

## 7.0 SOCIAL, ECONOMIC, AND ENVIRONMENTAL ISSUES

The following list of social, economic, and environmental issues have been identified based on a preliminary inventory of resources in the project area, an understanding of the issues that are commonly addressed in environmental analysis on similar projects, and requirements of federal, state, and local environmental laws and policies (including the Mn/DOT Highway Project Development Process, also known by its acronym - HPDP). The environmental review process will evaluate the No-Build alternative and the Build alternatives retained for further study in the EIS.

The following social, economic, and environmental issues are expected to require analysis:

- Air quality impacts
- Benefit-cost and analysis
- Bikeways and pedestrians
- Construction impacts
- Contaminated properties
- Cultural resources (historical and archaeological)
- Cumulative Impacts
- Economic impacts
- Environmental justice
- Erosion control and slope stability
- Excess materials
- Farmland impacts
- Fish and wildlife
- Floodplains
- Groundwater and geology
- Handicapped access
- Irreversible and Irretrievable Commitment of Resources
- Land use impacts
- Noise
- Park, recreational, open space, and Section 4(f)/6(f) public-use land
- Relationship of Local Short-term Uses versus Long-term Productivity
- Right-of-way and relocations
- Secondary Impacts
- Social, neighborhood, and community facility impacts
- Soils (prime and unique farmland, statewide important soils)
- Stream and water body modification
- Threatened and endangered species –state and federal
- Traffic impacts and forecasts
- Vegetation
- Visual impacts

- Water quality
- Wetlands

Review of the resources in the project area indicate that the following issues listed will not need to be addressed in the EIS:

- Coastal Zone
- Critical areas
- Earthborn vibrations
- Energy analysis
- Transit impacts
- Wild and Scenic Rivers

Based on preliminary review of the corridor through the scoping process, it is anticipated that some of the key issues that will need to be addressed in detail in the EIS include:

**Prime Farmland/Statewide Important Soils:**

Much of the soil in Nicollet County is designated as prime farmland by the United States Department of Agriculture (USDA). In addition, several soil types that do not have the USDA prime farmland designation are considered important for agricultural production by the state. Each of the proposed improvement alternatives will likely result in the conversion of prime farmland. A quantitative analysis of prime and unique farmland/statewide important soils impacts will be conducted as part of the EIS. **Figure 7-1** identifies Prime Farmland and Statewide Important Soil resources.

**Erosion Control and Slope Stability**

One of the major natural features in the project area is the Minnesota River Valley. At the western end of the TH 14 corridor, the highway descends down the river bluff and follows the river to the TH 14/TH 15 intersection. Improvement alternatives in this area may also have impacts to the river bluff. Detailed analysis of specific alternative routes and likely excavation and filling requirements in river bluff areas will be conducted as part of the EIS. **Figure 7-1** identifies steep slope areas.

In addition to the Minnesota River Valley, there are several intermittent streams and drainage ways in the project corridor. These watercourses will need to be examined during the EIS process to ensure that critical resources will not be negatively impacted by sedimentation from highway construction and operation. The impacts of modifying these watercourses during highway construction will also be assessed during the EIS.

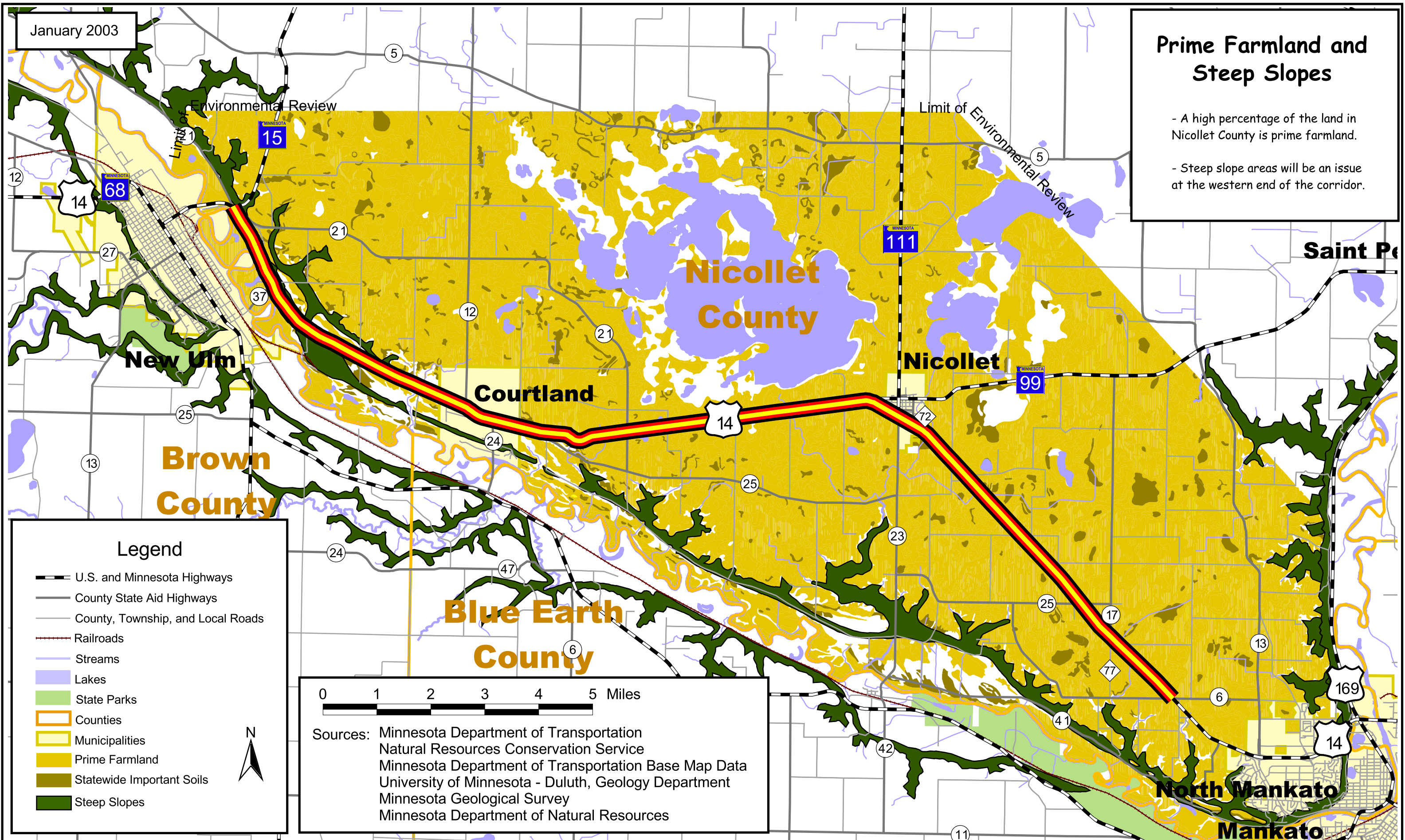
**Wetlands and Water Quality**

There are a substantial number of wetlands in the TH 14 project area. There is a particularly high density of wetland resources north and northwest of the City of Nicollet; many of these wetlands are associated with the Swan Lake Wildlife Management Area. A large number of wetlands and several watercourses also are designated as Public Waters or Public Waters

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# Prime Farmland and Steep Slopes

- A high percentage of the land in Nicollet County is prime farmland.
- Steep slope areas will be an issue at the western end of the corridor.



## Legend

- U.S. and Minnesota Highways
- County State Aid Highways
- County, Township, and Local Roads
- Railroads
- Streams
- Lakes
- State Parks
- Counties
- Municipalities
- Prime Farmland
- Statewide Important Soils
- Steep Slopes

0 1 2 3 4 5 Miles

Sources: Minnesota Department of Transportation  
 Natural Resources Conservation Service  
 Minnesota Department of Transportation Base Map Data  
 University of Minnesota - Duluth, Geology Department  
 Minnesota Geological Survey  
 Minnesota Department of Natural Resources

**14 West Interregional Corridor:**  
 North Mankato to New Ulm

**Figure 7-1**  
 Prime Farmland and Steep Slopes



Wetlands, and are afforded a higher level of protection through Minnesota water quality rules.

During the EIS, wetland and Public Waters/Public Waters Wetland impacts will be quantified for each improvement alternative. In addition, potential impacts to water quality, including short term impacts from construction activities and long term impacts associated with roadway operation and maintenance, will be addressed in a qualitative manner. The focus of water quality impact assessment will be on the evaluation and implementation of appropriate storm water management and mitigation techniques. Such techniques are likely to include grass-lined ditch bottoms, ditch checks, sedimentation basins and infiltration basins; these techniques have been successfully implemented on other highway projects in Minnesota. Generally, rural highway sections do not require storm water ponds, since a sufficient level of pollutant removal is achieved as storm water travels through grassy ditches. Urban sections with curb and gutter will likely require some form of storm water retention basin.

The water quality of the Minnesota River must be considered when evaluating the impacts of highway development in the project area. According to the University of Minnesota Extension Service,

“Pollutants of concern in the Minnesota River Basin include bacteria and other disease-causing organisms, suspended sediments, excess nutrients, and decaying organic matter responsible for low levels of oxygen. These pollutants come from a variety of sources including runoff and erosion from agricultural fields, stream banks and stream channel scouring, city streets, construction sites, feedlots, and the effluent from wastewater treatment plants and septic systems.”<sup>1</sup>

Coordination with appropriate regulatory agencies such as the Minnesota Pollution Control Agency and the Minnesota Department of Natural Resources will be important during the EIS to ensure that TH 14 storm water management is consistent with long term water quality improvement goals for the Minnesota River.

**Figure 7-2** identifies wetlands and public water resources.

### **Floodplains**

Existing TH 14 is immediately adjacent to the Minnesota River 100-year floodplain near the TH 14/TH 15 intersection; expansion on the existing alignment in this area could result in a longitudinal encroachment into the floodplain. In addition, there are floodplains associated with some of the intermittent streams and drainage ways that are tributaries to the Minnesota River. Some of the improvement alternatives cross these floodplains, resulting in a transverse encroachment. During the EIS, floodplain assessments will be conducted and a Floodplain Finding will be included, if necessary.

**Figure 7-2** identifies 100-year floodplains in the TH 14 corridor area.

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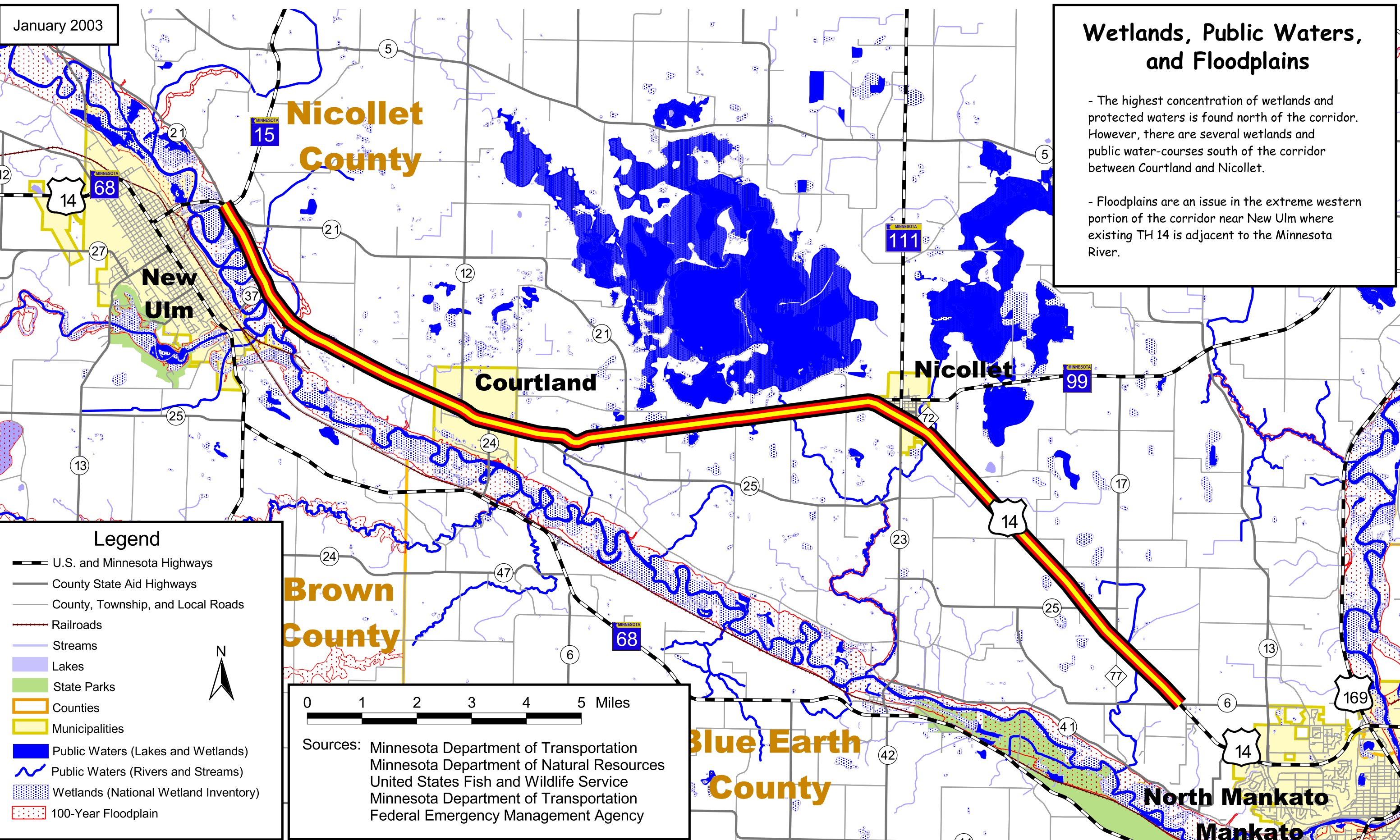
<sup>1</sup> Source: <http://www.extension.umn.edu/distribution/naturalresources/DD7079.html>, Regents of the University of Minnesota, 2002.

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# Wetlands, Public Waters, and Floodplains

- The highest concentration of wetlands and protected waters is found north of the corridor. However, there are several wetlands and public water-courses south of the corridor between Courtland and Nicollet.

- Floodplains are an issue in the extreme western portion of the corridor near New Ulm where existing TH 14 is adjacent to the Minnesota River.



**Legend**

- U.S. and Minnesota Highways
- County State Aid Highways
- County, Township, and Local Roads
- Railroads
- Streams
- Lakes
- State Parks
- Counties
- Municipalities
- Public Waters (Lakes and Wetlands)
- ~ Public Waters (Rivers and Streams)
- ▨ Wetlands (National Wetland Inventory)
- ▤ 100-Year Floodplain

0 1 2 3 4 5 Miles

Sources: Minnesota Department of Transportation  
 Minnesota Department of Natural Resources  
 United States Fish and Wildlife Service  
 Minnesota Department of Transportation  
 Federal Emergency Management Agency

**14 West Interregional Corridor:**  
 North Mankato to New Ulm

**Figure 7-2**  
 Wetlands, Public Waters, and Floodplains



## **Land Use**

Preliminary assessment of the TH 14 corridor has included review of existing land use and proposed future land use, especially in the cities of Courtland and Nicollet. During the EIS process, land uses that are incompatible with transportation improvements will be identified, and each transportation improvement alternative will be assessed for consistency with local and regional planning.

In order to avoid cemeteries during the development of potential alternatives, the preliminary land use review included the identification of cemeteries, as shown on **Figure 7-3**.

## **Park, Recreational, Open Space, and Section 4(f)/6(f) Public-use Land**

The project area contains the Swan Lake Wildlife Management Area (WMA) and several small local and regional parks. Improvements to the existing alignment could impact local parks in the City of Courtland, and would likely impact Swan Lake WMA property between Courtland and the City of Nicollet. New alignment alternatives do not appear to impact WMA or park properties. Any acquisition of park property, would trigger Section 4(f) evaluation requirements; review of the status of the WMA will be required to determine the applicability of Section 4(f) requirements.

**Figure 7-4** identifies Parks and Wildlife Management Areas in the TH 14 corridor, as well as rare natural features in the study area.

## **Bikeways and Pedestrians**

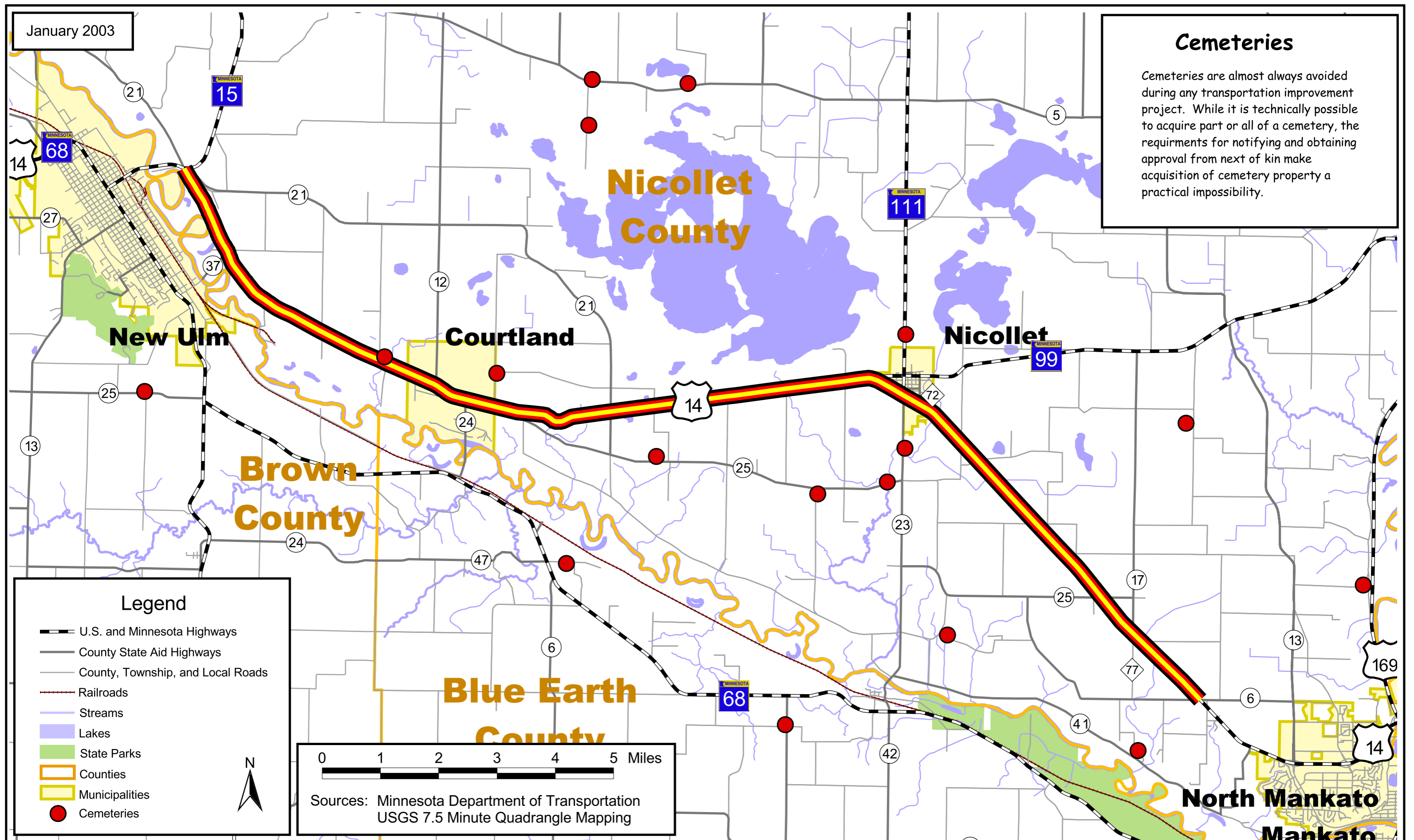
Facilitation of non-motorized traffic should be considered during the EIS process. In general, an interregional corridor such as TH 14 is not an ideal conveyor of non-motorized traffic. Identification of suitable parallel alternative routes for bicycles is therefore a key piece of the EIS process. TH 68, which roughly parallels TH 14 on the south side of the Minnesota River between Mankato and New Ulm, has significantly lower traffic volumes and sufficient paved shoulder widths to make bicycling an acceptably safe mode of travel. In addition, TH 68 tends to be a more scenic corridor, which is a benefit for a bicycle route as most bicyclists look for scenic qualities as part of their overall travel experience.

The safe accommodation of bicyclists and pedestrians should be given full consideration. Therefore, an assessment of bicycle and pedestrian traffic to safely cross TH 14 at key locations, such as in the cities of Courtland and Nicollet, will be conducted. In addition, consideration should be given during the EIS process to the TH 68 corridor as a suitable alternative to TH 14 for bicycle traffic.

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**Cemeteries**

Cemeteries are almost always avoided during any transportation improvement project. While it is technically possible to acquire part or all of a cemetery, the requirements for notifying and obtaining approval from next of kin make acquisition of cemetery property a practical impossibility.



**Legend**

- U.S. and Minnesota Highways
- County State Aid Highways
- County, Township, and Local Roads
- Railroads
- Streams
- Lakes
- State Parks
- Counties
- Municipalities
- Cemeteries

**Legend**

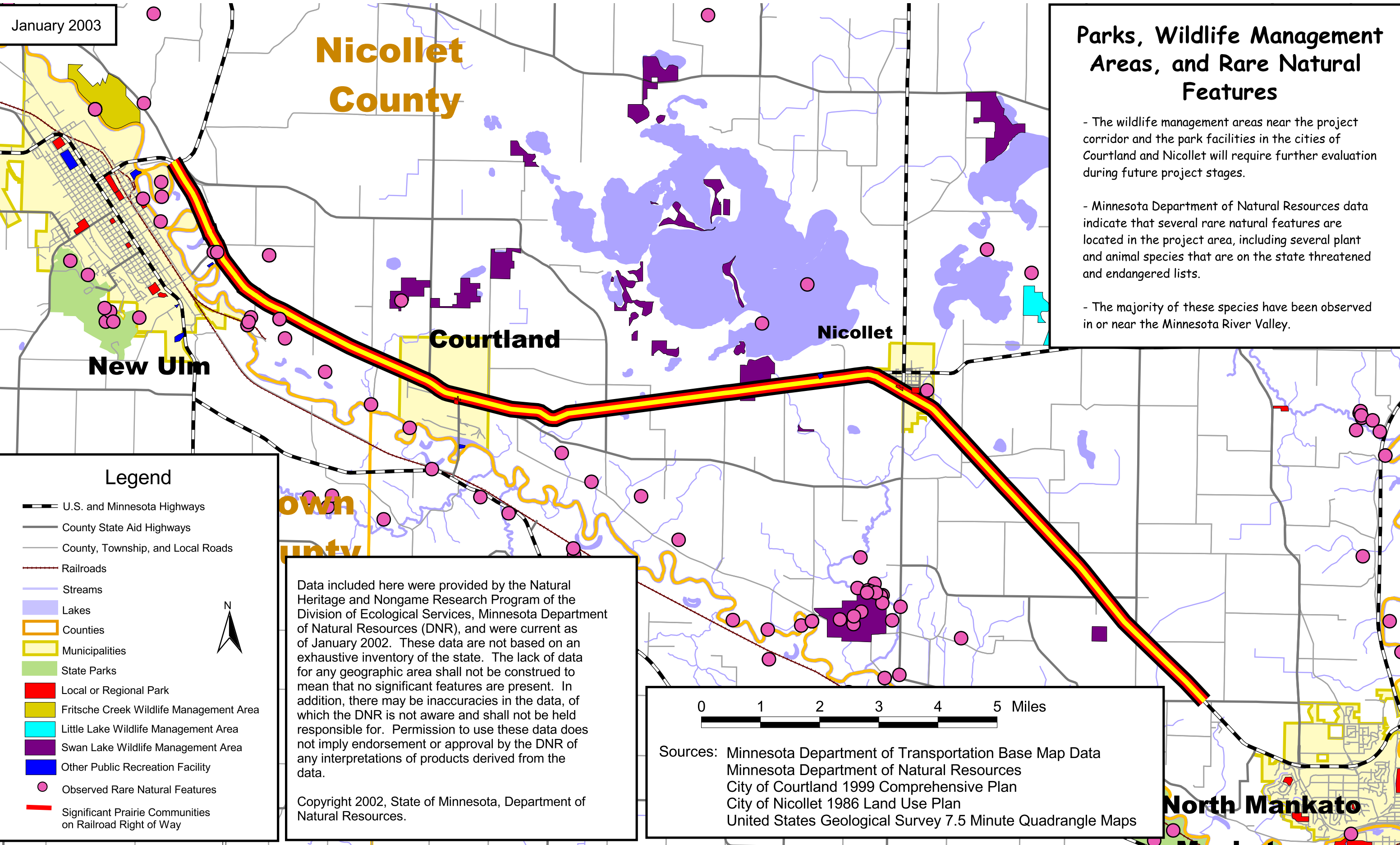
0 1 2 3 4 5 Miles

Sources: Minnesota Department of Transportation  
USGS 7.5 Minute Quadrangle Mapping

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## Parks, Wildlife Management Areas, and Rare Natural Features

- The wildlife management areas near the project corridor and the park facilities in the cities of Courtland and Nicollet will require further evaluation during future project stages.
- Minnesota Department of Natural Resources data indicate that several rare natural features are located in the project area, including several plant and animal species that are on the state threatened and endangered lists.
- The majority of these species have been observed in or near the Minnesota River Valley.



Data included here were provided by the Natural Heritage and Nongame Research Program of the Division of Ecological Services, Minnesota Department of Natural Resources (DNR), and were current as of January 2002. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. In addition, there may be inaccuracies in the data, of which the DNR is not aware and shall not be held responsible for. Permission to use these data does not imply endorsement or approval by the DNR of any interpretations of products derived from the data.

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0 1 2 3 4 5 Miles

Sources: Minnesota Department of Transportation Base Map Data  
 Minnesota Department of Natural Resources  
 City of Courtland 1999 Comprehensive Plan  
 City of Nicollet 1986 Land Use Plan  
 United States Geological Survey 7.5 Minute Quadrangle Maps