APPENDIX A: QUALITATIVE ENVIRONMENTAL IMPACT SCREENING

The US 41/WIS 441 Operational Needs Assessment study area was inventoried to qualitatively assess apparent environmental issues. This screening exercise is not a National Environmental Protection Agency (NEPA) level analysis of potential environmental impacts; rather it is intended to assist the Wisconsin Department of Transportation (WisDOT) in identifying any "red flag" issues that they may encounter within the study area. The list of potential impact categories replicates WisDOT's environmental assessment checklist.

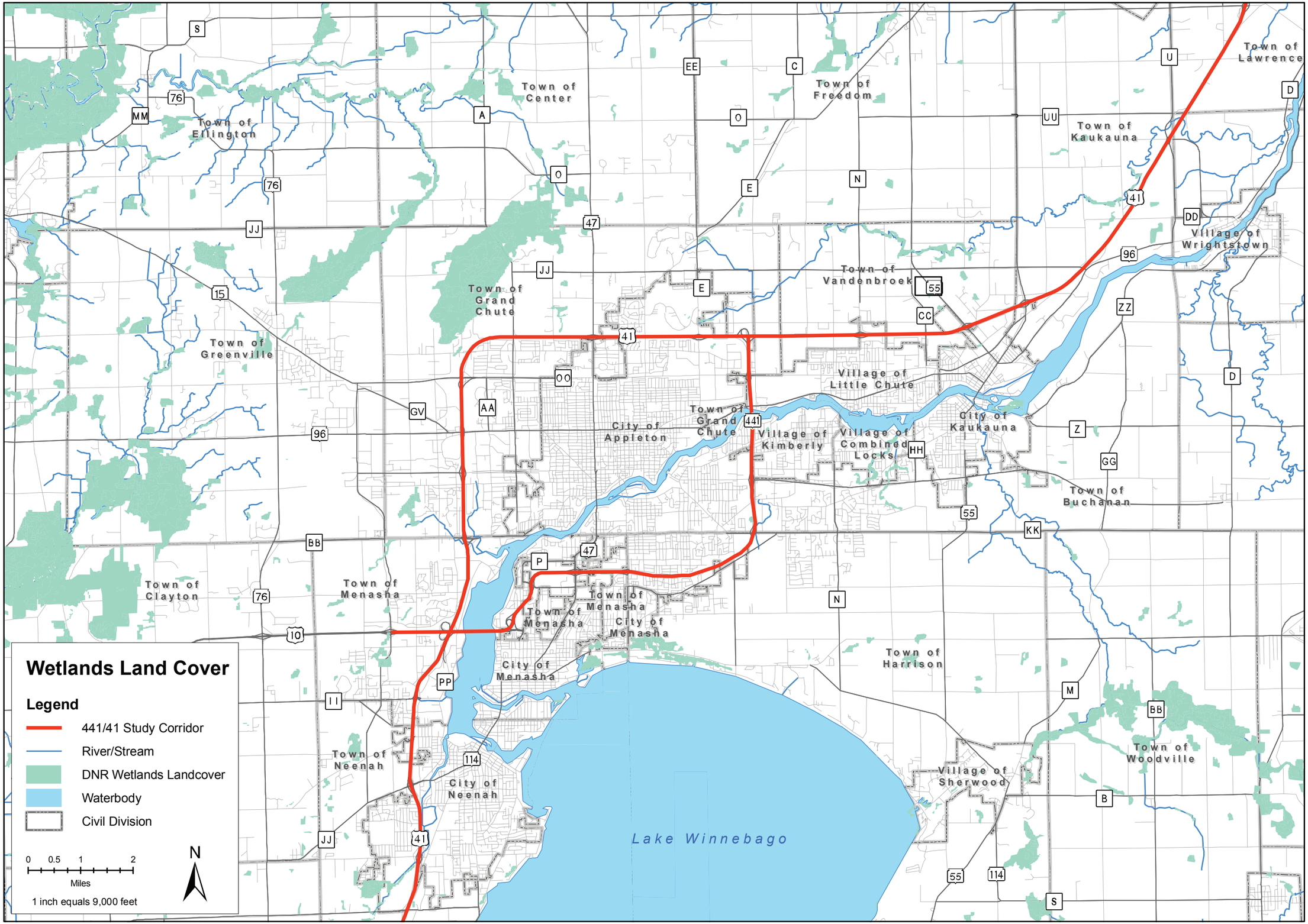
As improvements are proposed in future phases of this study, further assessments can be applied to rate the potential impacts in each category. Continuous rating of potential impacts will help to guide the development of alternative improvement measures.

Potential Impacts	Comments
SOCIO-ECONOMIC FACTORS	
A. General Economics	When relocations and right of way purchases are necessary, there may be property acquisition costs to WisDOT and a related drop in tax revenue for the local community. Expenditures would be made for construction (potential local purchase of goods and services), and there would be construction related employment opportunities.
B. Community and Residential	Disruptions to the community could occur when homes are relocated or when community resources are impacted. Construction impacts such as detours, noise and dust can also effect nearby neighborhoods, although these would be temporary impacts. Most of the interchanges in the study area are not adjacent to residential uses. Improvements that increase safety can benefit the adjacent community by making the roadways safer to drive. Changes that improve traffic flow or ease congestion are also a benefit to the community. Projects that incorporate community sensitive designs can also be a benefit to the community by improving local aesthetics.
C. Economic Development and Business	The highways are essential to the area's economy by providing a means for commuters to get to and from work and by providing necessary facilities to distribute goods and supplies to and from manufacturers to market. Changes that improve safety and congestion will make the areas more attractive to new and existing businesses alike. All of the communities in the study area agree that there is a need to foster economic growth. Local businesses will be concerned with any direct impacts to their properties, including outright business relocations due to right of way adjustments. Access impacts may also occur to adjacent businesses, which will require significant coordination and cooperation to ensure safe and adequate access for those businesses. Businesses affected by safety improvements such as installation of medians, changing driveways to right-in/right-out, and reducing numbers or size of driveways, often perceive these safety improvements as negative.
D. Agriculture	Much of the study corridor is located on the edge of urban development. Physical improvements that would increase accessibility to undeveloped lands will threaten agricultural lands. Local communities may choose to take advantage of increased accessibility by allowing or encouraging development of lands that may be in agricultural production.

Potential Impacts	Comments
E. Environmental Justice	The demographics within the study corridor is predominantly white, however the City of Appleton has the greatest percentage of minorities. There is a relatively large Asian population in the City of Appleton. There are some areas that have a higher level of poverty and a higher elderly population. It is not expected that the improvements within the study corridor would disproportionately adversely affect any environmental justice populations. Construction within neighborhoods that have higher environmental justice populations will require community outreach in the planning stages. WisDOT typically involves affected populations in the early stages of preliminary design and seeks to implement community sensitive design elements.
NATURAL ENVIRONMENT FACTORS	
F. Wetlands	Wetlands are scattered and there are few areas where the highway abuts wetlands. (See **Exhibit A-1**) It is expected that improvements at those locations could affect small acreages of wetlands. Coordination with DNR on wetland impacts would help to establish the types and rarity of any impacted wetlands.
G. Streams and Floodplains	Floodplain exists in the area associated with the features of the Fox River System. Any work within the floodplain should comply with local floodplain ordinances. (See **Exhibit A-2**) Little Lake Butte Des Morts is designated as a high priority stream under the Nonpoint Source Pollution Abatement Program basin plan ranking process. A number of the small, urbanized unnamed tributaries in the area are severely impacted by stormwater runoff via storm sewers and direct runoff, and many have been ditched. One such stream is located near the CTH KK (Calumet Street) interchange.
H. Lakes or Other Open Water	Little Lake Butte des Morts is the only lake in the study area, being an impoundment of the Appleton Dam on the Fox River. There is also some open water near the US 41/Wrightstown Road interchange. It is not expected that any significant impacts to these resources would occur, however erosion control measures and best management practices would be implemented on any construction projects to protect harmful runoff into the Fox River System.
I. Upland Habitat	The majority of the adjacent lands are developed or in agricultural production. This factor is not expected to be a concern.
J. Erosion Control	Soils vary throughout the corridor, so each improvement area would need to be reviewed on a case-by-case basis. Highly erodible soils will require the implementation of best management practices in order to properly conserve these soils. Much of the study area is classified as silty loam type soils. Soils in the northern parts of the study area are classified primarily as silty clay or silty clay loam.
K. Storm Water Management	The study area lies in the Lower Fox Basin, one of the most urbanized basins in Wisconsin. Urban and industrial runoff contributes to persistent water quality problems. Storm water management measures for construction and post construction will be required.

Potential Impacts	Comments
PHYSICAL ENVIRONMENT FACTORS	
L. Air Quality	The study area counties are within the Lake Michigan Intrastate Air Quality Control Region #237. These counties are in attainment. The need for Air Quality permits for construction would be determined on a case by case basis.
M. Construction Stage Sound	Areas closest to residential uses would be of most concern. Noise from construction operations may require construction restrictions or other considerations, with particular concern near residential areas or individual sensitive receptors. The largest concentration of residential uses occurs along the segment of US 41 between W Capitol Drive and CTH E (Ballard Road). WIS 441 has a few stretches where residential uses dominate including areas between US 10/WIS 441 and CTH AP (Midway Road), from Oneida Street to Lake Park Road and from CTH Z (Kimberly Avenue) to Main Street/Oakridge Road.
N. Traffic Noise	Existing traffic noise increases would be incremental, and not likely significant in areas where there are no residential uses. Capacity expansions can be expected to require consideration for noise mitigation within residential areas or near sensitive receptors, as identified in **Section M** above.
CULTURAL ENVIRONMENTAL FACTORS	
O. Section 4(f)	Major parks located adjacent to the study highways include: Prairie Hill Park at US 41/CTH OO (Northland Avenue) interchange and Green Meadows Park in Appleton along WIS 441. The Friendship State Trail, which is a multi-use path funded in part by WisDOT is also located in the study area. Bike Paths cross the study corridor at WIS 114/CTH JJ (Winneconne Avenue) interchange, US 10/WIS 441 interchange and on CTH A (Lynndale Drive) and Meade Street, which cross US 41. Whether Section 4(f) would be a concern would depend on whether right-of-way would be required from these locations or if there is a “constructive use”. WisDOT avoids the use of 4(f) properties where at all possible.
P. Historic Resources	Much of the study corridor has been surveyed for previous highway projects. A preliminary review of recorded historic sites shows no sites of concern along the highways. The majority of recorded sites are located within Appleton proper. Most development in the study corridor is newer, so impacts on historic resources is not anticipated..
Q. Archaeological Resources	Much of the study area has been surveyed for previous US 41 projects. There are some cemeteries and recorded sites. There are some areas however that will require more investigation.
R. Hazardous Substances or Underground Storage Tanks (UST)	Hazardous materials investigations would be required for purchase of right of way and to determine construction impacts of any future highway improvements. Urban and industrial areas such as those included in the study area have a high probability of finding past spills, leaking underground storage tanks (LUST) or other issues. Further investigation would be required to identify hazardous materials sites.

Potential Impacts	Comments
S. Aesthetics	Alternatives that contain bridge repair or reconstruction, increase the size of interchanges, or the installation of roundabouts often alter the aesthetic character of an area. Community sensitive design (CSD) elements often soften the aesthetic effect of highways. Public involvement in CSD would be necessary.
T. Coastal Zone	The study area is not in a Coastal Zone County.
U. Airport	Portions of the western limits of the study corridor are located within 2 miles of the Outagamie County Regional Airport. Coordination with the Bureau of Aeronautics as well as the Federal Aviation Administration (FAA) would be necessary on any project within 2 miles of the airport. Impacts will be higher in areas where work on bridges may require use of cranes.



US 41 / WIS 441

WETLANDS LAND COVER

WISCONSIN DEPARTMENT OF TRANSPORTATION

HNTB

Exhibit A-1

Operational Needs Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Sheet 1 of 1

Floodplains

Legend

- 441/41 Study Corridor
- River/Stream
- Floodplain
- Waterbody
- Civil Division

0 0.5 1 2
Miles

1 inch equals 9,000 feet

N

Town of Ellington
Town of Center
Town of Freedom
Town of Lawrence
Town of Kaukauna
Village of Wrightstown
Town of Grand Chute
Town of Vandenbroek
Town of Greenville
Village of Little Chute
City of Appleton
Town of Grand Chute
Village of Kimberly
Village of Combined Locks
City of Kaukauna
Town of Buchanan
Town of Clayton
Town of Menasha
Town of Menasha
Town of Menasha
City of Menasha
City of Menasha
Town of Harrison
Town of Neenah
City of Neenah
Village of Sherwood
Town of Woodville
Lake Winnebago

WISCONSIN DEPARTMENT OF TRANSPORTATION

US 41 / WIS 441
FLOODPLAINS

HNTB

Exhibit A-2

Operational Needs Assessment
US 41 and WIS 441
PRELIMINARY REPORT

Sheet 1 of 1