



## 4.0 ENVIRONMENTAL CONSEQUENCES

### 4.1 INTRODUCTION

This chapter describes the beneficial and adverse social, economic, and environmental consequences of the No Build and Build Alternatives that underwent evaluation. The section first addresses general impacts, including the overall use of resources, the relationship between short-term environmental uses and long-term productivity, and the secondary and cumulative effects of the alternatives. Next, the direct environmental impacts of the alternatives are compared in two matrices and then described, if necessary, in detailed evaluation factor sheets. Direct impacts are arranged by category: socio-economic, natural environment, physical environment, and cultural environment. The list below describes these sections in more detail.

- Environmental Impact Summary Matrix

This matrix provides a project overview of the environmental impacts and costs in a tabular form. The matrix includes construction and real estate costs, land acquisition estimates, farmland affected, residents affected, and natural environment issues such as wetlands, uplands, endangered species, archaeological/historical resources, and air and noise quality.

- Corridor Environmental Evaluation Matrix

This matrix provides an overview of the alternatives in a side-by-side comparison. The matrix is divided into the four categories of factors mentioned above. Specific factors are included within each group and are each designated by letter.

In this section, the impact to each specific factor is defined as adverse, benefit, none, or not applicable for each corridor alternative. The environmental effect is summarized for each factor, and if further description is necessary, a detailed evaluation of the factor is found in the next section.

- Detailed Factor Sheets

This section includes detailed evaluations of the specific environmental factors introduced in the previous section. Some factors in the Evaluation Matrix are not applicable to the alternatives or are fully discussed in the matrix and are, therefore, not discussed further in the Factor Sheets.

Following the discussion of the direct impacts is a section that describes WisDOT's commitments to mitigating direct impacts of the alternatives. The Wisconsin Department of Natural Resources (DNR), the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), the U.S. Army Corps of Engineers (COE), the U.S. Fish & Wildlife Service (USF&WS), and the U.S. Environmental Protection Agency (EPA) have commented on this proposed project throughout the scoping process. This section attempts to recognize and address the agencies' comments.

## 4.2 ENVIRONMENTAL IMPACT SUMMARY

**Transportation Improvements**

Environmental Issue	Unit Measure	Options/Alternatives						
		No Build	West Section		East Section			
			A	B	1 <sup>1</sup>	2	3	4
<b>Project Length</b>	Mi	10.7	3.4	3.2	7.3	7.9	7.3	7.9
<b>Cost \$</b>								
Construction	Million \$	0	11.9	11.1	27.3 (NA) (26.7)	36.0	32.1	36.2
Jurisdictional Transfer <sup>2</sup>	Million \$	0	N/A	1.1	N/A	5.4	3.8	3.9
Miscellaneous <sup>3</sup>	Million \$	0	3.4	3.4	5.3	5.7	5.3	6.7
Real Estate <sup>4</sup>	Million \$	0	8.1	5.7	14.4	3.2	8.8	8.5
<b>Total</b>	Million \$	0	26.2	26.2	40.3	43.4	40.4	51.6
<b>Land Conversions</b>								
Total Area Converted to R/W <sup>5</sup>	Acres	0	122	134	305	409	342	385
Wetland Area <sup>6</sup>	Acres	0	0.9- 6.3	1.2- 13.0	1.3-12.4	2.7- 28.8	11.5- 24.1	3.8- 30.7
Agricultural Area	Acres	0	52	76	94	254	163	186
Upland Area	Acres	0	22	20	30	53	34	69
Other Area <sup>7</sup>	Acres	0	47	37	179	99	134	126
<b>Real Estate</b>								
Number of Farms Affected	Number	0	1	5	3	14	8	12
AIS Required? <sup>8</sup>	Yes/No	No	YES	YES	YES	YES	YES	YES
Farmland Rating	Score	N/A	111	136	108	136	131	131
Total Buildings Required	Number	0	20	14	66 (60) (35)	3	21	14
Housing Units Required	Number	0	9	7	47	3	17	13

<sup>1</sup> Alternative 1 assumes a “desirable” standard cross-section through town. Where there are two figures in parentheses, they represent impacts due to (minimum standards) and (minimum standards, no parking or sidewalks). See Chapter 2 for a description of these detailed cross-sections studied.

<sup>2</sup> JT cost includes reconstruction of WIS 15 through Hortonville (Givens Rd/County T to Greendale Rd) and resurfacing in the rural areas.

<sup>3</sup> Miscellaneous costs include wetland mitigation and utility relocations. Estimated at 15% of other costs.

<sup>4</sup> Real Estate Cost was calculated by adding the total relocation/acquisition cost with the total estimated acreage multiplied by \$10,000 per acre.

<sup>5</sup> Total Area Converted to R/W calculated based on a 225-foot corridor subtracting existing R/W for both on and off-alignment options. The R/W for portion of Alternative 1 traveling through Hortonville was calculated using a 110-foot corridor subtracting existing R/W. Outagamie GIS data sets were used for land type calculations

<sup>6</sup> Wetland Area Filled was estimated by using the methodology used in footnote 5 above (225-foot corridor in rural areas and 110-foot corridor in urban areas). First figure represents wetland area from Outagamie County GIS data, second figure based on wetland delineations of a 600 foot corridor and factored to reflect the 225 foot probable construction corridor.

<sup>7</sup> Other area includes primarily urban development and undeveloped urban area.

<sup>8</sup> The Department of Agriculture, Trade, and Consumer Protection (DATCP) has determined that they will prepare an AIS once a preferred alternative is selected. See Section 7.0 for correspondence.

Environmental Issue	Unit Measure	Options/Alternatives						
		No Build	West Section		East Section			
			A	B	1 <sup>1</sup>	2	3	4
Commercial Units Required	Number	0	11	7	19	0	4	1
Other Buildings or Structures Required	Number (Type)	0	0	0	0	0	0	0
<b>Environmental Issues</b>								
Flood Plain	Yes/No	N/A	No	Yes	No	Yes	Yes	Yes
Stream Crossings	Number	0	2	2	5-7	5	4	3
Endangered Species	Yes/No	N/A	No	No	No	No	No	No
Historic Properties <sup>9</sup>	Number	0	0	0	3	1	1	1
Archeological Sites	Number	0	21	13	20	17	3	18
106 MOA Required? <sup>10</sup>	Yes/No	No	No	No	ND	ND	ND	ND
4(f) Evaluation Required?	Yes/No	No	No	No	Yes	Yes	Yes	Yes
Environ Justice At Issue?	Yes/No	No	No	No	No	No	No	No
Air Quality Permit?	Yes/No	No	No	No	No	No	No	No
Design Year Noise Sensitive Receptors	Number	218	22	19	157	16	23	16
No Impact	Number	89	11	2	49	7	0	0
Impacted	Number	130	11	17	108	9*	23*	16*
Exceed dBA Levels	Number	123	11	7	108	6	10	8
Contaminated Sites	Number	0	11	6	36	8	17	17

\*Note: With the bypass Alternatives 2, 3 and 4, the noise levels inside Hortonville will be decreased from 2 to 5 dBA. This removes 50 households from being impacted that would have been impacted with the No Build Alternative or Alternative 1. This amounts to an overall decrease in impacted households of 37, 27, and 34 dBA for Alternatives 2, 3, and 4, respectively.

<sup>9</sup> Historic Properties refer to those potentially eligible for listing in the NRHP. One of the sites along Alternative 1 is a potential historic district that includes numerous individual buildings.

<sup>10</sup> Section 106 documentation will be completed once a preferred alternative is chosen.

ENVIRONMENTAL FACTORS	EFFECTS			Not Applicable	COMMENTS
	Adverse	Benefit	None		
(Blacked out cells in this column require a check in at least one of the other columns)					
<b>SOCIO-ECONOMIC FACTORS</b>					
<b>A. General Economics</b>					See factor sheet A for detailed evaluation.
<b>No Build Alternative</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<p>In the short term, the No-Build Alternative would not affect the area's general economies. In the long term, increased traffic will create more congestion on WIS 15 and result in less efficient movement of goods between economy centers. The No-Build Alternative will not accommodate farm equipment as well as the build alternatives. All build alternatives involve capacity expansion to four lanes. An economic advantage of the proposed action is the travel time savings and improved safety because of reduced delays and congestion. The build alternatives will update WIS 15 and decrease the cost of moving goods and services between economic centers. The bypass alternatives have the potential to negatively affect general economy in the existing downtown business community.</p>
<b>Option A</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Option B</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 1</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 4</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>B. Community and Residential</b>					See factor sheet B for detailed evaluation.
<b>No Build Alternative</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>In the short term, the No Build Alternative would not affect the area residences and communities. However, the increased traffic will create more congestion on WIS 15 and result in more dangerous driving conditions for current residents. All of the build alternatives will help increase safety and alleviate congestion. All of the build alternatives also require relocation of some residential and farm properties.</p> <ul style="list-style-type: none"> <li>▪ Option A–9 owner-occupied households</li> <li>▪ Option B–7 owner-occupied households</li> <li>▪ Alternative 1–38 (34) (14) owner-occupied households 9 (9) (6) renter-occupied households</li> <li>▪ Alternative 2–3 owner-occupied households</li> <li>▪ Alternative 3–17 owner-occupied households</li> <li>▪ Alternative 4–13 owner-occupied households</li> </ul> <p>Each resident and property owner would be eligible for relocation assistance according to the Federal Uniform Relocation Act of 1972.</p>
<b>Option A</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Option B</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 1</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 4</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ENVIRONMENTAL FACTORS	EFFECTS			Not Applicable	COMMENTS
	Adverse	Benefit	None		
					(Blacked out cells in this column require a check in at least one of the other columns)
<b>C. Economic Development and Business</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b>  <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>  <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet C for detailed evaluation.</p> <p>In the short term, the No Build Alternative would not affect the area's economy development. In the long term, increased traffic will create more congestion on WIS 15 and result in less efficient movement of goods between economic centers. All build alternatives involve capacity expansion to four lanes. An economic advantage of the proposed action is the travel time savings and improved safety because of reduced delays and congestion. The build alternatives will update WIS 15 and decrease the cost of moving goods and services between economic centers. The bypass alternatives have the potential to negatively affect local economies in the existing downtown business community.</p> <ul style="list-style-type: none"> <li>▪ Option A–11 businesses, 59 jobs displaced</li> <li>▪ Option B–7 businesses, 43 jobs displaced</li> <li>▪ Alternative 1–19 (17) (15) businesses, 122 jobs displaced</li> <li>▪ Alternative 2–0 businesses, 0 jobs displaced</li> <li>▪ Alternative 3–4 businesses, 4 jobs displaced</li> <li>▪ Alternative 4–1 businesses, 1 job displaced</li> </ul> <p>Each business and property owner would be eligible for relocation assistance according to the Federal Uniform Relocation Act of 1972.</p>
<b>D. Agriculture</b>  <b>No Build Alternative</b>  <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet D for detailed evaluation.</p> <p>With the exception of the No Build Alternative, all build alternatives would impact substantial amounts of farmland as follows:</p> <ul style="list-style-type: none"> <li>▪ Option A–52 acres</li> <li>▪ Option B–76 acres</li> <li>▪ Alternative 1–94 acres</li> <li>▪ Alternative 2–254 acres</li> <li>▪ Alternative 3–163 acres</li> <li>▪ Alternative 4–186 acres</li> </ul> <p>Each resident, business, and property owner would be eligible for relocation assistance according to the Federal Uniform Relocation Act of 1972. Detailed information on farm operations and severances will be provided in the Agricultural Impact Statement which will be prepared by DATCP for the preferred alternative. See Section 7.0 for a summary of correspondence and coordination with agencies, including DATCP.</p>

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
(Blacked out cells in this column require a check in at least one of the other columns)					
<b>E. Environmental Justice</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet E for detailed evaluation.</p> <p>In general, the percentages of minorities and low-income persons within the study corridor are smaller than the percentages of these groups in the county. The study team contacted local officials to determine whether there are any pockets of minority or low-income residents that might be affected by the project alternatives. No populations were identified that would be directly affected; however Alternative 3 may indirectly affect a home for disabled individuals. If this alternative is chosen as the preferred alternative, measures to avoid, minimize and mitigate any negative effects would be pursued. These measures could include installing landscaping or other site design features that could serve as a physical and visual barrier between the highway traffic and the local residents.</p>
<b>NATURAL ENVIRONMENT FACTORS</b>					
<b>F. Wetlands</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet F for detailed evaluation.</p> <p>Summary of approximate wetland impacts:</p> <ul style="list-style-type: none"> <li>▪ No Build–No Impacts</li> <li>▪ Option A–6.3 acres filled (16 sites)</li> <li>▪ Option B–13.0 acres filled (17 sites)</li> <li>▪ Alternative 1–12.4 acres filled (37 sites)</li> <li>▪ Alternative 2–28.8 acres filled ( 25 sites)</li> <li>▪ Alternative 3–24.1 acres filled (36 sites)</li> <li>▪ Alternative 4–30.7 acres filled (38 sites)</li> </ul> <p>A wetland survey was performed for an approximately 600-foot corridor along each alternative. The amount of wetlands filled was estimated by multiplying area of each wetland in the 600-foot corridor by 0.37 (225'/600'). This method reflects the assumption that the actual right-of-way width needed will be approximately 225 feet. The area of wetlands filled is expected to be conservative, since final design will provide an opportunity to create a design that minimizes wetland impacts by adjusting the horizontal alignment and narrowing the cross-section.</p> <p>With respect to the filling of any wetlands, construction will be done in accordance with the Standard Specifications or Special Provisions with an emphasis to minimize direct impacts to vegetation and resulting hydrology of impacted wetlands.</p>

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
					(Blacked out cells in this column require a check in at least one of the other columns)
					Dewatering in sensitive areas or areas containing springs may be documented dependent on alternative selected. Similarly design efforts will utilize techniques to minimize degradation or diminishment of water quality. The Department will mitigate wetland impacts during the design phase of the project.
<b>G. Streams and Floodplains</b>					See factor sheet G for detailed evaluation.
<b>No Build Alternative Option A</b>	<input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<p>Construction will be done in accordance with the Standard Specifications or Special Provisions to minimize erosion and sedimentation. Minor temporary disturbance during construction can be expected and disturbed banks will be treated with erosion-mat, riprap, or seed and mulch. Other guidance as noted in wetland evaluation matrix applies also.</p> <p>Summary of Impacts:</p> <ul style="list-style-type: none"> <li>▪ <i>No Build</i>—No Impacts</li> <li>▪ <i>Option A</i>—Two separate crossings of small streamthreads associated with tributary to Wolf River would involve a few acres of riparian habitat. Small channel location may be necessary.</li> <li>▪ <i>Option B</i>—Impacts would center upon a new crossing near a confluence of two tributaries to the Wolf River and associated riparian habitat within and agricultural setting. Two structures and channel realignment likely.</li> <li>▪ <i>Alternative 1</i>—Only one perennial creek crossing of Black Otter Creek (BOC) in a residential and urban section, near the Village’s Miller Park. Area would require bridge expansion. Between 5-7 other minor crossings or minor equalizer pipes in the eastern segment are minor tributaries to the BOC or Rat River</li> <li>▪ <i>Alternative 2</i>—Two stream crossings required w/in the floodplain of Black Otter Creek (BOC) between Old Mill and Greendale. These are middle sections of three long natural intermittent tributaries to the BOC.</li> <li>▪ <i>Alternative 3</i>—Alternative 3 would impact the main channel of BOC as it currently exists near the Wolf River environs, current golf course, and village park. On-alignment areas in Sections 4 and 5 of Greenville Twsp would also require three minor crossings served with equalizer pipes.</li> </ul>
<b>Option B</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 1</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
					(Blacked out cells in this column require a check in at least one of the other columns)
Alternative 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>Alternative 4—Impacts include significant open water, channel, and Black Otter Lake impacts as well as crossing of a naturally reverted urban tributary to BOL. Floodplain fill could be extensive as well as impacts to bordering natural habitat in environmentally sensitive area. There are also two minor tributaries or equalizer pipes.</li> </ul>
<b>H. Lakes or Other Open Water</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet H for detailed evaluation.</p> <p>Alternatives 1 and 4 of the WIS 15 corridor affect Black Otter Lake. Alternative 1 may only slightly impact the lake where an excavated channel borders the alignment at the Alonzo Village Park. The channel is a conveyance receiving water to buried pipes that serve a waterway/watershed draining to the lake from the west to east side of existing WIS 15.</p> <p>Alternative 4 would have a substantial effect on habitat conditions and water quality both during construction and maintenance. The alignment directly impacts and fills up to 25 acres of wetlands on the natural southern shoreline of Black Otter Lake.</p>

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
					(Blacked out cells in this column require a check in at least one of the other columns)
<b>I. Upland Habitat</b>  No Build Alternative Option A Option B Alternative 1 Alternative 2 Alternative 3 Alternative 4	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See factor sheet I for detailed evaluation.  Selected alternatives do not substantially fragment upland forests, and many forested blocks are associated with wetland communities or are transitional to wetlands. Upland habitat discussed in the document describes the diverse forested blocks that contain both upland and wetland communities. These areas are limited to about five locations within the cumulative corridor. Minimizing the import or spread of invasive species will be important to maintaining the quality of some of these areas.  A second item of discussion regarding upland habitat is the requirement to evaluate areas near County JJ for the presence of Lupine prior to finalization of this document. Lupines are the host plant of the federally-endangered Karner Blue Butterfly. The review was completed in May 2006 and no habitat was found.  In general the impacts to uplands for the on-alignment sections (Option A and Alt 1) have minor longitudinal encroachments to some woodlots and pine plantations.
<b>J. Erosion Control</b>  No Build Alternative Option A Option B Alternative 1 Alternative 2 Alternative 3 Alternative 4	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Because of the extent of the project, temporary disturbance and water quality degradation is possible during construction and the early phases of vegetative establishment of the right of way plantings and seeding.  Short- and long-term erosion control will be implemented according to all governing ordinances and policies for the construction phase and for long-term management. Best management practices may include silt fence, seeding, erosion mats, mulching and other measures.

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
					(Blacked out cells in this column require a check in at least one of the other columns)
<b>K. Storm Water Management</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>See factor sheet K for detailed evaluation.</p> <p>Road construction could potentially affect stormwater quality and quantity, stormwater management measures including Best Management Practices (BMPs) will be implemented both during construction and for long-term management and will follow Wis. Adm. Code Trans 401 and cooperative agreement.</p> <p>Appropriate techniques and suitable lands exist for most alternatives for incorporating the needed stormwater management measures needed for a WisDOT transportation project. Areas of Alternatives 2, 3, and 4 would likely require special efforts to maintain water quality for the area. The wetlands and streams in the area are reported to be groundwater discharges points. This indicates that typical measures such as infiltration may be limited for any proposed facilities. Therefore, efforts will be made to incorporate the needed surface runoff treatments within these areas.</p>

ENVIRONMENTAL FACTORS	EFFECTS			Not Applicable	COMMENTS
	Adverse	Benefit	None		
(Blacked out cells in this column require a check in at least one of the other columns)					
<b>PHYSICAL ENVIRONMENT FACTORS</b>					
<b>L. Air Quality</b>					See Factor Sheet L for detailed evaluation.
<b>No Build Alternative</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Outagamie County is within the Lake Michigan Interstate Air Quality Control Region as designated under Wisconsin Administrative Code - Chapter NR 404.03. According to the USEPA, Outagamie County is presently in attainment for all National Ambient Air Quality Standards as specified in the 1990 Clean Air Act Amendment.  The entire WIS 15 expansion project is exempt from indirect source permit requirements under NR 411 because: <ul style="list-style-type: none"> <li>▪ The modified highway located in Outagamie County (a metropolitan county), the increase in peak hour volume is less than 1,200 motor vehicles per hour for all segments.</li> <li>▪ Where there is a shift in intersection approach legs:                             <ul style="list-style-type: none"> <li>◦ The highway segment has no more than two approach lanes.</li> <li>◦ Any potential receptor is located more than 25 feet from the nearest proposed roadway edge.</li> <li>◦ The peak hour volume on each approach is less than 1,200 motor vehicles per hour for all segments.</li> </ul> </li> </ul> Based on information in FHWA's Interim Guidance on Air Toxics Analysis in NEPA Documents, this project is considered to have low potential mobile source air toxics emissions.
<b>Option A</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Option B</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 1</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 4</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<b>M. Construction Stage Sound Quality</b>					See factor sheet M for detailed evaluation.
<b>No Build Alternative</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.
<b>Option A</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Option B</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 1</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>Alternative 4</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

ENVIRONMENTAL FACTORS	EFFECTS			Not Applicable	COMMENTS																																
	Adverse	Benefit	None																																		
					(Blacked out cells in this column require a check in at least one of the other columns)																																
<b>N. Traffic Noise</b>					<p>See factor sheet N for detailed evaluation.</p> <p>The criteria defining traffic noise impacts have been established by WisDOT through Wisconsin Administrative Code–Trans 405 (Sitting Noise Barriers). Traffic noise impacts occur when the predicted equivalent sound levels approach or exceed the noise level criteria (NLC) established for a type of land use or when predicted sound levels substantially exceed existing levels.</p> <table border="1"> <thead> <tr> <th># receptors w/in 325' of C/L</th> <th>receptors already impacted</th> <th>receptors impacted w/ alternative</th> <th>net change</th> </tr> </thead> <tbody> <tr> <td>219</td> <td>130</td> <td>130</td> <td>0</td> </tr> <tr> <td>28</td> <td>11</td> <td>11</td> <td>0</td> </tr> <tr> <td>23</td> <td>0</td> <td>21</td> <td>21</td> </tr> <tr> <td>191</td> <td>117</td> <td>117</td> <td>0</td> </tr> <tr> <td>25</td> <td>0</td> <td>13</td> <td>-37*</td> </tr> <tr> <td>23</td> <td>0</td> <td>23</td> <td>-27*</td> </tr> <tr> <td>18</td> <td>0</td> <td>18</td> <td>-32*</td> </tr> </tbody> </table> <p>*With the bypass Alternatives 2, 3 and 4, the noise levels inside Hortonville will be decreased from 2 to 5 dBA. This removes 50 households from being impacted that would have been impacted with the No Build Alternative or Alternative 1.</p>	# receptors w/in 325' of C/L	receptors already impacted	receptors impacted w/ alternative	net change	219	130	130	0	28	11	11	0	23	0	21	21	191	117	117	0	25	0	13	-37*	23	0	23	-27*	18	0	18	-32*
# receptors w/in 325' of C/L	receptors already impacted	receptors impacted w/ alternative	net change																																		
219	130	130	0																																		
28	11	11	0																																		
23	0	21	21																																		
191	117	117	0																																		
25	0	13	-37*																																		
23	0	23	-27*																																		
18	0	18	-32*																																		
<b>CULTURAL ENVIRONMENTAL FACTORS</b>																																					
<b>O. Section, 4(f) and, 6(f.)</b>					<p>See factor sheet O for detailed evaluation.</p> <p>There are twelve potential 4(f) sites in the corridor study area. Of those, 5 may be directly affected by at least one of the alternatives under study. These include Miller Park in the Village of Hortonville, The Hortonville Town Hall, a potentially historic Hortonville Downtown Commercial District, the Hortonville Community Hall, and the WIOUWASH State Trail. Additionally archaeological sites may be eligible for 4(f) protection. A De Minimis impact finding is being pursued for all 4f properties. Details on the minimization and mitigation of impacts will be refined once a preferred alternative is chosen.</p>																																
<b>No Build Alternative</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																	
<b>Option A</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																	
<b>Option B</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																																	
<b>Alternative 1</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																	
<b>Alternative 2</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																	
<b>Alternative 3</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																	
<b>Alternative 4</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																	

ENVIRONMENTAL FACTORS	EFFECTS				COMMENTS
	Adverse	Benefit	None	Not Applicable	
					(Blacked out cells in this column require a check in at least one of the other columns)
<b>P. Historic Resources</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See factor sheet P for detailed evaluation.  Currently, there is only a single historic resource located within or adjacent to the study area that is currently listed in the NRHP: the Hortonville Community Hall building located at 312 W Main St in Hortonville. The deputy State Historic Preservation Officer (SHPO) has identified a potential Hortonville Downtown Commercial District that may be eligible for listing in the NRHP. One property in the study corridor is determined to be potentially eligible for the NRHP, W9702 Givens Road in the Town of Hortonville. The Hortonville Town Hall may be potentially affected by all of the alternatives.
<b>Q. Archaeological Resources</b>  <b>No Build Alternative</b> <b>Option A</b> <b>Option B</b> <b>Alternative 1</b> <b>Alternative 2</b> <b>Alternative 3</b> <b>Alternative 4</b>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See factor sheet Q for detailed evaluation.  A literature review of the area was conducted along with background research on previously recorded archaeological sites and potentially historic resources. The Museum Archaeology Program also completed a Phase 1 archaeological survey of 95 percent of the WIS 15 corridor.  To date, the study found 59 archaeological sites, one historic Euro American cemetery, and 21 isolated finds.  <ul style="list-style-type: none"> <li>▪ Option A–21 sites</li> <li>▪ Option B–13 sites</li> <li>▪ Alternative 1–20 sites</li> <li>▪ Alternative 2–17 sites</li> <li>▪ Alternative 3–3 sites</li> <li>▪ Alternative 4–18 sites</li> </ul> Additional archaeological investigation will take place at sites that may be affected by the preferred alternative. All of the Alternatives have the potential to impact some sites. Once a preferred alternative is selected, Phase 2 investigations will be performed as needed.

ENVIRONMENTAL FACTORS	EFFECTS			Not Applicable	COMMENTS
	Adverse	Benefit	None		
					(Blacked out cells in this column require a check in at least one of the other columns)
<b>R. Hazardous Substances or UST's</b>  No Build Alternative Option A Option B Alternative 1 Alternative 2 Alternative 3 Alternative 4	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See factor sheet R for detailed evaluation.  A hazardous materials/waste initial site reconnaissance was conducted in November 2004. Once a preferred alternative is selected, further investigations will be performed. <ul style="list-style-type: none"> <li>▪ Option A–11 Haz Mat sites identified</li> <li>▪ Option B–6 Haz Mat sites identified</li> <li>▪ Alternative 1–36 Haz Mat sites identified</li> <li>▪ Alternative 2–8 Haz Mat sites identified</li> <li>▪ Alternative 3–17 Haz Mat sites identified</li> <li>▪ Alternative 4–17 Haz Mat sites identified</li> </ul>
<b>S. Aesthetics</b>  No Build Alternative Option A Option B Alternative 1 Alternative 2 Alternative 3 Alternative 4	<input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	See factor sheet S for detailed evaluation.  Aesthetics would not change with the No Build Alternative.  The WIS 15 corridor contains broad flood plains and rolling hills. Pine plantations, farmland, wetland drainages and swamps, and rural residential/farmettes are predominate scenes on the landscape. The area has one major lake, Black Otter Lake, and a few smaller ponds. Several intermittent streams that are tributaries of the Wolf River, Black Otter Creek, and Rat Rivers run throughout the corridor. Black Otter Creek is the only perennial stream and flows from the far south (natural drained wetland communities) into Black Otter Lake near the Wiouwash State Trail and then proceeds through town and north through the Golf Course and natural environs of the Wolf River floodplains on the northern limits of Hortonville. Upland woods and woodlots are becoming bisected by development; however some interesting views of the area are visible from Ledge, Hillview, and Grandview Roads. Alternative 3 has been suggested to potentially blight the natural scenery present in and near the Wolf River Bottomlands.
<b>T. Coastal Zone</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable.

**Wisconsin Department of Transportation  
A—GENERAL ECONOMICS IMPACT EVALUATION**

**1. Describe, briefly, the existing economic characteristics of the area around the project. This could include type(s) of farming, retail or wholesale businesses, manufacturing, tourism, or other elements contributing to the area's economy and potentially affected by the project.**

Manufacturing, agriculture, and construction industries are the study area's economic foundation. The project corridor consists of mainly agricultural land uses in the rural portions and commercial and industrial land uses within the Village of Hortonville. The following paragraphs describe the overall employment and economic environment along the corridor.

#### Business Employment

The 2000 Village of Hortonville Comprehensive Plan identifies business employment within 5 miles of the Hortonville village hall. Three hundred and thirteen businesses exist within 5 miles of the village hall. Service-related businesses make up the largest category with 102 total businesses. Businesses in this category include personal services, business services, motion picture and amusement, health services, legal services, education services, and social services. Retail trade consists of 65 businesses and construction consists of 43 businesses. There are also 24 manufacturing businesses and 23 eating and drinking places. Eleven agricultural businesses are located within 5 miles of the village hall.

Services businesses and manufacturing businesses employ the largest number of employees with 852 and 750 employees, respectively. Businesses with the largest number of employees per business include manufacturing (31.3 employees), transportation/communications/public utilities (28.8 employees), and education (28.5 employees). Agriculture has 4.3 employees per business.

#### Labor Force

Approximately 30 percent of employees 16 years and over were employed in the manufacturing sector in 2000. Educational, health, and social services industries employ the second largest percent of employees ranging from 13 percent in the Town of Ellington to 19 percent in the Town of Hortonville. One percent of employees in the Village of Hortonville work in the agricultural industry compared to 7 percent in the Town of Ellington.

#### Economic Base

Table A.1-1 displays location quotients. The location quotient measures an industry's approximate export activity. Export industries contribute to a community's economic foundation. Industries produce exports when the location quotient is greater than 1.00. Local consumption is satisfied by local production when the location quotient is equal to 1.00. Local consumption is not satisfied by local industries when the location quotient is less than 1.00.

Industry	Town of Dale	Town of Ellington	Town of Greenville	Town of Hortonia	Village of Hortonville
Agriculture, forestry, fishing and hunting, and mining	1.72	2.70	1.07	1.21	0.35
Construction	1.32	1.28	0.98	1.75	1.27
Manufacturing	1.23	1.45	1.52	1.34	1.50
Wholesale trade	1.57	0.87	1.06	0.98	0.72
Retail trade	1.10	1.01	0.81	0.77	0.87
Transportation and warehousing, and utilities	1.25	1.06	1.22	0.70	1.36
Information	0.45	0.40	0.22	0.24	0.36
Finance, insurance, real estate and rental and leasing	0.98	0.72	1.26	0.94	1.00
Professional, scientific, management, administrative, and waste management services	1.23	0.79	1.07	0.72	1.06
Educational, health and social services	0.71	0.64	0.70	0.95	0.92
Arts, entertainment, recreation, accommodation and food services	0.46	0.73	0.55	0.51	0.30
Other services (except public administration)	0.66	1.01	1.20	1.47	0.73
Public administration	0.39	0.23	0.33	0.40	0.62

**Table A.1-1 2000 Location Quotients\***  
 \*Compared to Wisconsin employment by industry  
 Source: WisDOT NE Region

Agriculture is an important economic activity for the Towns of Ellington and Dale. The agriculture location quotients are 2.70 and 1.72, respectively. The construction industry created the largest amount of export activity in the Town of Hortonia. Manufacturing was the biggest export activity in the Village of Hortonville and Town of Greenville.

**2. Discuss the economic advantages and disadvantages of the proposed action. Indicate how the project would affect the characteristics described in item 1 above.**

The economic impact of the No Build Alternative would primarily be noticed in the long-term future. A disadvantage of the No Build Alternative would be the continually increasing traffic leading to more congestion on WIS 15 and resulting in less efficient movement of people and goods through the project area. With this alternative, traffic flow remains concentrated along the existing route, which is an advantage to businesses along the existing corridor.

All build alternatives involve capacity expansion to four lanes and would improve travel time and safety. For Option A and Alternative 1, capacity would be expanded on alignment from two lanes to four lanes. Expansion on alignment is both an advantage and disadvantage for existing businesses. For Option A, some existing businesses along the corridor may need to be acquired; however, the entire traffic flow will still pass by the remaining businesses along the corridor. With Alternative 1, the economics of downtown Hortonville would be significantly changed because of the large number of businesses that would need to be relocated to accommodate the additional capacity.

The construction of Option B would not significantly change the economics of the project area. In this immediate area of WIS 15, most home businesses or small businesses would remain but may suffer from diverted traffic.

The construction of Alternatives 2, 3, or 4 would be expected to significantly change the economics of the project area. Businesses within Hortonville will remain but may suffer from traffic being diverted to relocated WIS 15.

**3. In general, will the proposed action increase or decrease the potential for economic development in the area influenced by the project?**

In general, the No Build Alternative does not change the economic potential of the area nor does Option A or Option B. Alternative 1 may slightly increase economic potential of the area by increasing capacity. However, it also decreases economic potential because of the large number of commercial establishments that would need to be relocated. Alternatives 2 and 4 may increase the economic potential of Hortonville as they both provide visibility of the Village's expanding industrial park. Local retail may or may not benefit from this alternative. Under Alternative 3, Hortonville is bypassed to the north. With all the bypass alternatives, the potential for economic development within the Village's downtown area may decrease because of the diverted traffic, even though relocated portions of WIS 15 will be restricted for access and development. Additionally, potential development directly on existing portions of WIS 15 being expanded will be restricted to the current land use.

From a more regional perspective, however, economic development potential may increase because of the overall increase in mobility associated with the additional transportation capacity. This increased mobility will make the area more attractive, economically, than it is currently with the existing WIS 15 facility.

**Wisconsin Department of Transportation  
B–COMMUNITY OR RESIDENTIAL IMPACT EVALUATION**

**1. Give a brief description of the community or neighborhood affected by the proposed action.**

**Community/neighborhood Name**

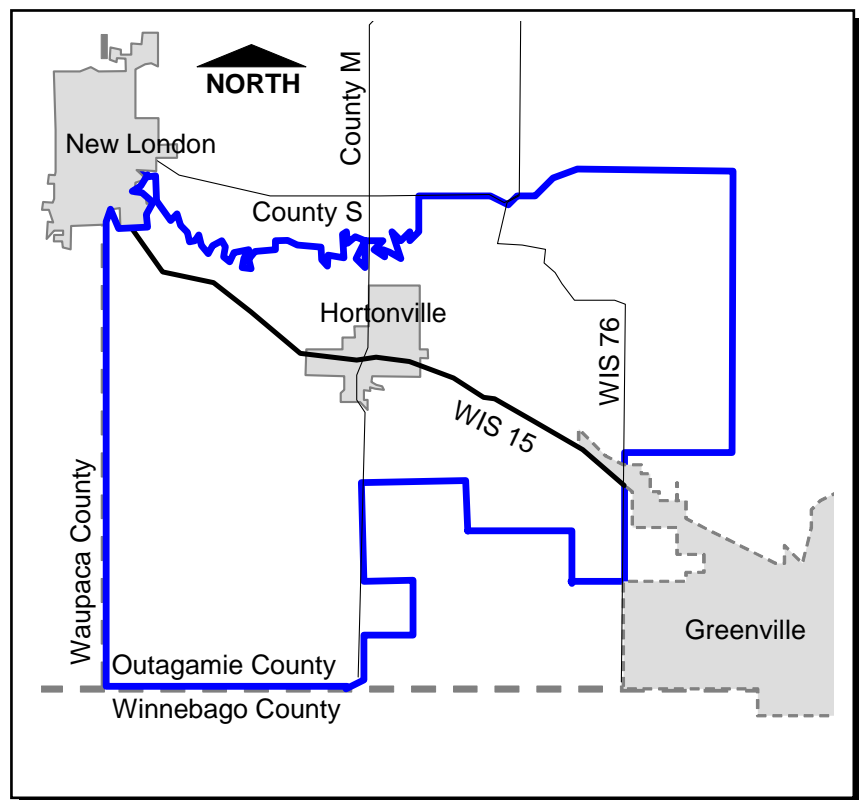
The Village of Hortonville and the Towns of Greenville, Ellington, Dale, and Hortonia are all directly affected. The City of New London is at the western boundary of the project corridor.

**Community/neighborhood Characteristics**

Parts of four townships (Greenville, Ellington, Dale, and Hortonia), one village (Village of Hortonville), and one city (City of New London) are potentially directly affected by the WIS 15 corridor improvements between Greenville and New London. The communities in the WIS 15 corridor have defining characteristics. The area outside of Hortonville is primarily agricultural and rural residential, but it is steadily becoming more suburban since it is located only 10 miles west of the City of Appleton.

In order to gather all of the needed demographic data for the study area, the project team analyzed US Census data at the block group level. Every block group affected by any of the alternatives was combined to form the greater WIS 15 corridor for demographic purposes.

Figure B.1-1 shows the limits of the greater WIS 15 corridor. According to the 2000 US Census data, about 10,480 people live in the greater WIS 15 corridor with about 2,357 residing in the Village of Hortonville.



The demographic profile for the communities shows a fairly homogenous community. The first column of Table B.1-1 shows a demographic profile for Outagamie County. This general profile is a baseline against which the characteristics of the other areas can be referenced. The 2000 US Census information shows the following:

Characteristic	Outagamie County	WIS 15 Corridor
Total Population <sup>1</sup>	160,971	10,486
Persons of Minority <sup>1</sup>	8.1%	2.7%
Elderly Persons <sup>1</sup>	10.9%	8.2%
Persons with Disabilities <sup>2</sup>	12.6%	12.1%
Persons with Low Income <sup>3</sup>	6.5%	5.1%

<sup>1</sup> 2000 US Census, Summary File 1.  
<sup>2</sup> 2000 US Census, Summary File 3.  
<sup>3</sup> Very Low Income as defined in the 2003 U.S. Department of Housing and Urban Development Low to Moderate Income Data.

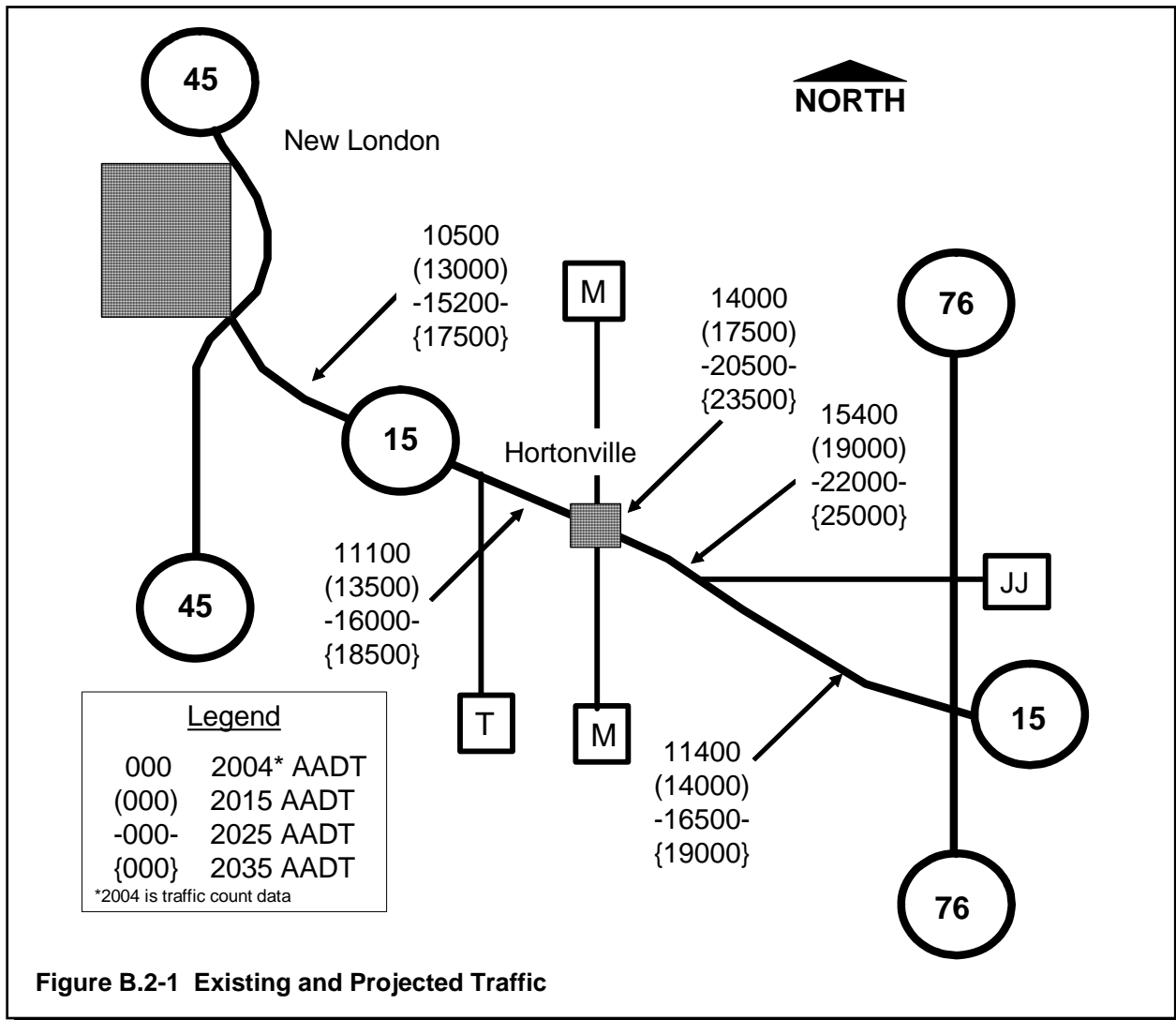
**Table B.1-1 Demographic Characteristics**

- As compared to Outagamie County as a whole, fewer people of ethnic minority reside in the area of the greater WIS 15 corridor. For this study, a minority is defined as Hispanic/Latino and all non-Hispanic/Latino races other than “white alone” as stated in US Census Bureau statistics.

- Slightly fewer elderly persons reside in the greater WIS 15 corridor compared to in the county as a whole. Elderly persons are defined as those ages 65 and over.
- Slightly fewer people with disabilities reside in the greater WIS 15 corridor area as compared to in the county as a whole. Disabilities include sensory, physical, mental, or self-care. Statistics are for the noninstitutionalized population ages 5 years and over.
- In the greater WIS 15 corridor area, the residence rate for people with low incomes is slightly less than Outagamie County as a whole. The US Department of Housing and Urban Development’s (HUD’s) very low income statistics have been cited for low income. Very low income is defined by HUD as 30 percent of the area’s median income or below. Federal Highway Administration (FHWA) guidelines recommend using low income statistics provided by the US Department of Health and Human Services (HHS). However, these statistics are not readily available at the US Census Bureau block group level. HUD income statistics are readily available at the block group level. Though the HUD very low income numbers are slightly higher than HHS’s low income, the HUD numbers are comparable to the HHS guidelines and would include all households covered under the HHS guidelines.

**2. Identify and discuss the existing modes of transportation and their traffic within the community or neighborhood.**

The primary mode of transportation on WIS 15 is automobile travel (e.g., car, truck, motorcycle). Existing daily traffic volumes in the WIS 15 area, as well as projected future traffic volumes, are shown in Figure B.2-1. Farm equipment also uses WIS 15 to access farms and farm fields. The Hortonville School district regularly operates school buses throughout the area. There is no public transit system that serves the corridor area. Kobussen Buses Ltd. does, however, provide daily transportation for disabled people in the corridor. A Canadian & Northwestern rail line also operates in the corridor area. The rail corridor runs parallel on the north side of WIS 15 until it crosses the corridor west of Hortonville where it continues parallel on the south side of WIS 15.



Walking and biking are also used as modes of transportation in the corridor; however, these modes are primarily limited to within the Village of Hortonville and along the Wiouwash State Trail. This trail runs north–south between the Village of Hortonville and the City of Oshkosh. (See Section 2.4) The trail is 22 miles long; six of those miles are within Outagamie County. The six miles in Outagamie County run parallel to County M and end at the railroad tracks just south of WIS 15 in the Village of Hortonville. The trail is used for snowmobiles and cross-country skiing in the winter and horseback riding, biking, and jogging in the summer.

According to 2000 US Census Bureau statistics and compared to Outagamie County, in the greater WIS 15 corridor area, there is a lower rate of housing units (both owner- and renter-occupied) that do not have a personal vehicle available to them. Results for the area are shown in Table B.2-1.

	Outagamie County	WIS 15 Corridor
Total Occupied Housing Units	60,530	3,699
Number Owner Occupied Units	43,846	2,957
% Owner occupied Units with No Vehicle Available	2.4%	1.2%
Number Renter occupied Units	16,684	742
% Renter Occupied Units with No Vehicle Available	12.8%	7.4%

Source: US Census 2000 Summary File 3 (in-depth population and housing data collected on a sample basis from the Census 2000 long form questionnaire)

**Table B.2-1 Vehicles Available By Occupied Housing Unit Tenure for the Greater WIS 15 Corridor Area**

**3. Identify and discuss the probable changes resulting from the proposed action to the modes of transportation and their traffic within the community or neighborhood.**

The proposed improvements are not intended to change the modes of transportation of traffic levels anticipated for the WIS 15 corridor area. However, the bypass alternatives will change travel routes. Approximately 60 percent of WIS 15 traffic would likely use a bypass if one was available. See Figure B.2-1 for existing and projected traffic.

**4. Briefly discuss the proposed action's effect(s) on existing and planned land use in the community or neighborhood.**

Existing and current planned land use is described more fully in Section 3.4. Construction of any alternative will have an effect on planned land use in the communities. Section 4.4 describes the secondary effects to land use that are anticipated with the construction of the alternatives.

**5. Address any changes to emergency services or other public services during and after construction of the proposed project.**

There will be no changes to emergency or other public services in the WIS 15 corridor area after construction of any of the proposed alternatives. The WIS 15 bypass alternatives would provide access around the Village of Hortonville; however, Main Street would still remain as it currently exists through downtown Hortonville. The alternatives would also improve the overall efficiency of emergency vehicles because of the effect they will have to reduce pass-through traffic in the Village. Within the Village of Hortonville, access to streets, residences, and businesses will not change for emergency and public services with the proposed bypass alternatives. Outside the Village of Hortonville and along the WIS 15 corridor, opposing directions of travel lanes will be divided by a grassy median. If needed, emergency services would be able to cross at emergency maintenance crossovers. Nonemergency public services would use intersections to access the opposite side of the highway. For the on-alignment alternative, there would still be access to streets, residences, and businesses.

**6. Describe any physical or access changes and their effects to lot frontages, driveways, or sidewalks. This could include effects on side slopes or driveways (steeper or flatter), reduced terraces, tree removal, vision corners, sidewalk removal, etc.**

NO BUILD ALTERNATIVE

The No Build Alternative will not affect the existing modes of transportation within the study corridor. Traffic levels will continue to increase.

BUILD ALTERNATIVES

The Build Alternatives involve capacity expansion from two lanes to four lanes and possibly bypassing the Village of Hortonville. For portions of the alternatives that are built on-alignment, most of the existing access points will remain, although some may be relocated to improve safety and mobility. Existing intersections may be upgraded. Medians will be wide enough to accommodate farm equipment. Farm machinery will be able to cross two lanes of traffic from one direction and wait in the median for a gap in traffic from the other direction. This may be easier than waiting for a gap in traffic from both directions. Wide shoulders will better accommodate farm machinery outside of the paved travel lanes.

For portions of the alternative that are built on new alignment, access will be limited. Crossings will be grade-separated, and direct access will be removed. Interchanges, roundabouts, or controlled intersections would be added to all of the off-alignment alternatives to accommodate the transition from the existing WIS 15 route to the relocated segment. Lot frontages along the corridor would change as land is acquired by WisDOT for right-of-way. The details of land acquisition will be set later in the design process. However, each resident, business, and/or property owner is eligible for relocation assistance and property compensation according to the Federal Uniform Relocation Act. The following paragraphs describe each option and alternative in more detail with respect to changes in the transportation. The options and alternatives are illustrated in Section 2.3 as well as in the 3-part graphic in the executive summary.

OPTION A

Option A consists of expansion along the existing roadway for approximately 3.4 miles. This alternative utilizes as much of the existing roadway as possible by using it for one set of lanes. Sight distances will be increased at the intersection of Cross/Ledge Hill Roads and at the rock outcrop located just over a mile east of Cross Road. This Option affects individual residential development along existing WIS 15 between New London and Givens Roads. The largest concentration of homes is found on Kelly Drive and would likely have few if any relocations. In general, access would remain the same for the remaining homes. Tree removal could potentially occur. Some lots will be decreased in size or acquired in total. Some residential and business relocations may occur. See item 10 in this factor sheet for residential relocation details. See factor sheet C for commercial relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

OPTION B

With Option B, highway expansion would be along the existing roadway between New London and River Road. At this point, the roadway would travel off-alignment for about 1.4 miles so as to avoid the existing dangerous curve at Cross Road. The roadway would again converge with the existing roadway near the visible rock outcrop on WIS 15, effectively straightening the existing curve. The Option remains on-alignment for the remaining 1.2 miles to the County T/Givens Road intersection. Residential developments on Kelly Drive might be affected with this Option similar to Option A. Tree removal could potentially occur. Some lots will be decreased in size or acquired in total. Some residential and business relocations may occur. See item 10 in this factor sheet for residential relocation details. See factor sheet C for commercial relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

ALTERNATIVE 1

Alternative 1 expands WIS 15 along the existing alignment. In the rural portions outside the Village's limits, the roadway would be a divided section with access remaining mostly the same. Within the Village of Hortonville, this alternative would have a drastic effect by causing the relocation of 62 buildings under the desirable standard cross-section and narrowing the terrace in front of nearly all properties along WIS 15 (Main Street) in order to create an urban four-lane section. The downtown portions, approximately between Cherry Street and Olk Street, currently have parking and would require a wider section with several property acquisitions necessary to maintain the parking spaces and a four-lane section. Turn lanes would be needed at County M and potentially at Warner Street for school traffic. Several properties would need to be relocated with this Alternative, both within the Village limits and outside Hortonville. In general, physical changes with this alternative may include potential tree removal, reduction in lot size, acquisition of lots, relocation of businesses and residences, sidewalk removal, reduced terraces, steeper driveways, relocated driveways, and access changes during construction. See item 10 in this factor sheet for residential relocation details. See factor sheet C for commercial relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

ALTERNATIVE 2

Alternative 2 consists of a rural four-lane highway expansion built mostly off the existing road. The new road turns southeast from the County T/Givens Road intersection, through mostly farmland to Midway Road, passing through recently annexed land, and nearby a new industrial park development. From Midway Road, the new roadway continues mostly eastward over the Wiouwash State Trail and through the low drainage section upstream of Black Otter Lake. For about 4 miles east of the drainage section, the new roadway cuts through mostly rolling farmland and nearby intermittent residential developments just off of North Road, Hillcrest Court, Fallen Wings Estates, R&D Road, and the potential future Wildwind development near County TT. The roadway then converges again with existing WIS 15 just west of Julius Road. This alternative will likely have grade separations across five side roads and one closure of another road. Approximately 6.5 miles of existing highway through Hortonville would likely be transferred to the local jurisdiction. In general, physical changes associated with this alternative may include potential tree removal, reduction in size for some suburban lots, acquisition of lots, relocated driveways, relocation of bike path access, and residential relocations. No commercial relocations are expected. See item 10 in this factor sheet for residential relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

ALTERNATIVE 3

Alternative 3 bypasses Hortonville to the north and is a rural four-lane highway expansion of WIS 15 running east from the existing intersection of WIS 15/County T/Givens Road. The new highway would cross the Canadian National railroad and run just north of and parallel to Givens Road for about a mile through mostly agricultural fields. Continuing east, the alternative crosses over the upper reaches of the Wolf River flood plain and passes north of the Grandview Golf Course and community athletic fields. The four-lane highway section would then cross over County M and possibly a realigned County MM with a grade separation and no access. The area between County M and Grandview Road is substantially inclined and would likely require large cut into the hillside and the use of a narrow median to reduce the impacts. The alternative then turns southeast over Grandview Road via a grade separation and passes along the north side of the Hortonville elementary school and nearby the Crestview development and other residential developments. The remaining off-line highway crosses over undulating, mostly agricultural lands before converging with existing WIS 15 near County JJ. Approximately 4 miles of existing highway through Hortonville would likely be transferred to a local jurisdiction. It then follows the existing roadway to Greenville. In general, physical changes associated with this alternative may include potential tree removal, relocation of farm access, relocation of driveways, and residential and commercial relocations. See item 10 in this factor sheet for residential relocation details. See factor sheet C for commercial relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

ALTERNATIVE 4

Alternative 4 follows the same path as Alternative 2 from the County T/Givens Road intersection southeast to the intersection with Midway Road. This alternative would consist of over 5 miles of new four-lane rural highway off of the existing road. From Midway Road the new highway continues to the east with a substantial structure over the Wiouwash State Trail, a portion of Black Otter Lake, and a line of the Canadian National Railroad. This area consists largely of wetlands, woods, and residential properties including residential developments on County M, Fallen Wings Estates, and the potential future Wildwind development near County TT. The rural highway section would be narrowed to minimize its impacts. The roadway then converges with existing WIS 15 near the intersection of County JJ. It then follows the existing roadway to Greenville. This alternative will likely have grade separations over 3 sideroads and one closure of another road. There is a possible 4(f) historical impact of the Hortonia Town Hall at the intersection of Givens Road and County T. Approximately 4 miles of existing highway through Hortonville would likely be transferred to a local jurisdiction. In general, physical changes associated with this alternative may include potential tree removal, relocation of farm access, relocation of bike path access, relocation of driveways, and residential relocations. No commercial relocations are expected. See item 10 in this factor sheet for residential relocation details. Also refer to the Conceptual Stage Relocation Plan in Appendix B.

**7. Indicate whether a community/neighborhood facility will be affected by the proposed action and indicate what effect(s) this will have, overall, on the community/neighborhood. Also include and identify any minority population or low-income population that may be affected by the proposed action.**

The No Build Alternative will not affect any community/neighborhood facilities.

The Hortonville schools campus is a complex of elementary, middle, and high school buildings located on the northeast side of the Village of Hortonville. None of these properties will need to be acquired; however, Alternative 3 does pass by the campus on its north side. The alternative is not expected to have any direct noise effects on the campus area.

Several parks within the Village of Hortonville are located along Main Street. Alternative 1 would expand the roadway to the north and avoid most of the parks with the exception of Miller Park.

The Hortonia Town Hall is on the existing WIS 15 route and would be affected by Alternatives 1, 2, 3, and 4. The building itself would not need to be relocated, so its function as a community facility should remain unchanged.

Minorities and low-income persons, as well as other Village residents may be affected by the potential alterations to Miller Park and the Hortonia Town Hall.

**8. Place an “X” in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.**

*For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, the Environmental Justice Factor Sheet, along with the remaining items on this worksheet, will need to be completed to satisfy Environmental Justice requirements.*

- a.  NO Disabled population is not affected  
 YES Disabled population is affected – See Environmental Justice Factor Sheet E
- b.  NO Elderly population is not affected  
 YES Elderly are affected - See Environmental Justice Factor Sheet E
- c.  NO Minority populations are not affected  
 YES Minority populations are affected - See Environmental Justice Factor Sheet E
- d.  No Low-income populations are not affected  
 Yes Low income populations are affected - See Environmental Justice Factor Sheet E

**9. Identify and discuss, in general terms, factors that residents have indicated to be important or controversial.**

Area residents have indicated several issues are important. The issues are described more fully in Section 7.0.

**10. Indicate the number and type of any residential buildings which would be removed because of the proposed action. If either item a. or b. is checked, items 11 through 18 do not need to be addressed or included in the environmental document.**

- a.  None -
- b.  No occupied residential building will be acquired as a result of this project.
- c.  Occupied residential building(s) will be acquired. Provide number and description of buildings, e.g., single family homes, apartment buildings, condominiums, duplexes, etc. If item c. is checked, you must complete items 11 through 18.

See Figures 2.3-7, 2.3-8, and 2.3-9 for plan view illustrations of the relocation impacts from Alternative 1.

Alternative	Single Family Homes Residence Only	Single Family Homes On Farms	Apartment Buildings	Total
A	6	3	0	9
B	5	2	0	7
1	38	0	9	47
2	3	0	0	3
3	12	5	0	17
4	11	2	0	13

**Table B.10-1 Total Residential Buildings Relocated**

**11. Estimate the number of households that would be displaced from the Occupied residential buildings identified in item 10 c. above.**

**Total Number of households to be relocated**

*(Note that this number may be greater than the number shown in 10 c. above because an occupied apartment building may have many households.)*

**i. Number by Ownership**

Alternative	Owner-Occupied	Renter-Occupied	Total Households Relocated
A	9	0	9
B	7	0	7
1	38	17	55
2	3	0	3
3	17	0	17
4	13	0	13

**Table B.11-1 Number of Relocated Households by Ownership**

**ii. Number of households to be relocated that have:**

Alternative	1 Bedroom	2 Bedroom	3 Bedroom	4 or More Bedrooms
A	0	1	4	4
B	0	1	3	3
1	0	10	21	16
2	0	0	1	2
3	0	3	10	5
4	0	0	6	9

**Table B.11-2 Number of Bedrooms per Household to be Relocated**

**iii. Number of relocated households by type and price range of dwelling**

Price Range (in \$1,000s)	Alternative					
	A	B	1	2	3	4
50-74.9	0	0	0	0	0	0
75-99.9	0	0	1	0	0	0
100-124.9	0	1	1	0	0	0
125-149.9	0	0	4	0	0	0
150-174.9	0	0	10	0	2	0
175-199.9	1	1	5	0	2	0
200-249.9	2	1	15	0	2	1
250-349.9	6	4	4	2	9	1
350-499.9	0	0	0	1	1	6
500+	0	0	0	0	1	5
Total	9	7	40	3	17	13

**Table B.11-3 Relocated Owner-Occupied Households**

Relocated renter-occupied households were not identified by rental rates in the Conceptual Stage Relocation Plan (See Appendix B)

**12. Describe the relocation potential in the community.**

The relocation potential in the community was approximated by reviewing market listings for the immediate project area. The following table summarizes the findings for the residential market for owner-occupied households.

Table B.12-1 indicates the number of residential properties that are currently listed for sale in the immediate area of the project. It is clear from this Table that the real estate market is very strong and the potential displacees will have an abundant number of properties to choose from. The displacees will not experience a hardship in locating a new home. In addition, the length of the construction project will be two years, which will spread out the acquisition of properties, allowing for relocations to take place over a few years time. This will provide more properties to be available as residents relocate.

Price Range	2 Bedrooms	3 Bedrooms	4+ Bedrooms
\$50,000-\$74,999	58	39	14
\$75,000-\$99,999	70	132	40
\$100,000-\$124,999	39	174	66
\$125,000-\$149,000	34	204	64
\$150,000-\$174,999	16	161	41
\$175,000-\$199,999	13	160	62
\$200,000-\$249,000	16	132	115
\$250,000-\$349,999	7	94	140
\$350,000-\$499,998	3	11	56
\$500,000+	0	7	27
Totals	256	1,114	625

**Table B.12-1 Residential Market for Owner-Occupied Households**

Table B.12-2 summarizes the residential rental availability.

Monthly Rent	Studio and 1 Bedroom	2 Bedrooms	3+ Bedrooms
< \$400	13	1	0
\$400 - \$600	17	38	7
\$600 - \$800	3	12	10
\$800 - \$1,000	10	3	10
\$1,000 - \$1,200	0	11	0
> \$1,200	0	0	2
Totals	43	65	29

**Table B.12-2 Residential Rental Availability**

Table B.12-2 indicates the number of residential rental properties that are currently listed for rent in the immediate area of the project. It is clear from this Table that the real estate rental market is very strong, and the potential displacees will have an abundant number of properties to choose from. The displacees will not experience a hardship in locating a displacement rental. In addition, the length of the construction project will be two years, which will spread out the acquisition of properties, allowing for relocations to take place over a few years time. This will provide more rental properties to be available as rental location.

Because this project will not be implemented for at least several years, the housing market is likely to be quite different when the project is in final design and real estate transactions are occurring. A detailed relocation plan will be prepared prior to final design and construction.

**b. Number of available and comparable dwellings by location**

All available replacement households were found in the immediate project area.

**c. Number of available and comparable dwellings by type and price. (Include dwellings in price ranges comparable to those being dislocated, if any.)**

See above Table for available and comparable properties.

**13. Identify all the sources of information used to obtain the data in item 12.**

- WisDOT Real Estate                       Multiple Listing Service (MLS)  
 Newspaper listing(s)                       Other - Identify:

See Appendix B for the Conceptual Stage Relocation Plan prepared by WisDOT Real Estate staff.

**14. Indicate the number households to be relocated that have special characteristics such as minority households, elderly households, households with disabled residents, low-income households, or large families.**

The Conceptual Stage Relocation Plan does not indicate whether any of the relocated households have special characteristics. This information will be collected while preparing the detailed relocation plan.

**15. Describe how relocation assistance will be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.**

The acquisition and relocation procedures WisDOT must follow are established by Wisconsin State Law and the Uniform Relocation Act of 1972. These statutes are in place to ensure landowners and tenants are treated fairly when the public interest requires their purchase and relocation.

All land owners will be compensated the fair market value of their property. WisDOT will enlist the services of an appraiser who will prepare a value appraisal based upon comparable recent sales in the area. The owner will be presented with an offer based on that appraisal. If the owner feels the offer does not reflect the value of his property, the owner may enlist the services of another appraiser with the reasonable cost of that appraisal being paid for by WisDOT. Once that appraisal is received by WisDOT, adjustments to the offer may be made based on new information and valuations. If an agreement still can not be negotiated between WisDOT and the owner, WisDOT will issue a jurisdictional offer. The owner has 21 days to accept the offer or WisDOT will begin condemnation proceedings. If the owner still feels that he has not been appropriately compensated for his property, he may initiate an appeals process. If he wins the appeal and meets certain requirements, WisDOT will pay legal fees as well as the difference in valuation. While the process seems long, the great majority of WisDOT land acquisitions result in a negotiated settlement between WisDOT and the land owner.

For those occupying the buildings, be they tenants or owners, relocation assistance is also available. The tenant will be assigned a relocation agent early in the process. The relocation agent will aid the tenant in finding a comparable dwelling or business building that meets their needs. The relocation is also able to provide relocation benefits to compensate for the costs of relocation. These benefits can include:

- Moving expenses
- Difference in rent payments (for up to a 4-year period)
- Differences in interest payments (for up to a 4-year period)
- Remodeling costs

Relocation payments are capped at \$8,000 for a residential tenant, \$25,000 for an owner occupying their residence, \$30,000 for business tenant-occupants, and \$50,000 for business owner-occupants.

**16. Identify any difficulties or unusual conditions for relocating households displaced by the proposed action**

While there appears to be ample availability of replacement buildings, some particular properties have unusual circumstances. These include buildings with potential historical concerns and parcels containing both a house and a business. See Appendix B, page 21 for a detailed listing of these properties.

**17. Indicate whether Special Relocation Assistance Service will be needed. Describe any special services or housing programs needed to remedy identified difficulties or unusual conditions noted in item #14 above**

- No  
 Yes - Describe services that will be required

**18. Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.**

At this time, it is estimated that all displaced occupants will be able to be relocated with replacement housing payments. It is not anticipated that additional measures will be needed to minimize adverse effects or to provide additional benefits to those being relocated. This need will be re-evaluated closer to the time of acquisition.

**Wisconsin Department of Transportation  
C—ECONOMIC DEVELOPMENT AND BUSINESS IMPACT EVALUATION**

**1. Describe the economic development or existing business areas affected by the proposed action.**

The proposed improvements would directly affect several existing businesses in the corridor area. For detailed information on the commercial relocations, refer to the Conceptual Stage Relocation Plan in Appendix B.

The alternatives also have indirect effects to economic development. Over time, increased congestion associated with the No-Build Alternative could adversely affect the local economy. Long-term impacts of the No Build alternative may include increased travel time costs for highway users including business customers. The bypass alternatives may also tend to divert customers from the downtown area. Secondary and cumulative effects are analyzed in more detail in Section 4.4.

**2. Identify and discuss the existing modes of transportation and their traffic within the economic development or existing business area.**

Existing modes of transportation and their traffic are discussed in Item No. 2 in Factor Sheet B.

**3. Place an “X” in the appropriate box below if one of the populations indicated would be affected by the proposal. Give a brief description of the community/neighborhood and population affected by the proposed action. Include demographic characteristics of those affected by the proposal.**

*For the populations shown below, The Orders issued by the U.S. Department of Transportation and its implementing agencies to satisfy the requirements of Executive Order 12898 require an evaluation to determine whether a minority and/or low-income population would experience a disproportionately high and adverse effect. If any of the populations shown below are affected, the Environmental Justice Factor Sheet, along with the remaining items on this worksheet, will need to be completed to satisfy Environmental Justice requirements*

- a.  NO Disabled population is not affected  
 YES Disabled population is affected - See Environmental Justice Factor Sheet E
- b.  NO Elderly population is not affected  
 YES Elderly are affected – See Environmental Justice Factor Sheet E
- c.  NO Minority populations are not affected  
 YES Minority populations are affected - See Environmental Justice Factor Sheet E
- d.  NO Low-income populations are not affected  
 YES Low income populations are affected - See Environmental Justice Factor Sheet E

**4. Identify and discuss effects on the economic development potential and existing businesses that are dependent upon the transportation facility for continued economic viability.**

- The proposed project will have no effect on a transportation-dependent business or industry.
- The proposed action will change the conditions for a business that is dependent upon the transportation facility. Identify effects, including effects that may occur during construction.

Virtually all of the businesses in the area depend on WIS 15 for continued economic viability for at least two reasons. They depend on the facility to provide customers an efficient means of travel to the businesses. Businesses located directly along WIS 15 also enjoy the benefits of visibility and advertising along this well-traveled corridor.

The No Build Alternative would not significantly change the conditions for business. The on-alignment alternatives (Option A and Alternative 1) would relocate a large number of businesses along the Village’s main street. However, widening the roadway on the existing alignment channels the increasing volumes

**4.0 Environmental Consequences Factor Sheet C—Economic Development and Business Impact Evaluation**

of traffic directly through the downtown area, creating incentives for economic development within the Village. The bypass alternatives create new infrastructure that may spur economic development near the Village’s outskirts and could reduce the amount of economic development within the downtown area. The businesses that remain downtown would also benefit, however, from positive effects such as decreased congestion and increased accessibility for customers and suppliers.

**5. Estimate the number of businesses and jobs that would be created or displaced because of the project.**

**a. Total number created** (see below)  **None**

**Number created by type including number of jobs.**

Retail businesses created	None	Alternative	Number of Manufacturing Jobs Created
Retail jobs created	None		
Service businesses created	None	Option A	64
Service jobs created	None	Option B	77
Wholesale businesses created	None	Alternative 1	93
Wholesale jobs created	None	Alternative 2	167
Manufacturing businesses created	None	Alternative 3	128
Manufacturing jobs created	Varies, see table*	Alternative 4	179

\*Manufacturing jobs created calculated based on estimated construction cost of alternatives, assuming 50% of project cost is labor and a salary of \$100,000 per worker. Note these calculations assume construction period of one year.

**b. Total number displaced.**  **None**

**Number displaced by type and number of jobs.**

Retail businesses displaced – see below	Retail jobs displaced – see below
Service businesses displaced – see below	Service jobs displaced – see below
Wholesale businesses displaced – see below	Wholesale jobs displaced – see below
Manufacturing businesses displaced – see below	Manufacturing jobs displaced – see below

Alternative	Retail Businesses Displaced	Service Businesses Displaced	Wholesale Businesses Displaced	Manufacturing Businesses Displaced	Total Businesses Displaced
Option A	3	7	0	1	11
Option B	3	4	0	0	7
Alternative 1	12	7	0	0	19
Alternative 2	0	0	0	0	0
Alternative 3	0	2	0	1	3
Alternative 4	0	0	0	0	0

Alternative	Retail Jobs Displaced	Service Jobs Displaced	Wholesale Jobs Displaced	Manufacturing Jobs Displaced	Total Jobs Displaced
Option A	38	12	0	9	59
Option B	38	5	0	0	43
Alternative 1	56	66	0	0	122
Alternative 2	0	0	0	0	0
Alternative 3	4	2	0	5	11
Alternative 4	0	0	0	0	0

See Figures 2.3-7, 2.3-8, and 2.3-9 for plan view illustrations of the relocation impacts from Alternative 1.

**6. Identify any special characteristics of the created or displaced businesses or their employees.**

- a. Number of created businesses by special characteristics:  None
- b. Number of displaced businesses by special characteristics:  None

Specific characteristics of the potentially displaced businesses were not collected at this point in the study. This information will be collected as part of the detailed relocation study once a preferred alternative is selected.

**7. Is Special Relocation Assistance Needed?**

- No
- Yes - Describe special relocation needs

**8. Describe the business relocation potential in the community.**

**a. Total number of available business buildings in the community**

WisDOT Real Estate staff searched the local commercial real estate market for listings of potential commercial properties available for the potential commercial displaces. The search found properties that would be suitable for the displacements. With the increased numbers of impacted businesses, Alternative 1 would substantially increase the potential that available commercial properties would be outside the Hortonville area and would be in the surrounding communities that are within a 50-mile radius (i.e. Appleton and New London).

**b. Number of available and comparable business buildings by location**

Total numbers of available and comparable business buildings were not collected. This information will be collected when the detailed relocation plan is compiled.

**c. Number of available and comparable business buildings by type and price (Include business buildings in price ranges comparable to those being dislocated, if any.)**

Total numbers of available and comparable business buildings were not collected. This information will be collected when the detailed relocation plan is compiled.

**9. Identify all the sources of information used to obtain the data in item 8.**

- WisDOT Real Estate
- Multiple Listing Service (MLS)
- Newspaper listing(s)
- Other - Identify:

**10. Describe how relocation assistance will be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24.**

The acquisition and relocation procedures WisDOT must follow are established by Wisconsin State Law and the Uniform Relocation Act of 1972. These statutes are in place to ensure landowners and tenants are treated fairly when the public interest requires their property purchase and relocation.

All land owners will be compensated the fair market value of their property. WisDOT will enlist the services of an appraiser who will prepare a value appraisal based upon recent sales in the area. The owner will be presented with an offer based on that appraisal. If the owner feels the offer does not reflect the value of his property, the owner may enlist the services of another appraiser with the reasonable cost of that appraisal being paid for by WisDOT. Once that appraisal is received by WisDOT, the WisDOT may make adjustments to the offer based on new information and valuations. If an agreement still can not be negotiated between WisDOT and the owner, WisDOT will issue a jurisdictional offer. The owner has 21 days to accept the offer or WisDOT will begin condemnation proceedings. If the owner still feels that he has not been appropriately compensated for his property, he may initiate an appeals process. If he wins

the appeal and meets certain requirements, WisDOT will pay legal fees as well as the difference in valuation. While the process seems long, the great majority of WisDOT land acquisitions result in a negotiated settlement between WisDOT and the land owner.

For those occupying the buildings, be they tenants or owners, relocation assistance is also available. The tenant will be assigned a relocation agent early in the process. The relocation agent will aid the tenant in finding a comparable dwelling or business building that meets their needs. The relocation is also able to provide relocation benefits to compensate for the costs of relocation. These benefits can include:

- Moving expenses
- Difference in rent payments (for up to a 2-year period)
- Differences in interest payments
- Remodeling costs

Relocation payments are capped at \$8,000 for a residential tenant, \$25,000 for an owner occupying their residence, \$30,000 for business tenant-occupants, and \$50,000 for a business.

**11. Identify any difficulties for relocating a business displaced by the proposed action and describe any special services needed to remedy identified unusual conditions.**

While there appears to be ample availability of replacement buildings, some particular properties have unusual circumstances. These include buildings with potential historical concerns, a cement plant, and parcels containing both a house and a business. See Appendix B, page 22 for a listing of these properties.

**12. Describe any additional measures which would be used to minimize adverse effects or provide benefits to those relocated, those remaining, or to community facilities affected.**

No additional measures are anticipated to be necessary.

**13. Generally describe both the beneficial and adverse effects accruing to:**

**a. The area's economic development potential or existing business area caused by the proposed action. Include any factors identified by business people that they feel are important or controversial.**

Virtually all of the businesses in the area depend on WIS 15 for continued economic viability for at least two reasons. They depend on the facility to provide customers an efficient means of travel to the businesses. Businesses located directly along WIS 15 also enjoy the benefits of visibility and advertising along this well-traveled corridor.

The No Build Alternative would not significantly change the conditions for business. The on-alignment alternatives (Option A and Alternative 1) would relocate a large number of businesses along the Village's main street. However, widening the roadway on the existing alignment channels the increasing volumes of traffic directly through the downtown area, creating incentives for economic development within the Village. The bypass alternatives create new infrastructure that may spur economic development near the Village's outskirts and could reduce the amount of economic development within the downtown area. The businesses that remain downtown would also benefit, however, from positive effects such as decreased congestion and increased accessibility for customers and suppliers.

As part of the WIS 15/US 45 Corridor Preservation Study, a focus group was organized to represent local citizens and business owners. This focus group emphasized the following needs for the corridor:

- Safe access to and from homes and businesses
- Reduce crashes
- Consideration of alternative routes to bypass the Village of Hortonville
- Improvement of existing alternative roads
- Sustain and promote economic viability of downtown
- Explore aesthetic opportunities consistent with communities

Since that study, many more public comments have been gathered. These are summarized in Section 7.

- b. The employment potential and existing employees in businesses affected by the proposal. Include, as appropriate, a discussion of effects accruing to minority populations or low-income populations.**

Employment potential and existing employees correlate directly with economic development potential and existing businesses as described in Item 4 in this Factor Sheet.

Minority and low-income population employees and businesses should not be adversely affected by the proposed improvements any more than the remaining population categories

**Wisconsin Department of Transportation  
D–AGRICULTURAL IMPACT EVALUATION**

Type of Land Acquired From Farm Operations	Alternative A	Alternative B	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Crop land and pasture (acres)	33.3	56.8	63.9	243.6	134.3	168.3
Woodland (acres)	10.5	13.9	9.0	7.0	10.0	7.8
Land (acres) of undetermined or other use (e.g., farm residences, etc.)	5.1	3.4	9.5	2.1	7.9	3.2
<b>TOTAL ACRES</b>	51.6	76.0	94.2	254.4	163.0	185.7

ND = Not Determined

**1. Indicate the number of farms operations from which land will be acquired.**

**Total Number of Farm Operations from which land will be acquired**

Total Number of Farm Operations from which Land will be acquired:	Option A	Option B	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Land will be acquired	1	5	3	14	8	12
1 acre or less will be acquired	ND	ND	ND	ND	ND	ND
More than 1 acre but less than 5 acres will be acquired	ND	ND	ND	ND	ND	ND
More than 5 acres will be acquired	ND	ND	ND	ND	ND	ND

ND = Not Determined – (Will be determined in FEIS once a preferred alternative has been selected.)

Since the preferred corridor alternative is not likely to be constructed for over 10 years, some aspects of the agricultural impacts were not fully evaluated as part of this document. The Agricultural Impact Statement (AIS) will be prepared after a preferred alternative is selected. See Section 7 for a summary of the correspondence between the study team and the Department of Agriculture, Trade, and Consumer Protection (DATCP) regarding evaluation of agricultural impacts.

**2. Identify and describe the effects to farm operations because of land lost due to the project.**

This information will be gathered from the Agricultural Impact Statement which will be prepared once a preferred alternative is chosen.

**3. Describe changes in access to farm operations caused by proposed action.**

No Build Alternative      No effects.

Option A      Approximately one farm will be displaced with access removed. WisDOT will work with all farm operations to minimize or combine as many access points as possible. Intermittent median cross over points will provide safer crossings.

Option B      There will be approximately four farm severances and the related problems to provide either new highway crossings for access or greater distances to travel for the farmer.

Alternative 1      Approximately three farms will be displaced with access removed. WisDOT will work with

farm operations to minimize or combine as many access points as possible. Intermittent median cross over points will provide safer crossings.

Alternative 2 Approximately one farm will be displaced with access removed. There will be approximately thirteen farm severances and the related problems to provide either new highway crossings for access or greater distances to travel for the farmer.

Alternative 3 Approximately six farms will be displaced with access removed. There will be approximately two farm severances and the related problems to provide either new highway crossings for access or greater distances to travel for the farmer.

Alternative 4 Approximately three farms will be displaced with access removed. There will be approximately nine farm severances and the related problems to provide either new highway crossings for access or greater distances to travel for the farmer.

**4. Indicate whether a farm operation will be severed because of the project and describe the severance (include area of original farm and the size of any remnant parcels).**

The actual number of farm severances and the remnant parcel sizes are not completely known at this time. The Agricultural Impact Statement (AIS) will evaluate the properties being severed and the actual size of parcels being affected for the Final EIS. A preliminary estimate of the number of farm operations being severed is shown in the table below.

	No Build	Option A	Option B	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Number of Farms Severed	0	0	4	0	13	2	9

**5. Identify and describe effects generated by the acquisition or relocation of farm operation buildings, structures or improvements, e.g., barns, silos, stock watering ponds, irrigation wells, etc. As appropriate, address the location, type, condition and importance to the farm operation.**

A complete list of the estimated number of farm building affected is not complete at this time. The AIS will evaluate the properties being affected and the actual farm structures that may be affected. The Conceptual Stage Relocation Plan included in Appendix B indicates which relocations involve farm operations.

**6. Describe effects caused by the elimination or relocation of a cattle/equipment pass or crossing. Attach plans, sketches, or other graphics as needed to clearly illustrate existing and proposed location of any cattle/equipment pass or crossing:**

- Does not apply** There are no known cattle crossings being used along the Highway 15 corridor.
- Replacement of an existing cattle/equipment pass or crossing is not planned. Explain**
- Cattle/equipment pass or crossing will be replaced**
- Replacement will occur at same location**
- Cattle/equipment pass or crossing will be relocated. Describe**

**7. Describe the effects generated by the obliteration of the old roadway.**

**Does not apply**

None of the alternatives have substantial amounts of obliterated roadway. If any of the existing Highway 15 is not used as a part of Alternative B, 2, 3, or 4, then the existing roadway ownership will be transferred to a local municipality. Any small areas of roadway that need to be obliterated will be graded such that they blend in with adjacent landscape.

**8. Identify and describe any proposed changes in the land use or secondary development that will affect farm operations that relate to the development of this project.**

Indirect and cumulative effects are described in Section 4.4.

**9. Describe any other project-related effects identified by a farm operator or owner that may be adverse, beneficial or controversial.**

Some farm operators have made comments at public meetings or by other methods. A summary of public comments is included in Section 7.0. Additionally, the AIS (that will be completed once a preferred alternative has been selected) may identify other comments of concerns of farm operators.

**10. Indicate whether minority population or low-income population farm owners, operators, or workers will be affected by the proposal. (Include migrant workers if appropriate.)**

**No known effects will accrue to farm owners, operators or workers from minority populations or low-income populations**

Factor Sheet E discusses environmental justice issues related to the project corridor. No known minority populations that would be affected by any of the alternatives have been identified. A potential low-income population was identified; however, this population is within group homes for the mentally disabled and would not be affected by impacts to farm operations. Migrant workers are not believed to be in this area because cash crops are not commonly farmed in the corridor area.

**11. Describe measures to minimize adverse effects or enhance benefits.**

During the final design, consideration will be given to selecting an alignment that minimizes the impacts to agricultural fields and buildings. During construction, reasonable access will be provided to agricultural land. Existing drainage systems, ditches, and tiles will be kept operational at all times during construction. WisDOT will work with farm owners to minimize project impacts. No known large farm operations with extensive migrant workers populations are impacted by the alternatives. Full consideration will be given to the recommendations of the Department of Agriculture, Trade, and Consumer Protection's Final Agricultural Impact Statement. See Section 7.0 for a summary of correspondence with the agencies.

**Wisconsin Department of Transportation  
E–ENVIRONMENTAL JUSTICE EVALUATION**

**1. Give a brief description of the minority population and/or low-income population affected by the proposed action. Include the size of the population(s) and their pertinent demographic characteristics. [A minority population means any readily identifiable group of minority persons including the elderly or disabled (see item 2 below for definitions of Title VI protected minorities) who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy, or activity. Low-Income Population means any readily identifiable group of low-income persons (having a household income at or below the U.S. Department of Health and Human Services poverty guidelines) who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed program, policy, or activity.]**

- No minority populations or low-income populations are present in the areas influenced by the project (Process is complete if the No box is checked)
- Yes, a minority population or low-income population is located in the areas influenced by the project. (Complete the remaining items on this Factor Sheet.)

**2. Identify and give a brief description of the minority population or low-income population affected by the proposed action. Include the size of the population and their pertinent demographic characteristics. (Check all that apply.)**

The demographics of the study area and the affected municipalities are described in detail in Section 3.3 and in Factor Sheets B and C. In general, the percentages of minorities and low-income persons within the study corridor are smaller than the percentages of these groups in the county.

In order to determine if there are populations of minority or low-income people that might be affected by the project alternatives, the study team contacted a representative from Outagamie County Planning. The planner confirmed that he was not aware of any such pockets of these populations. The study team also contacted a representative for the Village of Hortonville. The representative noted that, in general, there are not many residents in the area of the southern alternatives. The Hortonville representative indicated there is a small Hmong neighborhood to the north of Alternatives 2 and 4, though these residents would not be directly affected. With regards to disabled persons, there are two Brotoloc Housing units on the south side of Givens Road just east of the railroad crossing. These facilities provide supported living and specialized services to adults with disabilities and long term care needs. While not directly affected, Alternative 3 is proximate to these homes. Also along the south side of Givens Road, there appears to be a small mobile home park. Both the Brotoloc housing units and the potential mobile home park are likely to house a population of low-income persons. The Village representative noted that the on-alignment alternatives may affect a population of elderly persons since homes along the existing WIS 15/Main Street corridor tend to be older homes with older residents. Migrant workers are not believed to be in this area because cash crops are not commonly farmed in the corridor area.

**3. Identify and describe issues of concern or controversy to the minority population or low-income population.**

- No issues of concern or controversy identified
- Issues of concern or controversy identified below - Describe issues and how they were resolved.

While the project itself has sparked controversy over which alternative should be constructed, no issues were raised by a specific minority or low-income population. Rather than controversy existing between or among minority and low-income groups, there tends to be controversy between residents based on their geographical location and proximity to particular alternatives. See Section 7 for a detailed description of the public comments and concerns.

<b>4. Identify and describe effect(s) to the minority population or low-income population.</b>
--

For a narrative response, see Item 5 below.

**Indicate which other environmental factors are involved or inter-related .**

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> General Economics | <input checked="" type="checkbox"/> Community & Residential | <input checked="" type="checkbox"/> Economic Development & Business |
| <input type="checkbox"/> Agriculture                  | <input type="checkbox"/> Wetlands                           | <input type="checkbox"/> Streams & Floodplains                      |
| <input type="checkbox"/> Lakes & Other Open Water     | <input type="checkbox"/> Upland                             | <input type="checkbox"/> Erosion Control                            |
| <input type="checkbox"/> Storm Water Management       | <input type="checkbox"/> Air Quality                        | <input type="checkbox"/> Construction Stage Sound Quality           |
| <input checked="" type="checkbox"/> Traffic Noise     | <input type="checkbox"/> Section 4(f) & 6 (f)               | <input type="checkbox"/> Historic Resources                         |
| <input type="checkbox"/> Archeological Resources      | <input type="checkbox"/> Hazardous Substances and USTs      |   |
| <input checked="" type="checkbox"/> Aesthetics        | <input type="checkbox"/> Coastal Zone                       |   |

<b>5. Indicate whether effects to a minority population or a low-income population are beneficial or adverse.</b>
---

- Only beneficial effects will occur. Describe effects on affected population and discuss whether they are direct, indirect or cumulative, include a discussion of any measures to enhance beneficial effects.
- Identified adverse effects are proportionate to those experienced by the general population. Describe effects on affected population and discuss whether they are direct, indirect or cumulative, include a discussion of any measures to avoid, minimize, or mitigate adverse effects.

In general, both adverse and beneficial effects of the alternatives that accrue to the population at large will also accrue to minority, low-income, disabled, or elderly persons. These types of impacts include economic impacts to the communities in the study area. The specific populations identified in Item 2 may also be affected by more direct impacts.

The Brotoloc housing units and the potential mobile home park would not be directly impacted by any of the alternatives, however Alternative 3 would pass through the vicinity of the area. While residents of the Brotoloc housing units and the mobile home park may experience some indirect effects, such as increased air and noise pollution and diminished aesthetics, they may also perceive a benefit in increased mobility. Additionally, there are many other residents along Givens Road, particularly those on the north side of the road, that would be more severely impacted with Alternative 3. Measures to avoid, minimize, or mitigate the adverse impacts of Alternative 3 would include landscaping and site design that could include a possible fence that would help both to reduce the visual impact of the new roadway as well as provide a sort of barrier between the highway traffic and the local residents.

The population of elderly persons that might be affected by the on-alignment alternatives (Alternative 1 and Option A) is not documented. It is unknown who currently lives in the housing units that might be relocated with the on-alignment alternatives. If Alternative 1 and Option A are chosen as the preferred alternatives, the demographics of the study area may need to be studied in more depth. No matter the alternative chosen, mitigation for relocation impacts will be provided to every relocated renter, property owner, and business owner in the form of relocation assistance in accordance with the Uniform Relocation Act of 1972.

- Identified effects are disproportionately high and adverse. *A disproportionately high and adverse effect means an adverse effect that: 1) is predominately borne by a minority population and/or a low-income population; or 2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.*

Describe disproportionately high and adverse effects on affected population and discuss whether they are direct, indirect or cumulative, include a discussion of any measures to avoid, minimize, or mitigate disproportionately high and adverse effects or enhance beneficial effects.

**6. Indicate whether the individuals in the affected population(s) are protected under Title VI of the 1964 Civil Rights Act. (See item 2 above for definitions of Title VI minorities.)**

- No, Title VI protections do not apply, but other requirements under the Age Discrimination Act or Americans With Disabilities Act do apply. Describe effects and how they will be avoided, minimized or mitigated.
- Yes, Title VI protections apply. Describe any special services, considerations, or mitigation that will be used to avoid, minimize, or mitigate effects to Title VI individuals.

Title VI protections declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving Federal financial assistance, including highway projects.

WisDOT is conducting the WIS 15 Environmental Impact Statement activities in an attempt to identify the preferred highway corridor to accomplish the following objectives:

- Improve the operational efficiency of the WIS 15 corridor by providing a safe and dependable highway connection to and from regional communities while reducing conflicts between local and through traffic.
- Improve the highway facility to meet current design standards for this commuter route in northeastern Wisconsin.
- Provide better mobility by meeting capacity needs and minimizing public and private access.
- Coordinate local governmental land use plans to alleviate development pressures on WIS 15 and intersecting roads, AND preserving the corridor for future transportation use.
- Minimize environmental impacts.

Because the improvements would not be implemented for some amount of time, no other plans for special services, considerations, or mitigation are being planned at this time. Before final design, these plans shall be reviewed to ensure they are still applicable and in keeping with EO 12898.

**7. Will the project/alternative be carried out even with disproportionately high and adverse effects on a minority population or low-income population?**

- Not Applicable
- No, the project/alternative will not be carried out in keeping with EO 12898
- There is no substantial need for the project/alternative
  - Another alternative with less severe effects on the minority population or low-income population can meet the needs of this and is practical.
- Yes, will be carried out with the mitigation of disproportionately high and adverse effects.
- Yes, a substantial need for the project/alternative exists based on the overall public interest and alternatives that would have less adverse effects on minority populations or low-income populations have either:
- adverse social, economic, environmental, or human health impacts that are more severe ; or
  - would involve increased costs of an extraordinary magnitude

**8. Identify and discuss mitigation and enhancement efforts to address disproportionately high and adverse effects to Title VI protected minority people if different from those shown in item 6 above.**

Not Applicable

**Wisconsin Department of Transportation  
F–WETLANDS IMPACT EVALUATION**

**1. Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, other.**

No Build Alternative This alternative requires no wetland conversion and has no impacts.

All Build Alternatives The build alternatives will impact between 2 and 44 acres of wetland areas. Wetland impacts will first be avoided and then minimized. Wetland areas unable to be avoided or minimized will require appropriate wetland mitigation. In addition to loss of wetland acreage, the project would also affect wetland function and value. Excavation, fill, marsh disposal, and such specialized poor soil construction techniques as dewatering and surcharging may be necessary. This may be especially true in the southern Black Otter Creek area where springs have been reported. Filling of wetlands eliminates wildlife habitat for species dependent on the wetland for food, cover, and reproduction. Loss of wetland vegetation and soils reduces the nutrient retention, sediment trapping, groundwater recharge, and flood buffering capacity of wetlands. Construction techniques and/or drainage structures would be incorporated into the project to minimize potential impacts of wetland severance that might otherwise disrupt wetland hydrology where groundwater inflow provides the water sources to wetlands. A final wetland mitigation plan or arrangement for wetland mitigation bankside debits will be explored during the FEIS or engineering design phase.

In summary, impacts for Option A are about 9 acres; impacts for Option B are about 18 acres; impacts for Alternative 1 are about 18 acres; impacts for Alternative 2 are about 40 acres; impacts for Alternative 3 are about 34 acres, and impacts for Alternative 4 are about 43 acres. In order to obtain wetland impacts for an entire alternative corridor, the impacts associated with the selected Option and the selected Alternative need to be added.

**2. Describe the location of wetland(s) affected by the proposal. Include wetland name(s), if available. (Use maps, sketches, or other graphic aids.)**

The No Build Alternative does not affect any wetlands. To determine affected wetlands associated with the Build Alternatives, WisDOT and WDNR identified all wetland areas within a 600-foot corridor throughout the project study area, determining the wetland type and size. Boundaries were collected with GIS/GPS equipment by WisDOT Environmental Staff. The expected filled wetlands were then determined by assuming that 37 percent of these wetlands would be filled, corresponding to a 225-foot corridor ( $225/600 = 37$  percent). Even with this estimation methodology, efforts will be made during design to minimize impacts further by alignment shifting and cross section narrowing. Table F-1 summarizes the wetland impacts for each alternative and corresponds to the wetland map(s) shown in Figure F-1. Each wetland area is numbered both in the table and in the figure for comparison. There are some particular areas that are unique and are described for each alternative below.

Option A Option A has approximately 16 individually identified areas of wetland along existing WIS 15. There are approximately 17 acres of identified wetlands within the 600-foot corridor, although only 6.3 acres would be filled. Most impacts would be less than one acre in size. The wetland area No. 37 is found north of the current WIS 15/Cross Road intersection and contains a small unnamed drainage stream flowing through to the Wolf River, over a mile north of this crossing. A second branch of this tributary exists farther east. Predominant impacts on this alignment are minor longitudinal encroachments of wetlands and drainageways. The largest impact is 1.6 acres of scrub-shrub associated with wetland no. 52 as the alignment approaches Cross Road. This and all wetland areas are shown on Figure F-1.

- Option B Option B has about 17 individually identified areas of wetlands. There are approximately 35 acres of wetlands within the 600-foot corridor, although only about 13.0 acres would be filled. The majority are associated with the drainageways and low fields of the alignment in Sections 20 and 28 of T22, R15E (Hortonia) about one quarter mile northeast of the current WIS 15/Cross Road intersection. A small unnamed drainage stream flows through this wetland area on the way to the Wolf River. Wetland area No. 66 has been disturbed and farmed previously. A less disturbed area in this wetland is south of this alignment. Predominant impacts on this alignment include large 3 and 4 acre crossings of broad wet meadows amidst off-alignment east of Ledge Road. See impacts no. 83 and 84 as shown on Figure F-1.
- Alternative 1 Alternative 1 has about 37 individually identified areas of wetland impacts ranging in size from 0.1 acres to 2.2 acres. Fills mainly involve longitudinal fills as related to the expansion of the existing road. Impact totals are approximately 12.4 acres for this alternative. Most wetlands are found in small pockets along the existing highway. There is a bridge crossing of the Black Otter Creek in the Village of Hortonville that flows north to the Wolf River. A second minor crossing in Hortonville near Alonzo Park is encased in culverts under WIS 15 and adjacent retail developments.
- Alternative 2 Alternative 2 has 25 individually identified areas of wetlands ranging in size from 0.1 acres to 14 acres, totaling nearly 80 acres of which about 29 acres would be impacted within the segment. A few wetlands are found in small pockets along the existing highway near Greenville. There is a mature wooded swamp east of the WIOUWASH trail, feeding into Black Otter Lake. This area transitions into a shallow marsh and contains environmentally sensitive areas that feed into and buffer Black Otter Lake. Crossing of the Lake could require deep excavation and close to 14 acres of aquatic bed and shallow marsh fill. Significant impact areas include No. 29 (10.3 acres) as noted above and No 92 which includes 3.7 acres of wooded swamp impacts west of Midway Road. This is a allergen wetland and wet-mesic forest complex of moderate size (> 40 acres) another area farther west was avoided with previous alignment modifications. Isolated small wetlands on the alignment also exist to the far west with agricultural tributary crossings of the Rat River present to the far east before connecting to existing WIS 15.
- Alternative 3 Alternative 3 has 36 individually identified areas of wetlands ranging in size from 0.1 acres to 9 acres, totaling about 65 acres within the corridor of which 24 acres could be filled. Most wetlands are found in small pockets along the existing highway. There is a bridge crossing of the Black Otter Creek north of Village of Hortonville that flows north to the Wolf River. There is also a wet meadow area (No. 91) north of the Grandview golf course approaching 17 acres that may require marsh excavation. An adjacent wooded swamp could lose 9 acres of habitat under this alternative (See No. 82 of Figure F-1).
- Alternative 4 Alternative 4 has 38 individually identified areas of wetlands ranging in size from 0.1 acres to 6.5 acres, and totaling about 83 acres within the corridor, of which 31 acres could be filled. Some wetlands are found in small pockets along the existing highway but the most extensive takings would be to the forested wetland and shrub/wet meadow wetland habitat types within Black Otter Lake and Creek in association with the WIOUWASH Trail. This alternative would require a large bridge crossing of the Black Otter Lake and would have substantial impact to the surrounding wetland. The east side of Black Otter Lake contains distinctive shallow marsh and shoreline wetlands (No.29) transitioning into a natural wooded area that would be fragmented by this project, separating them from riparian buffer, upland habitat, and woods. This alternative also crosses the same wet and dry forested communities near Midway Road that Alternative 2 would impact. Impacts involved in this alignment include No. 51 (4.0 acres), No. 81 (3.8 acres), and No. 108 (4.8 acres).

**3. These wetlands are:**

- Isolated from stream, lake or other surface water body.  
 Not contiguous, but within 5-year floodplain.  
 Contiguous (in contact) with a stream, lake, or other water body.

Identify corresponding stream, lake, or other water body by name or town-range location:

**NOTE: If wetland is contiguous or adjacent to a stream, complete Streams and Floodplains Factor Sheet. If wetland is contiguous to a lake or other water body, complete Lake or Water Body Factor Sheet.**

**4. List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland. (List should include both permanent and seasonal residents).**

The Wolf River basin, including the area around Black Otter Lake and surrounding areas are excellent nesting and rearing areas for waterfowl and aquatic species. Because of the various ditches and tributaries, wetlands, and floodplains this area is classified as environmentally sensitive lands as contain on Northeast Wisconsin Regional Planning Commission (NEWRPC) Sewer Service Maps. Shorebirds, forest interior species, nesting wood ducks, and other waterbirds such as cranes, osprey, and loons are found in the area. A strong population of frogs, turtles, salamanders, and other amphibians could also be expected. However, none of the environmental resource maps designate the area to have the species richness and special habitats of the Wolf River Bottomlands on Alternative 3 north of Hortonville. All alternatives of the project cross the migratory and feeding paths for most of the species found in the area. Large and small mammal associations typical of North-Central Wisconsin could be expected in either the large tracts of woods north (bordering LWRBNRA) or south of Hortonville (Black Otter lowlands). The small wetlands bordering existing alignments support small local populations of terrestrial and aquatic species.

**5. Are there any known endangered or threatened species affected by the project?**

- No  
 Yes – Identify the species and indicate whether it is on Federal or State lists.

USFWS coordination indicates that they have records of federally threatened bald eagle and the federally endangered Karner Blue Butterfly in the county. The bald eagle has been delisted by the WDNR. The WDNR has adopted a Habitat Management Plan and “incidental take” permit or other arrangements for cooperating agencies for the Karner blue butterfly. Coordination and clarification on both USFWS and WDNR requirements under their current system was completed by WisDOT in the spring of 2006.

No specific nesting sites for bald eagles have been reported. There would likely be seasonal use of the Wolf River Bottomlands by this species. Records of Karner Blue Butterfly indicate the potential presence near County JJ on the far east segment east of Hortonville. The USFWS has requested that habitat reviews be conducted. The habitat review showed no lupine or other appropriate habitat for the Karner blue butterfly.

No Build Alternative      No effects

Option A      Rare aquatic (endangered or threatened) species are documented on the WDNR’s Threatened and Endangered (T&E) Species Occurrence Map provided in the Affected Environment (Section 3). WDNR maps list the following sections as containing the occurrence: Section 20, 21, 26, and 28 of T22N, R15E (Hortonia). The occurrences are believed to be for Blandings turtles. Residents south of Givens Road have observed and reported Blandings turtles to the WDNR regarding their property on Alignment 3. This is Section 27 with no current observances for that Section. However it is less than 0.5 mile from the extensive habitat of the LWRBNRA. WDNR coordination regarding the Blandings turtles is ongoing.

- Option B      See Above
- Alternative 1      The June 8, 2004 correspondence from the USFWS documents that the federally endangered Karner blue butterfly is known to be present near the intersection of the existing WIS 15 and County JJ. Habitat evaluations for their host plant (Lupine) have been requested by the USFWS and were completed by WisDOT in Spring 2006. No lupine or other appropriate habitat for the Karner blue butterfly was found. No wetland/aquatic threatened and endangered species are known for this alternative based on WDNR coordination to date.
- Alternative 2      This area does not intersect reported occurrences of T&E species, nor have agencies otherwise identified the area as likely containing such. The Black Otter Creek floodplains contain a diverse and well functioning mix of habitats and sizes of habitats. These areas could contain rare species and will likely be included in future evaluations and coordination with the WDNR.
- Alternative 3      The June 8, 2004 correspondence from the USFWS documents that the federally threatened Karner blue butterfly is known to be present near the intersection of the existing WIS 15 and County JJ. Habitat evaluations for their host plant (Lupine) have been requested by the USFWS and were completed by WisDOT in Spring 2006. No lupine or other appropriate habitat for the Karner blue butterfly was found. No wetland/aquatic threatened and endangered species are known, other than the potential presence of Blanding's Turtle (or other species near the LWRBNRA.). See Option A for more details on the Blandings turtle.
- Alternative 4      The June 8, 2004 correspondence from the USFWS documents that the federally endangered Karner blue butterfly is known to be present near the intersection of the existing WIS 15 and County JJ. Habitat evaluations for their host plant (Lupine) have been requested by the USFWS and were completed by WisDOT in Spring 2006. No lupine or other appropriate habitat for the Karner blue butterfly was found. No wetland/aquatic threatened and endangered species are known for this alternative based on WDNR coordination to date. Efforts for appropriate reviews will be determined during ongoing coordination with the WDNR.

Note: The Blanding's Turtle is a species that may be present in the corridor based upon recent observances and WDNR information. The final alternative will need to address species reviews and/or mitigative measures for any potential incidental takings.

- Section 7 coordination has been completed with the U.S. Fish & Wildlife Service. Describe mitigation required to protect the federally listed endangered species.

Survey results were sent to USFWS on May 30, 2006.

- Coordination with WDNR had been completed. Describe mitigation required to protect the State listed species.

Pending: A habitat review for Lupine was conducted. Coordination regarding the presence of Blandings Turtles is ongoing.

## 6. FHWA Wetland Policy

- Not Applicable - Explain
- Individual Wetland Finding Required - Summarize why there are no practicable alternatives to the use of the wetland.

Alternative development has included the review of over 25 alignments or subalignment segments. Alternatives impacting avoidable wetlands were dropped. The May 20, 2004, letter from the Department to agency reviewers documented and presented these areas in a figure entitled *STH15 Proposed & Dropped Alignments as of April 2004*. Notations and alternative discussions are provided

on that figure. Various agency comments and WisDOT/WDNR reviews were vital in selecting the alignment modifications that could be advanced for further study (figure entitled *STH15 Modified Alignments April 2004*). Agencies concurred on the Purpose and Need and these alignments in their June 2004 and subsequent letters, although the USACE expressed the concern that Alignments 2 and 4 may represent impacts that should be avoided to the extent possible. The alignments advanced are documented in this factor sheet. It is noted from the review of project environmental mapping and aerial photographs of the proposed alignments that wholesale avoidance of wetland or sensitive area (floodplains and woodlands) could not be eliminated with alignments other than the on-alignment alternative. Thus, the selection of an off-alignment alignment will involve some wetlands impacts that have no practicable method of avoidance.

#### Statement of Wetland Finding (FHWA)

Based on the information provided in this finding, WisDOT has identified four alternatives and two options as being practicable alternatives in terms of providing a balance among sound engineering design, environmental impacts, and addressing long-term project purpose and need objectives in the WIS 15 corridor. Further, it is anticipated there will be sufficient wetland restoration areas to fully compensate wetland loss for the alternatives either through creating/restoring replacement wetlands within an approximate 2.5 mile (4 km) distance of the alternative corridor or in combination with using an established or future wetland bank site that would be available for debit at the time the WIS 15 project is constructed.

Based on the above considerations in accordance with Presidential Executive Order 11990, Protection of Wetlands, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

- Statewide Wetland Finding

NOTE: All must be checked for the Statewide Wetland Finding to apply.

- Project is either a bridge replacement or other reconstruction within 0.5 km (0.3 mile) of the existing location.
- The project requires the use of 3 hectares (7.4 acres) or less of wetlands.
- The project has been coordinated with the WDNR and there have been no significant concerns expressed over the proposed use of the wetlands.

#### 7. Erosion control or storm water management measures which will be used to protect the wetland are shown on (either or both):

- Erosion Control Impact Evaluation
- Stormwater Impact Evaluation
- Neither form - Briefly Describe measures to be used

#### 8. Section 404 Permit

- Not Applicable - No fill to be placed in wetlands

- Applicable - Fill will be placed in wetlands.  
Indicate area of wetlands filled:

See Table F-1 on following pages. Alternatives vary from 50 to 118 acres of cumulative fill based on a 600-foot-wide fill corridor.

- Individual Section 404 Permit required
- General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404

Indicate which GP or LOP required:

- Non-Reporting GP       Provisional GP  
 Provisional LOP       Programmatic GP

### 9. Section 10 Waters

**For navigable waters of the United States (Section 10) indicate which Nationwide Permit is required.** Not Applicable

**Indicate whether Preconstruction Notification (PCN) to the U.S. Corps of Engineers (USACE) is:**

- Required  
 Submitted on (Date)

#### Status of PCN

**USACE has made the following determination on (Date)**  
**USACE is in the process of review, anticipated date of determination is: (Date)**

**10. Identify wetland type(s) which will be filled or converted to another use. Use the DOT Wetland Bank System. If the National Wetlands Inventory (NWI) or Wisconsin Wetlands Inventory (WWI) are used to identify the types of wetlands, translate them to the DOT Wetland Bank System.**

Table F-1 identifies surveyed wetlands that occur within the 600-foot study corridor for each project option and alternative. Because the entire 600-foot corridor width will not be required for right-of-way, an estimation of the amount of wetlands that may need to be filled was also included.

Most of the WDNR mapped wetlands and project-specified delineated wetlands are associated with Black Otter Creek, minor tributaries to the Wolf or Rat Rivers, creeks, and other drainageways that intersect the corridor. The largest mapped but relatively unaffected wetlands are those associated with the Lower Wolf River Bottomlands Natural Resource Area (LWRBNRA). Large mapped, forested wetland complexes and wetland corridors are similarly located south of Black Otter Lake. Both these wetlands and other wetlands within Black Otter Lake and its environs are impacted by Alternatives 2 and 4. About 15-40 percent of the wetlands and/or wetland impacts located on the project alignments and included in the project impact maps were isolated or small wetlands not identified on the Wisconsin Wetland Inventory maps (unmapped). Delineation and boundary survey recovery by WisDOT environmental staff was completed during the review period. Meetings and various field reviews were conducted between project staff and WDNR reviewers.

A general description comment and categorical assessment of the wetlands' functional and floristic value(s) is included in the wetland summary Table F-1. In these evaluations, a wetland of small size and isolated from a larger wetland complex was given a "Low" rating whereas a wetland associated with or forming a broad, riparian buffer of a stream with various functions (wildlife food, cover, groundwater recharge or discharge or having other contributory value to water quality) was given a "Mod" or "High" functional value rating, depending on regional landscape and vegetation conditions. Similarly, if wetland or surrounding vegetation was monotypical, such as dense reed canary grass, directly bordered by agricultural fields, or an area was subject to low species diversity from agricultural runoff, then a "Low" floristic value rating was applied. The determination for grouping of wetlands into the Low, Moderate, or High importance category was also generally a combination of the wetlands size, location, functional value, acreage of impacts, and floristic or other values.

a. Approximate areas of wetlands filled or converted by type.

I.D.	Type	Functional Value	Floristic or Other Value	Other Comment	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Option A		Option B	
					Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*
1	AB	L	L	Urban, near dam	0.4	0.1										
2**	AB															
3	AB	L/M	L	Some farm drainages	0.3	0.1										
4	AB	L	L	ND	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
5	AB	L	L	Near roadway	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0				
6	AB	L/M	L	Narrow Rat Riv. Trib.	0.1	0.0			0.1	0.0	0.1	0.0				
7	AB	L	L	Road area									0.5	0.2		
8	AB	L/M	L/M	Mixed brush at trib							0.2	0.1				
9	AB	L	L	Roadside									0.0	0.0	0.0	0.0
10	AB	L	L/M	Road area									0.1	0.0	0.2	0.1
11	AB	L/M	L	Small basin	0.2	0.1			0.2	0.1	0.2	0.1				
12	AB	M	M	Diverse							1.1	0.4				
13	AB	L/M	L	Excavated					0.0	0.0						
14	AB	L/M	L/M	Pond near golf course					0.5	0.2						
15	AB	L	L	Excavated basin					0.5	0.2						
16	AB	M	M	Park	0.2	0.1										
17	AB	L	M	Dam	0.1	0.0										
18	AB	M	L/M	Basins							2.7	1.0				
19	RPE	L/M	L	FW/Could expand			0.9	0.3								
20	RPF	L/M	L/M	Narrow					3.4	1.3						
21	RPF	L	L	Minor trib.									0.2	0.1	0.2	0.1
22	RPF	M	L/M	Existing crossing/BO Creek	0.2	0.1										
23	RPF	M/H	M	Trib. to Wolf									1.6	0.6		
24	RPF	L/M	L	Field ditches			0.6	0.2								
25	RPF	M	L/M	Meander, Wolf Trib.									1.7	0.6	0.0	0.0
26	RPF	L/M	L	Urban	0.3	0.1										
27	RPF	L	L	Urban	0.3	0.1										
28**	SM	ND	ND	Edge road												
29	SM	M/H	M	Large marsh			27.9	10.3								
30**	SM	ND	ND	Near USH45												
31**	0	ND	ND	Near USH45												
32	SM	M	M	Part of cor. complex			7.5	2.8								
33	SS	L	L	Urban	0.1	0.0										
34	SS	L	L	Rd Edge	0.8	0.3	0.8	0.3	0.8	0.3	0.8	0.3				
35	SS	L/M	L/M	Edge grazed					0.9	0.3						
36	SS	L	L	Edge Ag.	1.1	0.4										
37	SS	L	L	Minor brush									1.4	0.5		
38**	SS	L	L/M	Riparian												
39	SS	L	L	Rd drainage	1.5	0.6	1.5	0.6	1.5	0.6	1.5	0.6				
40	SS	L	L	Edge urban	1.7	0.6										
41	SS	L/M	M	Mid trib. drainage			1.9	0.7								
42	SS	L/M	L	Isolated	1.9	0.7			1.9	0.7	1.9	0.7				
43	SS	L/M	L	Trib. to Rat	2.1	0.8			2.1	0.8	2.1	0.8				
44	SS	M	M	Large	2.2	0.8	2.2	0.8	2.2	0.8	2.2	0.8				
45	SS	L/M	L	Narrow trib to Rat	2.1	0.8			2.1	0.8	2.1	0.8				
46	SS	M	M	Buffer to Black Otter Lake							2.6	1.0				
47	SS	L/M	L/M	Trib. to Black Otter Lake							3.3	1.2				
48	SS	L/M	L/M	Field edge									1.9	0.7		
49	SS	M	L/M	Corridor edge											1.8	0.7
50	SS	L	L	Road edge	4.4	1.6	4.4	1.6	4.4	1.6	4.4	1.6				
51	SS	M	M	Cor. edge							10.9	4.0				
52	SS	L/M	M	Road edge									4.4	1.6	5.3	1.9
53	WM	L/M	L/W	Small											0.1	0.0
54	WM	L	L	Minor CMPs at trib	0.1	0.0			0.1	0.0	0.1	0.0				
55	WM	L	L	Roadside	0.1	0.0			0.1	0.0	0.1	0.0				
56	WM	L	L	Trib. to Wolf near nursery									0.1	0.0	0.1	0.0
57	WM	L	L	Minor CMPs at trib	0.1	0.0			0.1	0.0	0.1	0.0				
58	WM	L	L	Ag/Rd			0.1	0.0			0.1	0.0				
59	WM	L	L	Isolated					0.2	0.1						
60	WM	L	L	Near old Lagoon area					0.1	0.0						
61	WM	L	L	Culvert									0.2	0.1	0.2	0.1
62	WM	L/M	L	Trib. to Wolf near nursery									0.2	0.1	0.2	0.1
63**	WM	L/M	L	Ag. area												
64	WM	L	L	Rd/Ag trib.	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.1				
65	WM	L	L	Near roadway	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.1				
66	WM	L/M	L	Ag. trib.	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.0				
67	WM	M	L/M	Edge of complex			0.5	0.2								

Table F-1 Wetland Impacts for WIS 15

4.0 Environmental Consequences

Factor Sheet F–Wetlands Impact Evaluation

I.D.	Type	Functional Value	Floristic or Other Value	Other Comment	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Option A		Option B	
					Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*
68	WM	L/M	L/M	Edge of town	0.7	0.3										
69	WM	L	L	Ag.					0.8	0.3						
70**	WM	L/M	L	Road drainage												
71	WM	L/M	L/M	Edge of Cedar Swamp			1.1	0.4								
72	WM	M	H	Extensive			1.5	0.5			1.5	0.5				
73	WM	L/M	L/M	Road CMP	1.7	0.6			1.7	0.6	1.7	0.6				
74	WM	L	L	Near restorable, hydric soils	2.1	0.8			2.1	0.8	2.1	0.8				
75	WM	M	L	Ag/FW	1.7	0.6			1.1	0.4						
76	WM	L/M	L/M	Natural drainage											2.6	1.0
77	WM	L/M	L	Ag. area											0.1	0.1
78	WM	M	M	Edge of fields							3.8	1.4				
79	WM	L/M	M	Near Wolf River Bottoms (WRB)					5.2	1.9						
80	WM	L	L	Drainage									0.6	0.2	1.4	0.5
81	WM	M	M/H	Wolf River Environs							10.2	3.8				
82	WM	M	M	Near WRB					17.0	6.3						
83	WM	L/M	L	Linear drainage									1.2	0.5	8.0	3.0
84	WM	M	L/M	Edge riparian corridor									2.2	0.8	11.8	4.4
85	WS	L/M	L/M	Edge developnt			4.1	1.5								
86	WS	M	M	Otter Lake environs							2.3	0.9				
87	WS	M	M	Wet corridor			4.6	1.7								
88	WS	L/M	L	Near developnt									0.8	0.3		
89	WS	M	M	Wet corridor			0.5	0.2								
90**	WS	L/M	L/M	Near developnt												
91	WS	L/M	M	Near WRB					10.9	4.0						
92	WS	M/H	H	Ext. habitat and diversity			10.0	3.7			4.8	1.8				
93	WS	L	L	Isolated	0.5	0.2			0.5	0.2	0.5	0.2				
94	WS	L/M	L/M	Edge of expansive area					1.0	0.4						
95	WS	L/M	L	Edge brush	1.6	0.6			1.6	0.6	1.6	0.6				
96	WS	L	L	Runoff	0.4	0.2			0.4	0.2	0.4	0.2				
97	WS	L/M	L/M	Road edge	0.9	0.3										
98	WS	M	L/M	Road edge	2.1	0.8										
99**	WS	Mod	L/M	Edge												
100	WS	M/H	M	100-acre complex							1.3	0.5				
101	WS	M	M	Corridor			5.7	2.1								
102**	WS	M	L/M	Edge ag. and natural												
103	WS	M	M	Natural components											2.6	1.0
104	WS	M	M	Corridor							1.6	0.6				
105	WS	L/M	L/M	Near roadway	0.8	0.3	0.8	0.3	0.8	0.3	0.8	0.3				
106	WS	L	L/M	Shrub fencelines			0.7	0.2								
107	WS	L/M	L/M	Mixed Habitat											0.5	0.2
108	WS	M/H	H	Buffer to Black Otter Lake							12.9	4.8				
<b>TOTAL</b>					<b>33.5</b>	<b>12.4</b>	<b>77.9</b>	<b>28.8</b>	<b>65.1</b>	<b>24.1</b>	<b>82.9</b>	<b>30.7</b>	<b>17.1</b>	<b>6.3</b>	<b>35.0</b>	<b>13.0</b>
I.D.	Type	Functional Value	Floristic or Other Value	Other Comment	Alternative 1		Alternative 2		Alternative 3		Alternative 4		Option A		Option B	
					Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*	Within Corridor	Possibly Filled*
All	AB	L/M	L	See Figures	1.5	0.5	0.3	0.1	1.5	0.6	4.6	1.7	0.7	0.2	0.2	0.1
All	RPE	L/M	L/M	See Figures	0.0	0	0.9	0.3	0.0	0	0.0	0	0.0	0	0.0	0
All	RPF	M	M	See Figures	0.7	0.3	0.6	0.2	3.4	1.3	0.0	0	3.6	1.3	0.3	0.1
All	SM	L/M	L/M	See Figures	0.0	0	35.4	13.1	0.0	0	0.0	0	0.0	0	0.0	0
All	SS	M	L/M	See Figures	17.8	6.6	10.7	4	15.9	5.9	31.8	11.8	7.6	2.8	7.1	2.6
All	WM	M	L/M	See Figures	7.3	2.6	3.8	1.3	29.2	10.7	20.3	7.3	4.5	1.7	24.5	9.2
All	WS	M/H	M/H	See Figures	6.2	2.4	26.3	9.7	15.1	5.7	26.2	9.9	0.8	0.3	3.0	1.2
<b>TOTAL</b>					<b>33.5</b>	<b>12.4</b>	<b>77.9</b>	<b>28.7</b>	<b>65.1</b>	<b>24.2</b>	<b>82.9</b>	<b>30.7</b>	<b>17.1</b>	<b>6.3</b>	<b>35.0</b>	<b>13.2</b>
Notes:																
AB - Aquatic Bed				L - Low	* The area of wetlands filled was estimated by multiplying the area of each wetland in the 600' corridor by 225/600' and rounding to the nearest tenth of an acre. This method is based on the assumption that the actual right-of-way width needed will be approximately 225'. The area of wetlands filled is expected to be conservative, since final design will provide an opportunity to create a design that minimizes wetland impacts by adjusting the horizontal alignment and narrowing the cross-section.											
RPE - Riparian Emergent				M - Moderate												
RPF - Riparian Wooded				H - High												
SM - Shallow Marsh																
SS - Shrub Swamp																
WM - Wet Meadow																
WS - Wooded Swamp					** No impacts were identified for wetlands 2, 28, 30, 31, 38, 63, 70, 99, 102.											

Table F-1 Wetland Impacts for WIS 15 (Cont.)

**11. Wetland Mitigation (NOTE: Avoidance, minimization, or mitigation is required.)****a. Wetland Avoidance****i. Describe methods used to avoid the use of wetlands, such as using a lower level of improvement or placing the roadway on new location, etc.**

Various design alternatives have been presented during the public and agency involvement process. Alignments that were not received well were modified or eliminated as possible. Alignments advanced to the current stage have received concurrence from applicable agencies.

**ii. Indicate the total area of wetlands avoided**

Early modifications to the mid-west alignment of Alternatives 2 and 4 along County T were completed to reduce the forested woodlot and forested wetland impacts between County T and Midway Road. This effort reduced wetland impacts by between 5-15 acres.

**b. Minimize the amount of wetlands affected****i. Describe methods used to minimize the use of wetlands, such as a steep up of side slopes or use of retaining walls, equalizer pipes, upland disposal of hydric soils, etc.**

Once a preferred alternative is selected, techniques to minimize wetland impacts will be used that follow WisDOT FDM procedures as well as project specific design efforts.

**ii. Indicate the total area of wetlands saved through minimization                      Acres      (Hectares)**

The final design efforts will include selecting and placing the preferred alternative within that portion of the 600' corridor study area to allow for minimizing impacts to people (relocations), wetlands, and other significant regional features.

**c. Compensation for unavoidable loss****i. Is compensation of unavoidable wetland loss required?** Yes No**ii. Describe efforts to replace unavoidable wetland loss**

WisDOT and WDNR staff have mutually identified potential wetland mitigation sites in the vicinity of the highway project as the corridor field reviews were being conducted. The final wetland mitigation plan will be developed during the engineering design phase. The development of the plan will be guided by WisDOT with assistance from the WDNR, COE and USEPA and will follow WisDOT procedures for compensating mitigation of unavoidable wetland losses resulting from highway construction (WDNR/WisDOT 1991) and applicable sections of the WisDOT Wetland Mitigation Banking Technical Guidelines, of which the Interagency Coordination Agreement was signed on July 20, 1993 and revised in March 2002, by the Federal Highway Administration, the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service. The EPA may also be involved in the development of the plan. A description of proposed or additional mitigation strategies can be found in Section 4.4.

**Note: If type and amount of compensation is known, complete item d. on following page.**

**d. Type and amount of compensation**

**On-Site Replacement- Wetland replacement located in the general proximity of the project site within the same local watershed. These replacements are often contiguous to the project. On-site replacement will be examined.**

**Near-Site or Off-site Replacement - Replacement opportunity for wetland compensation within a 8.05 kilometers (5 mile) corridor centered over the highway alignment or a wetland replacement located away from the project site, generally outside the project's local watershed.**

**Wetland type of off-site replacement**

Various restoration techniques are possible and will be explored after a preferred alternative is selected. An emphasis will be placed on replacing lost or impacted wetland types. Since the majority of Outagamie County was forested prior to settlement, and because of the large forested/shrubland wetland impacts, this could include forested wetland replacements on previously drained hydric soils. Similarly, due to the permanent and migrational use of the Hortonville and Wolf River Area by shorebirds and waterfowl, there may be an emphasis in replacing some seasonal and permanent water habitats to provide diversity similar to naturally occurring wetland complexes in the area..

**Total area of off-site replacement \_ Acres (Hectares)**

**No near or off-site replacement - Describe reasons no near or off-site opportunities were found.**

**Wetland Mitigation Bank Site - A wetland compensation site containing wetland credit areas and types from bank developed wetland restoration/creation projects or surplus areas from the wetland compensation projects of specific DOT facility development projects.**

**Indicate name or location of wetland mitigation bank site to be used for the replacement of unavoidable wetland loss.**

**Wetland type of bank-site replacement**

Should WisDOT develop a significant wetland mitigation banksite prior to the design or construction horizon for this project, the department's environmental coordinator may direct the impacts to be debited to a regional WisDOT banksite. A bank site will only be used if on-site and near-site options have been exhausted and will be based on coordination and consultation with DNR, COE, and USEPA.

**Total area of bank-site replacement \_ Acres (Hectares)**

**Describe decision process used to determine the use of the bank-site and provide any coordination documentation with regulatory or resource agencies.**