APPENDIX B

MISSISSIPPI RIVER CORRIDOR CRITICAL AREA PLAN
COTTAGE GROVE, MINNESOTA

May 18, 2018 Draft

The layout, figures and formatting in this draft are preliminary. This document is included as an appendix in the Cottage Grove 2040 Comprehensive Plan.
INTRODUCTION
The Mississippi River Corridor Critical Area (MRCCA) comprises 72 miles of river across 30 Twin Cities Metropolitan Area (TCMA) jurisdictions. The MRCCA is governed by special land planning requirements and land development regulations created to protect and preserve the natural, scenic, recreational, and transportation resources of this section of the Mississippi River. Local communities within the corridor are required to complete a MRCCA plan as a chapter of their Comprehensive Plan.

History
The was designated by Governor’s Executive Order in 1976, following the passage of the 1973 Minnesota Critical Areas Act. On January 4, 2017, Minnesota Rules, chapter 6106 replaced Executive Order 79-19, which previously governed land use in the MRCCA. The rules require local governments to update their MRCCA plans and MRCCA ordinances for consistency with the rules.

The MRCCA is important because of its many significant natural and cultural resources, including scenic views, water, navigation, geology, soils, vegetation, minerals, fauna, cultural resources, and recreational resources. The MRCCA is home to a full range of residential neighborhoods and parks, as well as river-related commerce, industry, and transportation.

PUBLIC ENGAGEMENT
Section to be developed. Future public meetings should address the Cottage Grove MRCCA.

IMPLEMENTATION PROGRESS
The Cottage Grove 2030 Comprehensive Plan described the Mississippi River Critical Area Plan and included the MRCCA Overlay District in its Appendix. In 1982 Cottage Grove adopted the MRCCA Overlay District along the Mississippi River on the city’s southern border. The critical area text includes the following sections:
• Boundaries of the District
• Permitted Uses
• Accessory Uses
• Existing Structures and Uses
• Development Standards
• Site Planning Requirements
• Natural Resource Management
• River Surface Use
• Road, Utility and Pipeline Construction and Routing Regulations
• Marinas; Barge Fleeting and Loading Facilities
• River Front Use and Access
• Sewage Treatment Plants, Sewage Outfalls and Water Intake Facilities
• Administration of Provisions

The adopted boundary of the MRCCA Overlay District within the city coincides with the current MRCCA boundaries. A key theme of the 2030 Comprehensive Plan as well as the 2040 Plan is Mississippi River Access.
DISTRICTS

Six districts are defined in MRCCA rules, based on the natural and built character of different areas of the corridor. Structure setbacks, height limits, and the amount of open space required for subdivisions vary by district. Four MRCCA districts are mapped for Cottage Grove.

**Rural and Open Space District (CA-ROS):** Characterized by rural and low-density land uses and development patterns. In Cottage Grove, this district includes riparian lands or is visible from the river including Grey Cloud Dunes SNA, Grey Cloud Island, and undeveloped islands.

**River Neighborhood District (CA-RN):** Characterized by primarily residential neighborhoods that are riparian or readily visible from the river or that abut riparian parkland. The district includes parks and open space, limited commercial development, marinas, and related land uses. In Cottage Grove, this district is applied in two areas along the river where the CA-ROS is not applied.

**Separated from River District (CA-SR):** Characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River. In Cottage Grove, this district covers the greatest acreages of the four districts.

**Urban Mixed District (CA-UM):** Characterized by large areas of highly urbanized mixed use that are a part of the urban fabric of the river corridor. In Cottage Grove, this district includes the 3M plant.

*Figure 1: MRCCA Districts in Cottage Grove*
CONSISTENCY OF THE DISTRICTS AND THE 2040 FUTURE LAND USE MAP

As part of their comprehensive planning process, the City of Cottage Grove has developed a future land use map. The map illustrates planned land uses including four categories of residential, commercial, mixed use, industrial, agricultural, park/open space, golf course, and transition planning area. The city is dominated by low density residential north of Highway 61. The land south of Highway 61 and north of the river is predominantly agricultural but mostly guided for industrial.

Figure 2 depicts an overlay of the MRCCA Districts indicated by cross hatch and the 2040 Cottage Grove Future Land Use Map.

Generally, the 2040 Future Land Use Map is or could be consistent with the MRCCA District mapping for Cottage Grove. Table x provides details.

- **CA-ROS** areas are guided for Rural Residential and Low Density Residential. Existing land uses are generally consistent with the MRCCA and Future Land Use designations, but existing land uses include the excavation operation on the northerly end of Grey Cloud Island.
- The two **CA-RN** areas within Cottage Grove are guided for residential neighborhoods with its Low Density Future Land Use designation. Today the easterly-most area includes low density residential land uses and farmland.
- **CA-SR** areas are also guided for residential neighborhoods with its Low Density Future Land Use designation.
- As described above, **CA-UM** areas are intended for areas of highly urbanized mixed use. The Future Land Use Map guides the area for “industrial development including research, manufacturing, distribution, assembly, and office uses. With the exception of the 3M Cottage Grove facility, industrial development will occur within the MUSA”. Industrial uses are permitted by current zoning. Today, these 1,750 acres are occupied by 3M Cottage Grove, Cottage Grove’s largest private employer, which employs more than 700 people in 35 buildings. Cottage Grove’s Eagle’s Point Wastewater Treatment Plant is also located in this area. Including additional policies in the 2040 Comprehensive Plan are required to address this area.
Figure 2: MRCCA Districts in Cottage Grove
### Table 1 – Category Comparisons

<table>
<thead>
<tr>
<th>MRCCA District</th>
<th>Future Land Use Map Categories</th>
<th>Existing Land Uses</th>
</tr>
</thead>
</table>
| CA-ROS Rural and Open Space District | • Rural Residential  
• Low Density Residential  
• Industrial  
• Park /Open Space | • Agriculture  
• Single Family Residential  
• Extractive  
• Park, Recreational or Preserve  
• Undeveloped |
| CA-RN River Neighborhood District | • Low Density Residential | • Single Family Residential  
• Golf Course  
• Undeveloped |
| CA-SR Separated from River District | • Low Density Residential  
• Rural Residential  
• Commercial  
• Industrial | • Single Family Residential  
• Manufactured Housing Parks  
• Retail and Other Commercial  
• Golf Course  
• Park, Recreational or Preserve  
• Agriculture  
• Undeveloped |
| CA-UM Urban Mixed District | • Industrial | • Industrial and Utility  
• Undeveloped  
• Agriculture |

### WATER SETBACKS AND HEIGHT LIMITS

Table x indicates the Setbacks and Height Limits for the zoning categories represented within the MRCCA. As setbacks from water bodies are not included in these zoning categories, the rear setbacks are listed.

<table>
<thead>
<tr>
<th>Table 2 - Regulations</th>
<th>Water Setback</th>
<th>Rear Setback</th>
<th>Height Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1 Agricultural Preservation</td>
<td>n/a</td>
<td>50 feet</td>
<td>30 feet</td>
</tr>
<tr>
<td>AC2 Agriculture</td>
<td>n/a</td>
<td>n/a</td>
<td>30 feet</td>
</tr>
<tr>
<td>R-1 Rural Residential</td>
<td>n/a</td>
<td>50 feet</td>
<td>30 feet</td>
</tr>
<tr>
<td>R2 Residential Estates</td>
<td>n/a</td>
<td>50 feet</td>
<td>30 feet</td>
</tr>
<tr>
<td>R3 Single Family Residential</td>
<td>n/a</td>
<td>35 feet</td>
<td>30 feet</td>
</tr>
<tr>
<td>R4 Low Density Residential</td>
<td>n/a</td>
<td>35 feet</td>
<td>35 feet</td>
</tr>
<tr>
<td>I1 Limited Industrial</td>
<td>n/a</td>
<td>30 feet</td>
<td>35 feet</td>
</tr>
<tr>
<td>I2 General Industrial</td>
<td>n/a</td>
<td>60 feet</td>
<td>45 feet</td>
</tr>
<tr>
<td>MRCCA Districts</td>
<td>100 feet ²</td>
<td>n/a</td>
<td>35 feet ³</td>
</tr>
</tbody>
</table>

Consider amending the adopted zoning regulations to add text to the Development Standard sections to add a reference to the MRCCA part of the code.

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¹ Non-farm structures  
² Measured from normal high-water  
³ With exceptions
Policies
• Guide land use and development and redevelopment activities consistent with the management purpose of each district.

Implementation Actions
• Amend existing or adopt new MRCCA ordinance overlay district compliant with the goals and policies of the MRCCA plan, and with Minnesota Rules, part 6106.0070, Subp. 5 - Content of Ordinances.
• Update zoning map to reflect new MRCCA districts.
• List any actions to be taken to pursue implementation flexibility (if any areas were identified as needing implementation flexibility during the planning process).
• Ensure that information on the new MRCCA districts and zoning requirements is readily available to property owners to help them understand which ordinance requirements - such as setbacks and height requirements - apply to their property for project planning and permitting.
PRIMARY CONSERVATION AREAS

Primary Conservation Areas (PCAs) are defined as key resources and features that are given priority consideration for protection. PCAs include shore impact zones, bluff impact zones, floodplains, wetlands, gorges, areas of confluence, natural drainage routes, unstable soils and bedrock, native plant communities, cultural and historic properties, significant existing vegetative stands, tree canopies, and other identified resources.

SHORELINE IMPACT ZONES

The shore area is environmentally sensitive and needs special protection from development and vegetation removal. The shore impact zone is a “buffer” area between the water’s edge and the area where development is permitted. The shore impact zone runs along the entirety of the length of the city along the Mississippi River and includes the shorelines of the city’s islands. The shore impact zone is narrow in depth.

Figure 3: Shoreline Impact Zones
FLOODPLAINS AND WETLANDS
The 100-year floodplain areas are focused on a narrow strip along the river, the edges of a few islands and inlets. Wetlands in this area are limited.

Figure 4: Floodplains and Wetlands

Natural Drainage Ways
Natural drainage ways are linear depressions that collect and drain surface water. They may be permanently or temporarily inundated. Five natural drainage ways in the MRCCA area of the city flow towards the Mississippi River (Figure 5). They vary in size and all have many tributaries outside of the MRCCA. One is an impaired waterway (Figure 5). The most significant of these is the Cottage Grove Ravine. Features crossing these drainage ways include roadways.
NATIVE PLANT COMMUNITIES AND SIGNIFICANT VEGETATIVE STANDS

As seen in Figure 6, most of the native plant communities in the city are located along the river’s edge. Native plant communities identified in the Minnesota Biological Survey represent most of the quality native plant communities remaining in Cottage Grove. Significant vegetative stands are plant communities identified by the National Park Service as largely intact and connected and containing a sufficient representation of the original native plant community. This vegetation contributes to the scenic value of the MRCCA.
CULTURAL AND HISTORIC PROPERTIES

Sites of National Significance
There are four sites in Cottage Grove listed on the National Register of Historic Places, it appears that only one is within the MRCCA.:

**Grey Cloud Lime Kiln**
Located at the east end of the MRCCA on Grey Cloud Island Trail
This archaeological site includes a series of 34 conical mounds, a settlement site from the Woodland Period (1000 BCE to 1700 CE). Through numerous archaeological surveys, pot sherds, stone tools, and fire cracked rocks were discovered. Fire and refuse pits have also been discovered. Archaeologists believe that the site was occupied through many periods and climatic shifts.

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4 National Register of Historic Places, on-line mapping.
State Register of Historic Places
The Hope Glen Farm, a property of local historic interest, is located just outside the MRCCA on the north side of Point Douglas Road South.

UNSTABLE SOILS AND BEDROCK
Soil is a mixture of sand, gravel, silts, clay, water, and air. The stability of soil can be attributed to the mix of these ingredients and other factors such as frost action, high saturation depth, steep slopes, low soil strength, ponding, high shrink-swell rates, subsidence, and other soil stability issues. Bedrock is lithified rock underlying loose deposits such as soil or alluvium.

As seen in Figure 7, soil erosion in most of the MRCCA is low. Soils with higher erosion susceptibility are primarily located in the ravine areas.

Figure 7: Soil Erosion Susceptibility

Policies
- Protect PCAs including shore impact areas, wetlands and floodplain areas, native plant communities, and bluff areas and unstable areas subject to erosion. Minimize impact to PCAs from public and private development and land use activities (landscape maintenance, river use, walking/hiking, etc.).
- Support mitigation of impacts to PCAs through, subdivisions/PUDs, variances, CUPs, and other permits.
- Make restoration of removed Native Plant Communities and natural vegetation in riparian areas a high priority during development.
• Support alternative design standards that protect the LGU’s identified PCAs, such as conservation design, transfer of development density, or other zoning and site design techniques that achieve better protections or restoration of primary conservation areas.

• Make permanent protection measures (such as public acquisition, conservation easement, deed restrictions, etc.) that protect PCAs a high priority.

Implementation Actions

• Ensure that information on the location of PCAs is readily available to property owners to understand how PCA-relevant ordinance requirements, such as vegetation management and land alteration permits, apply to their property for project planning and permitting.

• Establish procedures and criteria for processing applications with potential impacts to PCAs, including:
  o Identifying the information that must be submitted and how it will be evaluated,
  o Determining appropriate mitigation procedures/methods for variances and CUPs,
  o Establishing evaluation criteria for protecting PCAs when a development site contains multiple types of PCAs and the total area of PCAs exceed the required set aside percentages.
  o Developing administrative procedures for integrating DNR and local permitting of riprap, walls and other hard armoring.
PUBLIC RIVER CORRIDOR VIEWS

According to the MRCCA, public river corridor views (PRCVs) are views toward the river from public parkland, historic properties, and public overlaws, as well as views toward bluffs from the ordinary high-water level of the opposite shore, as seen during the summer months. PRCVs are deemed highly valued by the community and are worth protecting because of the aesthetic value they bring to the MRCCA.

Today, there are few opportunities for public river corridor views within Cottage Grove. There are few roads along the river and most of those are tree-lined or have homes along the river’s edge, largely obscuring the shoreline. River corridor views are available on the bridges. Figure x illustrates the rare opening between trees where someone in a car or on a bicycle could see the river.

The City has identified five significant public views of the river from Cottage Grove and two significant views of Cottage Grove from nearby bluffs that are illustrated in the photos and map below.

1. Grey Cloud Trail South – This public view is on the northern end of the bridge leading to Lower Grey Cloud Island. It is looking north-northwest (Figure 8).

2. Grey Cloud Trail South – This public view is near Hazen P Mooers Park on the south end of the bridge leading to Lower Grey Cloud Island. It is looking east toward the Mooers Lake section of the river (Figure 9).

3. Schaars Bluff – This public view was taken from the trailhead parking lot of Schaars Bluff Trail. It is looking north toward Cottage Grove from Nininger Township (Figure 10).

4. Scientific and Natural Area – This public view is from the Grey Cloud Dunes Scientific and Natural Area near 103rd Street South and Hadley Avenue South. It is looking south (photo will be incorporated).

5. River Oaks Golf Course – This public view is from the River Oaks Golf Couse clubhouse, owned by the City of Cottage Grove. It is looking south (photo will be incorporated).

6. River Oaks Scenic Overlook – The River Oaks Scenic Overlook has public views of Spring Lake Regional Park and Lake Rebecca Park in Nininger Township. It is looking south (photo will be incorporated).

7. Nininger Boat Launch – This public view is of the river’s bluff in Cottage Grove from Nininger Township. It is looking north (photo will be incorporated).

Figure 8: View #1 from Grey Cloud Trail S  
Figure 9: View #2 from Grey Cloud Trails S
Figure 10: View from Shaars Bluff Trail

Figure 11: View from the Scientific and Natural Area

Figure 12: View from the River Oaks Golf Course Clubhouse

Figure 13: View from the River Oaks Scenic Overlook

Figure 14: View from the Nininger Boat Launch
Figure 15: Location of Public River Corridor Views (PRCVs)
PRIORITIES FOR RESTORATION

MRCCA rules identify the highest restoration priority as areas not currently in native vegetation. As Figure 16 illustrates, most of the vegetation along the River’s edge is considered by the DNR to be either Native Plant Communities or Significant Existing Vegetative Stands. The MRCCA does include Vegetation.

**Figure 16: Native Plant Communities and Significant Existing Vegetative Stands**

Policies
- Protect and minimize impacts to PRCVs from public and private development activities.
- Protect and minimize impacts to PRCVs from public and private vegetation management activities.
- Protect PRCVs located within the community and identified by other communities (adjacent or across the river).

Implementation Actions
- Ensure that information on the location of PRCVs is readily available to property owners to understand how PRCV-relevant ordinance requirements, such as vegetation management and land alteration permits, apply to their property for project planning and permitting.
• Establish procedures for processing applications with potential impacts to PRCVs, including:
  o Identifying the information that must be submitted and how it will be evaluated.
  o Developing visual analysis approach for CUPs for additional height in the RTC and UM districts (if applicable), as well as for proposed PUDs and variances, and determining appropriate mitigation procedures/methods for variances and CUPs.
• Actively communicate with other communities to protect views other communities have identified in your community that are valuable, and vice versa.
RESTORATION PRIORITIES

Restoration of natural habitat is important for local wildlife and providing valuable ecosystem services. Cottage Grove is home to native plant communities and significant existing vegetative stands, particularly along the river and on Grey Cloud Island.

Figure 17: Restoration Priorities

Policies
- Protect native and existing vegetation during the development process and require restoration if any is removed by development. Priorities for restoration shall include stabilization of erodible soils, riparian buffers and bluffs or steep slopes visible from the river.
- Seek opportunities to restore vegetation to protect and enhance PRCVs identified in this plan.
- Seek opportunities to restore vegetation in restoration priority areas identified in this plan through the CUP, variance, vegetation permit and subdivision/PUD processes.
- Sustain and enhance ecological functions (habitat value) during vegetation restorations.
• Evaluate proposed development sites for erosion prevention and bank and slope stabilization issues and require restoration as part of the development process.

Implementation Actions
• Ensure that information on the location of natural vegetation restoration priorities is readily available to property owners to understand how relevant ordinance requirements apply to their property for project planning and permitting.
• Establish a vegetation permitting process that includes permit review procedures to ensure consideration of restoration priorities identified in this plan in permit issuance, as well as standard conditions requiring vegetation restoration for those priority areas.
• Establish process for evaluating priorities for natural vegetation restoration, erosion prevention and bank and slope stabilization, or other restoration priorities identified in this plan in CUP, variances and subdivision/PUD processes.
SURFACE WATER USES

Even with its lengthy Mississippi River shoreline, Cottage Grove has few surface water uses. Included is some recreational boat traffic but no recreational marinas. There is barge traffic related to the Aggregate Industries - Nelson Plant (formerly- J. L. Shiely) on Grey Cloud Island5.

Figure 18: Grey Cloud Island

Figure 19: Barge Docking and Loading Facility

5 Minnesota’s River Terminals, March 2013
WATER-ORIENTED USES

Even with its lengthy Mississippi River shoreline, water-oriented uses are very limited within Cottage Grove. Included are single-family residential docks, canoe launch facilities, camp sites, day use areas, picnic areas and the barge facilities related to the Aggregate Industries-Nelson Plant (formerly J. L. Shiely) on Grey Cloud Island. The current Planned Parks, Open Space and Trails document does not include any proposed water-oriented uses.

Policies
- Recognize the Mississippi River as a “working river” that is important to the economy of the Twin Cities metropolitan area and the Midwest.
- Minimize potential conflict of water surface uses authorized under Minn. Statute, Chapter 86B (MR 6110.3000 – 6110.3800).
- Provide for barge fleeting (if applicable) and identify areas where barge fleeting could have a negative impact on PCAs and should be avoided.
- Seek to balance commercial and recreational surface water uses.

Surface Water Uses - Implementation Actions
- Adopt surface water regulations authorized under Minn. Statute, Chapter 86B (MR 6110.3000 – 6110.3800)
OPEN SPACE AND RECREATIONAL FACILITIES

Open space and recreational facilities can include parks, trails, scenic overlooks, natural areas and islands. These add to the quality of a community and increase access for the public to enjoy. Open space and recreational facilities within Cottage Grove’s MRCCA include the area of the Grey Cloud Park within the city, part of the Mississippi River Trail Bikeway and the Grey Cloud Dunes SNA.

Both Transportation Trails and Recreational Trails are proposed within Cottage Grove’s MRCCA. Extensions of the existing Transportation Trail system are proposed in the 2040 Plan; one along the Grey Cloud Trail S bridge and another along E. Point Douglas Rd S. An additional extension is proposed just north of the MRCCA on Ideal Ave S. A short segment of the Recreational Trails is proposed on the east side of the Grey Cloud SNA. Figure x indicates their location. Utilizing part of Lower Grey Cloud Island as a state or county park is also in discussion.

Figure 20: Open Space and Parks
Policies
• Encourage creation, connection, and maintenance of open space, recreational facilities, including public access to the river.
• Encourage that land dedication requirements be used to acquire land suitable for public river access.

Implementation Actions
• Develop a system for reviewing, tracking, and monitoring open space as development occurs.
TRANSPORTATION AND PUBLIC UTILITIES

Transportation and utility facilities (electricity, gas, water, sewer, stormwater) can have negative impacts on scenic views, habitat, and soil stability. Proper design and development of these facilities can minimize their impacts on the MRCCA.

Figure 21: Roads in the MRCCA

Various Cottage Grove Road facilities cross or abut the MRCCA. These include the roadways show on Figure 20 and listed in Table x. Cottage Grove’s Eagle’s Point Wastewater Treatment Plant as well as the usual residential water, wastewater and electric lines are located within the MRCCA.

In the 2040 Plan, two roadway extensions are proposed within Cottage Grove’s MRCCA. One is an extension of Washington Co Hwy 19 and the other extends Hadley Ave S to 103rd St S and connects to Grey Cloud Trail S.

Table 3: Roads in the MRCCA

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E. Point Douglas Rd S – edge of MRCCA</td>
</tr>
<tr>
<td>2</td>
<td>100th St S</td>
</tr>
<tr>
<td>3</td>
<td>103rd St S</td>
</tr>
<tr>
<td>4</td>
<td>109th St</td>
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<td>5</td>
<td>113th St S</td>
</tr>
<tr>
<td>6</td>
<td>115th St S</td>
</tr>
<tr>
<td>7</td>
<td>Hadley Ave S</td>
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<tr>
<td>8</td>
<td>Innovation Rd</td>
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<tr>
<td>9</td>
<td>Miller Rd</td>
</tr>
<tr>
<td>10</td>
<td>Ideal Ave S</td>
</tr>
<tr>
<td>11</td>
<td>Grey Cloud Trail S</td>
</tr>
</tbody>
</table>
Policies

- Minimize impacts to PCAs and PRCVs from solar and wind generation facilities, public transportation facilities and public utilities.

Implementation Actions

- Incorporate specific design and placement conditions that minimize impacts to PCAs and PRCVs into local permits for solar and wind generation facilities and essential and transmission services.
KEY ISSUES AND OPPORTUNITIES
To be developed