a crushed lime rock be used until funding is secured for paving? The Luce Line trail in The Cities and the Elroy-Sparta Trail in Wisconsin are examples where this has worked well and is still bike-able. When creating these trails, it would be good to leave as many trees as possible. I realize some tree removal would be needed to create trails, but that should be kept to a minimum. Having tree lined trails is important. One of the most enjoyable trails used to be the perimeter trail in Lindenwood because of the winding trail in the woods. It is now where the ski trail is groomed in the winter.

### Other Trails

In addition to paved bike trails, there are areas where trails could be cleared for hiking and skiing. Current examples include the aforementioned ski trail in Lindenwood, trails in Johnson Park, the trail from the Lindenwood bridge to the toll bridge. The clearing here is more of a wide swath cut through the weeds. But, it does create a separated trail both for

hiking and skiing. Another example is one that has fallen into disrepair, but could easily be cleaned up. This is the trail Greg Slette created in River Oaks Park as his Eagle Scout project about a decade ago. This (Eagle Scouts) could also be another source for manpower to clear and maintain trails. A good location for one of these is in the woods behind Tessa Terrace and Trollwood.

### Bike Bridges

The maps listed several possible locations for additional bridges. Of those, the ones I would prefer would be at Trollwood in south Moorhead and Johnson Park in north Moorhead. This would coincide with my preferences for trails.

During the biking season, I use the Gooseberry bridge almost daily. The last couple of years have been extremely difficult as it has been out of commission so much. I am very excited about the new bridge that has been built there! This bridge has often been a problem and has been swept off its foundation several times. With the completion of this bridge, we should be fine in the central part of town. I believe there have been plans to also replace the Oak Grove bridge. I would say that it is adequate and has been less susceptible to damage than the Gooseberry one. Gooseberry was a good choice to replace because it is a long way to another crossing when it is out of service. If Oak Grove is out, either the toll bridge or 1<sup>st</sup> Ave North are reasonable alternatives. Likewise, if the floating bridge is out, Main Ave is nearby.

On the other hand, a bridge in Johnson Park is a long ways from another crossing, as is Trollwood (MIID). Again with my preference to extend trails to those locations, bridges there would be ideal. I think one at the far end of River Oaks Point may prove to be too flood prone, but could be an ok location. In the past I had advocated for a bridge there, but now that Trollwood has been built, I would prefer the Trollwood option of the two.

### Other Issues

Once trails of any kind are developed, they need to be maintained. This has been a major beef of mine since we moved to town. I know the river causes problems and when it rages there are many concerns, but maintenance is a concern at other times as well. When I think of maintenance I include many things including, major repairs like replacing cut out or washed out sections; resurfacing; cleaning up the messes made by maintenance/mowing crews. We have this nice trail system, one that I hope will be getting even better, yet it doesn't seem to get enough attention. I don't know if anyone from the jurisdictional areas ever ride the trails to check their condition. Or, can there be a system where citizens can report problems since we are on the trails.

I have a concern that with all this land added to the city (park system) that it is just going to get overrun. Without homeowners taking care of their properties, many are already overgrown. I do a lot of skiing in the winter and it is very difficult to access the river right now, the most difficult that it has been in the 20+ years I've been skiing on it.

Another concern is that of sufficient surveillance. Without homeowners along the river, and much of it down and out of sight, we need more police presence for the safety of people and property. Let me give a couple examples. I live next to River Oaks Park. Many times last summer people were having bon-fires along the shore just upstream of the dam, cutting down and burning trees from the park. It's downhill and can't be readily seen from the road. With as dry as it was last summer, this was an even greater danger. A couple of times this winter, drivers have been joy-riding through the parks and treating the new dikes as a slalom course.

The point is that our current city-owned land is not being adequately protected and with such an increase in acreage, even more will need to be done in this area.

I know this is rather long, and I appreciate the ability to give you my input. As I said I am a heavy user of the trails and would like to see more people use them. I notice many people on the trails in our cities. The trails are a great resource and we should do as much as possible to make sure people know about them and use them. We have a good system in place and I look forward to it being even better. I would be happy to talk with you more about this project, so please feel free to contact me.

Sincerely,

Mark Lillehaugen  
4233 South Rivershore Drive  
Moorhead, MN 56560

236-0781 (H)  
299-3150 (O)

# GENERAL PUBLIC COMMENT SUMMARY

## 1/15/2013 - Public Input – General Comment Summary (by comment type)

### Suggestions

Zone 1- Canoe portage at dam?  
Connect MB Johnson and Trollhead  
Tree Tour Guide?  
Easement by levees in zone 8  
Connect MB Johnson to Edgewood  
Connect North Moorhead Davey Park to MB Johnson for the ultimate trail experience  
Connect trails at MBJ to Edge  
Bicycle/Walking Paths along River- connect to Fargo  
Priority 6th Ave and gooseberry  
Connection from Gooseberry to Trollwood  
Create “Loops”  
Bike Paths below 40 ave S?  
Nature Trails  
Connect MBJ to Edgewood  
Trails 1st where there is no Fargo Trail (Yes!)  
One new Bridge, but replace bridge at Oakgrove Gardens  
More bike bridges connecting to Fargo  
Easements for trails  
New Bike Ped path at 3 St S and zone 6/7  
Food Gardens  
Easement possible in Zone 8 by levees?  
Prairie’s Edge Nordic Skiers (For Trail Grooming)  
Trails at Trollwood-nice areas  
New trees/sound barrier at bottom of zone 4 along existing flood levees  
Woodlawn trail connection?  
easements for continuous system  
cross x-ski trails @ 8 st and 22nd Ave S – similar to Fargo  
Make Natural Planting Zone a priority  
Re-forest and restore  
No motorized usage  
Connect MBJP to Fargo to expand skiing opportunities  
Ski trails for training, youth programs, and tourism  
Connecting paths from Memorial park to Gooseberry Park  
Historic Markers  
Benches  
Retain right of way south of gooseberry to city border for future paths/trails  
Corridor should be for public use

### Observations

Social/Economic Impact of trails is huge  
Lake at the Isles- ex. Natural vegetation  
bridge off of i-94 will be out of the flood plain  
Not all parcels are contiguous.

There should be no leases of publicly owned lands adjacent to the river by private entities  
Bike and walking paths along river connecting Moorhead bikeways on existing streets and Fargo path system  
Paths and stairways at regular points along the levees to invite people over  
Display signs with information concerning geology of the river and history  
Save relics from power plant for display  
Non-paved multi-use trail system like that at MBJP  
Land should include a comprehensive non-paved trail system for biking/hiking/running/ski  
Expand trails at Johnson Park  
Create an urban waterfront community like that of Trinity River Vision in Fort Worth Texas  
Open Space Use  
Parking Spaces for public  
Walking Trails  
Fishing  
Off road bicycle trails  
Trails for running, walking, cross country skiing  
Used by all ages  
Restrooms  
Make sure all dams have been rocked so that it forms a rapid  
Create ponds on the bottomland to be replenished by spring high water – with fishing for 12 and under, skating in winter  
Year round use  
Small waterways to encourage wildlife  
Flood/fireproof gazebo structures for shelters with firepit for warmth in winter  
Christmas like lights year round  
Nature/Historic Signs with old photos  
Kayak rentals  
River cruises  
Boat launch  
Flood resistant concession stands  
Floating restaurant  
Softball, soccer, tennis, basketball areas  
Floral gardens  
Amphitheater for music events

Individual properties still extend to the river  
Buyouts have changed makeup of subdivisions  
Some cul-de-sacs now serve half as many households as before  
Ownership of underutilized streets is increased  
Maintenance of property by local governments is

burdensome.  
Ski races tend to be 10,20, 50K  
Nordic Ski Club can teach trail grooming  
Access should be free and open to everyone year round  
because the river belongs to the people

Support and appreciation of natural trail environment with  
beautiful river scenery and outdoors.  
Duluth is using trails/active community to attract young  
professionals  
Too many tree limbs for boating, unsafe

### Questions

Is the use of the space to be public or restricted?  
What liabilities do adjacent property owners have adjacent  
property owners have as to the unintended uses of  
adjacent property that may overlap onto private property?  
What liability do cities have for lack of management that  
affects adjacent property owners (i.e. fire suppression,  
weed control, forestry, wild life)?  
What are the appropriate uses for property that can  
benefit the community?

Should the corridor be segmented as to use? Or broad  
based?  
How will existing resources be utilized to properly manage  
the corridor?  
Will the community willingly support the level of  
management support financially?  
Will people who refuse the buyouts be charged to protect  
them from flooding?

### Concerns

Year round maintenance needs  
Maintenance  
Trail grooming  
DNR Funding for Grooming  
Individual properties along River are circled  
Concerns regarding establishment, maintenance and  
future management.  
Concerned about control of noxious weeds such as thistles  
and Russian knapweed.

Concerned about mosquito control.  
Fire protection.  
Access and use of space  
Aspects of corridor as it relates to surrounding real estate  
and value  
Funding/Financial Support  
8<sup>th</sup>/24<sup>th</sup> intersection is dangerous

### Other

Riverside!  
Bert McDonough wants to lease adjoining land for mowing/maintenance

### Public Input from Affected Adjacent property owners

- 1) Complement the City for their diligence in pursuing the project (the natural environment plan for the permanent levee) and the manner in which griffin construction operated while constructing the levee
- 2) Concerns regarding establishment, maintenance and future management
- 3) In favor of plan so long as it addresses state statues concerning control of prohibited and restricted noxious weeds. Thistles are a concern as well as Russian knapweed which will eliminate other species of grass/forb. Long grass is a concern because it will provide a god habitat for mosquitos which carry west Nile. <side thought: how do bats do here>
- 4) Mosquito control of these areas should be addressed- either by adjusting budgeting for current mosquito control if it still exists. Or those adjacent to river forming a cooperative or organization to address the issue which could be costly to an individual
- 5) Fire protection in these areas. Allowing excess growth to accumulate can provide fuel for grass fire which could escalate into an urban forest fire.
- 6) Access to the space. Is it Public (ie parks) or is access/use restricted. There have been bon fires at 118 address. People also fish there.

- i. In summary they are concerned about fire, spread of weeds, overpopulation of mosquitos.  
Concerned with management/maintenance

#### Public Input regarding the Red River of the North Corridor study

- 1) Concerned about aspects of the corridor as it relates to surrounding real estate within the corridor. The forces of value that effect property include (geographic, economic, legal, social)
  - a. Pieces of public property in the area vary from well maintained/irrigated/landscaped to parcels in their original wild land state. Not all parcels are contiguous. Individual properties still extend to the river and segment the corridor.
  - b. Flood buyout has changed the makeup of subdivisions as they were originally intended
    - i. Some cul-de-sacs now serve half the number of HH they previously did. Ownership of underutilized streets is increased..
    - ii. Maintenance of property by local gov is burdensome. Previously more managed and more grass was mowed.

C. what liabilities do adjacent property owners have as to the unintended uses of adjacent property that may overlap onto private property? What liability do cities have for lack of management that affects adjacent property owners (ie fire suppressions, weed control, forestry, wildlife management)

d. what are the appropriate recreational/open space/park/ nature preserve or other uses for the property that can benefit the community? Should the corridor be segmented as to use? Or broad based? How will existing police, fire, park, forestry, and wildlife management resources be utilized to properly manage the corridor? Will the community willingly financially support the level of management require?

#### Public Input Forms from January 15th Meeting

- 1) Re-forest and restore! No motorized usage, please
- 2) From the perspective of a cross county skier, the proposed bridge between MB Johnson Park and Fargo would greatly expand the skiing opportunities in this area. Connection of these areas would provide 15-20 k for training (ski races in the reation are 10, 20, 50 k . better trail systems would allow for youth ski programs and get more people into the sport. Take advantage of the climate. Grooming of trails is tricky and the prairies edge Nordic ski club is a great resource of learning this skill. Allow for ski tourism too
- 3) Bert McDonogh would like to lease to properties adjacent to his. He just wants to mow and maintain- not build.
- 4) Would like to see connecting paths/trail from memorial park to gooseberry park./would like to see historic markers and benches along the path/trail for notable areas / make sure to retain the right of way south of gooseberry to city border for future paths/trails / levees are paid with public money and should have public use
- 5) Access should be free and open to everyone all year round whatever the use of the public property in river corridor may be. There should be no restrictions because the river belongs to everyone and they should be able to use and enjoy it.
- 6) There should be no leases of publicly owned lands adjacent to the river to private entities
- 7) I'd like to see more bike and walking paths along the river and connecting Moorhead bikeways on existing streets and fargo path system. Good to have paths or stairways at regular points along the levees to invite people to go up and over-either to get to a path or to greenspace. Have display signs at various points with information about the 1) geology of the river 2) history (ei old swimming area at 6th ave s, where old bridges were, where steamboats docked etc.. with old photos) assuming the power plant will be demolished- save relics and make part of a "defiant garden" 8th/24th s intersection is an impediment to walking and biking to gooseberry park and sunmart because the intersection is dangerous, unpleasant, etc. Nice to have community gardens on recently acquired land like Woodlawn point
- 8) Rick and "denelle dauner" at 26 36<sup>th</sup> ave circle south. They would like to buy the adjacent property to the north of us with the possibility of building a garage there in the future. There is ample room for a garage to fit between



the dew dike and the street. Buying the property would give the city additional revenue because of income tax and the city would not be responsible for the upkeep of the property.

#### Comments received by Wade

- 1) Fargo Moorhead Trailbuilders, a community organization dedicated to helping expand, educate, and develop of road trail access to community and surrounding area. Volunteer group who rep. growing community of outdoor enthusiasts. Working with Moorhead Parks and Rec for last few years to clean up the MB Johnson Park and develop multi-use and mtn bike trails. Official signage and trail maps are now being made available. Winter months reduce trail traffic, people use them for off-road snow bikes, xc skis, and snow shoes.
- 2) Again, Trailbuilders. Gratitude to Mhd Parks and Rec and FM Trailbuilders teamwork to bring only non-paved multi-use trail system to MB Johnson Park. The International Mountain Biking Association (IMBA) associated club has teamed up with Mhd Parks and Rec for last two years to create trail system in MBJP. Amazed at support and appreciation of this type of environment for appreciating what the beautiful river scenery and outdoors is all about. Residing close by, Tom Heilman can account for the amount of use of the trail. New faces on the trail, biking, hiking, or just enjoying the outdoors. Hope that use of the land will include a comprehensive non paved trail system for biking and or hiking. Communities all over the county are adopting this idea. Duluth is using it as a tool to attract young professionals.
- 3) Goals of Rory Beil- director of Cass Clay Healthy People Initiative. Goals to make Moorhead and Fargo the healthiest place in the US to raise a family. Hope land from flood buyouts will be used to create comprehensive off-road trail network for bicyclists, runners, skiers, hikers, etc. There is a growing demand. One of the most appealing traits a city can have to attract young professionals is a vibrant active community. Johnson Park is tremendous. It would be even better with expansion of current trail system.
- 4) Former Moorhead resident- now in Fort Worth Texas. Suggests Trinity River Vision which are projects to create an urban waterfront community to create a booming area for residents and visitors.
- 5) Suggestion: Open Space Use. Keep it semi park like Put parking spaces along it so that public can enjoy walking trails along the way. Make nature accessible (birds and animal watching) Access to fishing. Boat ramps are not needed as the amount of tree limbs makes boating unsafe. Will people who refuse the buyouts be charged for the city to protect them from flooding? They should be charged for some of it.
- 6) Consider more off-road bicycle trails like the ones at MBJP that would provide a greater use for the land near the river. Trails for running, walking, cross country skiing, for use of people of all ages. Increased traffic and additional paths will help deter crime While paved multi use trail could benefit the space, off-road trails would keep younger people in the metro area rather than loading their bikes and money and going to trail systems at Cuyahoga County State Recreation Area, Minneapolis, Duluth.
- 7) Off-road bicycle trails like those in MB Johnson Park.- from a cyclist
- 8) Restrooms, Make sure all dams have been rockered so that it forms a rapid, Create ponds on the bottomland to be replenished by spring high water- fill with fish for ages 12 and under, clear snow off for skating in winter, small waterways to encourage wildlife to take up residency, flood/fireproof gazebo structures for shelter with firepit for warmth in winter, Lights-christmas type year round nature/historical signs with old photos, kayak rentals, river cruises, boat launch, flood resistant concession stand floating restaurant?, softball-soccer-tennis-basketball, floral gardens, community gardens, amphitheater for music events- from a former NDaker
- 9) Joan/Darryl Cooker want to join the committee for riverfront ideas. – mhd res/archite/teacher
- 10) Recreational use- off-road trails (like those in MBJP) properly built/maintained trail is non-invasive, health-focused, economy stimulating use of land. He might be associated with the Trail builders.
- 11) Greenspace, mowed grass and evergreens staggered near dikes. Weed free. Plant trees on boulevard areas to get them back to looking like part of the neighborhood. Keep all water. Biking and walking trails would be okay. Allow people on dry-side to plant vegetable gardens across the street if they keep the area maintained by mowing etc. Only charge minimal rent for these gardens. – resident of dry side who looks across street at boring mound of earth.

12) From Carolyn lillhaugen- heavy user of the trails. Chose to live there because of the trails. Rides bike to work at Concordia which is 3.3 miles away from home in south Moorhead. Biking is a family activity. Also cross county ski 4-6 days a week. Interests lie in additional trails and bike/pedestrian bridges to cross river. Like the concept of continuous bike trails on both sides of the river. Ideally paved trails where possible and the section from gooseberry to horn park would be a good place to start. Implement in stages. Luce line trail in the cities and elroy-sparta trail in Wisconsin are good examples of trails (using crushed lime rock until funding is secured for paving. Tree lined trails is important. In addition to paved bike trails, there are areas that could be cleared for hiking and skiing. Current examples are the perimeter trail in Lindenwood, trails in Johnson Park and the trail from the Lindenwood bridge to the toll bridge. One trail which has fallen into disrepair is the trail in river Oaks Park as his eagle scout project a decade ago. Eagle scouts could be another source of manpower to clear and maintain trails. A good location for a hiking/skiing trail would be in the woods behind Tessa terrace and Trollwood. Preferred bike bridge at Trollwood in south Moorhead and Johnson park in north Moorhead. Excited for the new bridge at gooseberry. Concern is that of sufficient surveillance.

## MOORHEAD RIVER CORRIDOR SUMMIT SUMMARY

The Moorhead River Corridor Summit was held October 28-30<sup>th</sup>, 2014 to provide an opportunity for the public, stakeholders, and elected officials to provide input on initial ideas and concepts for the river corridor. The summit also increased public awareness and enthusiasm for the future of the river corridor.

The following meetings/events were held during the summit:

- **Agency Partners Roundtable:** City of Fargo, Fargo Park District, Oakport Township, DNR, Buffalo Red River Watershed District, Clay County
- **Recreation Partners Roundtable:** FM River Keepers, Prairies Edge Nordic Ski Group, FM Trail builders, Moorhead Country Club , Fargo Park District, Trollwood Performing Arts School
- **Red River Advisory Committee Meeting**
- **River Corridor Field Day:** Project Technical Advisory Group , RRAC, City Council/Commissions, public were invited to see key areas of the corridor first hand approximately 15-20 people visited each stop
- **Community Open House:** over 84 people attended
- **Technical Advisory Group Meeting:** to review input heard during the Summit

The input at each event had a slightly different focus, and a wide variety of topics, ideas and concerns were covered. The following is a summary of important themes that emerged from the Summit, organized by topic area. Attached are individual meeting summaries.

### Overall themes

- There is recognition that the public open space on the river corridor has the potential to be a tremendous city asset for current residents and future generations.
- Overall, there is support and enthusiasm for public recreation along the river corridor.
- There is a lot of interest in restoration and re-vegetation.
- Generally Summit participants agreed that building on existing assets is logical; expanding the trail network from the current system Downtown and enhancing existing parks.
- There are concerns regarding safety and ability to monitor activities on the river corridor. A recurring idea is expand the role of the existing River Patrol into a more visible presence in Moorhead to not only police activity on the corridor but also take a role in education, recreation, and interpretive programs.
- There is universal recognition that clearer delineation of public and private land on the river corridor is needed.
- There is more education needed related to the benefits of enhancing the river corridor for recreation and trails.

### Trails and bridges

- There is great deal of support for expansion of year-round linear recreation on paved and natural surface trails in the river corridor.
- There is a recognized need for improved/additional bridges. Priority (based on input) follows where residents live/work. Most frequently mentioned priorities are replacement of the

Memorial/Oak Grove Bridge and at least bridge south of I-94. There is public desire for bridge lighting.

- Year round trail use, including plowing paved trails for winter walking and biking as well as cross country ski trails, is important.
- Loop trails on both sides of the river near the two downtowns are desired (15<sup>th</sup> Ave N to Woodlawn).
- Locating trails above the 24' flood elevation is desired by all to reduce flooding and maintenance.
- Linking to a connected on-road network of trails is desired for commuting.
- A continuous river trail using both sides of the river is most feasible in the near-term; this would be most achievable in the mid-term if a bridge can be located near River Oaks Park (based on current public river corridor ownership on in Fargo and Moorhead).
- Benches and signage are frequently mentioned desired support amenities.
- Future bridge design needs to accommodate boat traffic. Bridges need to be high enough for recreational boats to easily travel under.
- There is interest in a ped-bike bridge between Fargo and Moorhead at Hjemkomst. The most feasible approach may be to improve existing bridges (1<sup>st</sup> Avenue, Center/NP Ave bridges).

### **Recreation Nodes**

- There is interest in adding activities to existing nodes. Larger existing parks can act focal points for recreation. Specific ideas include:
  - Viking Ship/ Memorial/ Riverfront Parks– skate park, rebuild paved trail system above the 24' flood elevation;
  - Woodlawn – tennis, skating rink, ice hockey center; move shelter, restrooms and play equipment to the power plant site;
  - Horn Park – sledding;
  - River Oaks park – neighborhood amenities (basketball, playground), potential for camp ground, off-leash dog, fishing access, skating;
  - Bluestem – interest in more activities and the opportunity to share facilities with the performing arts school. There is a desire for winter recreation and a 5K trail loop for events.
- Partnership opportunities include:
  - River Keepers would like to locate an outdoor education lab, possible locations: Bluestem, Node at Riverview Circle, Woodlawn Park;
  - Northern Plains Botanical Gardens would like a long term lease on 12-15 acres for a garden and possible conservatory location, possible locations: Davy/Memorial/Riverfront/Viking Ship Parks, MB Johnson, Woodlawn Park;
  - Trollwood Performing Arts School would like to partner with the City to develop loop trails and winter recreation activities.

### **Interpretation, Cultural and Historic Resources**

- There is enthusiasm for integrating cultural and historic interpretation along the river corridor.
- Specific input included:
  - A preference for integrating interpretation into design, interactive displays and publications;
  - Enthusiasm for boat tours;
  - Positive feedback on the preliminary interpretive themes: changing river, river history, river recreation, agricultural history, the changing landscape, and transportation.

### **Vegetation and Restoration**

- There is strong support for re-vegetation of areas disturbed by levee construction.
- Reforestation is a priority.
- Residents are open to and interested in native or natural plantings and many like the natural character of the river corridor.
- There are concerns center around maintenance and keeping things from looking ‘weedy.’
- Overall there appears to be support for more manicured vegetation in high visibility areas and transitioning to more natural character towards the river.

### **Public Private Delineation**

- Ensuring respect for private property is very important to current river corridor residents.
- There is consensus that universal signage, with the City logo, delineating public and private property is needed and would reduce conflict and frustration for river corridor users and residents.
- There is also interest in delineation with vegetation and fencing.

### **Ownership and lease / sell criteria**

- Most public land along the river corridor is needed for flood mitigation and/or recreation; there is limited land with potential for lease or sale.
- Most input was positive in favor of the draft criteria.
- Remaining river residents are most interested in and have the most concerns about the draft criteria. Concerns include maintenance, desire for more flexibility in the criteria, and desire by adjacent property owners to lease or buy adjacent property for personal use.

### **Ownership and Oakport Township**

- Buffalo Red River Watershed District has additional land along the river from Wall Street to Highway 93 (outside of the current study area).
- The Watershed District may be interested in transferring ownership of River Corridor Land to the City in the future.
- Much of the land will remain private with limited ability for continuous River Corridor public recreation between M.B. Johnson Park and Wall Street.

### **Maintenance and operations**

- Comments echoed those from Phase 1 input that there needs to be a long term plan and funding for a River Corridor Maintenance Program.
- Clear communication of maintenance intent through signage and design is also important (signs at prairie restoration area; adding a mowed edge to natural areas as a ‘cue to care’; etc.).
- There is concern over ability to control invasive species in prairie and reforestation areas.

## RED RIVER ADVISORY COMMITTEE WORKSHOP - (MARCH)



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### Meeting Summary

March 5, 2013

#### **River Corridor Advisory Committee, Moorhead River Corridor Study**

Held Wednesday March 5th, 5:00-6:15  
Hjemkomst Center, Oak Room

Meeting purpose: Preliminary Draft Study review, feedback on implementation priorities. All Committee members are encouraged participate in the River Corridor Resident Workshop immediately following.

Attendees: John Brummer, Bob Backman, Brenda Elmer, Rae Halmrast, Del Rae Williams, Nancy Otto, Bart Cahill, Julian Dahlqist, Darline Sween, Ben McDonough, Richard Jones, Tom Trowbridge, Larry Anderson, Kristie Leshovsky, Kim Citrowskie, Andrea Crabtree-Nayes, Bob Zimmerman FMCOG: Adam Altenburg, Wade Kline; Consultants: Lil Leatham (HKGi, project manager).

The meeting format was a presentation on the Preliminary Draft River Corridor master Plan and discussion. The topics of greatest concern and discussion were the lease sell policy and public private land delineation, and corridor character.

#### Lease Sell Criteria/Policy

- Bob Zimmerman, City Engineer, discussed issues related to FEMA accreditation and restrictions based on funding for buy-outs related to leasing or selling land obtained for flood mitigation.
- Committee comments included
  - The 44' factor is bogus (land for lease/sell)
  - If land is leased back to residents, citizens can maintain it better than the City
  - Would like to see more flexibility in buying back parcels

#### Public-Private Land Delineation

- The issue of trespassing will greatly improve with better delineation of public and private land
- Concerns over the plan recommendation that residents must pay for any property delineation treatment and not the City
- Concerns regarding working with landowners on appropriate treatment design on a case-by-case basis
- At this time the City has no way of funding delineation projects
- Consistent boundary signage is a good idea
- An issue with signage is that people don't read signs

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Corridor Character and Maintenance

- There are issues with cleanup in the spring Plan will provide guidance for maintenance
- Concerns over lost trees and need for tree replacement
- While the plan will designate forested/prairie areas, future tree loss is likely with future flood mitigation projects

Trails and Bridges

- Trails will be a good thing for the City
- City must do a better job of educating the public about all of the potential benefits of trails
- Concern about landowner liability if there is a trail easement on their property
- Interest in a ped-bike bridge to connect Fargo downtown with Hjemkomst (ped-bike improvements to the 1<sup>st</sup> Avenue Bridge are recommended in the Draft Plan to address this issue)

Funding

- A more visionary approach to funding is needed; make Moorhead Parks a separate taxing authority OR Joint River Corridor Authority with Fargo



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### Meeting Summary

March 5, 2013

#### **River Corridor Residents Workshop, Moorhead River Corridor Study**

Held Wednesday March 5th, 6:30-8:00

Hjemkomst Center, Oak Room

Approximately 30 residents attended (note, one of the sign in sheets was lost)

Meeting purpose: River corridor resident input on Preliminary Draft Study recommendations and priorities

Meeting began with an overview presentation. Attendees then divided into three groups organized by geographic area to discuss the plan and priority projects.

#### **River Corridor Residents Workshop**

##### Group #1 (North of Downtown)

- Delineating and respecting residential backyards along the corridor is a very high priority
- The idea of unified signage is very good
- Concern about the impact of dog-walking on wildlife
- Funding for the corridor should come from the entire city, not just River Corridor Residents
- Maintaining existing facilities is more important than adding new facilities

##### Group #2 (Woodlawn to I-94)

- General approval of the Plan
- General support for and approval for trails as contributing positively to the City
- Participants want to make sure that trails will not be routed on private property without landowner consent/easements
- Some participants did not mind the idea of a trail on their property and others had no interest in this
- One of the biggest issues for landowners in this area is public/private land delineation
- General approval of the idea of signage/delineation to help deter people
- Like the bike bridges; no consensus within the group as to the highest priority bridges
- Feeling that if cyclists/walkers are routed on adjacent streets until property is obtained the corridor would look and function much as it does today
- Support for continuing the 'natural feel' of the corridor
- Would like to see a sledding hill at Horn Park

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Group #3 (South of I-94)

- Like the bike bridges but people use the river for boating; bridges should be high enough to accommodate boats underneath
- Different levels of support for the River Oaks Park Community Park (a couple people at the table not happy with opening it up; others already use the area and would like to see it improved)
- Lots of concerns with the lease/sell criteria; most at the table not happy with the restrictions (most of the time spent talking about this issue)
- Several skeptical that signage/delineation will help deter people from going on private property
- Still, general approval of the Plan; actually agreement that once people start seeing initial projects being implemented that there will be more enthusiasm and support for the Plan



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## Open House Summary

Held: April 15, 2014 5:00-7:00  
Hjemkomst Center, Moorhead, MN  
Over 50 attendees

A community open house was held on April 15th, 2014 to increase awareness about the Moorhead River Corridor project and gather input on the Draft Master Plan and implementation priorities. Over 50 people attended. The meeting was open house format with display boards organized by topic area. Topics covered were:

- Welcome and Project Overview
- Trails and Bridges, Recreation Nodes
- Vegetation/Restoration and Interpretation
- Public/Private Transitions
- Lease Sell Criteria
- Project Prioritization
- The Defiant Garden

Opportunities for input included:

- Talking to FMCOG and City of Moorhead staff, consultants, and members of the Red River Advisory Committee
- Viewing display boards
- Writing comments on display boards
- Placing green dots on project prioritization display boards
- Written feedback forms
- On line input was available from April 8-28 on the City of Moorhead project website

The following is a summary of written comments collected at the meeting and on line organized by topic area.

### **Corridor Character and Public/Private Delineation**

- Plant more trees where homes have been removed to buffer traffic/train noise
- Respect and maintain the quality of life for existing residents residing on the river corridor by education the public about property boundaries, there is currently too much intrusion onto private property

### **Connectivity Projects**

- Bridge projects will facilitate walking, running, bicycling for residents
- Planned sidewalks and trails shouldn't be so close to major roads
- The Moorhead Country Club area needs more walking paths
- There is a need for a hiking and cross-country ski trails between Gooseberry Mound Park and River Oaks Park

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- In general, please make hiking and cross-country ski trail loops longer
- Include a hiking and cross-country ski trail connection between River Oaks Park and Bluestem Park
- Natural surface trails would be a better trail option given seasonal extremes, than those paved with asphalt

### **Recreation and Parks**

- Please improve existing parks first, program elements in these parks are poorly maintained and at times unusable, this should be given priority over expanding the system
- More parks will make for healthier children and adults
- There is a great need for more dog parks throughout the city
- Prairie restoration, mountain bike track, and dog park in Gooseberry Mound Park are good ideas
- School groups need outdoor education facilities at M.B. Johnson Park
- More gardens (Japanese/botanical) at Woodlawn Park would be nice
- Improve the fishing access at River Oaks Park

### **Habitat and Water Quality**

- Improvements to wildlife areas will allow us to understand the history and importance of the Red River more fully

### **Interpretive Themes**

- Historic information will help attract tourists and inform local residents about the Red River Corridor

### **Top 3 Priority Projects**

- Bike and pedestrian bridges
- Restoration of native flora
- Safe and attractive parks for all ages
- Improvements, prairie restoration, and dog park in Gooseberry Mound Park
- More dog parks throughout the system
- Focus on improving existing parks first

### **Lease/Sell**

- Continue to inform citizens and work to prevent misunderstanding through education about this ongoing process

