APPENDIX I

INDIRECT AND CUMULATIVE EFFECTS ANALYSIS

Table of Contents

I-1. INTRODUCTION I-1

I-1.1. Background Information I-1

I-1.2. Recommended Alternatives I-1

I-2. INDIRECT EFFECTS ANALYSIS I-5

I-2.1. Step 1: Scoping, Selecting Activities and Determining Study Area I-5

I-2.1.1. Scoping Indirect Effects I-5
I-2.1.2. Stakeholder Input I-5
I-2.1.3. Determining the Indirect Effects Study Area I-6
I-2.1.4. Timeframe for the Analysis I-10

I-2.2. Step 2: Inventory the Study Area and Notable Features I-11

I-2.2.1. Population Trends I-11
I-2.2.2. Employment Trends I-19
I-2.2.3. Households I-21
I-2.2.4. Racial Composition I-23
I-2.2.5. Median Household Income I-27
I-2.2.6. Persons in Poverty I-28
I-2.2.7. Workforce Transportation Characteristics I-32
I-2.2.8. Existing Land Use I-33
I-2.2.9. Land Use and Development Trends I-38
I-2.2.10. Natural, Recreational and Cultural Resources I-61

I-2.3. Steps 3 and 4: Identify Impact Causing Activities of the Proposed Project Alternatives and Identify Potentially Significant Indirect Effects I-65

I-2.4. Step 5: Analyze the Indirect Effects and Evaluate Assumptions I-65

I-2.4.1. Land Use Effects I-65
I-2.4.2. Encroachment-Alteration Effects I-73

I-2.5. Step 6: Assess Consequences and Identify Mitigation Activities I-75

I-2.5.1. Land Use Effects I-75
I-2.5.2. Encroachment-Alteration Effects I-82

I-3. CUMULATIVE EFFECTS I-83

I-3.1. Scoping Cumulative Effects I-83

I-3.1.1. Cumulative Effects Issues I-84
I-3.1.2. Geographic Scope and Time Frame for Analysis I-84
I-3.1.3. Identify Past, Present, and Reasonably Foreseeable Future Actions I-85

I-3.2. Describe the Affected Environment and Determine the Environmental Consequences and Potential Mitigation Measures I-87
I-3.2.1. Agricultural Lands I-87
I-3.2.2. Surface Water Quality and Quantity I-89
I-3.2.3. Wetlands and Floodplains I-94
I-3.2.4. Environmental Corridors and Stream Crossings I-96
I-3.2.5. Air Quality I-97
I-3.2.6. Residential Neighborhoods I-99
I-3.2.7. Business Districts I-100
I-3.2.8. Municipal Tax Base I-102
I-3.2.9. Regional Land Use Patterns I-103

Exhibits

Exhibit I-1: I-43 North-South Project Corridor I-4
Exhibit I-2: Primary and Secondary Study Area Boundaries I-7
Exhibit I-3: Population Change in Milwaukee County – 2000 to 2010 ..... I-15
Exhibit I-4: Population Change in Ozaukee County – 2000 to 2010 ..... I-16
Exhibit I-5: Percent Minority Population in Milwaukee County – 2010 ..... I-24
Exhibit I-6: Percent Minority Population in Ozaukee County – 2010 ..... I-25
Exhibit I-7: Percent Persons in Poverty in Milwaukee County – 2010 ..... I-29
Exhibit I-8: Percent Persons in Poverty in Ozaukee County – 2010 ..... I-31
Exhibit I-9: Sewer and Water Services in Milwaukee County I-35
Exhibit I-10: Sewer and Water Services in Ozaukee County I-36
Exhibit I-11: Existing Land Use in Milwaukee County – 2010 ..... I-39
Exhibit I-12: Existing Land Use in Ozaukee County – 2010 ..... I-40
Exhibit I-13: Milwaukee County Primary Study Area – Development Trends I-41
Exhibit I-14: Ozaukee County Primary Study Area – Development Trends I-48
Exhibit I-15: Economic Centers in Milwaukee County I-54
Exhibit I-16: Economic Centers in Ozaukee County I-57
Exhibit I-17: Natural, Recreational and Cultural Resources in Milwaukee County I-62
Exhibit I-18: Natural, Recreational and Cultural Resources in Ozaukee County I-63

Figures

Figure I-1: Population Growth for the Region, State and Nation – 1990 to 2010 ..... I-13
Figure I-2: Population Growth – Milwaukee and Ozaukee Counties – 1960 to 2010 ..... I-13

Tables

Table I-1: Recommended Interchange Design Alternatives I-2
Table I-2: Past Population – Milwaukee and Ozaukee Counties – 1960 to 2010 ..... I-12
Table I-3: Population Change – Primary Study Area – 2000 to 2010 ..... I-17
Table I-4: Projected Population – Milwaukee and Ozaukee Counties – 2010 to 2050 ..... I-17
Table I-5: Population Projections by Community – 2000 to 2040 ..... I-19
Table I-6: Past Employment – Milwaukee and Ozaukee Counties – 1960 to 2010 ..... I-20
Table I-7: Employment – Primary Study Area I-20
Table I-8: Projected Employment – Milwaukee and Ozaukee Counties – 2010 to 2050 ..... I-21
Table I-9: Households in Milwaukee and Ozaukee Counties – 2000 to 2010 ..... I-21
Table I-10: Households – Primary Study Area – 2000 to 2010 ..... I-22
Table I-11: Racial Composition – Milwaukee and Ozaukee Counties – 2010 ..... I-23
Table I-12: Racial Composition – Milwaukee County Primary Study Area – 2010 ..... I-26
Table I-13: Racial Composition – Ozaukee County Primary Study Area – 2010 ..... I-27
Table I-14: Median Household Income – Milwaukee and Ozaukee Counties - 2010 ..... I-28
Table I-15: Median Household Income – Primary Study Area – 2010 ..... I-28
Table I-16: Persons in Poverty – Milwaukee and Ozaukee Counties I-30
Table I-17: Primary Study Area – Persons in Poverty I-30
Table I-18: Place of Work for Milwaukee County and Ozaukee County Residences I-32
Table I-19: Means of Transportation to Work and Vehicles Available I-33
Table I-20: Existing Land Uses in Milwaukee and Ozaukee Counties – 2010 ..... I-34
Table I-21: Primary Study Area Existing Land Uses – 2010 ..... I-37
Table I-22: Cumulative Effects Study Area by Environmental Resource I-85
Table I-23: Past, Present and Reasonably Foreseeable Actions I-86
Table I-24: Farmland Acres in Ozaukee County by Community – 2007 ..... I-87
Table I-25: Annual Average Pollutant – Milwaukee River Watershed I-90
Table I-26: I-43 North-South Freeway Corridor – Changes in Watershed Impervious Area I-92
Table I-27: Historic Loss of Wetland Acres I-94
Table I-28: Cumulative Residential Impacts of SE Freeway Projects in Milwaukee County I-100
Table I-29: Cumulative Business Impacts I-101
Table I-30: Local Government Tax Revenues for Municipalities Adjacent to a Freeway in Milwaukee and Ozaukee Counties I-102
Table I-31: Cumulative Local Government Tax Base Impacts in Milwaukee County I-103

Appendices

Appendix I-A: Stakeholder Meeting Summaries A-1
Appendix I-B: Focus Group Meeting Summary B-1
Appendix I-C: Projected Job/Housing Imbalances in Southeastern Wisconsin: 2035..... C-1

I-1. INTRODUCTION

The purpose of this report is to assess the potential for indirect and cumulative effects for the I-43 North-South Freeway Corridor Study as required by NEPA. The report is divided into two parts. The first half describes indirect effects and the second half describes cumulative effects.

This report is a standalone document that is a component of the Environmental Impact Statement (EIS) for the I-43 North-South Freeway Corridor Study that is being completed by the Wisconsin Department of Transportation (WisDOT). A full description and evaluation of the freeway corridor's alternatives, costs, proposed actions and environmental impacts is provided in the EIS. A summary of this document is included in the EIS.

I-1.1. BACKGROUND INFORMATION

WisDOT and the Federal Highway Administration (FHWA) prepared the I-43 North-South Freeway Corridor Study in northern Milwaukee County and southern Ozaukee County to address emerging pavement and structural needs, safety needs, design deficiencies and growing travel demand. (See Section 1, Purpose and Need, of the EIS for more information.)

As shown on **Exhibit I-1**, the I-43 North-South corridor encompasses approximately 14 miles of I-43 from Silver Spring Drive in the city of Glendale (south limit) to WIS 60 in the village of Grafton (north limit). Other municipalities along the corridor include the villages of River Hills, Fox Point, and Bayside; the city of Mequon; and the town of Grafton. The corridor contains seven existing interchanges: Silver Spring Drive, Good Hope Road, Brown Deer Road (WIS 100), County Line Road, Mequon Road (WIS 57/167), Pioneer Road (County C) and WIS 60.

I-1.2. RECOMMENDED ALTERNATIVES

WisDOT developed and evaluated a range of alternatives for the I-43 North-South Freeway Corridor Study including a No-Build Alternative and a range of build alternatives. The build alternatives that were recommended to be retained for more detailed evaluation in the Draft EIS were evaluated as part of the indirect and cumulative effects analysis and compared to the No build alternative. (See **Section 2**, Alternatives Considered, in the EIS for more information about the full range of alternatives that were evaluated in the EIS.)

Under the No Build alternative, I-43 would be maintained in its current configuration. Over time and as needed, WisDOT would replace existing pavement, structures, and other highway elements. There would be no capacity expansion, or design and safety improvements on the freeway mainline or at the interchanges.

The recommended Built Alternative is the Six-Lane Modernization Alternative that would replace and reconfigure the I-43 North-South freeway corridor and add one new lane in each direction to address safety and congestion. In the South Segment (Silver Spring Drive to Green Tree Road), the alignment for the I-43 mainline would be shifted east. Jean Nicolet Road and Port Washington Road between Bender Road and Green Tree Road would be reconstructed. Port Washington Road would be widened to four lanes between Bender Road and Daphne Road. WisDOT would implement spot improvements and pavement resurfacing between Silver Spring Drive and Bender Road, as this segment can accommodate six lanes with little reconfiguration of the freeway. In the North Segment (Green Tree Road to WIS 60), the I-43 mainline from Green Tree Road to WIS 60, would be widened to the inside (on a generally centered alignment) within the existing freeway median.

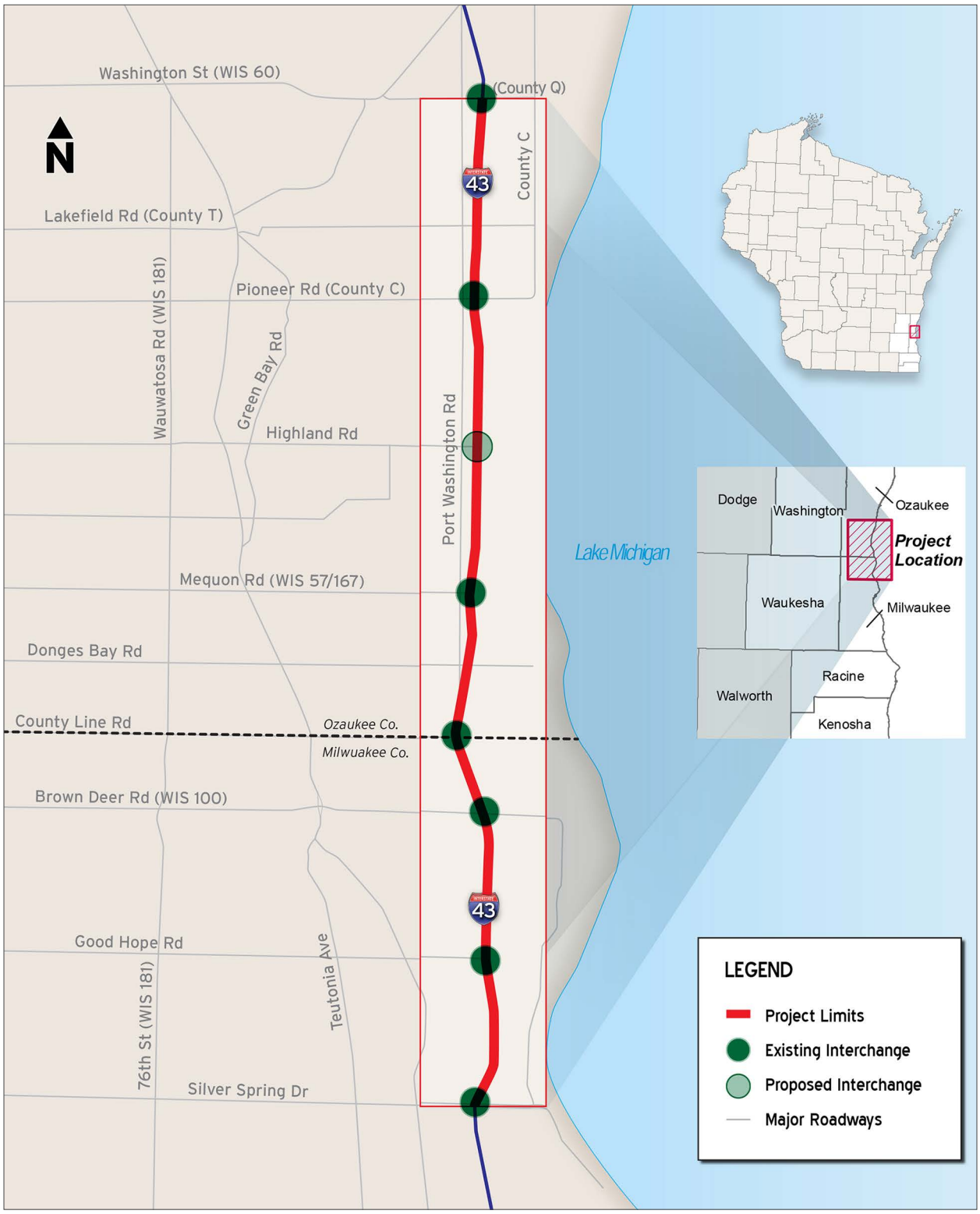
The Six-Lane Modernization Alternative would include reconstructing five of the seven existing interchanges along the study corridor and adding one new interchange at Highland Road. The interchanges at Silver Spring Drive and WIS 60 would not be reconstructed as part of this project since those interchanges were already reconstructed/upgraded during the 2000s. The County Line Road interchange would be converted from a partial access interchange to a full access interchange or no access would be provided. The recommended design alternatives for each interchange are described in **Table I-1**.

Table I-1: Recommended Interchange Design Alternatives

Interchange Location	Existing Design	Recommended Design	Description of Recommended Design
Good Hope Road	Diamond	Tight Diamond	• Shifts the entrance/exit ramps closer to the mainline to minimize the footprint and increase spacing between the Port Washington Road/Good Hope Road intersection and the interchange ramp intersection on Good Hope Road. • Increases the weaving distance for traffic turning left from Port Washington Road onto Good Hope Road to access the I-43 northbound entrance ramp.
Brown Deer Road (two options)	Cloverleaf (loop ramps in all four quadrants)	Diamond	• Eliminates the loop ramps. • Pulls the ramps on the east side of I-43 tighter to the mainline to increase spacing between the Port Washington Road/Brown Deer Road intersection and the interchange ramp intersection on Brown Deer Road. • Increases the weaving distance for traffic turning left from Port Washington Road onto Brown Deer Road to access the I-43 northbound entrance ramp.
		Diverging Diamond	• Eliminates the loop ramps. • Provides a northbound ramp terminal intersection pulled in tighter to the mainline to increase spacing between the interchange ramp intersection on Brown Deer Road and the Port Washington Road intersection to the east. • Eastbound and westbound traffic on Brown Deer Road cross to opposite lanes on the I-43 overpass bridge to facilitate turning movements.

Interchange Location	Existing Design	Recommended Design	Description of Recommended Design
County Line Road	Partial Modified Diamond (northbound exit ramp and southbound entrance ramp)	Split Diamond Hybrid (full access)	• Provides full access to and from I-43. • Splits ramps between County Line Road and Port Washington Road. • Maintains access to local streets.
		Partial Diamond	• Provides southbound entrance ramp at current location. • Moves the northbound exit ramp north to terminate at the Port Washington Road crossing of I-43.
		No access	• Removes existing exit and entrance ramps. • Provides a Port Washington Road overpass and a County Line Road overpass.
Mequon Road	Diamond	Tight Diamond (mainline shifted east)	• Shifts the entrance/exit ramps closer to the mainline to increases the distance between Port Washington Road and the southbound interchange ramp intersection on Mequon Road. • Modifies the westbound approach to the Port Washington Road/Mequon Road intersection to provide an additional westbound through lane and an additional left-turn lane.
Highland Road	No access	Tight Diamond	• Constructs entrance/exit ramps in close proximity to mainline. • Reconstructs Highland Road as an urban two lane roadway between the Port Washington Road/Highland Road intersection on the west side of I-43 to the Concordia University entrance on the east side of I-43. • Replaces the Highland Road bridge over the UP Railroad.
County C (Pioneer Road)	Diamond	Diamond	• Shifts the ramps on the west side of I-43 slightly closer to I-43. • Lengthens the entrance and exit ramps. • Provides the required County C bridge clearance over I-43.

Exhibit I-1: I-43 North-South Project Corridor



I-2. INDIRECT EFFECTS ANALYSIS

Indirect effects as defined by the CEQ are project impacts "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." (40 CFR 1508.08)

The *WisDOT Guidance for Conducting Indirect Effects Analysis* was used to guide the process for evaluating indirect effects for the I-43 North-South corridor. The WisDOT guidance is based on the six-step methodology outlined in the National Cooperative Highway Research Program (NCHRP) Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects*.

The steps include:

- Step 1: Scoping, selecting activities, and determining the study area.
- Step 2: Inventory the study area and notable features.
- Step 3: Identify the impact causing activities of the proposed project alternatives.
- Step 4: Identify the potentially significant indirect effects.
- Step 5: Analyze the indirect effects and evaluate assumptions.
- Step 6: Assess consequences and identify mitigation activities.

I-2.1. STEP 1: SCOPING, SELECTING ACTIVITIES AND DETERMINING STUDY AREA

The first step of the analysis included scoping, selecting the appropriate activities to conduct the analysis (including public involvement) and determining the indirect effects study area and analysis time frame.

I-2.1.1. Scoping Indirect Effects

During the scoping process a preliminary list of indirect effects that could be caused by the transportation alternatives was prepared. It was determined that the transportation project has the potential to affect land use and development patterns since the freeway serves as the main access point to existing business districts and improves accessibility to Ozaukee County where undeveloped land is still available. Also, the team determined the transportation project has the potential to indirectly affect the quality of adjacent neighborhoods and the quality of natural resources due to the encroachment of transportation infrastructure.

Based on the potential indirect effects identified during the scoping process and WisDOT's Indirect Effects Guidance document, WisDOT determined a qualitative approach based on trend data, land use and economic development plans, natural and historic resource inventories and input from local stakeholders was appropriate for the indirect effects analysis.

I-2.1.2. Stakeholder Input

Stakeholder input was an important component of the analysis. Stakeholder input helped to determine the indirect effects study area, collect information about the study area and identify potential effects.

WisDOT conducted stakeholder interviews early in the study process (January to March 2013) with

local government representatives, resource agencies and economic development organizations to collect information and to seek feedback on a preliminary indirect effects study area. Additional stakeholder interviews were conducted in October 2013. **Appendix I-A** contains a summary of the meetings.

WisDOT conducted a focus group meeting on July 11, 2013, to obtain input on the indirect effects analysis. The meeting included representatives from both the public and private sectors such as local planners, regional planning commission staff, economic development organizations, representatives of area employers and real estate professionals. Information from the meeting helped verify land use and development trends and seek feedback on potential indirect effects. **Appendix I-B** contains a summary of the focus group meeting.

Public and agency feedback that was collected as part of the overall EIS process for the I-43 North-South corridor study was also reviewed and considered in the indirect effects analysis. This includes public meeting comments, public and agency correspondence and stakeholder meeting minutes.

I-2.1.3. Determining the Indirect Effects Study Area

The study area is a defined geographic area that may experience indirect effects as a result of the proposed I-43 North-South corridor project. Since indirect effects can occur at some distance from the proposed project, broader limits beyond the project corridor are set for the analysis. This section defines the indirect effects study area and discusses the methodology that was used to determine the boundaries. It also discusses some of the key data and stakeholder feedback that was used to delineate the boundaries.

INDIRECT EFFECTS STUDY AREA BOUNDARIES

Two study areas, a primary and a secondary, were evaluated for the indirect effects analysis. The study area boundaries are shown on **Exhibit I-2**.

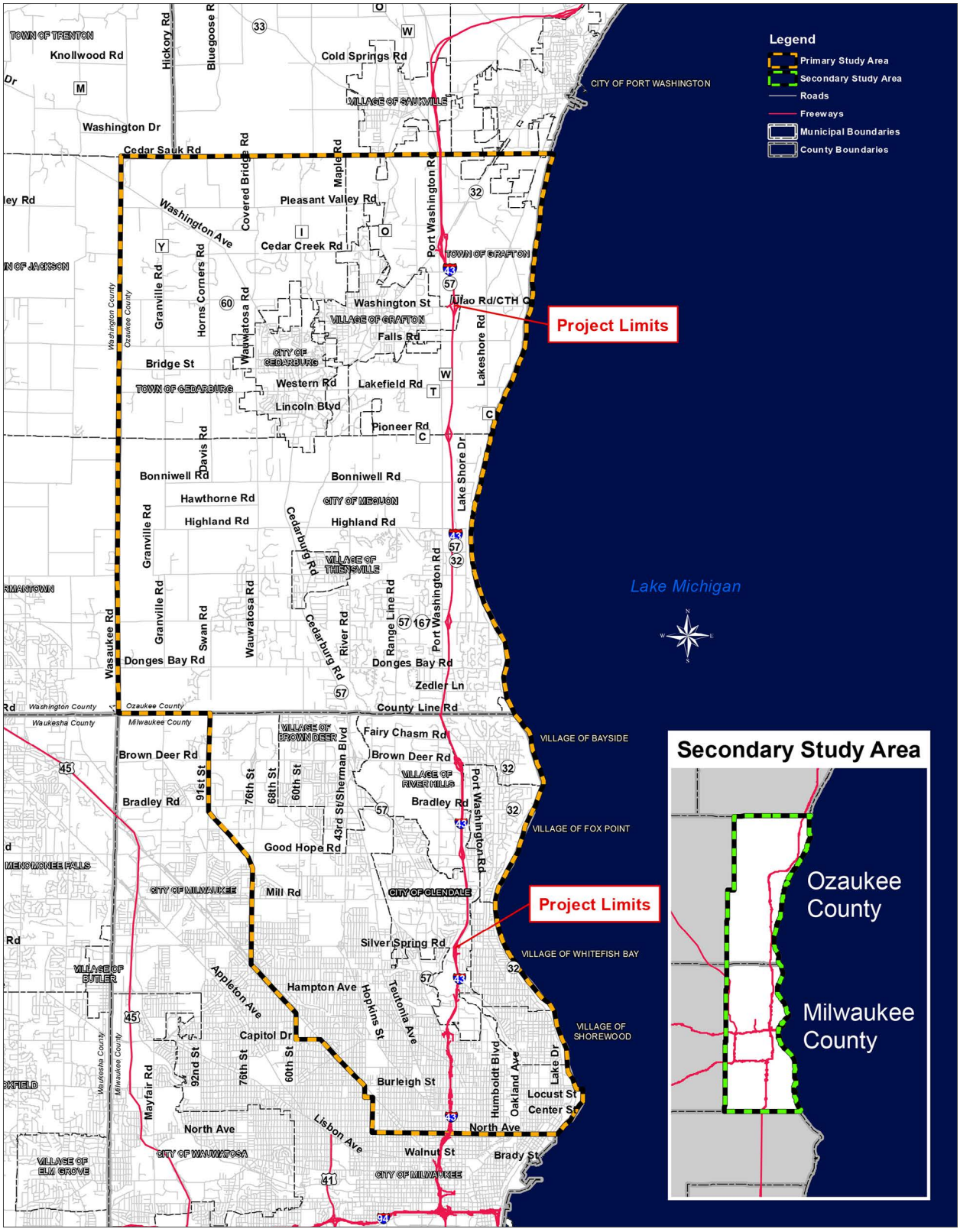
The boundary of the primary study area, with the exception of the city of Milwaukee, follows civil divisions for the following communities in Milwaukee and Ozaukee counties:

- **Milwaukee County:** city of Milwaukee (only a portion of the city), city of Glendale and the villages of Shorewood, Whitefish Bay, Fox Point, Bayside, River Hills and Brown Deer.
- **Ozaukee County:** cities of Mequon and Cedarburg, the villages of Thiensville and Grafton and the towns of Cedarburg and Grafton.

The primary study area contains areas that have the greatest likelihood to experience indirect effects as a result of the transportation project. It encompasses the existing commercial and industrial areas served by the freeway corridor that could be susceptible to change over the transportation planning horizon of 2040. It also includes planned residential and business areas served by the freeway corridor that may be developed by 2040. In addition, the primary study area contains residential neighborhoods, business districts and environmental resources that could be indirectly affected by potentially induced land use effects and the encroachment of infrastructure. The most detailed information was collected for the primary study area.

The secondary study area includes Milwaukee and Ozaukee counties. The purpose of the secondary study area is to identify areas that may be influenced by the I-43 North-South project, but to a lesser extent than the primary study area. The secondary study area seeks to address the transportation's project's potential regional influences that may result from improving a major transportation corridor that links communities and employment centers within the two counties including downtown Milwaukee.

Exhibit I-2: Primary and Secondary Study Area Boundaries



METHODOLOGY FOR DETERMINING STUDY AREA

The study team used a combination of accepted techniques for delineating the indirect effects study areas as discussed in the *WisDOT Guidance for Conducting an Indirect Effects Analysis*[1] and Report 466 prepared by the National Cooperative Highway Research Program.[2] The study team primarily relied on an interview/public involvement approach that involved delineating preliminary boundaries based on professional judgment and data collection and then seeking feedback on the boundaries from stakeholders familiar with local and regional conditions. The study team also incorporated watershed, commuter and political/civil division boundary techniques to help make sure the study areas include the full range of potential indirect effects.

Developing the boundary was an iterative process that involved several modifications to the study area throughout the analysis process. The following bullets summarize the general steps that were taken to delineate the study area boundary:

- Developed an initial primary and secondary study area based on a preliminary review of the project's components, socioeconomic trend data and local and regional land use plans.
- Sought feedback on the indirect effects study areas by conducting stakeholder meetings with government representatives, economic development organizations, and environmental resource agencies (see **Appendix I-A** for a list of meetings).
- Modified the study areas based on more extensive trend research and identification of notable features. This included a review of commuting patterns and watershed boundaries (see **Section I-2.2**, Step 2: Inventory the Study Area and the Notable Features).
- Revisited primary and secondary study area assumptions and modified study areas based on the evaluation of indirect effects (see **Section I-2.4**, Step 5: Analyze the Indirect Effects).
- Obtained input on the study area boundaries at the July 11, 2013, focus group meeting and made modifications based on focus group feedback (see **Appendix I-B** for a focus group meeting summary).
- Finalized the study area boundaries. Extended the primary study area to include civil divisions for study area communities north of the city of Milwaukee. This was done because sub-area data and plans were limited in these areas due to the fact that the Milwaukee County study area communities have relatively small land areas and the communities within the Ozaukee County portion have relatively low population densities. Due to the large size of the city of Milwaukee and the availability of sub-area plans and distinct neighborhoods, only a portion of the city was included in the primary study area. The remainder of the city including downtown was evaluated as part of the secondary study area.

STUDY AREA DELINEATIONS – DECISIONS/ASSUMPTIONS

The study team considered a range of factors to delineate the indirect effects study areas. The first consideration was the proposed project's actions and its ability to increase mobility and accessibility. Research has shown improved mobility and accessibility can affect land use and economic patterns over time by making land more desirable for residential, recreational and employment uses.[3] The I-43 North-South corridor project would improve mobility and travel

[1] *Wisconsin Department of Transportation. Guidance for Conducting an Indirect Effects Analysis. 2007.*

[2] *Transportation Research Board-National Research Council. National Cooperative Highway Research Program (NCHRP), Report 466. Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.*

[3] *Interactions Between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

time reliability by adding a new travel lane in each direction. Also, it would improve accessibility by reconstructing and improving traffic operations at existing interchanges and building a new interchange at the Highland Road intersection (see **Subsection 2.3** in the EIS for more information about the project's impact causing activities). Recognizing that the project could potentially have both local and regional influences, the study team determined primary and secondary study areas (as described previously) would be evaluated for the indirect effects analysis.

The following subsections summarize some of the additional key pieces of information that led to decisions surrounding the selection of the boundaries for the primary and secondary study areas.

PRIMARY STUDY AREA

The delineation of the northern boundary for the primary study area was based on the fact that the Ozaukee County communities to the south of this line (Grafton and Mequon) have the strongest presence of non-transportation factors that are supportive of development including available land (undeveloped or available for redevelopment), available infrastructure, supportive government policies/development incentives, and in particular favorable market demand. According to local stakeholder input, even though some of the communities north of Grafton are trying to attract development, many businesses (commercial and industrial) are reluctant to locate north of the WIS 60 business corridor. There is a perception that areas north of WIS 60 are too far from the existing population base and too far from the available labor force in southern Ozaukee County and northern Milwaukee County. Higher land values, market activity and population/household trends also suggest the demand for residential development is stronger in southern Ozaukee County, which is at least partially related to a shorter commute to downtown Milwaukee in comparison to northern Ozaukee County. The northern half of Ozaukee County is evaluated as part of the secondary study.

The delineation of the eastern boundary is primarily based on civil divisions and the presence of Lake Michigan. It incorporates existing and planned business and residential areas in both counties and incorporates sensitive natural resources such as the Ulao Creek watershed that could be affected by ongoing suburbanization of the land.

The western boundary of the primary study area is largely based on local travel patterns and the influence of US 45/41 to the west and I-43 to the east. According to local stakeholder input, Wauwatosa Road tends to be the dividing line between those that use US 45/41 versus I-43. Originally, the study team delineated the western boundary near Wauwatosa Road in Ozaukee County, but ultimately extended the boundary to the county line. This helped the study team consider the potential for future residential development that may be influenced by the transportation project including a potential new interchange at Highland Road. It also includes a large portion of the Milwaukee River watershed.

The western boundary in Milwaukee County was delineated to include the industrial areas that may benefit from improved freight mobility at interchanges and along the I-43 mainline. The boundary was not extended to the west to the county line because the lands in the Milwaukee County primary study area are fully developed.

The southern boundary in Milwaukee County was selected to include existing industrial areas that may benefit from improved mobility along I-43 such as the Glendale Technology Center and redeveloping industrial areas such as Century City and Riverworks. Also, the southern portion of the Milwaukee County primary study area includes a large pool of workers that may travel to existing and future businesses in Ozaukee County (if they own a personal vehicle) and residential areas in northern Milwaukee County that utilize commercial businesses in southern

Ozaukee County. According to local stakeholder feedback, the WIS 60 business district attracts customers from the North Shore communities in northern Milwaukee County.

SECONDARY STUDY AREA

Recognizing that the addition of new travel lanes has the potential to affect land uses beyond the primary study area, the study team developed the secondary study area for the remaining lands in Milwaukee and Ozaukee counties. This seemed logical given that the I-43 North-South corridor connects the developing suburban communities in Ozaukee County with the large employment centers in Milwaukee County, most notably downtown Milwaukee.

The secondary study area determination was supported by a review of regional worker flow and personal travel pattern information. Data for the seven county region showed that when Ozaukee County residents and workers leave the county they are most often headed to destinations and jobs in Milwaukee County at a much greater degree than any other county in the region. For example, county-to-county worker flow data shows that 33 percent (14,515 workers) of Ozaukee County's labor force is employed in Milwaukee County. The next largest percentage of workers employed outside the county have jobs based in Waukesha County, but this only represents seven percent (3,108 workers) of Ozaukee County's workforce. Data for average weekday person trips shows a similar pattern. The largest numbers of trips outside Ozaukee County, 23 percent (55,800 trips), are to Milwaukee County destinations. The next largest percentage of trips outside Ozaukee County is to Washington County, accounting for only 4.5 percent (11,000) of personal trips (see **Exhibit I-18** and **Table I-19** in **Subsection I-2.2.7** for more information). This data along with other trends discussed in **Subsection 2.2** of the EIS and stakeholder feedback demonstrate the strong link between these counties.

The data discussed above demonstrates the dominate commuting and travel patterns along the I-43 corridor and supports the secondary study area determination. Also, research has shown that the extensiveness of indirect effects is influenced by the maturity of the regional transportation system; and greater effects are associated with new facilities in comparison to existing facilities that are expanded.[4] I-43 is already a limited access freeway that is connected to a mature regional transportation system that includes a hierarchy of federal, state and local highways and arterials. While some areas of the region have a more extensive transportation system in place in comparison to others, even the less developed areas of the region are still accessible by the region's transportation system. Based on this information the study team determined that the project would not require an extensive multicounty regional analysis because the incremental mobility and accessibility improvements were not likely great enough to substantially alter regional land use patterns.

I-2.1.4. Timeframe for the Analysis

One of the goals of scoping is to determine a timeframe for the analysis. This is important because research has shown that land use and economic impacts related to transportation projects can occur over time and those different impacts can appear at different times.[5] According to the NCHRP Report 466, the timeframe for an indirect effects analysis should be short enough in duration to anticipate reasonably foreseeable events, but also long enough to capture

[4] *Transportation Research Board-National Research Council. National Cooperative Highway Research Program (NCHRP), Report 466. Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.*

[5] *Interactions between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

changes that may occur over several business cycles.[6] Report 466 states that most indirect effects assessments set a time horizon equal to the typical transportation planning horizon of approximately 20 to 25 years. The benefit of this timeframe is that it is typically consistent with the planning horizons used for regional land use and transportation planning purposes.

Based on the guidance and preliminary information collected during the scoping process, the study team determined the timeframe for the indirect effects analysis is 2040, about 20 years after the implementation of the proposed transportation project. This timeframe allows enough time for indirect effects to unfold over time, but would not be so far in the future that the effects become too difficult for the study team and project stakeholders to reasonably anticipate. Also, the study team determined that sufficient data and plans were available to assess future conditions in 2040. The current regional land use and transportation plan time horizons are 2035, which leaves about a five year gap. However, other resources are available to assess trends beyond the 2035 timeframe. These documents and plans are listed below.

Relevant regional and local plans:

- SEWRPC – A Regional Transportation System Plan for Southeastern Wisconsin: 2035
- SEWRPC – A Regional Land Use Plan for Southeastern Wisconsin: 2035
- SEWRPC – A Regional Housing Plan for Southeastern Wisconsin: 2035
- Ozaukee County – A Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035
- City of Milwaukee – Downtown Area Plan (adopted in 2010; does not provide a planning horizon)
- City of Milwaukee – Citywide Policy Plan (adopted in 2010; does not provide a planning horizon)

Resources available beyond the 2035 timeframe:

- SEWRPC – Interim Review and Update of the Year 2035 Regional Transportation System Plan
- SEWRPC – The Population of Southeastern Wisconsin (provides population and household in five year increments by county through 2050.)
- SEWRPC – The Economy of Southeastern Wisconsin (provides employment and labor force projections by county for 2050.)
- Wisconsin Department of Administration – Population and household projections: 2010 – 2040 (provides population and household projections by county and municipality in five year increments through 2040).

I-2.2. STEP 2: INVENTORY THE STUDY AREA AND NOTABLE FEATURES

The demographic and land use trends for the primary and secondary study areas were analyzed to provide a framework for current and future development in the study areas. An inventory of the natural, cultural, and historic resources was also completed.

I-2.2.1. Population Trends

This section describes the past and projected population trends for the primary and secondary study areas.

[6] *Transportation Research Board-National Research Council. National Cooperative Highway Research Program (NCHRP), Report 466. Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.*

PAST POPULATION

Milwaukee and Ozaukee counties are located within the southeastern Wisconsin region, which is comprised of Milwaukee, Racine, Kenosha, Ozaukee, Washington, Waukesha and Walworth counties. The region had a population of 2,019,970 in 2010, which was a 4.6 percent increase since 2000. The region's population growth for the past three decades has been slower compared to the state of Wisconsin and the United States as shown on **Figure I-1**.

Table I-2 shows the population figures for Milwaukee and Ozaukee counties between 1960 and 2010 and **Figure I-2** shows the population growth rates by decade for the two counties.

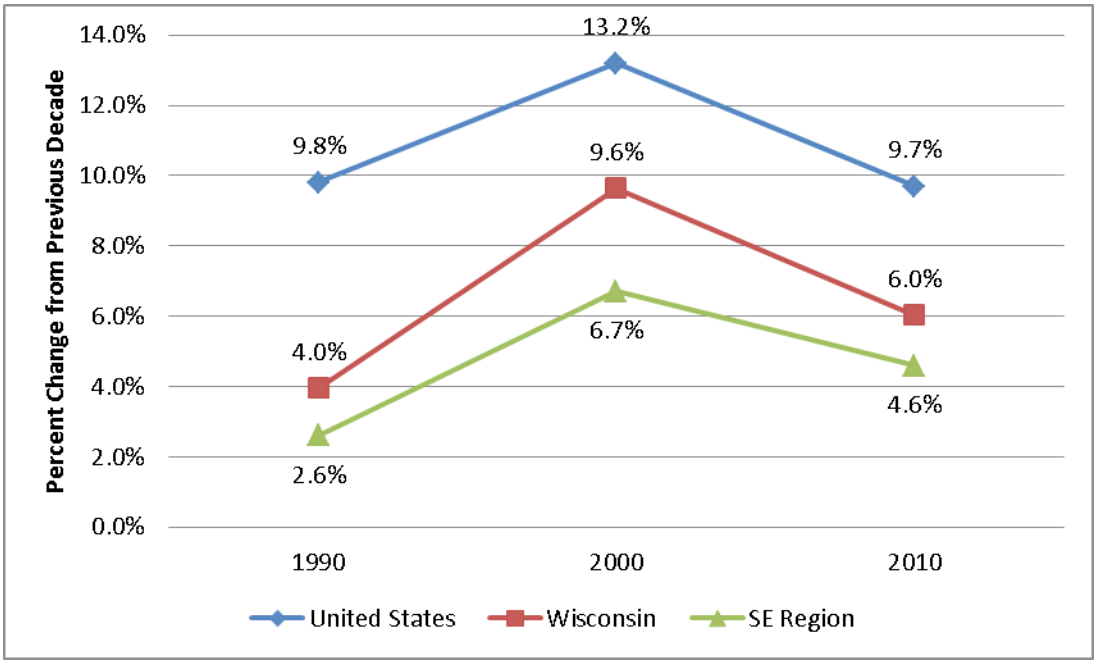
Milwaukee County is the most populous county in the region. It had a population of 947,735 in 2010. After several decades of robust population growth, Milwaukee County's population peaked in 1970 at over 1 million people. Then, the county's population proceeded to decline for the next three decades. The most severe population decline occurred during the 1970s when the county's population decreased by over 89,000, or -8.5 percent. The county's population continued to decline during the 1980s and 1990s, but at a slower pace. Then, between 2000 and 2010, Milwaukee County's population increased slightly by 7,571 (0.8 percent).

Table I-2: Past Population – Milwaukee and Ozaukee Counties – 1960 to 2010

	Milwaukee County				Ozaukee County			
		Change from previous decade				Change from previous decade		
Year	Number	Absolute Number	Percent Change	Percent of region	Number	Absolute Number	Percent Change	Percent of region
1960	1,036,041	164,994	18.9	65.8	38,441	15,080	64.6	2.5
1970	1,054,249	18,208	1.8	60.0	54,461	16,020	41.7	3.1
1980	964,988	-89,261	-8.5	54.7	66,981	12,520	23.0	3.8
1990	959,275	-5,713	-0.6	53.0	72,831	5,850	8.7	4.0
2000	940,164	-19,111	-2.0	48.7	82,317	9,486	13.0	4.2
2010	947,735	7,571	0.8	46.9	86,395	4,078	5.0	4.3

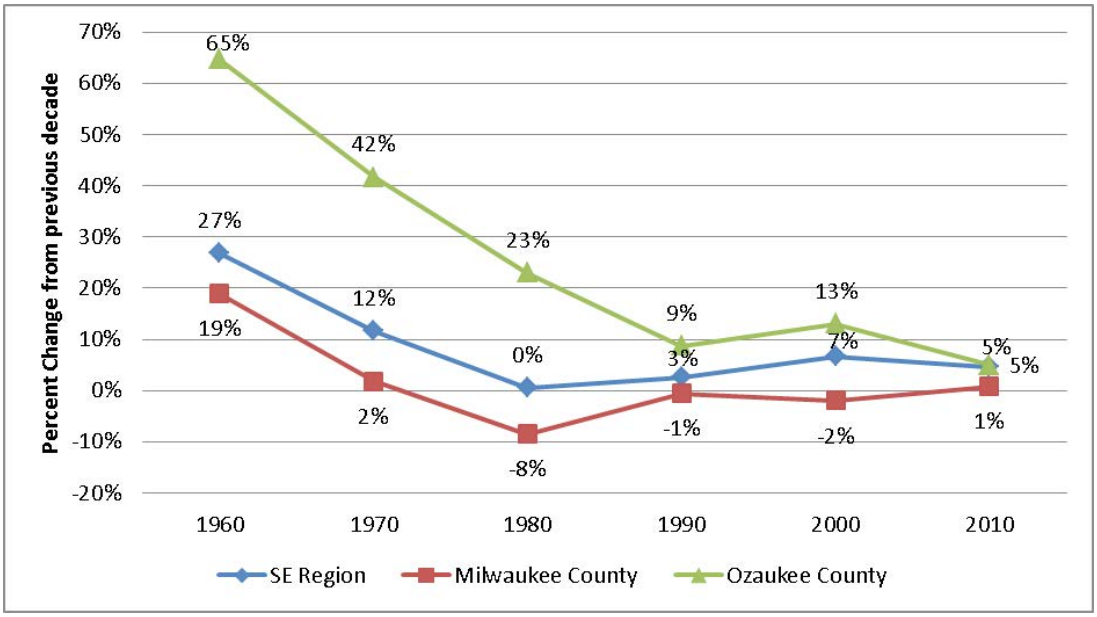
Source: SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 12/17/12.

Figure I-1: Population Growth for the Region, State and Nation – 1990 to 2010



Source: U.S. Census Bureau and SEWRPC

Figure I-2: Population Growth – Milwaukee and Ozaukee Counties – 1960 to 2010



Source: SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 12/17/12.

Ozaukee County is the least populous county in the region with a population of 86,395 in 2010. Ozaukee County's population has been steadily increasing for several decades. The county experienced its most rapid growth during the 1950s, 1960s and 1970s. Its population continued to increase in the 1980s, 1990s and 2000s, but at a slower pace compared to the three previous decades. The county's population increased by 4,078 (5 percent) during the 2000s, which was its slowest rate of growth in several decades.

As shown on **Table I-2**, Milwaukee County's share of the regional population has been declining since the 1960s. In 1960, Milwaukee County contained 65.8 percent of the region's population and 46.9 percent in 2010. Ozaukee County's share of the regional population has increased slightly since the 1960s, but its portion of the regional population remains fairly small. Ozaukee County contained 2.5 percent of the region's population in 1960 and 4.3 percent in 2010.

Exhibit I-3 shows the population percent change in Milwaukee County between 2000 and 2010 at a U.S. Census Block Group level. Population increases occurred in Franklin and Oak Creek, where land is still available for development, in several neighborhoods to the south of I-94 in the city of Milwaukee, in and around downtown Milwaukee and some areas in Milwaukee's northwest side. The most severe population declines occurred in the city of Milwaukee north of I-94, west of I-43 and east of US 41. Many of the block groups within the primary study area experienced no population growth or had declining populations.

Exhibit I-4 shows the population percent change in Ozaukee County between 2000 and 2010 at a U.S. Census Block Group level. Many of the communities in Ozaukee County contained both areas of population growth and areas of population decline. The largest population growth rates occurred in some areas of Grafton and in portions of the city of Mequon. Also, several areas in the northern portion of the county experienced population growth including Port Washington and Saukville, Fredonia and Belgium.

Table I-3 shows the population change between 2000 and 2010 for the primary study area. The Milwaukee County portion of the primary study area had a total population of 239,000 in 2010, which was a decrease of just over 9,600 (-3.9 percent) since 2000. Even though the communities in the Milwaukee County primary study area have declining populations, they are overall fairly stable communities and neighborhoods. Much of the loss of population is attributed to the fact that these communities are fully built out and the average household size trends have been declining. One exception is on the southern end of the primary study in the city of Milwaukee where population declines have been more severe.

The Ozaukee County portion of the primary study area had a population of 59,051 in 2010, which was a 5.1 percent increase since 2000. The village of Grafton and the city of Mequon increased their populations at the fastest pace at 11.1 percent and 6 percent, respectively. The town of Grafton and the village of Thiensville had slight population declines.

Exhibit I-3: Population Change in Milwaukee County – 2000 to 2010

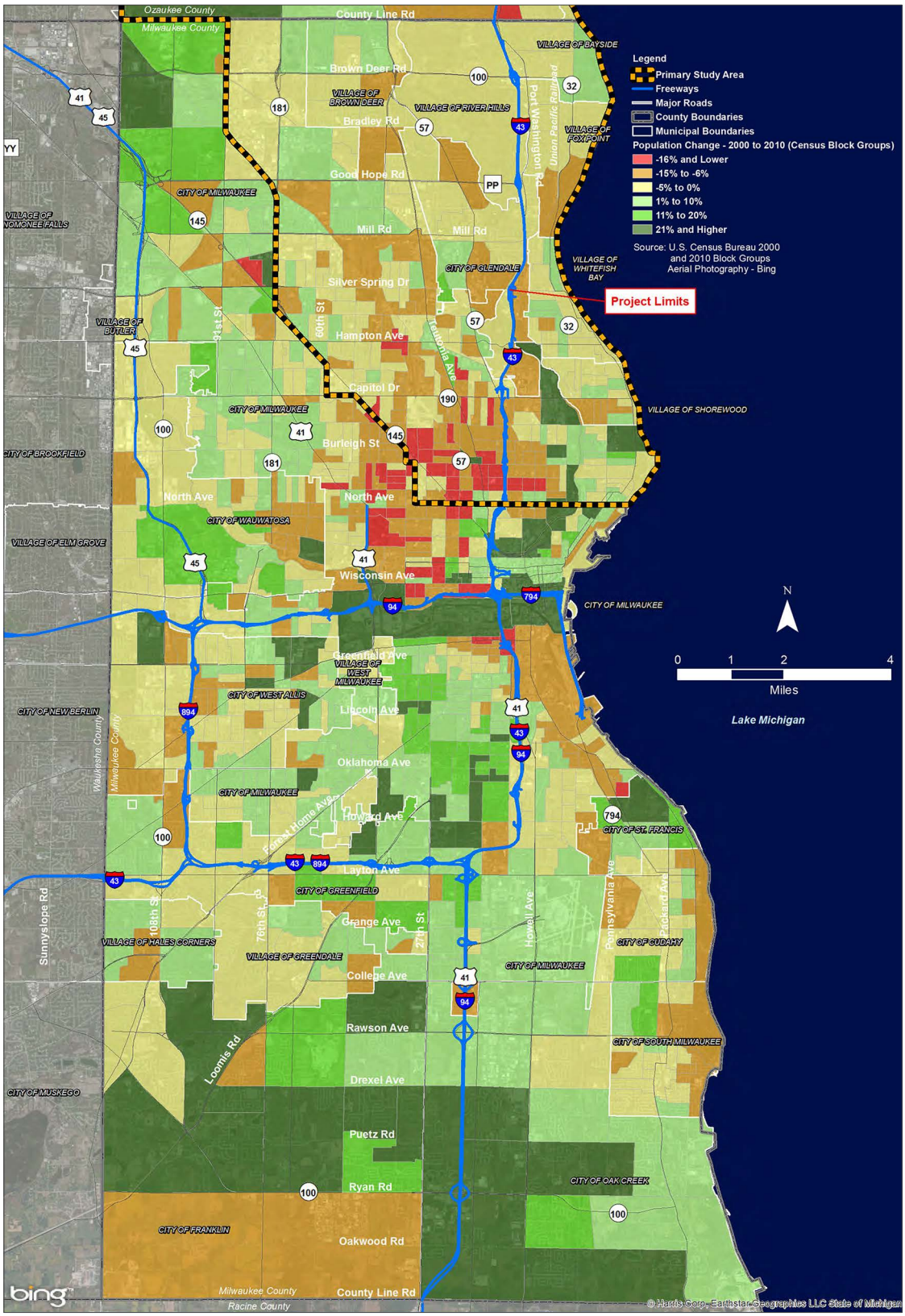


Exhibit I-4: Population Change in Ozaukee County – 2000 to 2010

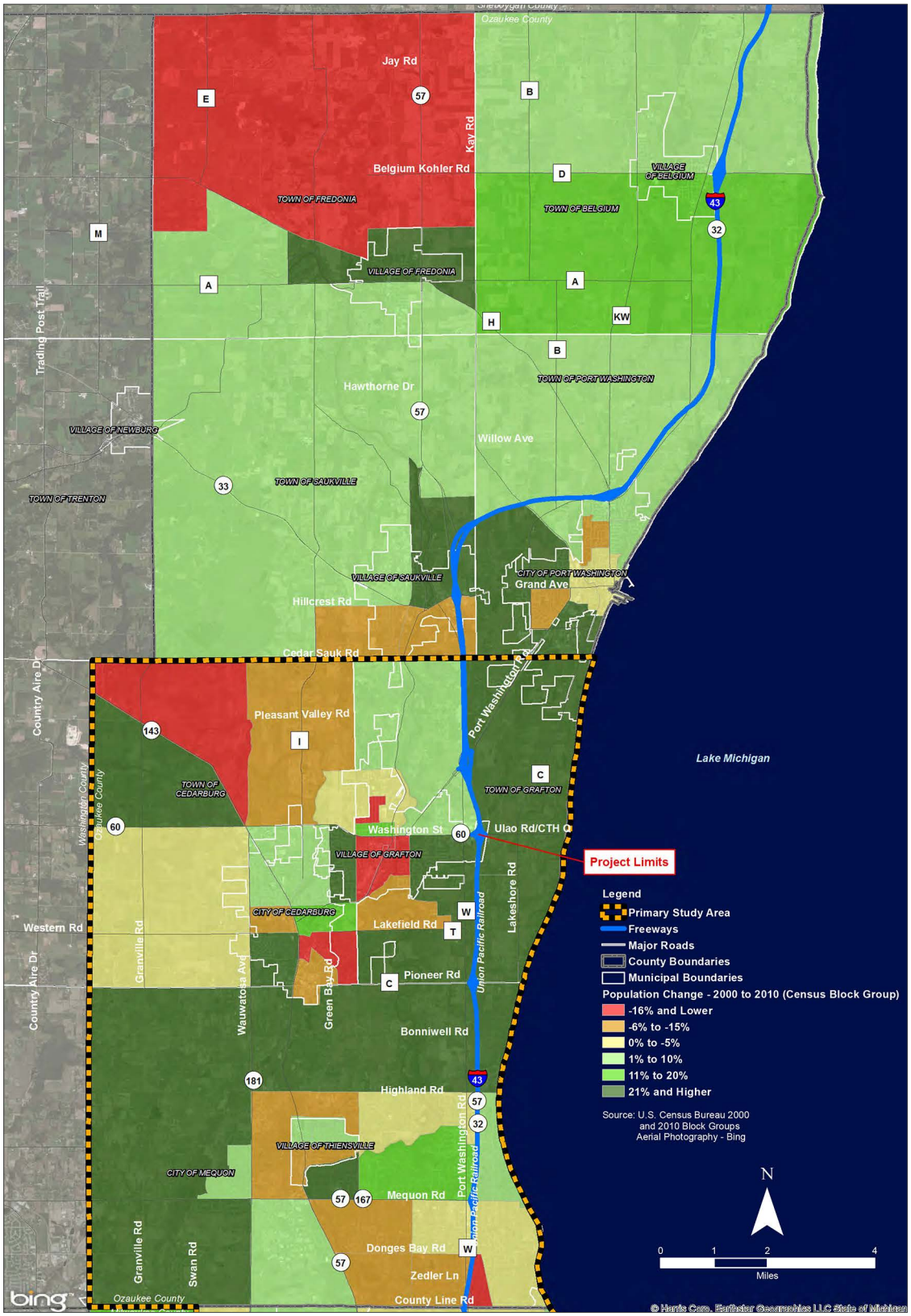


Table I-3: Population Change – Primary Study Area – 2000 to 2010

Location		2000	2010	Absolute Change	Percent Change
Milwaukee County	City of Milwaukee*	181,997	174,170	-7,827	-4.3
	City of Glendale	13,367	12,872	-495	-3.7
	Village of Shorewood	13,763	13,162	-601	-4.4
	Village of Whitefish Bay	14,163	14,110	-53	-0.4
	Village of Fox Point	7,012	6,701	-311	-4.4
	Village of Bayside**	4,518	4,389	-129	-2.9
	Village of River Hills	1,631	1,597	-34	-2.1
	Village of Brown Deer	12,170	11,999	-171	-1.4
	Subtotal	**248,621**	**239,000**	**-9,621**	**-3.9**
Ozaukee County	City of Mequon	21,823	23,132	1,309	6.0
	Village of Thiensville	3,254	3,235	-19	-0.6
	City of Cedarburg	10,908	11,412	504	4.6
	Town of Cedarburg	5,744	5,760	16	0.3
	Village of Grafton	10,312	11,459	1,147	11.1
	Town of Grafton	4,132	4,053	-79	-1.9
	Subtotal	**56,173**	**59,051**	**2,878**	**5.1**
All	**Grand total**	**304,794**	**298,051**	**-6,743**	**-2.2**

*Source: Social Explorer Tables (SE), Census 2000 and 2010, U.S. Census Bureau and Social Explorer; City of Milwaukee data is based on Census 2000 and 2010 Block Group data. *Only includes city of Milwaukee population for Census Block Groups that are within or bisect the primary study area boundary. **Includes both Milwaukee County and Ozaukee County portions of Bayside.*

PROJECTED POPULATION

Table I-4 shows the 2050 population projections for the region and Milwaukee and Ozaukee counties. The region's population is expected to increase by 334,000, or 16.5 percent between 2010 and 2050. The projected rate of growth is only slightly higher than the previous 40 year period (1970 to 2010) when the region increased its population by 15 percent.

Table I-4: Projected Population – Milwaukee and Ozaukee Counties – 2010 to 2050

Location	2010	2050	Absolute Change	Percent Change	Percent of Region (2010)	Percent of Region (2050)
Milwaukee County	947,735	976,704	28,969	3.1	46.9	41.5
Ozaukee County	86,395	109,075	22,680	26.3	4.3	4.6
Region	2,019,970	2,354,040	334,070	16.5	100	100

Source: SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 12/17/12.

Milwaukee County is expected to add 28,969 persons between 2010 and 2050, which is a 3.1 percent increase. This is a change from the previous 40 year period (1970 to 2010) when Milwaukee County lost 10.1 percent of its population. Ozaukee County is expected to add 22,680 persons by 2050, which is a 26.3 percent increase. This rate of growth is robust, but it is substantially slower compared to the previous 40 year period (1970 to 2010) when Ozaukee County's population increased by 58.6 percent.

Between 2010 and 2050, Milwaukee County's share of the regional population is expected to continue to decrease, changing from 46.9 percent in 2010 to 41.5 percent in 2050. The 5.4 percentage point difference is much less compared to the previous 40 year period (1970 to 2010) when Milwaukee County's regional population share decreased by 13.1 percentage points.

Ozaukee County is expected to increase its regional population share slightly from 4.3 in 2010 to 4.6 in 2050. The percentage point increase between 2010 and 2050, which is expected to be 0.3, is less than the percentage point change of 1.2 that occurred during the previous 40 year period (1970 to 2010) for Ozaukee County.

The 2040 population projections prepared by the Wisconsin Department of Administration (DOA) anticipate Milwaukee County's population will increase by 68,515 or 7.2 percent between 2010 and 2040. The DOA projects Ozaukee County's population will increase by 7,975 or 9.2 percent for this same time period. **Table I-5** shows the 2040 population projections prepared by the DOA for the primary study area communities in Milwaukee and Ozaukee counties. The Milwaukee County study area communities are expected to have fairly stable populations with some communities having a slight decline in population and other communities having a slight increase in population. All communities, except the village of Thiensville, in the Ozaukee County portion of the primary study are expected to increase in population ranging from 5 percent growth in the city of Cedarburg to 11 percent growth each for the town of Cedarburg and the village and town of Grafton.

Table I-5: Population Projections by Community – 2000 to 2040

Location		2000	2040	Absolute Change	Percent Change
Milwaukee County	City of Milwaukee*	594,833	627,400	32,567	5%
	City of Glendale	12,872	12,660	-212	-2%
	Village of Shorewood	13,162	13,310	148	1%
	Village of Whitefish Bay	14,110	15,010	900	6%
	Village of Fox Point	6,701	6,270	-431	-6%
	Village of Bayside	4,389	4,355	-34	0
	Village of River Hills	1,597	1,615	18	1%
	Village of Brown Deer	11,999	13,050	1,051	9%
Ozaukee County	City of Mequon	23,132	25,510	2,378	10%
	Village of Thiensville	3,235	3,080	-155	-5%
	City of Cedarburg	11,412	12,020	608	5%
	Town of Cedarburg	5,760	6,385	625	11%
	Village of Grafton	11,459	12,770	1,311	11%
	Town of Grafton	4,053	4,505	452	11%

*Source: Wisconsin Minor Civil Division Projections, 2010-2040. Wisconsin Department of Administration. *Population projection encompasses the entire city of Milwaukee..*

I-2.2.2. Employment Trends

This section describes the past and projected employment trends for the primary and secondary study areas.

PAST EMPLOYMENT

Employment levels for the southeastern Wisconsin region in 2010 were at 1,176,600, which was a 2.7 percent decrease from 2000. According to SEWRPC, prior to the 2000s, the region had experienced a substantial net increase in jobs each decade going back to at least 1950. Job losses during the 2000s were due to the national economic recession that occurred in the late 2000s.

Table I-6 shows the past employment levels for Milwaukee and Ozaukee counties. Milwaukee County is the largest county in the region in terms of employment. It had 575,400 jobs in 2010. Within the region, Milwaukee County was the hardest hit by the economic recession of the late 2000s and lost 42,900 jobs between 2000 and 2010. Prior to the 2000s, Milwaukee County had relatively slow, but stable employment growth. Within the region, Ozaukee County contains the smallest numbers of jobs. In 2010, the county had 52,500 jobs, which was a slight increase of 2,100 jobs since 2000. Ozaukee County's employment growth during the 2000s (4.2 percent) was much slower compared to the employment growth experienced during the 1990s (43.6 percent) and the 1980s (24.5 percent).

Table I-6: Past Employment – Milwaukee and Ozaukee Counties – 1960 to 2010

	Milwaukee County				Ozaukee County			
		Change from previous decade				Change from previous decade		
Year	Number	Absolute Number	Percent Change	Percent of region	Number	Absolute Number	Percent Change	Percent of region
1960	503,300	49,800	11.0	74.8	10,200	3,600	54.5	1.5
1970	525,200	21,900	4.4	66.9	21,300	11,100	108.8	2.7
1980	581,700	56,500	10.8	61.5	28,200	6,900	32.4	3.0
1990	604,700	23,000	4.0	57.4	35,100	6,900	24.5	3.3
2000	618,300	13,600	2.2	51.1	50,400	15,300	43.6	4.2
2010	575,400	-42,900	-6.9	48.9	52,500	2,100	4.2	4.5

Source: SEWRPC. The Economy of Southeastern Wisconsin Preliminary Draft. Technical Report No. 10 (5th Edition). 1/23/13.

Table I-7 shows place of work employment data for the primary study area communities. The data is from the Census Transportation Planning Package (CTPP) and shows a comparison of the CTPP data that was derived from the 2000 Census and the 2006-2010 American Community Survey (ACS). Within Milwaukee County, the city of Milwaukee had the largest number of employees – 288,037 – during the 2006-2010 reporting period. The city of Mequon, city of Glendale and village of Brown Deer had the next largest amounts of employment at 14,635, 14,454 and 8,712, respectively, during the 2006-2010 reporting period.

In the Ozaukee County portion of the primary study area, the city of Mequon gained over 1,300 employees between the two reporting periods, while Glendale and Brown Deer saw a reduction of 446 and 698 jobs, respectively. The remaining communities within **Table I-7** had employment levels under 6,000 during the 2006-2010 reporting period. Of these communities, the villages of Whitefish Bay and Fox Point had an increase in employment, while the village of Shorewood, city of Cedarburg and village of Grafton experienced a decline in employment.

Table I-7: Employment – Primary Study Area

Location	2000 (Census)	2006-2010 (ACS)	Absolute Change	Percent Change
City of Milwaukee*	285,360	288,037	2,677	0.9
City of Glendale	14,900	14,454	-446	-3.0
Village of Shorewood	3,265	3,183	-82	-2.5
Village of Whitefish Bay	2,625	3,369	744	28.3
Village of Fox Point	1,905	2,600	695	36.5
Village of Brown Deer	9,410	8,712	-698	-7.4
City of Mequon	13,290	14,635	1,345	10.1
City of Cedarburg	5,420	5,160	-260	-4.8
Village of Grafton	6,570	5,828	-742	-11.3

*Source: Place of Work CTPP Profiles – includes data from the 2006-2010 American Community Survey (ACS), the 2000 and 2010 Censuses, and the Census Transportation Planning Package (CTPP) 2000. *Includes employment for the entire city of Milwaukee. Note: CTPP Profiles are only calculated for places with populations of 5,000 or more; therefore, the village of Thiensville and towns of Cedarburg and Grafton are not included in the table.*

PROJECTED EMPLOYMENT

Table I-8 shows the SEWRPC 2050 employment projections for the region and Milwaukee and Ozaukee counties. The region's employment is expected to increase by 210,300, or 17.9 percent between 2010 and 2050. This is a substantially slower rate of employment growth compared to the previous 40 year period (1970 to 2010) when the region increased employment by 50 percent.

Between 2010 and 2050, Milwaukee County is expected to add 33,500 jobs (5.8 percent increase) and Ozaukee County is expected to add 16,800 jobs (32 percent increase). Employment projections are not available at the municipal level.

Table I-8: Projected Employment – Milwaukee and Ozaukee Counties – 2010 to 2050

Location	2010	2050	Absolute Change	Percent Change	Percent of Region (2010)	Percent of Region (2050)
Milwaukee County	575,400	608,900	33,500	5.8	48.9	43.9
Ozaukee County	52,500	69,300	16,800	32.0	4.5	4.9
Region	1,176,600	1,386,900	210,300	17.9	100.0	100.0

Source: SEWRPC. The Economy of Southeastern Wisconsin Preliminary Draft. Technical Report No. 10 (5th Edition). 1/23/13.

I-2.2.3. Households

Table I-9 shows the change in households between 2000 and 2010 for the region and Milwaukee and Ozaukee counties. The region had 800,087 households in 2010, which was a 6.8 percent increase since 2000. Milwaukee County had 383,591 households in 2010, which was a 1.5 percent increase since 2000. Ozaukee County had 34,228 households in 2010, which was a 10.9 percent increase since 2000.

Table I-9: Households in Milwaukee and Ozaukee Counties – 2000 to 2010

Location	2000	2010	Absolute Change	Percent Change
Milwaukee County	377,729	383,591	5,862	1.6
Ozaukee County	30,857	34,228	3,371	10.9
Region	749,055	800,087	51,032	6.8

Source: Social Explorer Tables (SE), Census 2000 and 2010, U.S. Census Bureau and Social Explorer

Table I-10 shows the change in households for the primary study area between 2000 and 2010. Households within the Milwaukee County portion of the primary study area declined by 1,440 between 2000 and 2010, which was a 1.6 percent decrease. The Ozaukee County portion of the primary study area added 2,042 households between 2000 and 2010, which was a 9.6 percent increase.

Table I-10: Households – Primary Study Area – 2000 to 2010

Location		2000	2010	Absolute Change	Percent Change
Milwaukee County	City of Milwaukee*	62,455	61,102	-1,353	-2.2
	City of Glendale	5,772	5,815	43	0.7
	Village of Shorewood	6,539	6,381	-158	-2.4
	Village of Whitefish Bay	5,457	5,355	-102	-1.9
	Village of Fox Point	2,825	2,747	-78	-2.8
	Village of Bayside**	1,769	1,831	62	3.5
	Village of River Hills	590	595	5	0.8
	Village of Brown Deer	5,134	5,275	141	2.7
	Subtotal	**90,541**	**89,101**	**-1,440**	**-1.6**
Ozaukee County	City of Mequon	7,861	8,598	737	9.4
	Village of Thiensville	1,503	1,532	29	1.9
	City of Cedarburg	4,432	4,691	259	5.8
	Town of Cedarburg	1,896	2,055	159	8.4
	Village of Grafton	4,048	4,863	815	20.1
	Town of Grafton	1,569	1,612	43	2.7
	Subtotal	**21,309**	**23,351**	**2,042**	**9.6**
All	**Total**	**111,850**	**112,452**	**602**	**0.54**

*Source: Social Explorer Tables (SE), Census 2000 and 2010, U.S. Census Bureau and Social Explorer *Only includes city of Milwaukee households for Census Block Groups that are within or bisect the primary study area boundary. **Includes both Milwaukee County and Ozaukee County portions of Bayside.*

I-2.2.4. Racial Composition

Table I-11 shows the racial composition for the region and Milwaukee and Ozaukee counties. In 2010, the region had a total minority population of 582,865, representing 28.8 percent of the regional population. Over 74 percent of the minorities in the region are located in Milwaukee County. Ozaukee County contained less than one percent of the region's minority population.

In 2010, Milwaukee County had a minority population of 432,777, accounting for 45.7 percent of the county's population. Ozaukee County had a minority population of 5,706, which was 6.6 percent of the county's total population in 2010. The largest minority groups in Milwaukee County are Black/African American and Hispanic. Also, Milwaukee County has fairly substantial Asian population and persons who reported two or more races. In Ozaukee County, Hispanic is the largest minority group followed by Asians and Black/African Americans.

Table I-11: Racial Composition – Milwaukee and Ozaukee Counties – 2010

Race	Milwaukee County		Ozaukee County		Region	
	Number	Percent	Number	Percent	Number	Percent
Total Population	947,735	100.0	86,395	100.0	2,019,970	100.0
White	514,958	54.3	80,689	93.4	1,437,105	71.1
Black or African American	248,794	26.3	1,144	1.3	288,550	14.3
American Indian/ Alaska Native	5,212	0.6	174	0.2	7,917	0.4
Asian	32,007	3.4	1,505	1.7	50,831	2.5
Native Hawaiian/ Other Pacific Islander	296	0.0	20	0.0	595	0.0
Other	1,139	0.1	54	0.1	1,968	0.1
Two or More Races	19,290	2.0	853	1.0	32,785	1.6
Hispanic	126,039	13.3	1,956	2.3	200,219	9.9
Total minority population*	**432,777**	**45.7**	**5,706**	**6.6**	**582,865**	**28.8**

*Source: Social Explorer Tables (SE), Census 2010, Census Bureau; Social Explorer *Minority population includes persons reported in the U.S. Census as being of Hispanic origin or reporting their race as non-Hispanic Black or African American, American Indian/ Alaska Native, Asian, Native Hawaiian/Pacific Islander, some other race, or more than one race.*

Exhibit I-5 shows the minority population percentage at a Census Block Group level for Milwaukee County in 2010. The map shows minority populations are concentrated in the city of Milwaukee's near north, northwest and near south side neighborhoods. Downtown Milwaukee, the lakeshore communities and the western and southern Milwaukee County suburbs have relatively lower percentages of minority populations.

Exhibit I-6 shows the percentage of minority populations at a Census Block Group level for Ozaukee County in 2010. The map shows that the county does not have any substantial concentrations of minority populations.

Table I-12 shows the racial composition for the Milwaukee County portion of the primary study area. In 2010, it had a total minority population of 148,640, accounting for 65.4 percent of the total population within the Milwaukee County portion of the primary study area. The city of

Exhibit I-5: Percent Minority Population in Milwaukee County – 2010

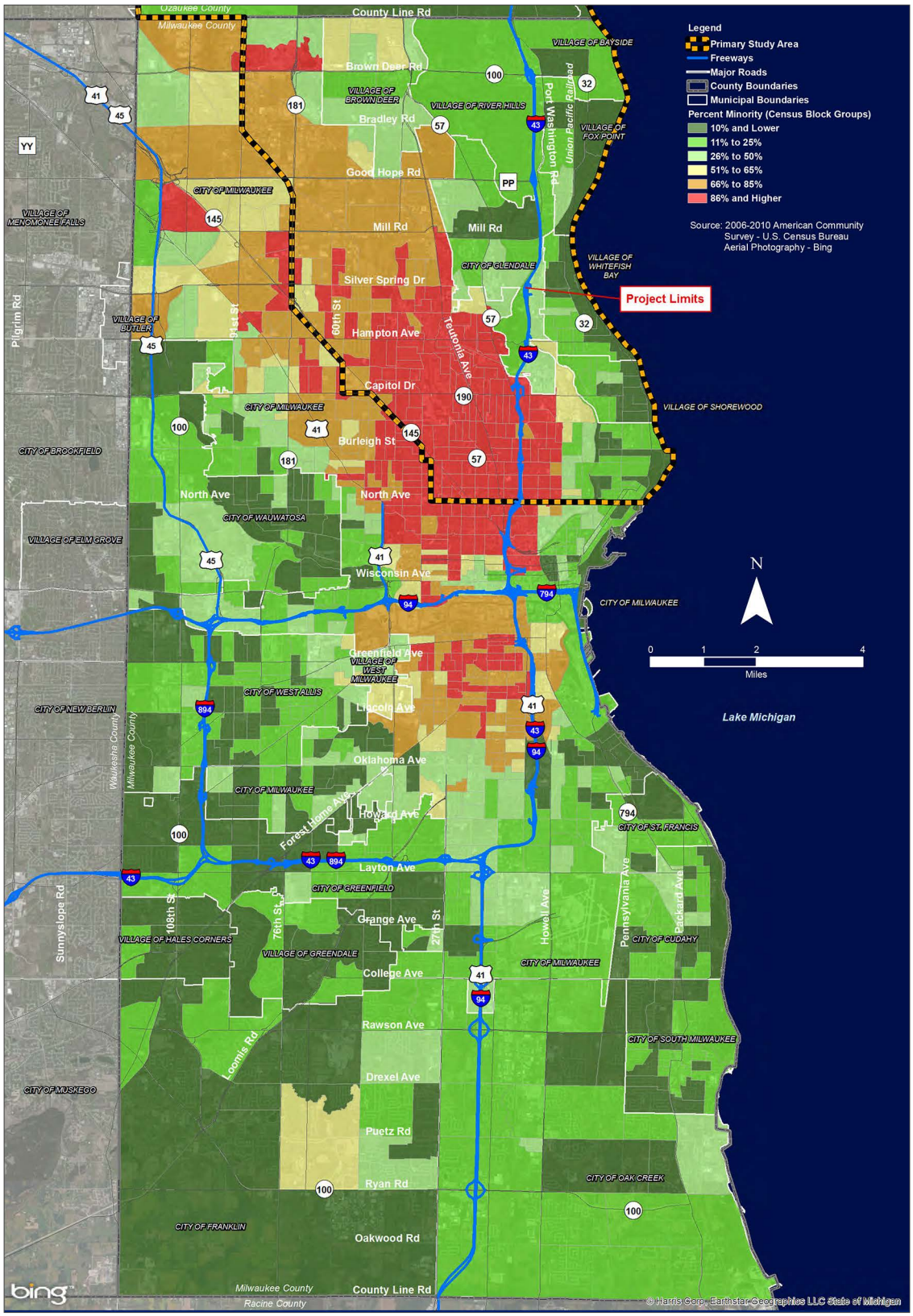
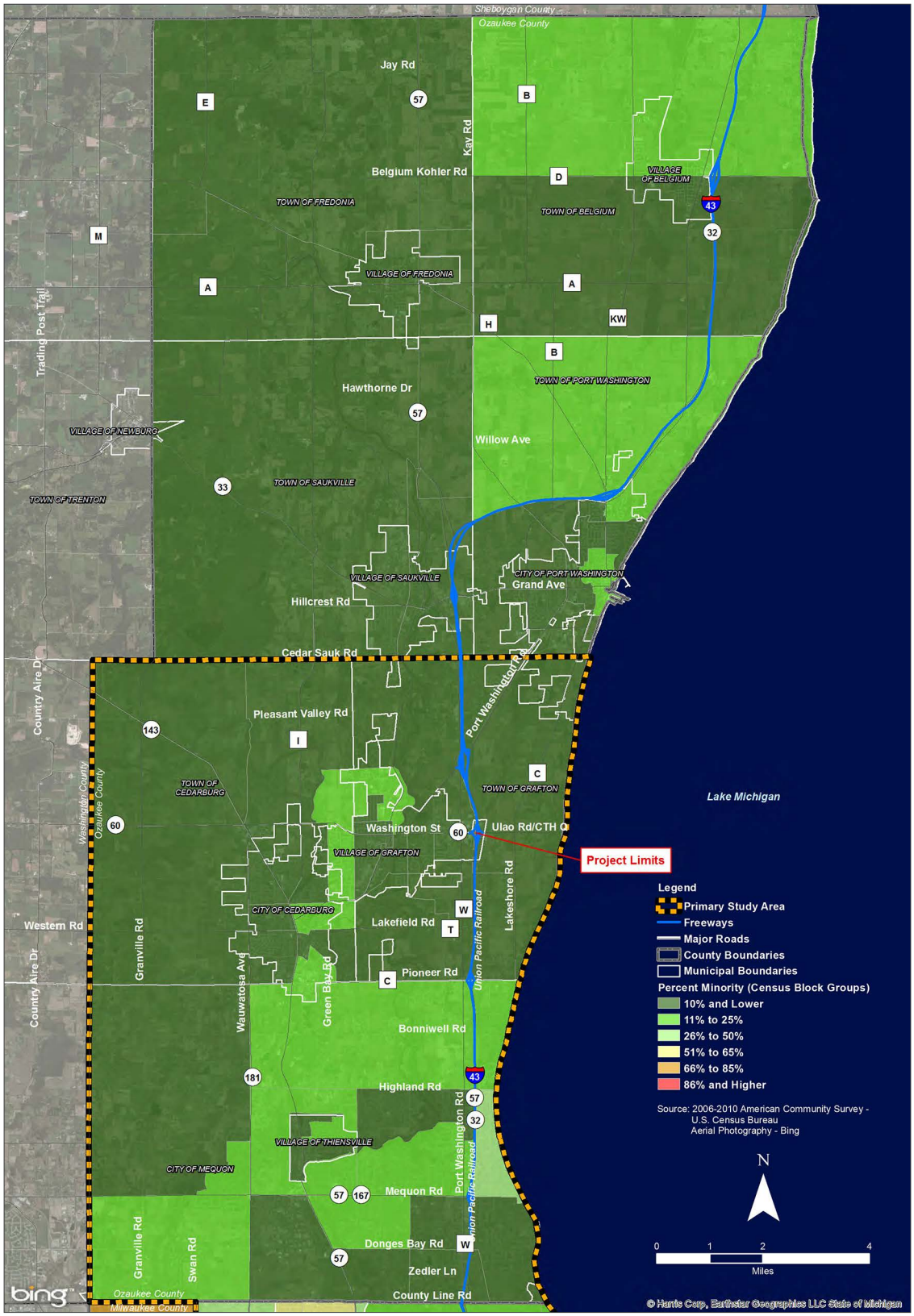


Exhibit I-6: Percent Minority Population in Ozaukee County – 2010



Milwaukee portion of the primary study area had the highest percentage of minorities at 83.8 percent. The village of Brown Deer had the second highest percent of minorities at 40.2 percent followed by the city of Glendale at 23 percent.

Table I-12: Racial Composition – Milwaukee County Primary Study Area – 2010

Race/ Ethnicity	City of Milw.*	City of Glendale	Village of Shorewood	Village of Whitefish Bay	Village of Fox Point	Village of Bayside	Village of River Hills	Village of Brown Deer	Total Prim. Study Area
Total Population	162,360	12,872	13,162	14,110	6,701	4,389	1,597	11,999	227,188
White	26,355	9,908	11,299	12,651	6,001	3,885	1,277	7,170	78,546
Black/African American	120,697	1,774	382	269	182	144	96	3,387	126,931
American Indian/Alaska Native	560	26	24	15	7	12	3	42	689
Asian	4,345	405	734	513	248	158	120	582	7,105
Native Hawaiian/ Other Pacific Islander	122	9	2	0	0	3	0	5	141
Some Other Race	327	23	15	25	13	8	2	27	438
Two or More Races	3,517	262	259	238	88	58	33	315	4,772
Hispanic	6,437	465	447	399	162	121	66	471	8,568
Total Minority Population	**136,005**	**2,964**	**1,863**	**1,459**	**700**	**504**	**320**	**4,829**	**148,640**
Percent Minority Population	**83.8**	**23.0**	**14.2**	**10.3**	**10.4**	**11.5**	**20.0**	**40.2**	**65.4**

*Source: Social Explorer Tables (SE), Census 2010, Census Bureau; Social Explorer; City of Milwaukee data is based on the 2006-2010 ACS Block Group data. *Only includes Census Block Groups that are within or bisect the primary study area boundary for the city of Milwaukee.*

Table I-13 shows the racial composition for the Ozaukee County portion of the primary study area. In 2010, it had a minority population of 4,091, which was 6.9 percent of the total population. The city of Mequon had the largest minority population at 2,227, which accounted for 9.6 percent of the city's population.

Table I-13: Racial Composition – Ozaukee County Primary Study Area – 2010

Race/ Ethnicity	City of Mequon	Village of Thiensville	City of Cedarburg	Town of Cedarburg	Village of Grafton	Town of Grafton	Total Primary Study Area
Total Population	23,132	3,235	11,412	5,760	11,459	4,053	59,051
White	20,905	2,956	10,848	5,592	10,772	3,887	54,960
Black/African American	630	54	83	24	81	22	894
American Indian/Alaska Native	23	7	11	6	35	5	87
Asian	823	68	169	38	195	29	1,322
Native Hawaiian/ Other Pacific Islander	7	0	3	0	1	1	12
Some Other Race	16	6	3	0	7	8	40
Two or More Races	261	54	98	28	102	38	581
Hispanic	467	90	197	72	266	63	1,155
Total Minority Population	**2,227**	**279**	**564**	**168**	**687**	**166**	**4,091**
Percent Minority Population	**9.6**	**8.6**	**4.9**	**2.9**	**6.0**	**4.1**	**6.9**

Source: Social Explorer Tables (SE), Census 2010, Census Bureau; Social Explorer.

Projections of minority populations by municipality are not available, but SEWRPC has documented some regional trends pertaining to minority populations. According to SEWRPC, regional population trends show an increasing minority population and a decreasing non-Hispanic white population as a percentage of the total regional population. The minority share of the total regional population increased from 13 percent in 1980 to 29 percent in 2010. Conversely, the non-Hispanic white population share decreased from 87 percent in 1980 to 71 percent in 2010.[7] If past trends continue, SEWRPC states the minority share of the total regional population would increase to nearly 45 percent in 2050 and the non-Hispanic white share would decrease to just over 55 percent in 2050.

I-2.2.5. Median Household Income

Table I-14 shows the median household income for the region and Milwaukee and Ozaukee counties. In comparison to the region, Milwaukee County's median household income ($43,215) is lower and Ozaukee County's median household income ($74,996) is higher. As of 2010, Ozaukee County had the second highest median household income in the state, which was only slightly lower than Waukesha County's median household income ($75,064).

[7] *SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 12/17/12.*

Table I-14: Median Household Income – Milwaukee and Ozaukee Counties - 2010

Location	Milwaukee County	Ozaukee County	Region
Median Income	$43,215	$74,996	$53,197

Source: Social Explorer Tables: ACS 2006 to 2010 (5-Year Estimates) (SE), ACS 2006 -- 2010 (5-Year Estimates), Social Explorer; U.S. Census Bureau

Table I-15 shows the median household income for the primary study area. With the exception of the city of Milwaukee, all the communities within the primary study area have median household incomes greater than the regional median household income. The village of River Hills has the highest median household income ($186,154) followed by the city of Mequon ($107,429) and the village of Whitefish Bay ($106,845). Other high median household income communities include the village of Fox Point, town of Cedarburg, town of Grafton and village of Bayside.

Table I-15: Median Household Income – Primary Study Area – 2010

Location		2010 Median Household Income
Milwaukee County	City of Milwaukee*	$35,921
	City of Glendale	$60,437
	Village of Shorewood	$59,691
	Village of Whitefish Bay	$106,845
	Village of Fox Point	$96,350
	Village of Bayside	$82,930
	Village of River Hills	$186,154
	Village of Brown Deer	$60,429
Ozaukee County	City of Mequon	$107,429
	Village of Thiensville	$54,583
	City of Cedarburg	$69,795
	Town of Cedarburg	$94,187
	Village of Grafton	$65,544
	Town of Grafton	$83,293

*Source: Social Explorer Tables: ACS 2006 to 2010 (5-Year Estimates) (SE), ACS 2006 -- 2010 (5-Year Estimates), Social Explorer; U.S. Census Bureau. *Median household income is for the entire city of Milwaukee.*

I-2.2.6. Persons in Poverty

Table I-16 shows persons in poverty for the region and Milwaukee and Ozaukee counties. The region had 255,958 persons in poverty, which was 13.1 percent of the population. Milwaukee County contained 68.8 percent of the persons in poverty in the region and had a poverty rate of 19.2 percent. Ozaukee County contained only 1.5 percent of the persons in poverty in the region and had a poverty rate of 4.5 percent.

Exhibit I-7 shows the distribution of poverty in Milwaukee County at a Census Block Group level for 2010. The highest percentages of poverty are concentrated in the central portions of the city of Milwaukee to the north and south of I-94 and in some areas of the city's northwest side. Less poverty is found in the western and southern portions of the county and in the North Shore communities.

Exhibit I-7: Percent Persons in Poverty in Milwaukee County – 2010

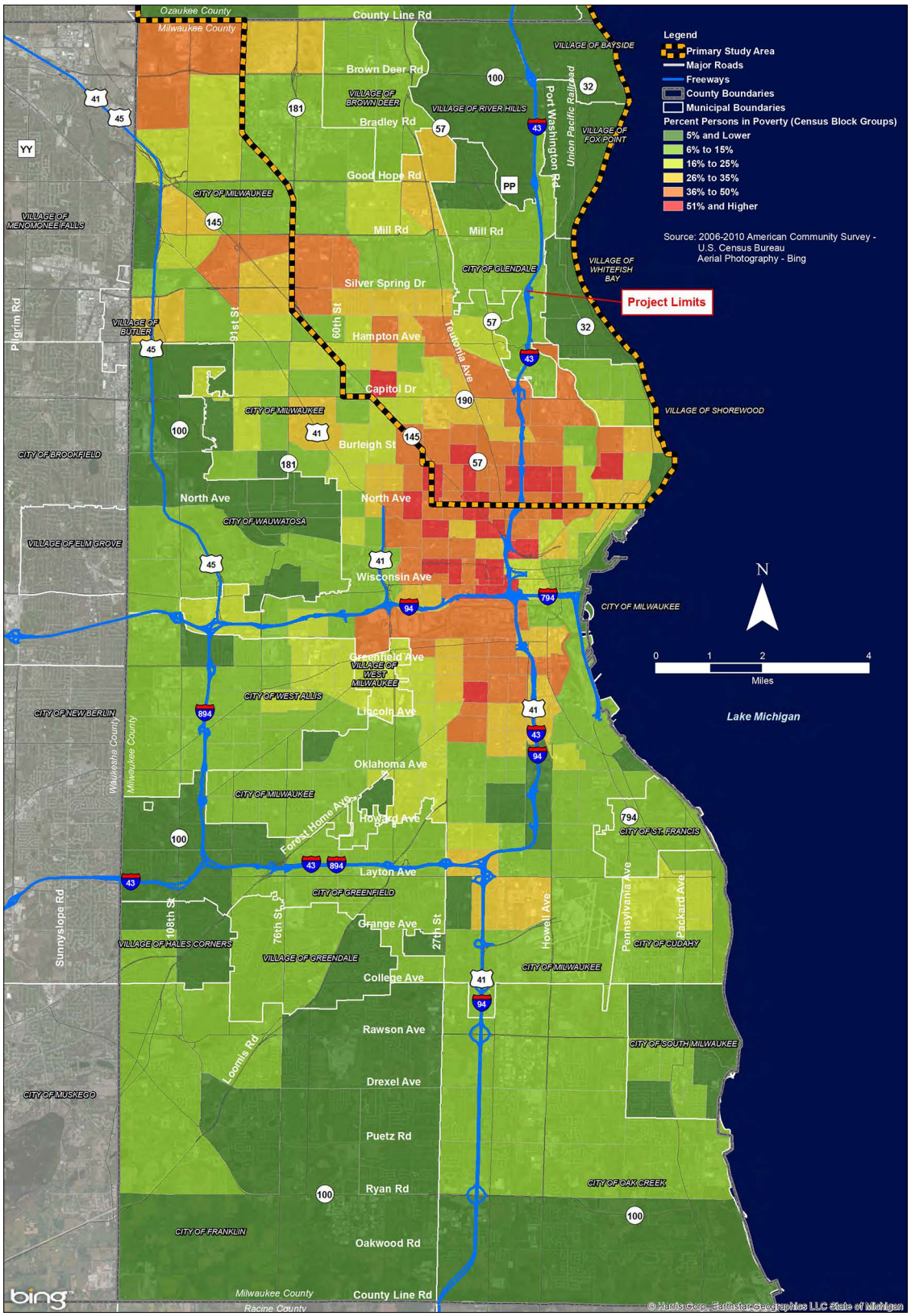


Exhibit I-8 shows the distribution of poverty in Ozaukee County based on Census Block Group data for 2010. The map shows that the county does not have areas where substantial concentrations of persons in poverty exist.

Table I-16: Persons in Poverty – Milwaukee and Ozaukee Counties

Location	Milwaukee County	Ozaukee County	Region
Population for whom poverty status is determined	915,325	84,941	1,959,087
Persons in poverty	176,196	3,858	255,958
Percent persons in poverty	19.2	4.5	13.1%

Source: Social Explorer Tables: ACS 2006 to 2010 (5-Year Estimates) (SE), ACS 2006 -- 2010 (5-Year Estimates), Social Explorer; U.S. Census Bureau.

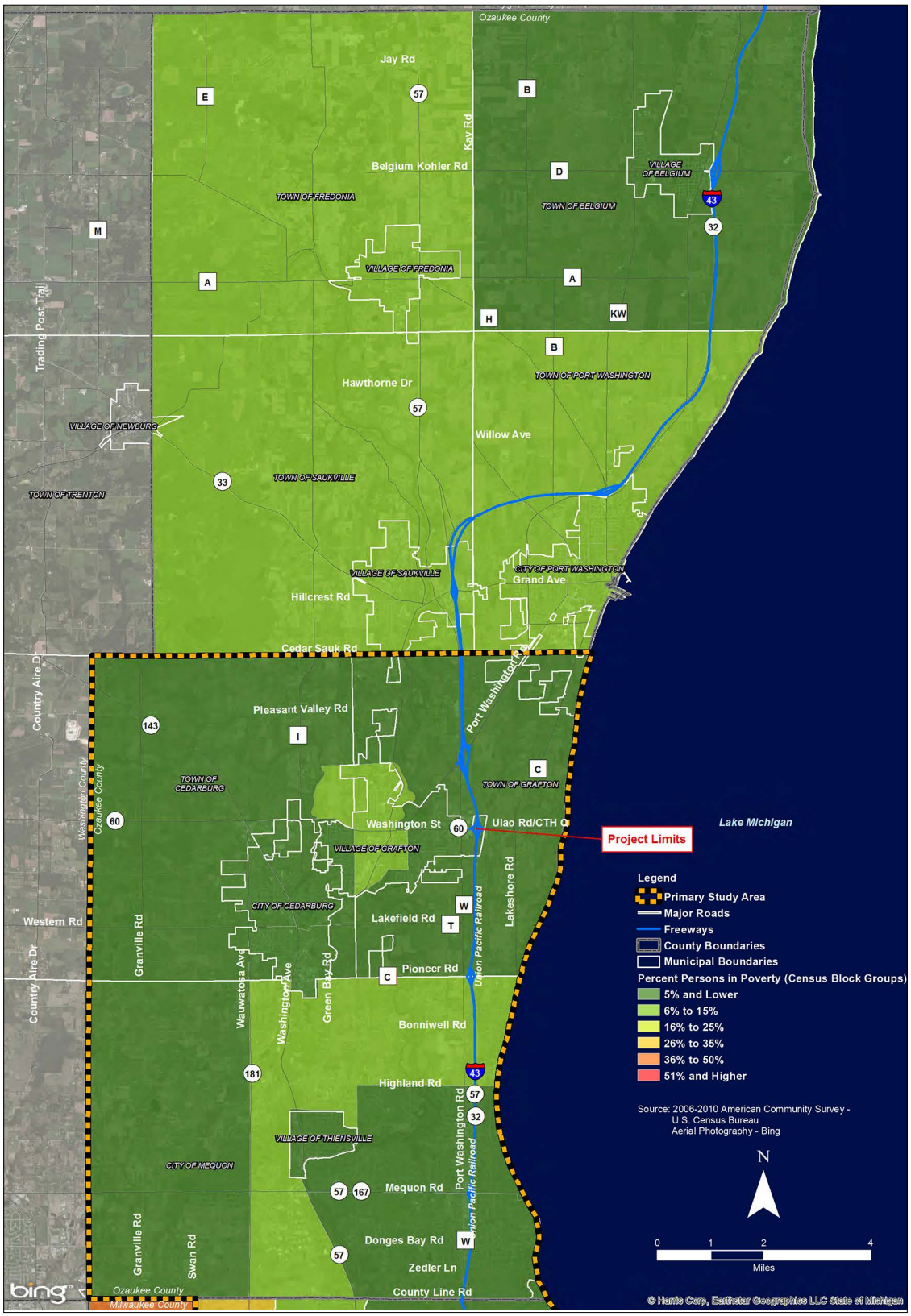
Table I-17 shows the persons in poverty for the primary study area. The Milwaukee County portion of the primary study area had 61,722 persons in poverty, which accounted for 25.8 percent of the population for whom poverty was determined. The city of Milwaukee portion of the primary study area had the highest poverty rate at 32.9 percent. The village of Shorewood, village of Brown Deer and city of Glendale had the next highest rates of poverty at 11.6 percent, 7.7 percent and 6.8 percent, respectively. The villages of Whitefish Bay, Fox Point, Bayside and River Hills had the lowest poverty rates at about 3 percent each.

Table I-17: Primary Study Area – Persons in Poverty

Location		Population for whom Poverty Status is Determined	Persons in Poverty	Percent Persons in Poverty
Milwaukee County	City of Milwaukee*	175,557	57,735	32.9%
	City of Glendale	12,489	844	6.8%
	Village of Shorewood	13,144	1,526	11.6%
	Village of Whitefish Bay	13,947	331	2.4%
	Village of Fox Point	6,402	207	3.2%
	Village of Bayside	4,227	128	3.0%
	Village of River Hills	1,648	44	2.7%
	Village of Brown Deer	11,792	907	7.7%
	Subtotal	**239,206**	**61,722**	**25.8%**
Ozaukee County	City of Mequon	22,555	679	3.0%
	Village of Thiensville	3,234	117	3.6%
	City of Cedarburg	11,340	430	3.8%
	Town of Cedarburg	5,753	85	1.5%
	Village of Grafton	11,309	617	5.5%
	Town of Grafton	4,044	55	1.4%
	Subtotal	**58,235**	**1,983**	**3.4%**
All	**Grand total**	**297,441**	**63,705**	**21.4%**

*Source: Social Explorer Tables: ACS 2006 to 2010 (5-Year Estimates) (SE), ACS 2006 -- 2010 (5-Year Estimates), Social Explorer; U.S. Census Bureau; City of Milwaukee data is based on the 2006-2010 ACS Block Group data. *Only includes Census Block Groups that are within or bisect the primary study area boundary for the city of Milwaukee.*

Exhibit I-8: Percent Persons in Poverty in Ozaukee County – 2010



The Ozaukee County portion of the primary study area had a total of 1,983 persons in poverty, which was 3.4 percent of the population for whom poverty status was determined. The city of Mequon, village of Grafton and city of Cedarburg contained the largest numbers of persons in poverty at 679, 617 and 430, respectively.

I-2.2.7. Workforce Transportation Characteristics

The mean travel time to work for Milwaukee County workers 16 years and older is 21.7 minutes, which is comparable to the state's mean travel time to work of 21.5 minutes. The mean travel time to work for Ozaukee County workers is 23 minutes, which is slightly longer compared to the state and Milwaukee County.

Table I-18 shows place of work information for Milwaukee and Ozaukee counties. A large portion of Milwaukee County's workforce, 80.8 percent, is employed within Milwaukee County. Waukesha County is the second largest place of employment for Milwaukee County's labor force, representing 13.1 percent of Milwaukee County workers. Only 1.8 percent of Milwaukee County's work force is employed in Ozaukee County.

About 50 percent of Ozaukee County's work force is employed in Ozaukee County. The largest percentage of workers that leave the county for employment, 32.7 percent, have jobs in Milwaukee County. According to the 2011 Ozaukee County workforce profile, Ozaukee County's highly educated workforce must leave the county to access higher paying employment that can support the high cost of housing in Ozaukee County especially in Mequon and southern Ozaukee County.[8] The workforce profile states, Ozaukee County's location immediately north of Milwaukee County makes it an attractive place for commuters, although the county's high property values have slowed its population growth potential.

Table I-18: Place of Work for Milwaukee County and Ozaukee County Residences

	Milwaukee County Employed Residents		Ozaukee County Employed Residents	
Place of Work	**Number**	**Percent**	**Number**	**Percent**
Milwaukee County	350,824	80.8	14,515	32.7
Waukesha County	57,087	13.1	3,164	7.1
Ozaukee County	7,825	1.8	22,255	50.1
Washington County	4,378	1.0	1,932	4.4
Racine County	4,787	1.1	89	0.2
Kenosha County	1,760	0.4	58	0.1
Walworth County	748	0.2	36	0.1
All other counties in Wisconsin	3,369	0.8	1,682	3.8
Illinois	1,968	0.5	239	0.5
Other (international/out-of-state)	1,566	0.4	432	1.0
Total Workers	434,312	100.0	44,402	100.0

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

[8] *2011 Ozaukee County Workforce Profile. Wisconsin Department of Workforce Development. Office of Economic Advisors. OEA-10638-P.*

Table I-19 shows the means of transportation to work and vehicles available for the two counties. The large majority of workers in Milwaukee County, 76.2 percent, drive alone to work. However, Milwaukee County workers are more likely to carpool or take public transportation to work. In Milwaukee County, 10.6 percent of the workers carpooled and 5.8 percent of the workers took public transportation. In comparison, 6.7 percent of Ozaukee County workers carpooled and only 0.4 percent took public transportation.

The majority of Milwaukee County workers, 64.1 percent, have two or more vehicles available. However, Milwaukee County workers are more likely to have zero (5.7 percent) or one vehicle available (30.1). In Ozaukee County, a very small number of workers do not have access to a vehicle (1 percent) and the vast majority of workers have access to two or more vehicles (85.4 percent).

Table I-19: Means of Transportation to Work and Vehicles Available

Worker Characteristics		Milwaukee County		Ozaukee County	
		Number	Percent	Number	Percent
Means of Transportation to Work	Drive alone	330,907	76.2	37,515	84.5
	Carpool	46,102	10.6	2,966	6.7
	Public transportation	25,159	5.8	170	0.4
Vehicles Available	No vehicle available	24,756	5.7	444	1.0
	1 vehicle available	130,728	30.1	5,994	13.5
	2 or more vehicles available	278,394	64.1	37,919	85.4
Workers 16 years and over		434,312	100.0	44,402	100.0

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates 2006-2010.

I-2.2.8. Existing Land Use

Table I-20 shows the existing urban and nonurban land uses in Milwaukee and Ozaukee counties as of 2010. In Milwaukee County, urban land uses made up 82 percent of the land area and nonurban land uses made up 18 percent. Ozaukee County, in contrast to the urbanized character of Milwaukee County, contained 26 percent urban land uses and 74 percent nonurban land uses. **Exhibit I-9** and **Exhibit I-10** show the areas in Milwaukee and Ozaukee counties with existing and planned sewer service and existing water service. These maps help to depict the urban and nonurban areas of the counties.

Table I-20: Existing Land Uses in Milwaukee and Ozaukee Counties – 2010

Land Use Category		Milwaukee County			Ozaukee County		
		Number	Percent Urban/ Nonurban	Percent of Total	Number	Percent Urban/ Nonurban	Percent of Total
Urban	Residential	51,878	40.7	33.4	20,138	51.3	13.4
	Commercial	8,075	6.3	5.2	1,162	3.0	0.8
	Industrial	7,582	5.9	4.9	1,749	4.5	1.2
	Transportation	32,255	25.3	20.8	9,957	25.4	6.6
	Communications, Utilities, Land Fills	1,814	1.4	1.2	348	0.9	0.2
	Government and Institutional	8,548	6.7	5.5	1,361	3.5	0.9
	Recreational	7,871	6.2	5.1	2,644	6.7	1.8
	Urban Open Lands	9,415	7.4	6.1	1,887	4.8	1.3
	Subtotal Urban	**127,438**	**100**	**82.0**	**39,245**	**100**	**26.0**
Nonurban	Natural Areas	12,197	43.7	7.9	26,985	24.2	17.9
	Surface Water	1,531	5.5	1.0	2,616	2.3	1.7
	Agricultural	10,102	36.2	6.5	75,655	67.9	50.2
	Nonurban Open Lands	4,076	14.6	2.6	6,166	5.5	4.1
	Subtotal Nonurban	**27,906**	**100**	**18.0**	**111,421**	**100**	**74.0**
Total		**155,343**	**–**	**100**	**150,666**	**–**	**100**

Source: SEWRPC 2010 Land Use Inventory

As shown in **Table I-20**, residential land uses make up the largest percentage of urban land uses for both counties. Ozaukee County has a higher percentage of urban land in residential use at 51.3 percent compared to Milwaukee County at 40.7 percent. Transportation uses, which include all motor vehicle, air and rail related uses, is the second largest urban land use category for both counties, accounting for about 25 percent of the land area of each county. Milwaukee County contains 6.3 percent of commercial land use and 5.9 percent of industrial land use. These are slightly higher percentages compared to Ozaukee County that is 3 percent commercial and 4.5 percent industrial. The largest percentage of nonurban land uses in Milwaukee County is natural areas (43.7 percent), which include wetlands and woodlands. In Ozaukee County, the largest nonurban land use category is agricultural at 67.9 percent. Agriculture is also the largest overall land use category within the county.

Exhibit I-9: Sewer and Water Services in Milwaukee County

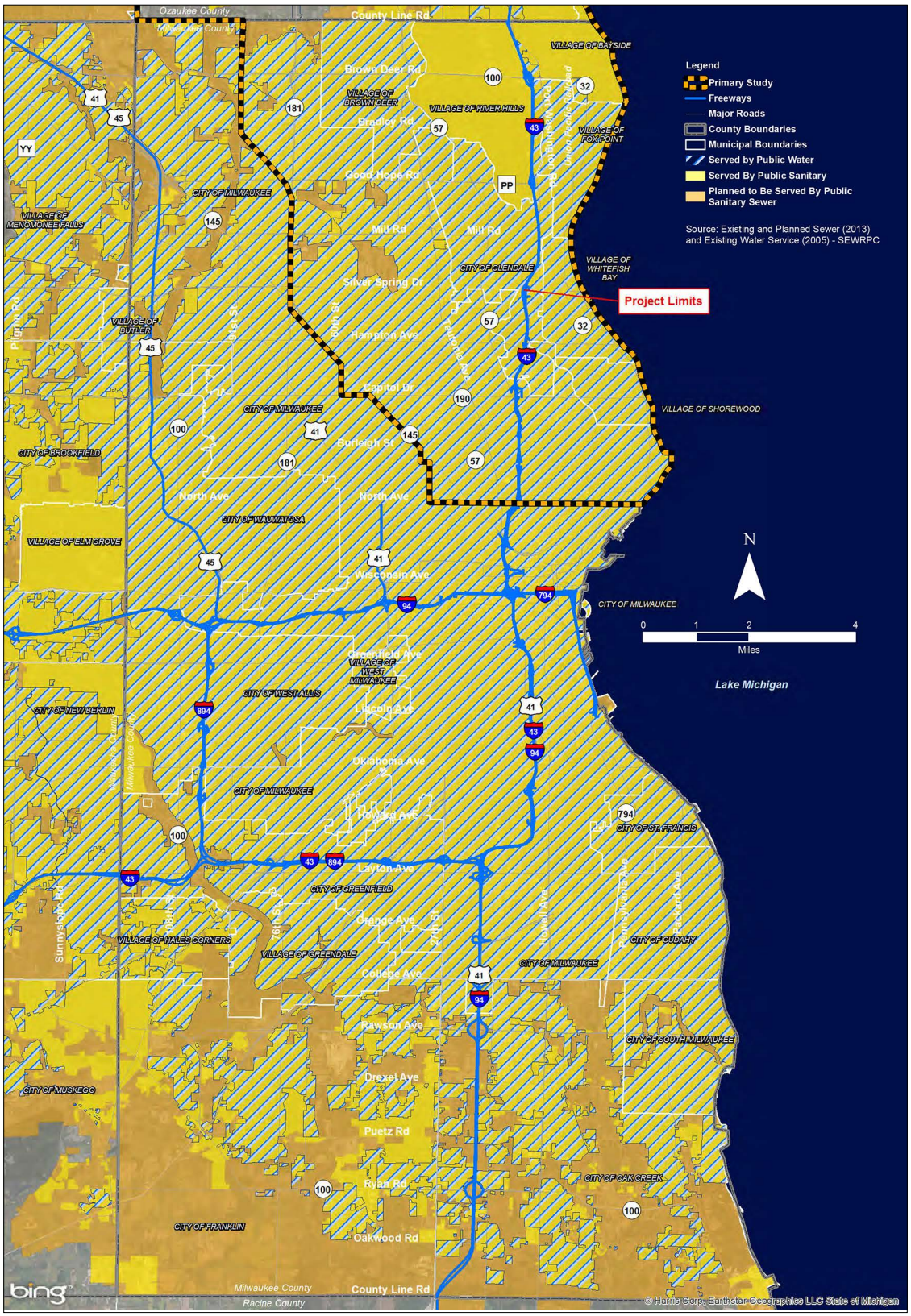


Exhibit I-10: Sewer and Water Services in Ozaukee County

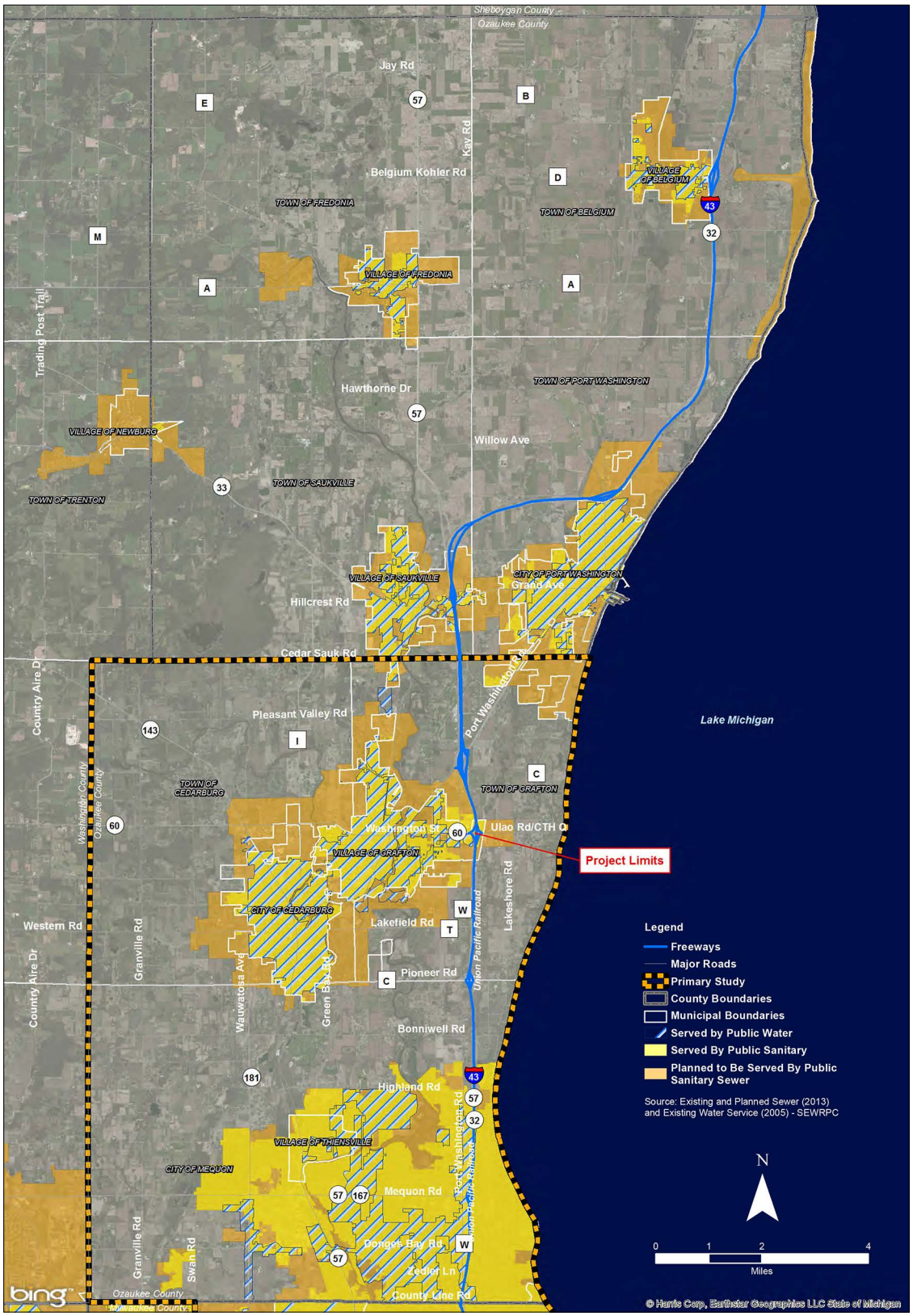


Table I-21 shows the existing land uses for the Milwaukee County and Ozaukee County portions of the primary study area. Urban land uses comprise 91.1 percent of the Milwaukee County portion of the primary study area, which is higher compared to the county as a whole. The Ozaukee County portion of the primary study area contains 40.3 percent urban land uses, which is also higher compared to the county as a whole. This is expected because the Ozaukee County portion of the primary study area contains the most urbanized areas of the county.

Table I-21: Primary Study Area Existing Land Uses – 2010

Land Use Category		Milwaukee County Portion			Ozaukee County Portion		
		Number	Percent Urban/ Nonurban	Percent of Total	Number	Percent Urban/ Nonurban	Percent of Total
Urban	Residential	13,458	43.8	39.9	14,963	56.8	22.9
	Commercial	1,918	6.2	5.7	815	3.1	1.2
	Industrial	2,138	7.0	6.3	777	3.0	1.2
	Transportation	6,888	22.4	20.4	5,535	21.0	8.5
	Communications, Utilities, Land Fills	234	0.8	0.7	209	0.8	0.3
	Government and Institutional	1,872	6.1	5.6	985	3.7	1.5
	Recreational	1,900	6.2	5.6	1,697	6.4	2.6
	Urban Open Lands	2,296	7.5	6.8	1,348	5.1	2.1
	Subtotal Urban	**30,703**	**100**	**91.1**	**26,328**	**100**	**40.3**
Nonurban	Natural Areas	1,623	53.8	4.8	10,985	28.2	16.8
	Surface Water	464	15.4	1.4	1,507	3.9	2.3
	Agricultural	397	13.2	1.2	23,468	60.2	35.9
	Nonurban Open Lands	532	17.6	1.6	3,045	7.8	4.7
	Subtotal Nonurban	**3,017**	**100**	**8.9**	**39,004**	**100**	**59.7**
Total		**33,720**	**–**	**100**	**–**	**65,332**	**100**

Source: SEWRPC 2010 Land Use Inventory

The distribution of most urban land uses categories within the primary study area is similar to the distribution of land uses within the individual counties as a whole. One slight difference is with industrial land uses. The Milwaukee County portion of the primary study area has a slightly higher percentage of industrial land uses (7 percent) compared to the county as a whole (5.9 percent). Industrial land uses for the Ozaukee County portion of the primary study area (3 percent) have a slightly smaller percentage of industrial land uses compared to the county as a whole (4.5 percent).

Nonurban land uses for the Milwaukee County portion of the primary study area comprise a smaller percentage of the land area (8.9 percent) compared to the county as a whole (18 percent). Natural areas comprise the majority (53.8 percent) of nonurban land uses within the Milwaukee County portion of the primary study area. Although, natural areas comprise a fairly small percentage (4.8 percent) of the overall land area within the Milwaukee County portion of the primary study area.

The Ozaukee County portion of the primary study area contains 59.7 percent nonurban land uses, which is less than the county as a whole (74 percent). Agricultural land uses make up the largest percentage (60.2) of nonurban land uses for the Ozaukee County portion of the primary study area. However, agricultural uses comprise a much smaller percentage (35.9 percent) of the overall land area of the Ozaukee County portion of the primary study area compared to the county as a whole (50.2).

Exhibit I-11 shows a map of existing land uses in Milwaukee County. As can be seen, a substantial portion of the county is comprised of residential land uses with the densest homes in the central, near south and near north portions of the county. Commercial uses are typically found along arterial streets, in downtown and in clusters at regional or community scale shopping centers. Industrial uses tend to be located in clusters or along railroad corridors. The county's remaining agricultural uses are located in the southern portion of the county in Franklin and Oak Creek as well as a few remnant parcels in the northwest corner of the county. Open lands in Milwaukee County are typically associated with environmental corridors located along rivers and streams and with some nonurban open lands.

Exhibit I-12 shows a map of the Ozaukee County existing land uses. Ozaukee County can be characterized by clusters of urban development in cities and villages surrounded by large areas of agriculture use and natural areas. The southern portion of the county contains the majority of the county's urbanized land uses and the northern portion of the county contains a larger portion of nonurban land uses. The cities and villages within the urbanized portions of the county generally contain concentrations of residential homes with clusters of commercial and industrial land uses. A fair amount of residential development served by on-site sewage disposal systems has taken place in a scattered fashion outside urban service areas within the county.

I-2.2.9. Land Use and Development Trends

This section provides a detailed description of the land use and development trends by community for the primary study area. It also includes an overview of the land use and development trends for areas within the secondary study area that are not located within the primary study area. The information in this section is based on a review of local land use plans and interviews with stakeholders. See **Appendix I-A** for stakeholder interview meeting summaries.

PRIMARY STUDY AREA – MILWAUKEE COUNTY

Exhibit I-13 shows the development trends for the Milwaukee County portion of the primary study area. Land uses in the Milwaukee County portion of the primary study area can generally be characterized by fully developed mature urban areas. The area includes portions of the north and northwest sides of the city of Milwaukee as well as the seven Milwaukee County suburbs that are known as the "North Shore."

The residential neighborhoods within the Milwaukee County portion of the primary study range from very affluent North Shore suburban communities to some neighborhoods that are more fragile or even distressed within the city of Milwaukee. According to the SEWRPC 2035 regional land use plan, high density housing (at least 7 units/acre) is located in the southern half of the Milwaukee County portion of the primary study area and portions of the city of Milwaukee's northwest side. The higher density areas typically follow a street grid pattern. The North Shore communities of Glendale, Fox Point, Bayside and Brown Deer contain mostly medium density housing (2.3 to 6.9 units/acre) with some areas of low density urban housing (0.7 to 2.2 units/

Exhibit I-11: Existing Land Use in Milwaukee County – 2010

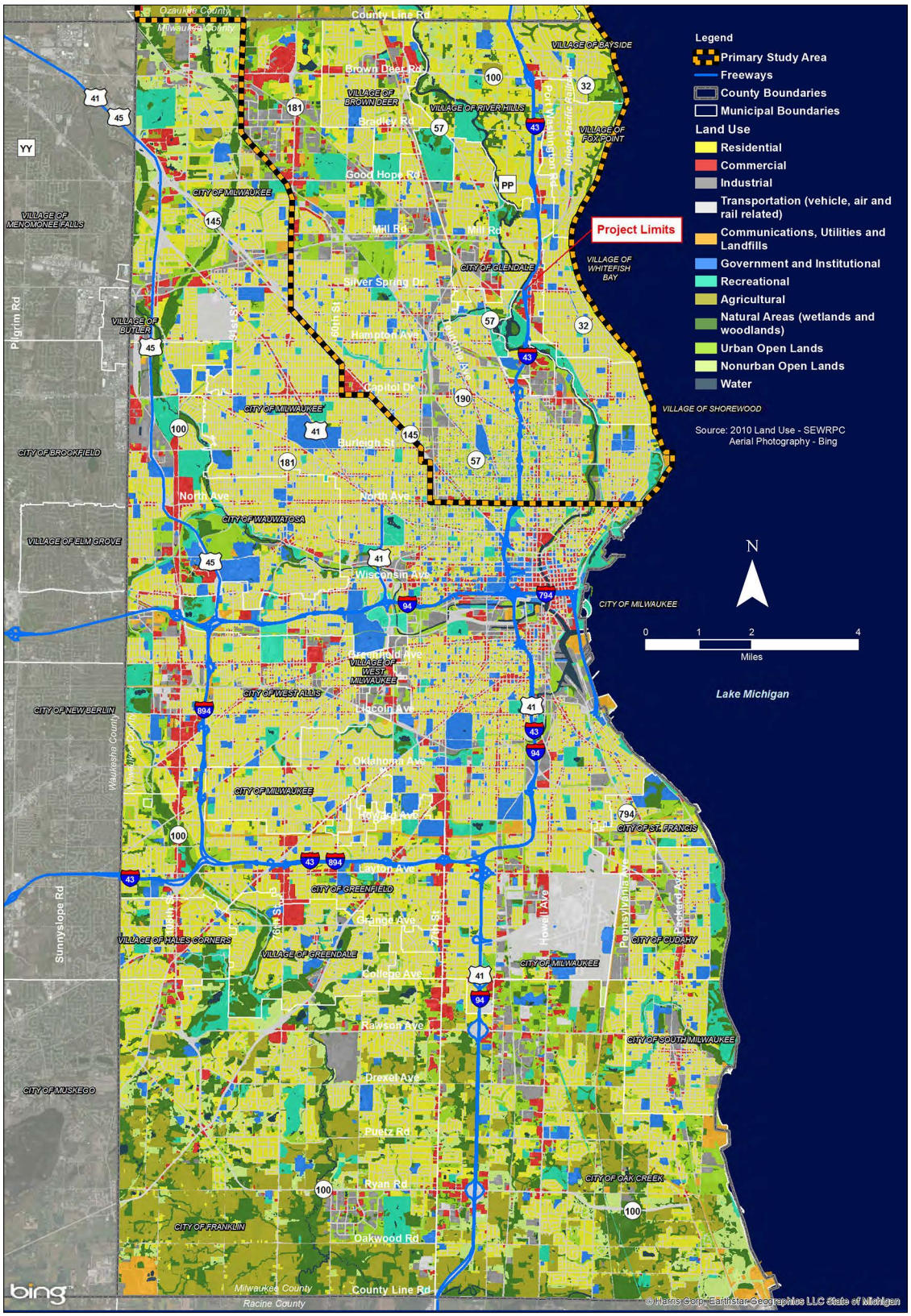


Exhibit I-12: Existing Land Use in Ozaukee County – 2010

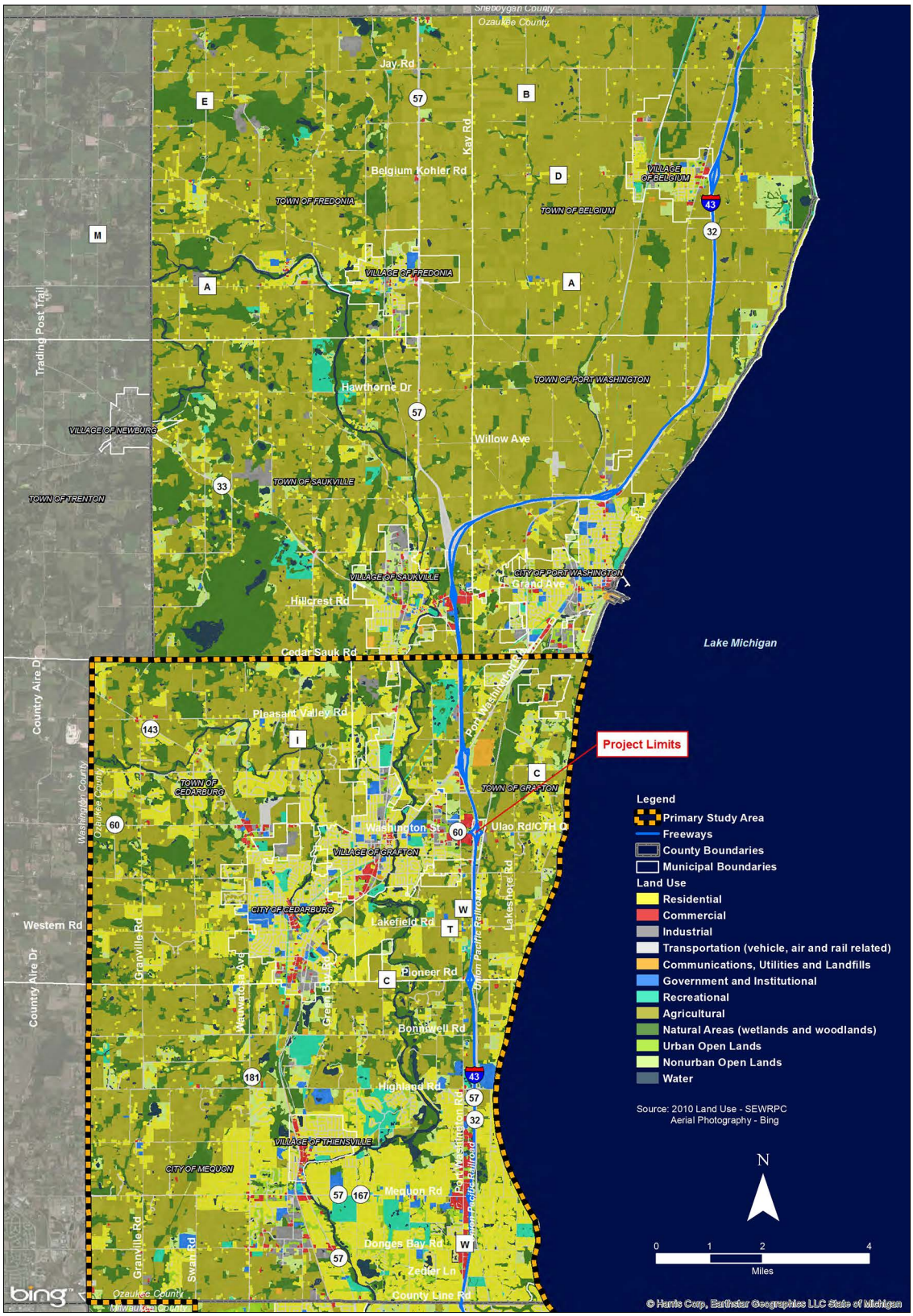
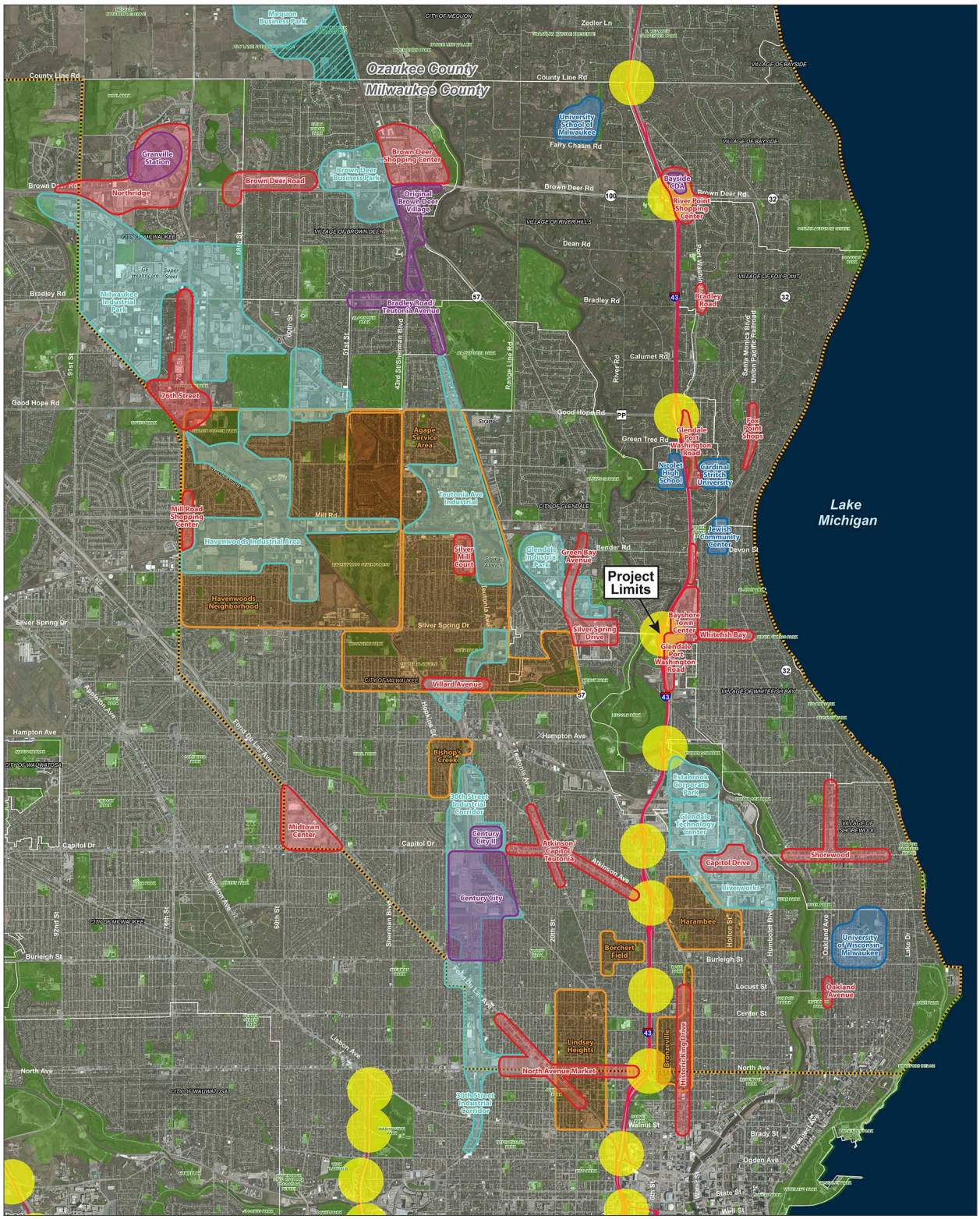


Exhibit I-13: Milwaukee County Primary Study Area – Development Trends



acre) mostly along Lake Michigan. These areas tend to have a more suburban street pattern. The village of River Hills is the only Milwaukee County suburb that has a rural density residential (no more than 0.2 units/acre) classification.

The commercial areas within the Milwaukee County portion of the primary study area are located along the east-west arterials, Port Washington Road and at interchanges. The Bayshore Town Center near I-43 and Silver Spring Drive is the main regional shopping center in the Milwaukee County portion of the primary study area. Community scale commercial districts include the Brown Deer Shopping Center, River Point Shopping Center, Capitol Drive, Midtown and the former Northridge Mall/Granville Station area. Several neighborhood level commercial districts are present such as the Mill Road Shopping Center, the Fox Point Shops, the Whitefish Bay commercial district along Silver Spring Drive and the Historic King Drive district.

The Milwaukee County portion of the primary study area contains a relatively large amount of industrial land uses. The 30th Street Industrial Corridor, which includes the Century City redevelopment area, is located on the southern end of the Milwaukee County primary study area. The Estabrook Corporate Park, Glendale Technology Center and Riverworks are located on the east side of I-43 in the southern portion of the Milwaukee County primary study area. Other industrial clusters include Teutonia Avenue and Havenwoods areas and the Milwaukee Industrial Park on the city's northwest side. The Village of Brown Deer also contains several industrial businesses.

Redevelopment opportunities within the North Shore communities are largely limited by well-established land use patterns, a large amount of land dedicated to residential uses and local land use policies that tend to favor smaller-scale developments. The city of Milwaukee portion of the primary study area presents the greatest opportunities for redevelopment at the Century City industrial park and former Northridge Mall/Granville Station area.

The following subsections describe land use and development trends for each community within the Milwaukee County portion of the primary study area.

CITY OF MILWAUKEE

The city of Milwaukee portion of the primary study area includes the areas bounded by North Avenue to the south, the city's eastern and northern municipal boundaries, and Fond du Lac Avenue, 76th Street and 91st Street to the west. This includes a large portion of the city's near north, northeast and northwest neighborhoods, which are each comprised of several distinct neighborhood areas. Several neighborhood revitalization efforts are ongoing within the city including Lindsey Heights, Harambee and Havenwoods.

The southern portion of the study area contains several neighborhood scale commercial districts such as Historic King Drive, North Avenue and the Atkinson/Capitol/Teutonia area. Business improvements districts have been developed to help revitalize these main street-like commercial corridors.

The Midtown Center, located near Fond du Lac Avenue and Capitol Drive, opened in 2002 and was a redevelopment of the former Capitol Court shopping center. Midtown Center contains over 400,000 square feet of commercial space and is the city of Milwaukee's largest retail center. It includes a mixture of small, medium and large format retail establishments that are mostly national chain stores. The center has been successful overall, but it has some vacant stores and empty parcels that could be developed. The site of the former Lowe's store in Midtown Center is one of the vacancies and the city is currently considering extending a tax increment district to redevelop the site and attract new retailers.

The north side of the city contains some neighborhood scale and community scale commercial districts. Granville Station located north of Brown Deer Road was a partial redevelopment of the former Northridge Mall that closed in 2003. Penzey's Spices is in the process of trying to purchase the former mall and plans to redevelop it into a warehousing distribution center and office building. In addition to the mall, the Brown Deer Road corridor includes several freestanding large format retailers to the north and south of Brown Deer Road and along 76th Street. Another retail area in the northwest side is along the 76th Street corridor and Good Hope Road. This area contains several neighborhood shopping centers and has several underutilized parcels. Some new retail investment has occurred at the intersection of 76th Street and Good Hope Road. Other smaller scale shopping centers include Silver Mill Court and the Mill Road Shopping Center.

The city of Milwaukee portion of the primary study area includes several industrial areas. The 30th Street Industrial Corridor is located on the south end of the study area. This is an older industrial area that developed along the rail corridor. The city of Milwaukee is currently taking steps to revitalize the industrial land uses in this area and create a modern employment center. The Century City Business Park is the core of the 30th Street Industrial Corridor's revitalization efforts. The city has acquired and assembled parcels and undertaken environmental cleanup to prepare about 60 acres of land for industrial development. The city is beginning to market parcels to private developers.

The Riverworks area located south of the city of Glendale and east of the village of Shorewood is a mixture of commercial and industrial properties. According to the Riverworks Strategic Action Plan, Riverworks contains approximately 180 manufacturing, commercial and professional services businesses that employ 2,000 people.[9] The plan states that the area is challenged by older manufacturing facilities, but in recent years it has added design and production businesses, sales offices, warehouse outlets, startup businesses and small companies.

Industrial uses in the northwest side of Milwaukee have been developed in more recent years and contain more modern industrial formats on larger parcels. This includes industrial areas in the Havenwoods neighborhood along the Mill Road corridor and the Milwaukee Industrial Park/Bradley Woods Business Park along the Bradley Road corridor. According to the a market analysis conducted for the Northwest Side Area Plan, the Bradley Woods Business Park has few remaining parcels whereas the Havenwoods industrial area has greenfield and redevelopment sites available for industrial development.

CITY OF GLENDALE

The city of Glendale is a North Shore Milwaukee County suburb that was largely built after 1950. It is the largest North Shore suburb in terms of land area, encompassing 5.76 square miles. The city is dominated by single-family residential uses, but it also has large areas dedicated to commercial and industrial development. It is likely the most economically diverse community in the North Shore.

The city of Glendale has utilized tax increment financing to promote redevelopment and upgrade their business areas to meet current market demands. In 2006, the Bayshore Town Center project, located along Port Washington Road near I-43 and Silver Spring Drive, was finished. This large redevelopment turned an enclosed mall into an open air town center-style

[9] *Riverworks Strategic Action Plan. Prepared 2012.*

development that contains more than 1.2 million square feet of retail, office and residential uses. The north end of the Bayshore Town Center is likely to be redevelopment in the next five years after a lease for a Sears department store ends, adding additional retail space and more apartments to the development. Additional commercial uses in Glendale can be found north and south of the Bayshore Town Center along Port Washington Road, along Silver Spring Drive and along Green Bay Road. These tend to be more neighborhood/community scale retail and service oriented businesses.

Glendale has two main industrial/business park areas. The industrial area on the west side of the community is fully occupied and includes some large firms like Johnson Controls and the W.H. Brady Company. The Estabrook Corporate Park and the Glendale Technology Center are located in the southeast corner of the community to the east of I-43 north of Capitol Drive. These two business parks are examples of redevelopment projects in Glendale. The Estabrook Corporate Park contains mostly office and medical services such as the Orthopedic Hospital of Wisconsin. A 140 unit senior housing development is proposed for the remaining corporate park parcel. The 47-acre Glendale Technology Center is mostly built out and contains several light industrial type uses.

VILLAGE OF SHOREWOOD

The Village of Shorewood is an inner ring suburb of the city of Milwaukee that was largely developed prior to the 1940s. The village's land area is fairly small and only encompasses about one and half square miles. Shorewood's compact residential neighborhoods follow a grid street pattern and contain a mixture of single-family and duplex homes. The village's business areas are located along Oakland Avenue and Capitol Drive and contain mostly small-scale commercial establishments and multifamily homes.

The Village adopted the *Village of Shorewood Central District Master Plan* in 2006. The plan sets forth a redevelopment vision for the central district which encompasses the parcels lining Oakland Avenue and Capitol Drive within the village's limits and an area along the Milwaukee River in the southwest portion of the community. To implement the plan, the village has simplified their zoning code, created design guidelines, reconstructed local roads, added streetscape amenities and administered the façade improvement program through the business improvement district.[10] Additionally, the village utilizes two tax increment districts to promote redevelopment within the central district areas. Several redevelopment projects have occurred including new mixed-use buildings along Oakland Avenue. The village is also currently reviewing a proposal for new residential uses along a Milwaukee River redevelopment site.

VILLAGE OF WHITEFISH BAY

Whitefish Bay, similar to Shorewood, is a compact inner ring suburb of Milwaukee that was mostly developed prior to the 1950s. The community, although larger than Shorewood, is relatively small in land area encompassing about 2.4 square miles. Whitefish Bay's compact neighborhoods contain predominately single-family homes.

The village's primary business district is located along Silver Spring Drive. It contains small-scale commercial uses that were developed in a main street fashion. Approximately 100 businesses are located along Silver Spring Drive and are mostly comprised of independent retailers with a few regional franchises and very few national chain stores.[11]

[10] *The Village of Shorewood Comprehensive Plan 2030. Chapter 6, Economic Development. Adopted January 2011.*

[11] *The Village of Whitefish Bay Comprehensive Plan. Chapter 6, Economic Development. Adopted October 2009.*

According to the village's comprehensive plan, the village is focused on the redevelopment and renovation of existing parcels since very few undeveloped parcels remain in the village. In 2004, the village created a community development authority and a tax increment district to facilitate redevelopment along the Silver Spring Drive business area. The tax increment district has been used to finance road improvements and streetscaping along Silver Spring Drive, a façade improvement program and the acquisition of property for a four story mixed-use building that included a bank on the first floor and three floors of condominiums. The village has also implemented a retail incentive program and created a special zoning classification for businesses along Silver Spring Drive. The Beaumont Place, which is currently under construction, is the largest redevelopment project that has taken place along Silver Spring Drive. When complete, the project will include first floor commercial and over 80 luxury apartments within three separate buildings.

VILLAGE OF FOX POINT

The village of Fox Point is a Milwaukee County suburb that is located to the north of Whitefish Bay along Lake Michigan. The village's land area encompasses about 2.9 square miles. Fox Point is a predominately residential community containing mostly single-family homes and a few pockets of multifamily. Lower density homes are predominately located on the eastern side of the community near Lake Michigan and medium density homes are predominately located on the western side of the community. A large portion of the homes in the village were built during the 1950s.

The village contains three commercial nodes. The node at Brown Deer and Port Washington roads is the primary commercial area for the village and includes a mixture of small and medium sized retailers and services. The small commercial node at Bradley and Port Washington roads includes mostly office and dining establishments. According to the village's comprehensive plan, this node contains underutilized parcels that could be redeveloped.[12] The third commercial node is known as the Fox Point Shops and is located at Santa Monica Boulevard and Green Tree Road. It is comprised of small retail and service establishments. According to an interview with a village official, the village does not have any planned new developments.

VILLAGE OF BAYSIDE

The village of Bayside is a Milwaukee County suburb located along Lake Michigan to the north of Fox Point. A small portion of the village is located in Ozaukee County. The village is fairly small in size and encompasses about 2.4 square miles. It is a predominately single-family residential community that was largely developed during the 1960s. A concentration of multifamily homes can be found in the southwest portion of the village between Port Washington Road and I-43.

The only business district within Bayside is located near the intersection of Brown Deer Road and Port Washington Road. The parcels along the north side of Brown Deer Road contain mostly retail establishments. According to an interview with village officials the parcels north Brown Deer Road and west of Port Washington Road have struggled due to challenging road access and traffic patterns, and several vacancies are present. The commercial properties to the north of Brown Deer Road and east of Port Washington Road have recently seen investment with the renovation and expansion of the Sendik's grocery store and an adjacent multi-tenant retail strip building. About four two-level, multitenant office buildings are located

[12] *The Village of Fox Point Comprehensive Plan 2035. Chapter 5, Economic Development. Adopted February 2010.*

north of the retail establishments along Brown Deer Road and to the west of Port Washington Road. According to local officials, the Bayside Community Development Authority is exploring redevelopment options for the retail and office areas to the north of Brown Deer Road and east of Port Washington Road.

VILLAGE OF RIVER HILLS

The village of River Hills' low density development pattern is unique for a Milwaukee County suburb. With the exception of a few institutional and civic uses, the village contains nearly all single-family homes on large lots. According to the village's comprehensive plan, over 80 percent of the residential homes within the village are zoned for a minimum of 5-acre lots.[13] The remaining lots have one and two-acre minimum requirements. The relatively smaller lots are mostly located within the very northeast corner of the community and at the very southern end. The village does not have any existing business areas and commercial and industrial uses are prohibited by the local zoning ordinance. According to a discussion with the village president, River Hills strictly follows the zoning code and no new development is planned.

VILLAGE OF BROWN DEER

The village of Brown Deer has a more diverse land use pattern compared to many of the other North Shore Milwaukee County suburbs. According to the village's comprehensive plan, residential land uses make up approximately 60 percent of the village and commercial and manufacturing uses make up 18 percent of the village.[14] The community's residential areas are comprised mostly of single-family homes with a few pockets of multifamily units that are mostly located in the very northeast corner of the village.

The majority of the village's commercial areas are clustered along Green Bay and Brown Deer roads. Commercial uses include office buildings and medium and large format national retail chains that draw customers from within Brown Deer and the surrounding communities. The Bradley Road and Teutonia Avenue corridors also have smaller scale commercial establishments.

Industrial uses are concentrated in the central portion of the village to the north and south of Brown Deer Road and along 51st Street.

Since Brown Deer is a built out community, substantial land use changes are not anticipated. However, the village has implemented tax increment districts to encourage redevelopment within existing business areas. A tax increment district has been established for the Bradley Road/Teutonia Avenue area to help revitalize neighborhood-scale commercial uses. Another tax increment district was created on the north side of Brown Deer Road on the western end of the community to attract new retail establishments. Lowe's, a large home improvement store that was constructed, has closed and the building is currently vacant. The village's most recent tax increment district includes the Original Village area, which is considered the historic business district of the community. The Original Village has seen some recent retail and office investment and the village has implemented streetscape improvements.

The village's comprehensive plan has identified several commercial areas for future redevelopment. The plan recommends continued redevelopment of the Original Village area as a mixed-use district. It also recommends the continued revitalize of the Bradley Road and

[13] *The Village of River Hills Comprehensive Plan. Chapter 7, Land Use. Adopted 2009.*

[14] *The Village of Brown Deer Comprehensive Plan 2030. Chapter 4,Land Use and Aesthetics. Adopted November 2009.*

Teutonia Avenue corridors with neighborhood scale businesses and higher density housing options. Farther in the future, the plan recommends the reconfiguration of the Marketplace Shopping Center that would create a denser site design with more public amenities.

PRIMARY STUDY AREA – OZAUKEE COUNTY

The Ozaukee County portion of the primary study area encompasses the southern portion of the county. It can be characterized by established urban areas with adjacent tracts of undeveloped land and low intensity development. It is the most urbanized portion of the county and contains the county's primary economic centers. **Exhibit I-14** depicts the development trends within the Ozaukee County portion of the primary study area and is the basis of the descriptive text in this section.

The urbanized areas of the Ozaukee County portion of the primary study area contain concentrations of low and medium density residential development within the urban service areas. The non-urbanized areas have been infilling with residential uses that currently have a more scattered large lot development pattern. The communities' land use plans anticipate agricultural lands will continue to transition to residential uses over time and do not have agricultural preservation ordinances.

The Ozaukee County primary study area has two commercial districts along I-43 at Mequon Road and WIS 60. In addition, Mequon/Thiensville, the city of Cedarburg and the village of Grafton have small downtown areas with smaller scale retail and service uses. Additional community serving commercial areas are located along Cedarburg Road at the south end of the city of Cedarburg, the south commercial district in the village of Grafton and the Five Corners area in the town of Cedarburg. The WIS 60 commercial area is the newest district within the Ozaukee County portion of the primary study area and its business base is continuing to expand. The Mequon Road district is undergoing a redevelopment phase as are the downtown districts in Grafton and Mequon/ Thiensville. Historic downtown Cedarburg continues to be a draw for tourists.

The three existing business parks in the Ozaukee County portion of the primary study area are located in Grafton, Cedarburg and Mequon.

Future residential and business development is planned as part of Mequon's East Growth Area, the Five Corners Master Plan and the WIS 60 and WIS 32 interchange areas.

The following subsections describe land use and development trends for each community within the Ozaukee County portion of the primary study area.

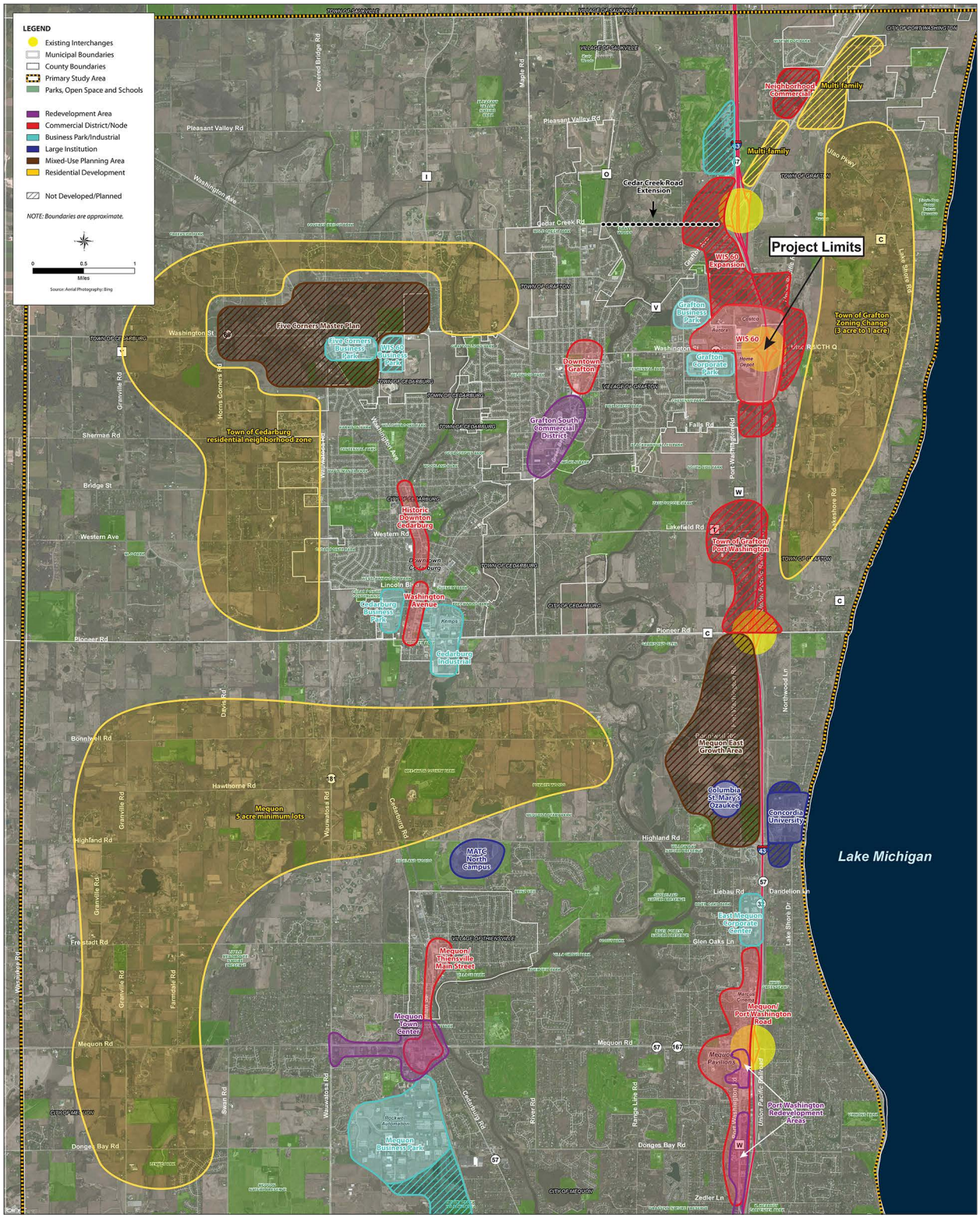
CITY OF MEQUON

The city of Mequon occupies the southern half of the Ozaukee County portion of the primary study area and is immediately north of Milwaukee County. The city's land area is large as it encompasses nearly 47 square miles. According to the 2011 Ozaukee County Workforce Profile, Mequon's location north of Milwaukee and along the I-43 corridor make it a desirable community for commuters that are employed in higher paying service industries that are located in downtown Milwaukee.[15]

The urbanized areas of Mequon are generally delineated by Highland Road to the north, Wauwatosa Road to the west, Lake Michigan to the east and County Line Road to the south. This is consistent with the existing and planned sewer service areas of the community as shown

[15] *2011 Ozaukee County Workforce Profile. Wisconsin Department of Workforce Development. Office of Economic Advisors. OEA-10638-P.*

Exhibit I-14: Ozaukee County Primary Study Area – Development Trends



in **Exhibit I-10**. The majority of land within Mequon's urban service area is developed.

Residential uses within Mequon's urbanized area are relatively low density with single family homes on 1- to 1.5-acre lots. According to the 2011 Ozaukee County Workforce Profile, the high median value of Mequon's owner-occupied homes, $363,000 in 2010, has made it one of the most expensive communities in Wisconsin.[16] The majority of lands designated for residential uses within the sewer service area are developed. One exception is the area to the west of Wauwatosa Road and south of Mequon Road. This area has remaining sewer capacity and will continue to infill with single-family housing.

The lands outside the sewer service area are planned and zoned for a minimum of five acre residential lots.[17] While several large lot subdivisions have been built in nonurban areas, a large portion remains undeveloped or used for agricultural purposes. According to an interview with a local planning official, no substantial changes are anticipated to the 5-acre lot zones for the foreseeable future except for the East Growth Area, which is described below.

The city has two existing commercial areas. One is located along Port Washington Road east of I-43 between County Line Road and Highland Road and the other is located on the west side along Mequon Road between Cedarburg Road and Wauwatosa Road and is called the town center. The city's existing commercial areas are fully developed and are undergoing a redevelopment phase.

The Port Washington Road commercial corridor contains a mixture of small and medium sized retailers, professional services and office buildings. The southern portion of the Port Washington Road corridor to the south of Mequon Road contains many older businesses and smaller parcels that will need to be assembled for redevelopment. The city has two tax increment districts in this area. According to an interview with a local planning official, Mequon typically only makes improvements in conjunction with actual development proposals. The city does not have any tax increment districts north of Mequon Road in this corridor and anticipates redevelopment will occur in this area without city assistance.

Mequon's town center is a joint effort between Mequon and Thiensville to create a downtown area along the Mequon Road corridor between Cedarburg Road and Wauwatosa Road. The city has created a tax increment district to implement public improvements and they have updated the zoning for the town center. Currently, two private development projects are under construction within the town center. One development is a mixed-use commercial and residential development at the northwest side of the Mequon Road and Cedarburg Road intersection. It includes five buildings with about 40 apartments and street-level retail space. Also, an Outpost natural foods store is being constructed at the northeast quadrant of the Mequon Road and Wauwatosa Road intersection.

The city of Mequon contains two business park areas. The East Mequon Corporate Center is located along the east side of Port Washington Road and contains a mixture of professional service offices and light industrial/warehousing uses. The business park is mostly built out. The Mequon Business Park is located south of Mequon Road and east of Wauwatosa Road. It has several existing industrial businesses, but it still has some parcels available for development. According to local stakeholder interviews, Mequon is a desirable place for businesses given its proximity to a large labor force in Milwaukee County. However, new construction industrial uses can be challenging in Mequon due to high land costs.

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[16] *2011 Ozaukee County Workforce Profile. Wisconsin Department of Workforce Development. Office of Economic Advisors. OEA-10638-P.*

[17] *The City of Mequon Comprehensive Plan 2035*

Mequon is in the process of evaluating the East Growth Area located west of I-43, east of the Milwaukee River, north of Highland Road and south of County C. The area is currently zoned for residential homes with a minimum of 5-acre lots and much of the land has remained undeveloped. The plan calls for single-family residential homes on ¾-acre lots to the west of Port Washington Road. To the east of Port Washington Road, the city envisions a mixture of multifamily and commercial uses to the south of Bonniwell Road and a mixture of commercial and industrial uses to the north. The city does not anticipate any changes to the existing five-acre residential zoning classification to the west of the Milwaukee River between Highland Road and Pioneer Road.

VILLAGE OF THIENSVILLE

The village of Thiensville is a small community that is just over one square mile. The community is entirely surrounded by the city of Mequon and is fully developed. According to the village's master plan, the community is largely residential with over 87 percent of the land uses in residential use.[18] Single-family homes comprise the majority of residential uses within the village, but some pockets of multifamily exist within the village.

The village's commercial areas are primarily located along Main Street and Green Bay Road. They contain mostly smaller scale retail and service oriented businesses. The village of Thiensville has been working with the city of Mequon to implement the Town Center, which includes Thiensville's' commercial corridors. Several new businesses and façade improvements have occurred within the Thiensville Town Center area. The village has been proactive in purchasing properties and working with development firms to encourage redevelopment within the commercial corridors. One example is the Fiddleheads café in the historic Main Street area. More recently, the village solicited proposals from developers for a redevelopment site located immediately north of the Fiddleheads development. The village is also constructing a municipal parking lot to support development. The village does not have any larger scale commercial uses or industrial uses.

CITY OF CEDARBURG

The city of Cedarburg is located north of Mequon and occupies about 4.2 square miles. According to the city's master plan, the city contains mostly urban land uses with residential uses comprising nearly 40 percent of the community.[19] The city's residential land use category increased by 61 percent between 1985 and 2006, as indicated by the plan. The city's comprehensive plan states the city's projected growth will be accommodated by the conversion of the remaining agricultural/open lands to urban uses and the expansion of the community's boundaries into its extraterritorial areas.

The city has two main commercial districts. The historic downtown area along Washington Avenue is on the national Register of Historic Places. The main street is lined with small destination type shops. Several festivals are held in downtown throughout the year that attracts large amounts of tourists. The city's other commercial corridor is located to the south of downtown also along Washington Avenue. This district is automobile oriented and provides every day shopping needs for area residents.

The city contains three business park/industrial areas. On the southern end of the city, an

[18] *Master Plan for the Village of Thiensville, Wisconsin 1190-2010. Adopted March 1991.*

[19] *Cedarburg Smart Growth Comprehensive Land Use Plan – 2025. Adopted January 2008.*

industrial area is located along Cardinal Avenue and Pioneer Road. The Cedarburg Business Park that was created with tax increment financing is located along Evergreen Boulevard north of Pioneer Road and south of Lincoln Boulevard. The business park encompasses about 40 acres that is mostly developed. The most recent business park development in the city is on the north side along WIS 60 between Cedar Creek and Washington Avenue. A second tax increment district was created for this business park, which allows a mixture of residential, office and service uses.

TOWN OF CEDARBURG

The town of Cedarburg is located in the southwestern portion of Ozaukee County and encompasses about 25 square miles. A substantial portion of the town remains zoned for agriculture. However, the town's future land use map shows only about 260 acres of the town (1.7 percent) is planned for farmland protection.[20] Most of the existing residential in the town has been developed in a scattered pattern and is low density or rural density. The town's future land use plan seeks to focus new housing developments near existing urbanized areas while allowing rural neighborhood forms for the remainder of the town. According to the town's comprehensive plan, all future residential subdivisions would be designed as conservation subdivisions requiring a certain percentage of land dedicated to open space.

The Five Corners area at the intersection of WIS 60 and County NN is the town's primary area for business development. Currently, the area contains a mix of retail and civic uses and a small business park with light industrial/warehouse uses. The town prepared the Five Corners Master Plan in 2006 to set a vision for future development in this area. The plan encompasses about 457 acres of land from the Five Corners intersection (WIS 60, Wauwatosa Road, Washington Road and Covered Bridge Road) west to Horns Corners Road and 1/4 to 1/2 mile north and south along WIS 60. To date, a few small scale retail developments have been constructed to the west of County NN and south of WIS 60, but the overall vision for the master plan has yet to be implemented.[21]

VILLAGE OF GRAFTON

The village of Grafton is located north of the city of Mequon and next to the city of Cedarburg. It is one of the more dense communities within Ozaukee County with a population density of over 2,200 persons per square mile. The village's population and business base has been expanding over the past decade. To accommodate this growth, the village's boundaries increased by 25 percent between 2000 and 2010.[22] According to an interview with a village official, the village generally only annexes land that will develop immediately and that has unanimous consensus from property owners. Typically, private property owners request annexation from the village.

The village's residential areas include older neighborhoods that were built in the 1950s and 1960s and newer subdivisions that were been built in the 1990s and 2000s. The village provides relatively smaller and more compact residential lots compared to Mequon and the surrounding townships. This has helped to attract new residents to the village's relatively affordable supply of homes. According to an interview with a village official, the village had a strong residential market prior to 2008. Over the past two to three years, the village has only had about 10 new houses constructed per year.

[20] *Town of Cedarburg Comprehensive Plan 2035. Chapter 5, Land Use. Adopted April 2008.*

[21] *Five Corners Master Plan. Town of Cedarburg. 2006.*

[22] *The village of Grafton land area was 5.06 square miles in 2010 and 4.04 square miles in 2000. Source: U.S. Census.*

The village has three main commercial districts – WIS 60, downtown and south commercial district. The WIS 60 area is the newest commercial district in the village and has been the primary economic development driver for the village over the past decade. The WIS 60 district contains a mixture of medium and large scale commercial uses including an Aurora Hospital, Costco and Target. The WIS 60 district draws customers from a large market area that includes Ozaukee County, the northern half of Milwaukee County, the southern half of Sheboygan County and the eastern half of Washington County. The success of this district is largely due to demand for national change stores and big box retail that is not being met elsewhere especially in the Milwaukee County and Ozaukee County portions of the primary study area. Also, favorable local government development policies and proximity to the I-43 corridor have aided the success of this district. The village has upgraded the road infrastructure in this area to accommodate existing and planned development including upgrades to the I-43 ramps at WIS 60 and to the intersection of WIS 60 and Port Washington Road. A Meijer grocery store is currently under construction to the south of the existing Home Depot. Additional retail development may occur to the south of Meijers, but the village's plan is to have Falls Road as the southern limit for retail development. The village anticipates that the lands immediately north of Costco will development with retail uses in the next few years.

The South Commercial District in Grafton is currently a redevelopment district. This area once contained larger retail uses that now prefer locations closer to freeway access. The village has a redevelopment plan in place and has been working to change the mix of businesses to more neighborhood serving uses and to encourage more residential development in this area including multifamily developments. The village has also been working to revitalize the downtown Grafton area which now contains a mixture of commercial uses, housing and public amenities.

TOWN OF GRAFTON

The Town of Grafton is immediately north of Mequon and forms an arc around the village of Grafton. The town encompasses nearly 18 square miles of land and contains large tracts of undeveloped land and agricultural fields. According to an interview with the town planner, the town only has one working farm remaining and some fields are leased for hay. Several equestrian facilities are located in the town especially to the east of I-43. The town does not have an agricultural preservation ordinance and no agricultural lands are shown on the land use plan.

The town's comprehensive plan anticipates agricultural land will continue to be converted to residential uses over time. The town recently changed the areas zoned for three acre lots to a minimum of one acre lots to encourage residential growth and minimize the potential for annexations. The village's one acre residential zone includes a conservation subdivision ordinance and a conservancy overlay that protects woodlands and other natural features. The town's land use plan shows designated areas for multifamily housing along the WIS 32 corridor to the east of I-43. No multifamily development proposals are currently under consideration.

The town is planning for smaller scale commercial uses along the Port Washington Road corridor north of County C. Mequon has influence over development in this area through its extraterritorial zoning. According to local officials, some of the city's zoning restrictions have made business development more challenging in this area. The town's land use plan also anticipates additional commercial/business park development north of WIS 60 and near the WIS 32 interchange. The town does not have sewer and water services, which could limit the intensity of the development in this area or make this area susceptible to annexation from the village of Grafton. An extension of Cedar Creek Road is being considered by the county that would link to Port Washington Road. The road extension would serve planned development in

this area and help alleviate traffic at the WIS 60 interchange. The road extension is not likely to happen for another 20 years.

SECONDARY STUDY AREA

This section provides an overview of the land use and development trends within the secondary study area outside the primary study area boundary.

SECONDARY STUDY AREA – MILWAUKEE COUNTY

The Milwaukee County portion of the secondary study area includes downtown Milwaukee and the southern and western portions of Milwaukee County. **Exhibit I-15** shows the main economic centers in Milwaukee County.

Downtown Milwaukee

Downtown is a major economic center within the region and contains approximately 81,000 workers.[23] According to local stakeholder input, downtown is very stable, with relatively slow, but ongoing net growth. According to the 2012 Downtown Milwaukee Market Profile, more than $2.4 billion of investment has been made in downtown Milwaukee since 2000. The younger generations are interested in living in downtown and this is encouraging new housing developments. Since 2000, downtown households and population have increased by 27.2 percent and 25.5 percent, respectively. As of 2010, nearly 13,300 housing units were located in downtown.[24]

Downtown has several redevelopment areas including The Brewery and the Park East. The most recent Lakefront Gateway project is reconfiguring I-794 ramps near the Hoan Bridge, which will free up downtown land near the lakefront for development. At the same time, the city of Milwaukee will construct new local roads and extend Lincoln Memorial Drive south into the Historic Third Ward neighborhood. The project will facilitate a new Northwestern Mutual Life Insurance office tower, and potentially a new high-rise hotel/apartment tower and an 18-story office building.

According to the 2012 Downtown Milwaukee Market Profile, downtown has 12.1 million square feet of office space that contains a large concentration of professional, administrative and management personnel, financial institutions and insurance companies. Nearly 97 percent of the 81,001 workers that are employed within downtown live outside of downtown. Of those workers, about 60 percent live less than 10 miles from work. According to the 2011 Ozaukee County Workforce Profile, over half of Ozaukee County's working residents leave the county for employment.[25] The workforce profile says most Ozaukee County residents work in Milwaukee County to access the higher wages associated with the large concentration of white collar employment sectors in downtown Milwaukee.

Western Milwaukee County

Western Milwaukee County includes the west side of the city of Milwaukee, the village of West Milwaukee and the cities of West Allis and Wauwatosa. These areas contain many older industrial areas that are undergoing redevelopment.

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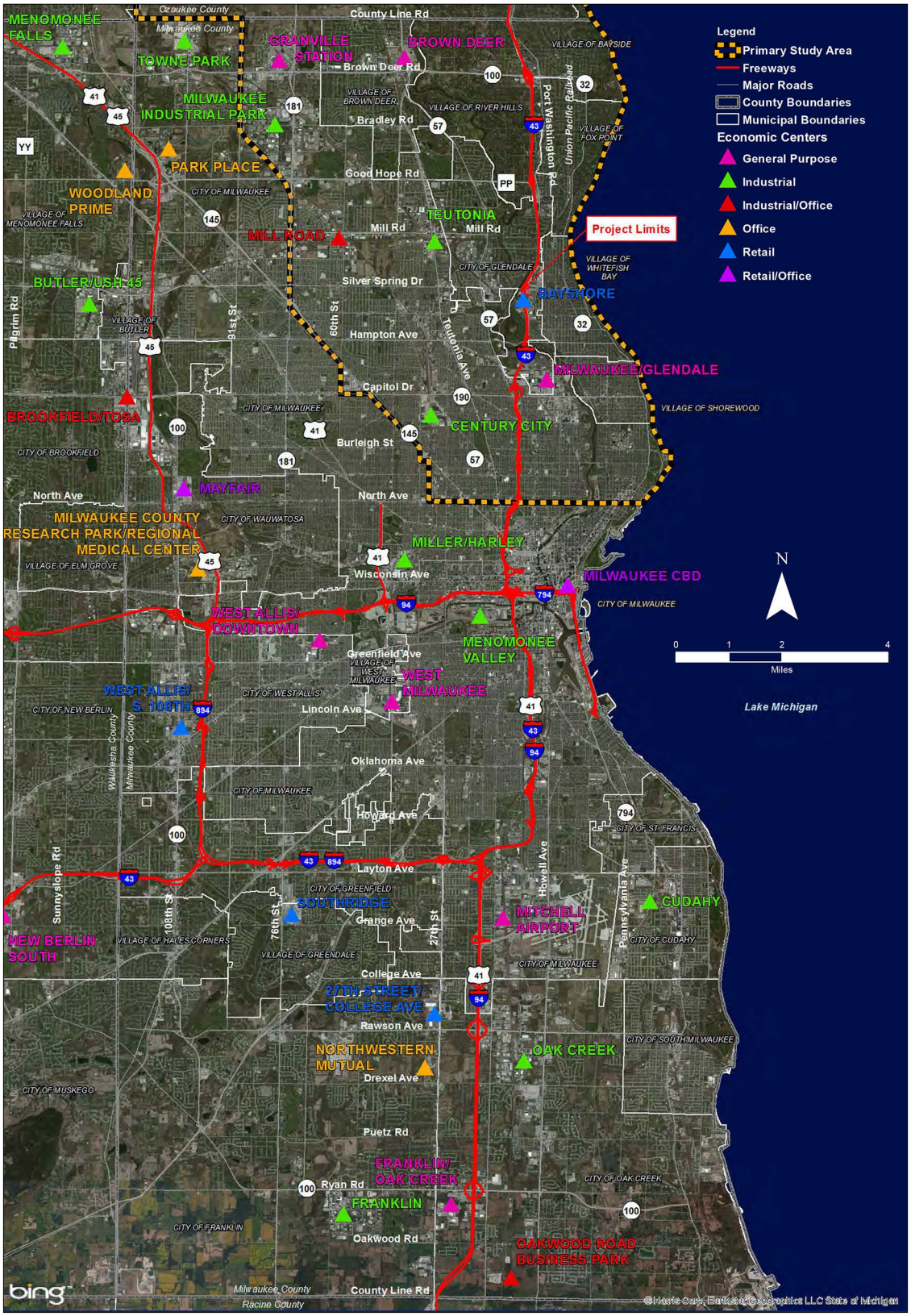
[23] *2012 Market Profile: Downtown Milwaukee. Prepared by Progressive Urban Management Associates, Inc on behalf of Downtown Milwaukee Business Improvement District 21.*

[24] *2012 Market Profile: Downtown Milwaukee. Prepared by Progressive Urban Management Associates, Inc on behalf of Downtown Milwaukee Business Improvement District 21.*

[25] *2011 Ozaukee County Workforce Profile. Wisconsin Department of Workforce Development. Office of Economic Advisors.*

Exhibit I-15: Economic Centers in Milwaukee County



The west side of the city of Milwaukee contains mostly stable residential neighborhoods with some neighborhood shopping districts along the main arterial streets. The main employment center in this area is associated with the MillerCoors brewery and the Harley Davidson facility.

The village of West Milwaukee has been aggressively pursuing redevelopment of former industrial areas and vacant parcels along the Miller Parkway corridor. As a result, the Miller Parkway corridor has transitioned into a regional-scale shopping center with national chain stores. Industrial uses continue to have a strong presence along the corridor and include companies such as Joy Global and GE Healthcare.

The City of West Allis has been aggressively pursuing redevelopment of its former industrial areas since the early 1990s. The city has created 13 tax increment districts to promote the reuse of land, create jobs and add new tax revenues. Some of the city's redevelopment areas include downtown West Allis, the 70th Street corridor, the Hawley Road/60th Street corridor and the Six Points neighborhood.

The city of Wauwatosa is attracting young professionals and young families due to its central regional location and compact and walkable neighborhoods. Wauwatosa contains the Milwaukee County Research Park and the Milwaukee County Medical Center at the Milwaukee County Grounds, which are regionally significant employment centers. A new University of Wisconsin-Milwaukee engineering school is being constructed at a Milwaukee County Grounds site east of Highway 45 and north of W. Watertown Plank Road. A large retail development is currently under construction along US 45 in the redevelopment area known as the Burleigh Triangle. The State Street corridor has also been experiencing redevelopment with new multifamily housing units and investment in the downtown area known as the Tosa Village.

Southern Milwaukee County

Southern Milwaukee County includes the south and southeast sides of the city of Milwaukee, the South Shore communities along Lake Michigan, Oak Creek and Franklin.

The south side of the city of Milwaukee contains several dense residential neighborhoods that have a high percentage of Hispanic residents. The primary economic centers in Milwaukee's south side include the Menomonee Valley and the General Mitchel International Airport area.

The South Shore communities of St. Francis, Cudahy and South Milwaukee are relatively small communities. St. Francis is primarily composed of residential uses with some recent development of multifamily housing along the shore of Lake Michigan. Cudahy and South Milwaukee have historic roots with manufacturing and still maintain an industrial presence.

Franklin and Oak Creek have been a substantial source of economic development and residential growth for Milwaukee County as these communities are not fully developed. Both communities have developed business parks and have commercial corridors. Northwestern Mutual built a large office campus in Franklin in 2002 and completed a second phase in 2008. Between the two phases, over 900,000 square feet of office space has been constructed. The campus is a regional employment draw.

SECONDARY STUDY AREA – OZAUKEE COUNTY

The Ozaukee County portion of the secondary study area encompasses the northern portion of Ozaukee County. It includes the communities of Saukville, Port Washington, Belgium and Fredonia.

The northern portion of Ozaukee County is much less urban than the southern half of the county.

Urban land uses account for only 15.1 percent of the land area in northern Ozaukee County and nonurban land uses make up 84.9 percent. Agricultural land uses comprise 72.1 percent of the nonurban land uses and 61.2 percent of all land uses in the northern portion of the county.

Exhibit I-16 shows the main economic centers in Ozaukee County. It shows each incorporated community within the Ozaukee County portion of the secondary study area has an industrial park. It also shows the two main commercial areas within the northern portion of Ozaukee County are along the WIS 33 corridor in the village of Saukville and downtown Port Washington. The WIS 33 corridor contains more recent commercial development that is comprised mostly of national retail chain stores. Downtown Port Washington is a historic main street business district that is undergoing redevelopment. The villages of Belgium and Fredonia have a few small scale commercial establishments that serve the local population. According to interviews with local stakeholders, commercial and industrial vacancies in the northern half of Ozaukee County tend to fill up quickly, but no new construction has been occurring since the economic recession of the late 2000s. The residential market has followed a similar path.

Village of Saukville

The village of Saukville is a fairly small community located to the north of Grafton. According to the U.S. Census Bureau, it had a population of 4,451 in 2010, which was a 9.4 percent increase from 2000. The village added 183 households between 2000 and 2010, which was a 11.6 percent increase.

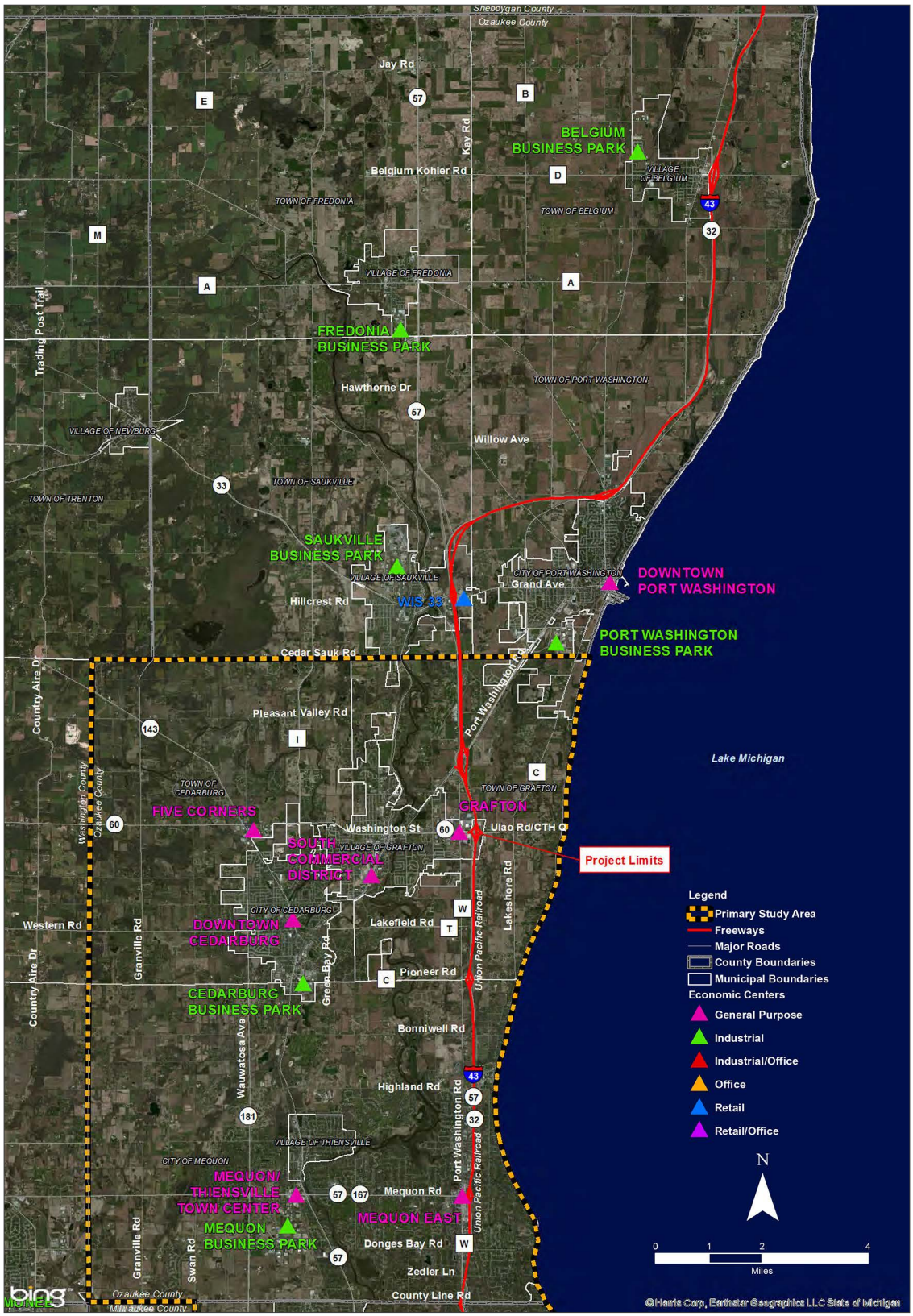
The village of Saukville contains a fairly compact residential land use pattern on the south and east sides of the community. According to an interview with local officials, the village currently has very little residential development occurring. A subdivision on the west side of the village has been platted, but only one lot has been sold. Future low density residential growth is planned to the west of the village within the existing town boundary. The area has many environmental features, which will reduce the amount of developable land and make it more costly to develop. The village's land use plan also shows future medium density residential land uses to the south of the village.

A business park is located on the north end of the village. About 10 acres of land remain within the business park. According to a local stakeholder interview, existing industrial spaces vacancies that are 50,000 to 60,000 square feet tend to fill up quickly. Also, the village has some existing businesses like Charter Steal that are expanding, but virtually no new industrial construction has occurred in recent years. The village's land use plan anticipates the business park would be extended to the west and north, which would add about 20 acres to the business park. Additional business park expansion would be limited by the presence of an environmental corridor.

The village's main commercial area is located on the east and west sides of I-43 along the WIS 33 corridor. The village established a tax increment district for this area. Several national retailers are present including a WalMart. According to local officials, existing vacant spaces are filling up, but no new commercial development is occurring. Additional land is available for commercial uses along WIS 33 and the villages zoning ordinance permits medium and large retailers. Also, the villages land use plan shows future commercial development is planned to the south of the existing commercial area along County W. This area is currently within the town boundary, but sewer and water services are available.

According to local officials, the village recently met with SEWRPC to discuss the potential to include a realignment of WIS 33 along Cold Springs Road and a new I-43 interchange north of

Exhibit I-16: Economic Centers in Ozaukee County



WIS 33 in the long-range transportation plan. The village believes this would help facilitate traffic that comes through the village from the west to access I-43 and it would also help improve access to the village's business park as well as future development that could occur near I-43. The village's land use plan shows an office park is planned to the east of the village near the split between I-43 and WIS 57.

Town of Saukville

According to the U.S. Census Bureau, the town of Saukville contained 1,822 people in 2010, adding only 67 people since 2000. The town had 704 households in 2010, which was an increase of 82 since 2000. The town's land use plan shows rural neighborhood residential and countryside residential focused around the village of Saukville's boundaries. The remainder of the town's land use plan shows large areas of open space, environmental corridors and agricultural lands. The town and village of Saukville do not have a border agreement, which means town lands are susceptible to annexation from the village.

City of Port Washington

The city of Port Washington, which is east of Saukville, is the largest community within the Ozaukee County portion of the secondary study area. According to the U.S. Census Bureau, it had a population of 11,250 in 2010, which was a 7.5 percent increase from 2000. The city had 4,704 households in 2010, which was a 15.5 percent increase since 2000.

The city's main commercial area is downtown Port Washington next to Lake Michigan. Downtown Port Washington is a historic Wisconsin Main Street Community. It draws customers locally as well as regionally and is a tourist destination. The city has been focused on maintaining and improving the downtown and has undertaken studies and market analyses to develop redevelopment strategies. The city created a tax increment district in 2010 to finance public improvements in downtown and to provide financial incentives that will encourage redevelopment within downtown. The city's land use plan anticipates that WIS 33 and WIS 32 will continue to develop as commercial corridors.

The city of Port Washington has an existing industrial park on the south side of the community. Some land remains for development. The city's land use plan shows an expansion of the industrial area to the south of the existing park. This would create about 60 to 70 acres of new industrial land. The area is not served by sewer and water and a lift station would be required. Allen Edmonds is located to the north of the city within the town and it has been expanding its operations locally. About 100 acres of industrial land could be developed on the north side of Port Washington in the future but there is currently no sewer service.

Town of Port Washington

According to the U. S. Census Bureau, the town of Port Washington had a population of 1,643 in 2010, which was virtually unchanged since 2000. The town's households between 2000 and 2010 declined slightly from 636 to 618. At least some of the decline may be a result of annexations.

According to the town's comprehensive plan, the town negotiated a boundary agreement with the city of Port Washington that created a permanent boundary between the town and the city in 2004.[26] The boundary agreement is effective through 2025. The town does not have a boundary agreement with the village of Saukville and lands could continue to be annexed by the village.

[26] *Town of Port Washington Comprehensive Plan 2035. Prepared by Ruekert & Mielke, Inc. Adopted February 2009.*

According to the town's comprehensive plan, the town has a large amount of productive agricultural land uses, comprising 72 percent of the town. Much of the town's land is currently zoned for A-1 Exclusive Agriculture that has a 35 acre minimum lot requirement.

The town's 2035 future land use map divides the town into various districts. The plan shows the areas east of the city of Port Washington and south of I-43 would transition to medium density residential uses over time. The lands along the Lake Michigan shoreline to the east of I-43 are designated for suburban residential uses with a minimum lot area of 1.5 acres. In addition, the town's land use plan designates a mixture of uses for the Knellsville neighborhood. As part of the town's boundary agreement with the city, sewer and water services would be provided to 270 acres of the town known as Knellsville, although no date for the extension has been set. Knellsville is located to the north of the city of Port Washington and the I-43 interchange with WIS 32/County H. Knellsville is considered the town center and currently contains town hall, a restaurant and some industrial uses. A neighborhood plan and zoning district were developed by the town in 2006 that identifies the mixture of permitted uses for the neighborhood. According to the town's comprehensive plan, the plan identifies locations for future economic development activity that includes a mixture of light industrial, commercial, office and residential uses. The town's comprehensive plan acknowledges that these plans would need to be implemented by willing property owners and/or private developers since Wisconsin State Statues do not permit towns to utilize tax increment financing.

The remainder of the town is planned as a mixed agriculture/conservation subdivision zone. The primary purpose of this district is to preserve large tracts of agricultural land. The town's comprehensive plan states that limited residential development will be permitted as conservation subdivisions to minimize the number of 35-acre land divisions that are occurring within the town for nonagricultural uses. According to the plan a minimum of 3,243 acres of productive farmland would be guaranteed by the district.

Village of Belgium

The village of Belgium is a small community in the northeast portion of Ozaukee County. It is located east of I-43 and is served by the County D interchange. According to the U.S. Census Bureau, the village had a population of 2,245 in 2010, which was a 33.8 percent increase since 2000. The village's households increased from 547 in 2000 to 817 in 2010, a 40.4 percent increase. Some of the growth in housing units may be attributable to annexation since the village's land area increased from 1.44 square miles in 2000 to 2.42 square miles in 2010.

The village's residential areas include two main clusters of single-family subdivisions with pockets of two-family and multifamily homes. The village has additional land zoned for residential use that is within its existing municipal boundaries. The villages land use plan map, as shown in the Ozaukee County Comprehensive Plan, anticipates the village's medium density residential growth area would be to the west of the village.

A few highway serving commercial uses such as gas stations and fast food restaurants are located at the I-43 interchange with County D on the east side of town. Also, the original main street area of the village contains some small local serving business. The town's land use plan map shows large areas of commercial land uses designated to the east of I-43 on the north and south sides of the village. Much of this land is still vacant.

The Belgium industrial park is located on the north side of town. According to the Ozaukee County Comprehensive Plan, the business park contains 250 acres of industrial land of which 16 acres has been developed. According to a local stakeholder interview, businesses are

hesitant to locate this far north of the population base because they are concerned that they will not be able to attract employees.

Town of Belgium

The town of Belgium is a rural community that surrounds the village of Belgium in the northeastern portion of Ozaukee County. The town encompasses over 35 square miles. According to the U.S. Census Bureau, the town had a population of 1,415 in 2010, which was a decline of 98 people since 2000. The town had a total 554 households in 2010, which was a gain of seven households since 2000.

The town is an agricultural community that had 18,629 acres of agricultural land in 2000, which was the largest amount in the county.[27] Of that total, 17,448 acres were cultivated. The town's land use plan map that is included in the Ozaukee County comprehensive plan, shows agricultural uses are planned for the vast majority of the town. The town's land use plan map shows a few areas designated for five-acre large lot residences, which are concentrated along the Lake Michigan shoreline and in a few town hamlets. The town's zoning map is fairly consistent with the land use plan map and designates extensive areas of the town as A-1 Agriculture.

Village of Fredonia

Fredonia is a small village on the northwest side of Ozaukee County. According to the U.S. Census Bureau, the village had a population of 2,160 in 2010, which was an 11.7 percent increase since 2000. The village had 827 households in 2010, which was an increase of 126 households since 2000. The village links to I-43 via the WIS 57 corridor.

The village contains mostly single-family residential land uses. According to an interview with a local official, most of the village's residential areas were constructed 10 to 20 years. The village has a small commercial area near I-43 and County A, but residents must leave the village to obtain the majority of their goods and services. Many of the village's residents are employed in Milwaukee County where there is a concentration of white collar employment.

The village has two areas planned for residential and commercial development within its existing boundaries. These areas should supply the village with at least 15 years of planned development, according to a local official. One area is planned for residential uses only and is located on the north side of the village. About 20 to 30 lots were sold at a reduced price by a bank after the developer went bankrupt and additional lands were sold back for farming. The other area is planned as a mixture of commercial and residential uses. It is located on the east side of the village in the northeast corner of WIS 57 and County A. Sewer and water services were extended to the site, but the land reverted to agricultural uses during the recession of the late 2000s.

The village has a fairly small 65-acre industrial park on the south side of the community that is built out. The village's land use plan shows the industrial park could be expanded to the west and east. The village would need to purchase farmland, annex lands from the town and extend sewer and water services for the industrial expansion areas. The village is beginning to have some preliminary discussions about expanding the industrial area to the west, but no formal actions have been taken. The area to the west already has the road infrastructure and sewer and water services are along an adjacent street. According to an interview with a local official, the village receives inquires for industrial land, but the village does not have any vacant parcels available.

[27] *A Multi-Jurisdictional Comprehensive Plan for Ozaukee County 2035. Adopted May 2009.*

Town of Fredonia

The town of Fredonia is a rural community located in the northwestern portion of Ozaukee County. It encompasses over 34 square miles of land. According to the U.S. Census Bureau, the town had a population of 2,172 in 2010, which was a decline of 731 residents. The town had 807 households in 2010, which was an increase of 80 households since 2000.

The majority of the town is in agricultural land uses. The town also has large primary environmental corridors associated with wetlands and the Milwaukee River. The town has a few residential hamlets in Waubeka and Kohler.

According to the town's 2035 land use plan, the majority of the town is planned for agricultural uses. A few rural residential and low density residential areas are shown on the map. In addition, the land use map shows an area to the north of the village of Fredonia to the east and west of WIS 57 is reserved for future industrial and commercial uses.

I-2.2.10. Natural, Recreational and Cultural Resources

Exhibit I-17 and **Exhibit I-18** show the natural, recreational and cultural resources within Milwaukee and Ozaukee counties.

The Milwaukee River watershed encompasses most lands within the Milwaukee County and Ozaukee County portions of the primary study area. The primary study area also includes the Fish Creek watershed, which directly flows to Lake Michigan, and a portion of the Sauk Creek watershed in the Port Washington area.

In the Milwaukee County portion of the primary study area, the remaining natural, biological, and recreational resources generally lie within narrow bands of environmental corridors along the Milwaukee River and the Lake Michigan shoreline. The DNR identifies the Milwaukee River as one of six legacy places in Milwaukee County, meaning the river is critical to meet the State's conservation and recreation needs over the next 50 years.[28] Also, SEWRPC classifies the Milwaukee River and Lake Michigan shoreline as a primary environmental corridor, which designates these resources as areas that contain the best remaining elements of the natural resource base in Southeast Wisconsin that are a priority for preservation. Many of the parks and public recreation resources in Milwaukee County are also located in these environmental corridors as well.

Other natural resources are also found along tributaries to the Milwaukee River and Fish Creek that cross I-43, including Indian Creek. Much of the land within the environmental corridor along the Milwaukee River is publicly owned, which preserves the resource in perpetuity. Other notable natural areas include the Kletzsch Park Woods along the Milwaukee River, Schlitz Audubon Center/Doctors Park Woods and Beach and Fox Point Bluffs and Ravines. SEWRPC notes each of these areas contain diverse and native mesic, dry-mesic woodland habitats.

Ozaukee County is less urban than Milwaukee County and contains extensive open and undeveloped lands. As a result, the county has an extensive natural resource base. In the Ozaukee County portion of the primary study area, primary environmental corridors are located adjacent to the Milwaukee River and the many streams that feed into the river, and along the Lake Michigan shoreline. In its park and open space plan for Ozaukee County,[29] SEWRPC

[28] *SEWRPC. A Land and Water Resource Management Plan for Milwaukee County: 2012-2021. August, 2011.*

[29] *SEWRPC. A Park and Open Space Plan for Ozaukee County. Community Assistance Planning Report No. 133 (3rd Edition). June, 2011.*

Exhibit I-17: Natural, Recreational and Cultural Resources in Milwaukee County

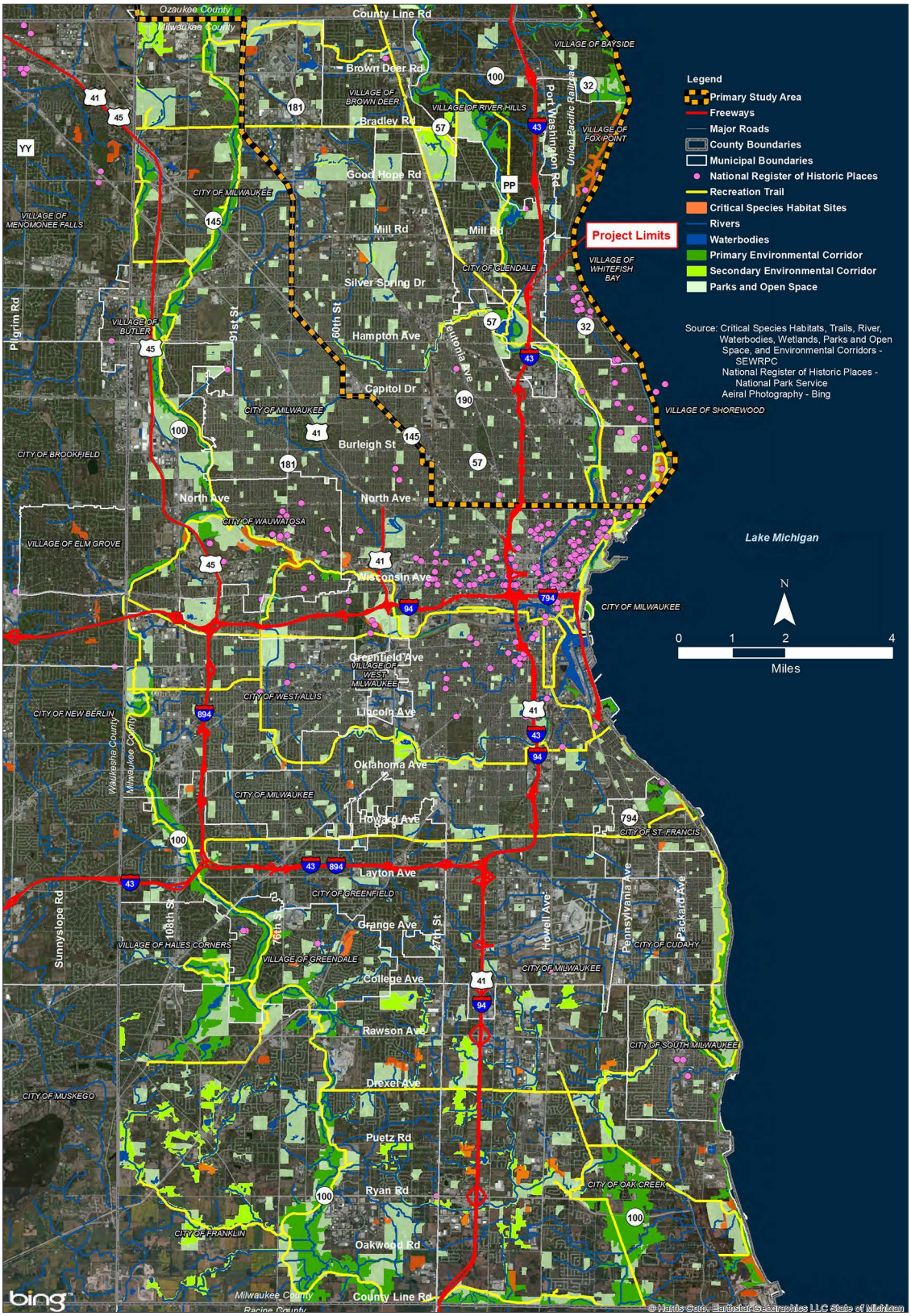
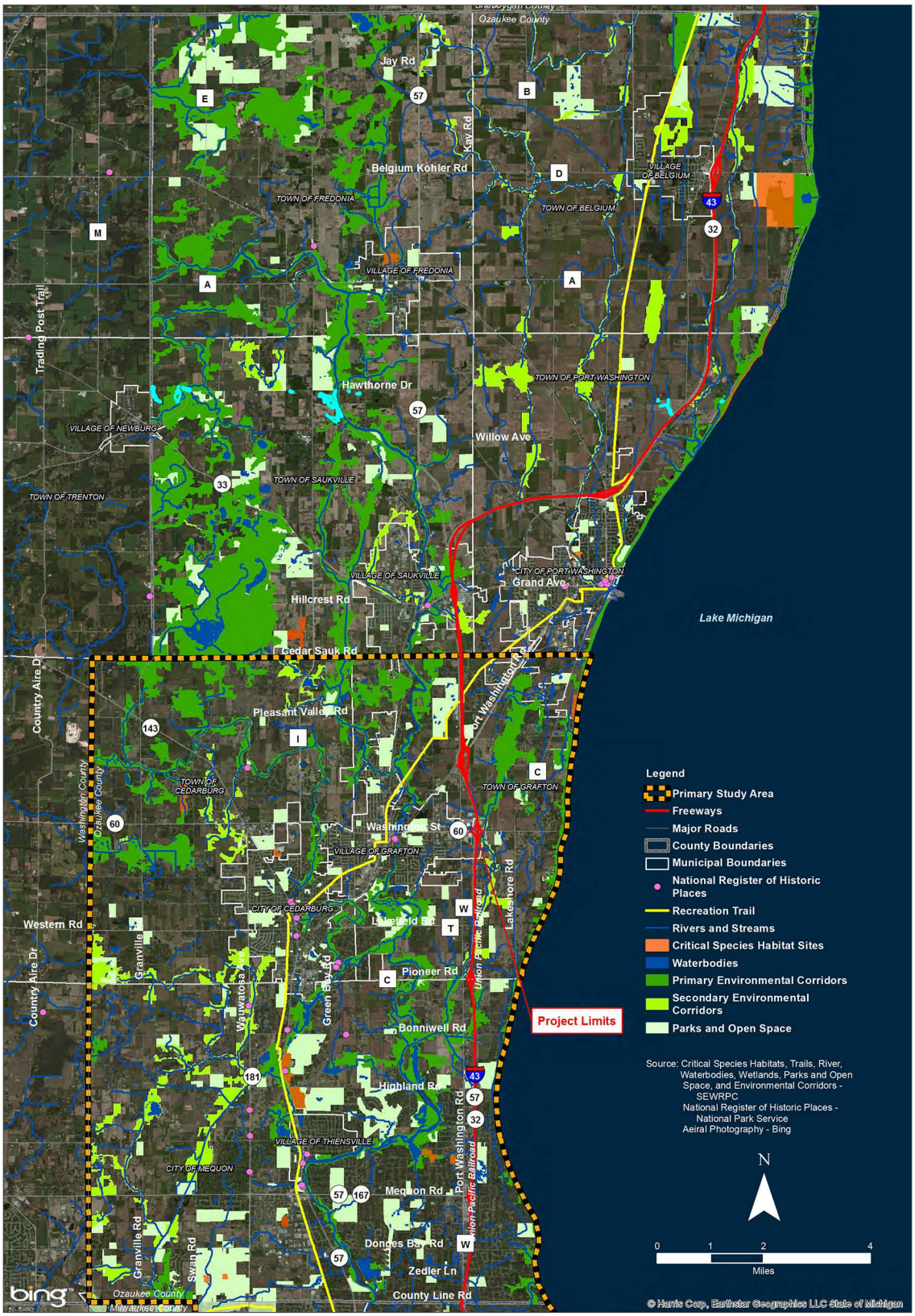


Exhibit I-18: Natural, Recreational and Cultural Resources in Ozaukee County



identified several notable natural areas, many of which are located along the Milwaukee River, Ulao Creek and the Lake Michigan shoreline. Some of the more substantial resources in the primary study area include:

- Fairy Chasm State Natural Area – Fish Creek flows through this area, which is a deep wooded ravine leading to Lake Michigan. The area is significant because cold air flow enables plants with more northerly affinities to grow this far south..
- Donges Bay Gorge – A deep ravine leading to Lake Michigan containing northern relict species.
- Abbott Woods and Ravine – A ravine along Lake Michigan with mesic woods and white cedar.
- Kurtz Woods State natural Area – A southern mesic hardwood, remnant of pre-settlement forests that once dominated the area.
- Ville du Parc Riverine Forest – One of the last remnants of riverine forest along the Milwaukee River.
- Mequon Wetland – An extensive mixed wetland area adjacent to I-43. It is part of the Milwaukee Metropolitan Sewerage District's (MMSD) Greenseams Program to preserve important tracts of land for flood management.
- Grafton Woods – A mesic woodlands near the Milwaukee River with diverse species.
- Cedar Heights Gorge – A gorge leading to Lake Michigan, dominated by white cedar.
- Ulao Lowland Forest – A large lowland hardwoods that contain headwaters of Ulao Creek.
- Lions Den Gorge – A deep ravine leading to Lake Michigan, dominated by white cedar and hardwoods with herbs and some northern relicts.

Many of the federal, state and county-owned park and open space sites in Ozaukee County are associated with the sites listed above, including Lion's Den Gorge Nature Preserve, U.S. Fish and Wildlife waterfowl production areas and DNR wildlife areas. The Milwaukee River also supports a number of threatened and endangered fish species as described in **Subsection 3.13**, Threatened and Endangered Species, in the EIS.

Ozaukee County has been implementing a Fish Passage Program to improve watershed habitat along the Milwaukee River. The goal of the program is to reconnect 158 stream miles that lead to Lake Michigan by reducing aquatic invasive species, replacing culverts, removing a dam and creating naturelike fish passage ways. The projects will help to reestablish lake sturgeon, walleye and northern pike fish populations.

SEWRPC notes there are over 240 historic places and districts currently on the National Register of Historic Places (NRHP) in Milwaukee County, and 34 listed properties and districts in Ozaukee County. A far higher number of properties are included in the state's Wisconsin Architecture and History Inventory.[30] WisDOT identified three new properties in Milwaukee County and two additional properties in Ozaukee County that are potentially eligible for listing on the NRHP (see **Subsection 3.18**, Historic Sites, in the EIS).

[30] *SEWRPC, 2011*

I-2.3. STEPS 3 AND 4: IDENTIFY IMPACT CAUSING ACTIVITIES OF THE PROPOSED PROJECT ALTERNATIVES AND IDENTIFY POTENTIALLY SIGNIFICANT INDIRECT EFFECTS

The build alternatives were reviewed to determine the activities that have the potential to cause indirect effects. It was determined that the following impact causing activities may contribute to indirect effects as follows:

- Adding a new travel lane in each direction of the mainline freeway could indirectly affect land uses within the primary and secondary study areas by enabling faster and more reliable travel between Milwaukee and Ozaukee counties.
- Building a potential new interchange at Highland Road could facilitate planned development within the Ozaukee County primary study area, especially within the city of Mequon.
- Reconstructing existing interchanges could help facilitate development within existing redevelopment sites and planned development sites in the Milwaukee and Ozaukee primary study areas.
- Expanding Port Washington Road would help support existing land use patterns within the Milwaukee County primary study area, especially within the city of Glendale.
- The encroachment of the freeway could indirectly affect the quality of residential neighborhoods, business districts and natural resources.

I-2.4. STEP 5: ANALYZE THE INDIRECT EFFECTS AND EVALUATE ASSUMPTIONS

Step 5 evaluates the likelihood and magnitude of the indirect effects under the build alternatives and compares the effects to the No-Build Alternative. The subsequent sections first discuss potential land use effects. Then, the second section evaluates the potential for encroachment-alteration effects.

I-2.4.1. Land Use Effects

Several research studies have proven that transportation and land use are highly linked and that land use effects can occur as a result of improved transportation accessibility that enables faster or more reliable travel between destinations or by enabling new access to destinations. The most recent research on this topic was published in 2012 by the Transportation Research Board (TRB). The report titled *Interactions Between Transportation Capacity, Economic Systems, and Land Use* analyzed 100 transportation case studies.[31] According to the TRB report, the case studies confirmed the following typical sequence of impacts that can occur over time as a result of improved transportation accessibility:

- Land becomes more attractive as a place to live, work or recreate.
- Building construction and investment occurs.
- Residential and employment growth occurs.
- Local tax revenues rise and sales and income taxes increase.

[31] *Interactions Between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

Improved transportation accessibility alone is not enough to effect land use change. As documented in the TRB report, other non-transportation local factors such as market demand, availability of land, local government development policies, availability of sewer and water services and local economic conditions will affect the magnitude of a transportation project's long-term economic impact. According to the report, transportation case studies with supportive local factors were most likely to create positive economic development outcomes and case studies that lacked local supporting factors or had distressed economies inhibited economic development.

The following subsections evaluate the magnitude of potential land use effects that could result from the impact causing activities identified in **Section I-2.3** above and considers the presence of supportive other non-transportation local factors.

NEW TRAVEL LANES

Under the build alternatives, transportation mobility and reliability would be improved by adding one new through-travel lane in each direction throughout the study corridor for a total of six lanes. This could reduce travel times during peak travel periods and it could make travel times more consistent throughout the day.

Under the No-Build Alternative, most segments of the study corridor would operate at level of service E or F either in the morning or afternoon peak hour, or both. Under the build alternatives traffic flow would improve and the study corridor would generally operate at level of service D or better during the morning and afternoon peak hour in 2040. The addition of new travel lanes would also improve traffic flow to the south of the study corridor by eliminating a known traffic bottleneck along I-43 near Bender Road in Glendale. Currently, this location is the transition between four and six freeway lanes. Six lanes are provided south of Bender Road and four lanes are provided to the north of Bender Road.

Land use effects related to the addition of new lanes are considered for the Milwaukee County and Ozaukee County primary study area because this is the area that has the most supportive non-transportation factors present and is the focus of most urban development within Ozaukee County. Effects to the secondary study are also considered for this impact causing activity because the addition of new travel lanes could have more dispersed effects spread over a larger area.[32]

MILWAUKEE COUNTY PRIMARY STUDY AREA

Based on feedback from the July 11, 2013, focus group meeting, the study team determined new travel lanes are likely to facilitate planned redevelopment within the Milwaukee County primary study (see **Exhibit I-15** for redevelopment areas). Stakeholder input confirmed that the I-43 corridor is highly interconnected with local land use and development because it is the primary transportation route that serves the businesses and communities within the Milwaukee County portion of the primary study area. As a result, a modernized I-43 freeway corridor that includes capacity expansion, safety enhancements and improved aesthetics would help maintain the competitiveness of the communities and business districts that are served by I-43. Also, an improved I-43 corridor could help facilitate access to employment within the county and adjacent counties since I-43 serves as the main commuting route for many Milwaukee County

[32] *Interactions Between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

primary study area residents. In addition, new travel lanes could increase the competiveness of the industrial areas within the Milwaukee County primary study area by improving the efficiency of freight movements. According to local stakeholder input, transportation improvements that benefit industrial areas in Milwaukee County subsequently help to revitalize and strengthen urban neighborhoods by creating transit accessible jobs in close proximity to minority and low-income individuals that more often than the general population need to rely on transit to reach employment.

The Milwaukee County primary study area has some non-transportation factors present to support the potential for indirect land use effects to occur. As discussed in **Subsection I-2.2.9**, communities within the Milwaukee County portion of the primary study area are taking steps to revitalize distressed neighborhoods, encourage redevelopment and create industrial development (see **Subsection I-2.2.9**, Land Use and Development Trends, for more information). Several non-supportive local factors are also present that will mimimize the magnitude of this land use effect. The Milwaukee County portion of the primary study area contains mature communities that are fully developed and the local population growth rates are relatively slow or declining. Also, some areas within the city of Milwaukee have high poverty rates, which can make it challenging to encourage private sector development. In addition, redevelopment opportunities within the North Shore communities are limited due to a prevalence of residential land uses and government zoning policies that protect residential neighborhoods.

OZAUKEE COUNTY PRIMARY STUDY AREA

Adding new travel lanes would facilitate planned development within the Ozaukee County portion of the primary study area by reducing commuting times between Ozaukee and Milwaukee Counties. The Ozaukee County primary study area is an attractive place for commuters to live given its close proximity to higher paying jobs in Milwaukee County. As discussed in **Subsection I-2.2.7**, about 50 percent of Ozaukee County's workforce is employed in Ozaukee County. The next largest place of work for Ozaukee County is Milwaukee County, where 33 percent of its labor force is employed. As a result, adding new travel lanes may encourage more people to live in Ozaukee County, and in turn, a growing population would encourage additional commercial and industrial development (in conformance with local plans). Adding new travel lanes could also facilitate the continued redistribution of population between Milwaukee and Ozaukee counties. According to SEWRPC, about 9,600 people moved from Ozaukee County to Milwaukee County between 2000 and 2010 and 16,840 people moved from Milwaukee County to Ozaukee County resulting in a net in-migration of 7,200 people for Ozaukee County.[33]

Several supportive non-transportation local factors are present to support these findings (see **Section I-2.2** for more details about socioeconomic and land use trends). SEWRPC's projections that were discussed in **Section I-2.2** indicate that Ozaukee County is expected to continue to increase its population and employment over the next 40 years. Also, the communities in the Ozaukee County portion of the primary study area have available land to accommodate growth either within their existing municipal boundaries or through annexation. The communities' land use plans anticipate agricultural lands will continue to transition to residential uses over time and do not have agricultural preservation ordinances. As documented in **Subsection I-2.2.9**, the primary study area communities in Ozaukee County are planning

[33] *SEWRPC. The Population of Southeastern Wisconsin Preliminary Draft. Technical Report No. 11 (5th Edition). 12/17/12.*

for new development areas and at the same time are taking steps to redevelop older business corridors. Pro-development public sector actions taken by communities within the Ozaukee County portion of the primary study area include extending sewer and water services, annexing land when petitioned by private developers, making zoning changes and creating tax increment districts and other financial incentives to promote development. Furthermore, the southern portion of Ozaukee County is desirable for business development because it is close to the existing population base and supply of labor. Even though the recession of the late 2000s has resulted in a historically slow development pace throughout the late 2000s and early 2010s, some new development is occurring within the Ozaukee County portion of the primary study area as discussed in **Subsection I-2.2.9**. As the economy continues to recover, it is likely that the pace of development would increase.

The magnitude of this land use effect discussed in the previous paragraphs is expected to be moderated by several factors. The original construction of I-43 greatly improved accessibility to Ozaukee County and most likely helped to facilitate the spread of development along the I-43 corridor in Ozaukee County. The addition of new travel lanes is expected to have a smaller effect on land use for the following reasons:

- **Mature transportation system** – I-43 is an existing multi-lane, limited access freeway corridor that is part of a mature regional transportation system that already has a high degree of accessibility. The Ozaukee County portion of the primary study area has seven existing interchanges along I-43, and SEWRPC's 2035 regional transportation plan recommends one new interchange at Highland Road. Nine interchanges are available in the Milwaukee County portion of the primary study area and all these access points would be maintained.
- **Limited travel time savings** – Although travel time reliability would be improved by the build alternatives, the improvement to travel times is not expected to be great enough to substantially change regional land use patterns since I-43 is an existing limited access freeway corridor. Adding new travel lanes would not shorten the distance between destinations, nor would it serve lands that do not already have access to the freeway. Furthermore, during non-peak travel times, the new travel lanes would not affect travel times as traffic is currently typically free flow. Also, the speed limit would not be increased.
- **Established land use patterns/planned growth** – The communities within the Ozaukee County primary study area already have fairly established land use patterns with designated residential and business areas that are already served by the freeway system and the local arterial street network. The growth and intensity of development outside the urbanized areas is limited by a lack of sewer and water services, large lot zoning requirements, conservation easements and environmental corridors that are protected by local zoning or conservation easement. For planned development, the communities utilize comprehensive plans and supporting development policies to promote an efficient growth pattern that is consistent with existing and planned public services and the county's comprehensive plan.[34]

MILWAUKEE COUNTY SECONDARY STUDY AREA

Adding new travel lanes to I-43 could help facilitate investment in downtown Milwaukee by allowing workers from the regional area easier access to employment. According to interviews with downtown stakeholders, less congestion along I-43 and other freeway corridors that serve downtown would make properties within downtown easier to market to prospective employers

[34] *In 2008, a Multi-Jurisdictional Comprehensive Plan for Ozaukee County: 2035 was approved. The plan was undertaken by Ozaukee County, 14 participating local governments, SEWRPC and UW-Extension.*

who need to attract employees from the region. The build alternatives could also help facilitate access to employment for downtown residents that work outside of downtown and in Ozaukee County. Since 2000, downtown households and population have increased by 27.2 percent and 25.5 percent, respectively.[35] According to local stakeholder input, the younger generations are very interested in living in downtown and this is encouraging new housing developments.

The western and southern areas of the Milwaukee County portion of the secondary study area are not expected to be affected by the addition of new travel lanes on the I-43 study corridor. However, less congestion may benefit some employment centers (see **Exhibit I-15**) within these areas that need to attract a workforce from the regional area. These include employers that are located at the Milwaukee County Grounds and the Northwestern Mutual campus in Franklin.

OZAUKEE COUNTY SECONDARY STUDY AREA

New travel lanes would help facilitate local land use plans within the Ozaukee County portion of the secondary study area by making the commute between northern Ozaukee County and Milwaukee County easier. This could encourage more people to live within the communities that are located within the secondary study area in Ozaukee County and in turn would encourage additional business development. This was confirmed at the July 11, 2013, focus group meeting and with local stakeholder interviews.

This effect has some non-transportation local factors that support this conclusion. The communities within the secondary study area have land available within their existing municipal boundaries for additional residential development and business development. Plus, some of the townships allow large lot single-family homes sites and small subdivisions. Also, local land use plans have identified planned development areas that could be annexed and served with sewer and water services in the future. In addition, land is less expensive in northern Ozaukee County compared to southern Ozaukee County, which may support new industrial and residential development.

Other non-supportive local factors are present that would substantially minimize the magnitude of this land use effect. According to local stakeholder interviews, the pace of new residential and business development in the northern portion of Ozaukee County is very slow and very little new construction has occurred in the recent years. Also, businesses tend to be reluctant to go north of WIS 60 in Grafton due to the greater distance from the existing workforce, making it difficult to attract employees. Retail development can also be challenging because the area is farther from the population base and the communities have fairly small populations. In addition, some of the communities in this area are reluctant to extend sewer and water services to new businesses park areas. According to local stakeholder interviews, the communities prefer to wait for residential subdivisions to first pay for the majority of the cost to extend the services before sewers are extended to industrial land. Plus, several of the existing business parks have some vacant parcels to accommodate new construction.

NEW INTERCHANGE AT HIGHLAND ROAD

A new interchange at Highland Road is proposed as part of the I-43 build alternatives. A new interchange would improve transportation accessibility to the Highland Road corridor and would help facilitate the city of Mequon's planned land uses along the Port Washington Road corridor by making lands near the interchange more desirable for development.

[35] *2012 Market Profile: Downtown Milwaukee. Prepared by Progressive Urban Management Associates, Inc on behalf of Downtown Milwaukee Business Improvement District 21.*

Several non-transportation local factors are present to support this finding. As discussed in **Subsection I-2.2.9** above, the city of Mequon has developed the *East Growth Area Plan*, which includes the area west of the freeway, east of the Milwaukee River, north of Highland Road and south of County C. The area is currently zoned for residential homes with a minimum of five-acre lots and much of the land has remained undeveloped. If Mequon implements the plan, a mixture of uses would be permitted including single-family and multifamily homes and office, industrial and retail development. The city of Mequon must take several actions for the plan to be implemented including amending the city's land use plan, changing the zoning code and extending sewer and water services. City staff has been directed by the City Council to undertake the necessary studies to facilitate these actions.

Assuming Mequon continues to implement the plan, development of this area would occur even without a Highland Road interchange. This was confirmed by local stakeholder input. The area already has transportation access to the Port Washington Road corridor, which connects to the Mequon Road interchange on the south and the County C interchange on the north. Also, Mequon is desirable from a market standpoint because of its high median household income and its close proximity to the large population base and labor force in southern Ozaukee County and Milwaukee County. As a result, a new interchange at Highland Road may increase the pace of planned development along the Port Washington Road corridor, but it is not expected to alter planned land use types or densities since these would be controlled by local land use policies.

A new interchange at Highland Road could also make large lot subdivisions to the west of the Milwaukee River in Mequon occur at a faster pace. This effect is not likely to be substantial because according to local stakeholder input most of the land north of Highland Road, south of Bonniwell Road, east of the Milwaukee River and west of Wauwatosa Road is already committed for existing residential subdivisions, preserved as public parks or owned by the Ozaukee Washington Land Trust. Undeveloped lands north of Bonniwell Road are available for low density residential development, but this area already has nearby freeway access with the County C corridor and interchange. Lands to the west of Wauwatosa Road, according to local stakeholder input, tend to be more influenced by the US 45 corridor to the west, rather than the I-43 corridor and are therefore less likely to be affected by the Highland Road interchange. Furthermore, the interchange would not facilitate a change in land use type or densities to the west of the Milwaukee River because Mequon is not likely to consider a land use plan amendment for this area within the time frame of this analysis, according to the local planning director.

RECONSTRUCTING EXISTING INTERCHANGES

Five interchanges would be reconstructed as part of the project. They include Good Hope Road, Brown Deer Road, County Line Road, Mequon Road and County C. The interchanges would be reconstructed to modern design standards to improve safety and to handle current and projected traffic operations. See **Section I-1.2** above for a description of the interchange alternatives.

Reconstructing the interchanges would help facilitate existing land use patterns and planned development or redevelopment within the Milwaukee County and Ozaukee County primary study areas. According to local stakeholder input, these access points are essential for the continued vitality of the business districts and neighborhoods that are served by these interchanges. Maintaining the transportation infrastructure will help the existing neighborhood and business areas that are served by these interchanges maintain their competitiveness within the region.

A discussion of the existing land use patterns that would be facilitated by interchange improvements is provided below.

GOOD HOPE ROAD

This interchange provides freeway access to the Port Washington Road commercial corridor on the north side of Glendale and to Cardinal Stritch University. It is also a designated state truck route that serves industrial areas in the Havenwoods and Teutonia Avenue areas and the Milwaukee Industrial Park area near Good Hope Road and 76th Street. Maintaining and improving this access point would help to maintain the competitiveness of these existing areas and potentially encourage development on vacant industrial lots.

BROWN DEER ROAD

This interchange is a gateway to several communities along Brown Deer Road, including the villages of River Hills, Bayside, Fox Point and Brown Deer and the city of Milwaukee's northwest side neighborhood. The interchange serves shopping centers, office users and industrial development in Brown Deer and provides another access point to the freeway for the Milwaukee Industrial Park. Brown Deer Road is a designated state long truck route. In addition, the Brown Deer Road corridor serves future redevelopment at the former Northridge Mall/Granville Station Shopping Center and it serves the commercial areas in Bayside and Fox Point that are immediately east of the interchange. The village of Bayside is planning redevelopment in the northeast quadrant of the interchange to encourage new office development. Many stakeholders have mentioned the current configuration of the interchange is unsafe and the proposed improvements for the interchange would help to maintain the Brown Deer Road corridor as a viable gateway that supports the various business districts and residential areas that it serves.

COUNTY LINE ROAD

The County Line Road interchange currently is a partial interchange configuration that provides an on ramp to southbound I-43 at County Line Road and an exit ramp from northbound I-43 at Port Washington Road. The interchange primarily serves access to adjacent fully developed residential neighborhoods. It also provides some secondary access to Port Washington Road business districts in Mequon, Bayside and Fox Point. The project is currently evaluating full access, partial access and no access alternatives for this interchange.

The full access interchange would increase access to Port Washington Road. This alternative would support the existing commercial areas and planned commercial redevelopment areas in Mequon, Bayside and Fox Point. This land use effect is not expected to be substantial because these commercial corridors are primarily served by nearby freeway access points at the Mequon Road and Brown Deer Road interchanges. Plus, the land surrounding the interchange is fully developed with mostly residential land uses that are not subject to change per local plans and zoning.

The partial interchange alternative would provide the same level of freeway access in comparison to existing conditions. As a result, this alternative is not expected to contribute to indirect land use effects.

The no access alternative would reduce access in the area, but this is not expected to have a substantial land use effect. The Port Washington Road business districts in Mequon, Bayside and Fox Point primarily rely on the Mequon Road and Brown Deer Road interchanges for freeway access. Plus, the proposed designs for the interchanges at Mequon Road and Brown Deer would be able to accommodate traffic that is diverted from a County Line Road no access alternative.

MEQUON ROAD

This interchange is the main route into the city of Mequon and serves the commercial areas along Port Washington Road to the north and south of Mequon Road. The city of Mequon has implemented two tax increment districts to the south of Mequon Road along Port Washington to encourage redevelopment of older commercial uses and ongoing redevelopment is occurring to the north of Mequon Road. The reconstruction of the interchange would help to facilitate existing and future commercial developments in this area north and south of Mequon Road by improving the traffic flow of the interchange.

COUNTY C (PIONEER ROAD)

The County C interchange provides access to the town of Grafton, the city of Mequon and the town and city of Cedarburg. The reconstructed interchange would help to support existing and planned development served by this interchange. Examples include the town of Grafton commercial/business corridor that is planned along Port Washington Road north of County C, existing industrial/business park areas in the city of Cedarburg, the historic downtown in the city of Cedarburg, Mequon's East Growth Area and the town of Grafton's planned 1-acre residential growth areas.

This effect is not expected to be substantial because freeway access is already provided at County C. Other limiting factors include a lack of sewer and water services in the town of Grafton and Mequon and the presence of environmental corridors associated with the Milwaukee River and Ulao Creek that are protected from development through local zoning codes.

EXPANSION OF PORT WASHINGTON ROAD IN GLENDALE

Port Washington Road between Bender Road and Daphne Road would be expanded to four lanes of traffic as part of the I-43 build alternatives. This is currently the only section of Port Washington Road in Glendale that is two lanes.

The expansion of Port Washington Road would support existing development and future redevelopment by improving traffic flow between two commercial areas within Glendale, the Bayshore Town Center and the retail node at Port Washington and Green Tree roads.

It is the project team's position that this land use effect would not be substantial because the land surrounding the road expansion area contains residential neighborhoods. Plus, the opportunities for larger scale redevelopment in this area have already occurred under existing roadway conditions. The Bayshore Town Center redevelopment was completed in 2006 and the retail node at Port Washington and Green Tree roads is fully developed. The remaining redevelopment opportunities in this area are of much smaller scale. The Bayshore Town Center is planning to redevelop the very northern end of the site after the lease for the Sears Department store expires.

Redevelopment would occur regardless of the Port Washington Road improvements because access is already available and the property owner is already planning for redevelopments under existing conditions. Other non-transportation factors such as market demand are more likely to influence when redevelopment would occur.

LAND USE EFFECTS OF THE NO-BUILD ALTERNATIVE

This section discusses the land use effects of the No-Build Alternative for the study areas.

MILWAUKEE COUNTY

Over time, the No-Build Alternative could hinder the economic development potential of the Milwaukee County primary study area (and to a lesser extent the secondary study area) as access to local destinations becomes increasingly difficult due to increasing congestion, safety concerns and deterioration of infrastructure. The No-Build Alternative could cause development to shift away from the Milwaukee County portion of the primary study area and move to areas that have modern transportation facilities and better traffic flow. According to local stakeholder input, the I-43 corridor is the main gateway to adjacent communities and a modern freeway is needed to maintain the area's economic competitiveness within the region.

Under the No-Build Alternative, truck shipments that originate from industrial land uses in the Milwaukee County primary study area would become less efficient over time as congestion increases and travel becomes less reliable. Also, it would become increasingly difficult for the area's large labor force to access employment in Milwaukee County and other areas of the region since I-43 is the main route used by commuters. The No-Build Alternative would affect traditional commuters as well as reverse commuters. Reverse commuting has been increasing as a result of business development in Ozaukee County and increasing population in downtown Milwaukee neighborhoods.

This effect would be moderated by the fact that the Milwaukee County primary study area contains established land use patterns and has a mature transportation system in place that includes highways and a local network of arterial roadways. Plus, the area is already served by I-43 and existing interchange access points.

OZAUKEE COUNTY

The No-Build Alternative could hinder the economic development potential of the Ozaukee County primary study area (and to a lesser extent the secondary study area) over time as congestion increases and commuting between Ozaukee and Milwaukee counties becomes increasingly challenging. However, the redistribution of population and employment between Milwaukee and Ozaukee counties is likely to continue because I-43 already connects the two counties and provides access to lands in Ozaukee County at the existing interchanges. Plus, the southern portion of Ozaukee County is a desirable location for residential and business development given its close proximity to a large population base and large pool of labor. In addition, quality of life issues such school districts, housing style choices and access to open space would continue to attract people to Ozaukee County regardless of the alternative.

I-2.4.2. Encroachment-Alteration Effects

These types of indirect effects are from alterations to the behavior and function of the physical environment farther from the corridor and later in time. Encroachment-alteration effects are often associated with direct project impacts that could alter neighborhood quality of life, the vitality of business districts or the quality of natural resources. The potential for encroachment effects is discussed in the subsections below.

NEIGHBORHOODS

The greatest potential for neighborhood encroachment effects would occur in the Milwaukee County portion of the study corridor where residential neighborhoods are located in close proximity to the study corridor. Residents have expressed concerns that direct project impacts such as property acquisitions, noise impacts and potential air quality impacts could diminish the quality of life for neighborhoods adjacent the study corridor (see **Section 3** of the EIS for information about property acquisitions, noise and air quality). They are concerned that these potential direct impacts could indirectly affect the area by making the neighborhoods a less desirable place to live, which could diminish the value of homes or increase the amount of time it takes to sell a home.

It is the project team's position that indirect effects to neighborhoods under the build alternatives would not be substantially greater compared to the No-Build Alternative for several reasons. First, the overall character and setting of the neighborhoods would not change. The neighborhood areas would remain intact and local traffic patterns would not be affected. Second, the neighborhoods next to the freeway are already likely experiencing freeway proximity effects. For example, existing noise levels on the south end of the study corridor already exceed the criteria that WisDOT utilizes to assess noise impacts and a noise impact would continue to be present under the build alternative. In addition, a local real estate agent that attended the July 11, 2013 focus group meeting acknowledged that some properties near the freeway already take longer to sell. Lastly, the project would not contribute to any violation of the National Ambient Air Quality Standards (NAAQS) and, based on projected traffic volumes, FHWA expects there would be no appreciable differences in Mobile Source Air Toxics (MSAT) emissions between the No-Build and build alternatives.

The No-Build Alternative would not create the potential for neighborhood encroachment effects because no property acquisitions would be required and the footprint of the freeway would not change. However, the No-Build Alternative would not provide the opportunity to construct noise barriers and the freeway infrastructure would continue to deteriorate. Maintaining infrastructure is important to a community's quality of life. Also, the increasing congestion on the freeway would continue to increase air pollution emissions from idling and stop and go traffic.

BUSINESSES

The build alternatives would require a total of two commercial business relocations (see **Section 3** of the EIS for more information on business acquisitions). This direct effect is not expected to indirectly affect the local economy or the vitality of business corridors within the primary study area for the following reasons. The commercial businesses that would be relocated are small in size and are not considered anchor establishments that generate a substantial amount of customers for other adjacent businesses. In addition, the build alternatives are expected to strengthen local economic conditions by facilitating planned development within the primary study area as discussed in **Subsection I-2.4.1** above. According to a 2012 Transportation Research Board report that reviewed 100 transportation case studies, negative job impacts due to right of way takings were offset by new activity that occurs somewhere else nearby in nearly all the case studies that were analyzed.[36]

If a Highland Road interchange is not constructed, traffic at the Mequon Road and Port Washington Road intersection would increase. Increased congestion makes access more

[36] *Interactions Between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

challenging, which could indirectly affect this business district by diminishing the area's attractiveness for existing businesses and ongoing redevelopment efforts. This effect is not expected to be substantial because the Port Washington Road and Mequon Road intersection would be reconfigured to handle traffic at an acceptable level of service.

The No-Build Alternative would not acquire businesses, but it would not create the potential to facilitate development within the primary study area as discussed in **Subsection I-2.4.1** above.

NATURAL RESOURCES

Section 3 of the EIS identifies potential direct impacts of the build alternatives to wetlands, water quality, stream crossings and threatened and endangered species. Potential indirect effects to natural resources can include reduced wetland functions and value, further habitat degradation by creating smaller habitat patches, stream bank erosion from increased stormwater volume and potential stream flow disruption and aquatic and wildlife species passage caused by box and pipe culverts.

I-2.5. STEP 6: ASSESS CONSEQUENCES AND IDENTIFY MITIGATION ACTIVITIES

This section assesses the social, economic and environmental consequences of the indirect land use and encroachment-alteration effects that were discussed in **Section I-2.4** above. It also discusses potential mitigation measures that could help avoid or minimize negative indirect effects and identifies local, regional, state and federal agencies that have the authority to implement mitigation measures.

I-2.5.1. Land Use Effects

This section discusses the consequences and mitigation measures related to indirect land use effects discussed in **Subsection I-2.4.1** for the Milwaukee County and Ozaukee County study areas.

MILWAUKEE COUNTY STUDY AREAS

As discussed in **Subsection I-2.4.1**, the build alternatives are expected to help maintain the competitiveness of the communities within the primary study area (and to a lesser extent within the Milwaukee County secondary study area) and help facilitate planned redevelopment. The build alternatives are also expected to facilitate access to employment within the region since I-43 is the main commuting route for many residents in the Milwaukee County primary study area. In addition, the build alternatives could benefit industrial areas by improving the efficiency of freight movements. Strong industry in Milwaukee County helps revitalize urban neighborhoods by creating transit accessible jobs in close proximity to minority and low-income individuals that tend to rely on transit to reach employment more often than the population in general.

Redevelopment that would be facilitated by the build alternatives in Milwaukee County would be seen as positive by local communities as it would increase local tax bases and help pay for the cost of public services that are already in place. Also, redevelopment helps maintain the viability of existing urbanized areas and reduces the pressure to develop in outlying areas of the region. In addition, redevelopment promotes a compact land use pattern that minimizes the impact of development on the land. According to an EPA report, compact communities reduce

environmental impacts and allow people to travel shorter distances for everyday activities.[37] The EPA report states compact communities also make public transit, sidewalks, and bike paths more practical and cost-effective because destinations are closer together.

Tools that can be implemented by local governments to aid redevelopment efforts include tax increment financing, business lending programs, business improvement districts and redevelopment authorities. Tax credit zones, Community Development Block Grant funds and brownfield remediation grants are also available from state or federal agencies in some areas of the Milwaukee County primary study area. As documented in **Subsection I-2.2.9**, many of these tools are already being utilized by the local communities within the study area to create jobs, revitalize neighborhoods and reuse lands that would otherwise be underutilized or vacant.

Potential negative consequences of redevelopment that could be facilitated by the build alternatives include:

- An increase in the intensity of land uses in some areas.
- More traffic on local streets.
- Increased demand for on-site and off-street parking.
- Demolition or alteration of unprotected historic structures.
- Increased stormwater runoff that impacts water quality and increases the risk of flooding.

The best way to manage any negative effects associated with redevelopment is through local government land use and development policies. In Wisconsin, local governments have the authority under state statues to control land use decisions. As documented in **Subsection I-2.2.9**, municipalities in the primary study area are already using a number of tools to manage development within their communities including comprehensive plans, sub area plans and zoning regulations. These tools help local governments determine the amount and location of development and its type and density. Plan commissions are present in all primary study area communities. One of the primary responsibilities of plan commissions is to make sure development is being implemented in accordance with local plans and ordinances.[38] Some communities within the primary study area also have architectural review boards and historic preservation commissions that create an extra layer of oversight on development aesthetics and historic resources.

Stormwater within the Milwaukee County primary study area and nearly all communities within the Milwaukee County secondary study area are under the jurisdiction of the Milwaukee Metropolitan Sewerage District (MMSD). All communities within the MMSD service area are required to follow the MMSD Chapter 13 Surface Water and Storm Water Rules to control stormwater runoff. These regulations help protect water quality and minimize the risk for flooding.

All communities within Milwaukee County, as required by Section 87.30 of the Wisconsin State Statues, have floodplain zoning in place. Minimum standards for floodplain regulations are provided in NR 116 of the Wisconsin Administrative Code. Floodplain regulations govern filling and development activities within the 100-year floodplain and prohibit nearly all forms of development in the floodway and restrict filing and development within the flood fringe. Also, all communities within Milwaukee County, as required by Section 62.231 and 61.351 of the Wisconsin State Statues, have shoreland-wetland regulations in place. NR 117 of the Wisconsin

[37] *U.S. Environmental Protection Agency. "Our Built and Natural Environments: A Technical Review of the Interactions Among Land Use, Transportation, and Environmental Quality." Second Edition. June 2013. 78-80.*

[38] *Plan Commission Handbook. Second Edition. 2012. Center for Land Use Education. University of Wisconsin- Stevens Point*

Administrative code establishes minimum standards for zoning ordinances that include the protection of wetlands five acres in size lying in shoreland areas.

Many of Milwaukee County's remaining natural resources are publicly owned primarily through the Milwaukee County Park System to ensure their preservation.

To further support local regulations and policies, state and federal regulations help manage impacts to natural resources such as wetlands (DNR Chapter 30 permits and the Corps of Engineers Section 404 permits), water quality (NR 151), and threatened and endangered species (NR 27 and Endangered Species Act).

OZAUKEE COUNTY STUDY AREAS

As discussed in **Subsection I-2.4.1**, the I-43 build alternatives would facilitate planned development within the Ozaukee County portion of the primary study area (and to a lesser extent within the Ozaukee County secondary study area) by improving commuting between Ozaukee and Milwaukee counties, improving accessibility to lands near the proposed Highland Road interchange and modernizing existing access points. The extent of this effect is expected to be much smaller compared to the original construction of I-43 in the 1960s because the transportation system is mature and already has a great deal of accessibility. Plus, development has already spread into southern Ozaukee County and portions of northern Ozaukee County (see **Subsection I-2.4.1**).

Planned development that would be facilitated by the build alternatives would be seen as positive by most communities within the Ozaukee County primary and secondary study areas because it would help accomplish their land use plans and economic development goals.

Potential negative consequences of development that could be facilitated by the build alternatives include:

- Changes in community character.
- Increased cost for community services such as emergency services and schools.
- Extensions of sewer and water services.
- Annexation of land in townships by cities and villages.
- Reduction in the amount of natural resources.
- Conversion of agricultural uses to urban uses.
- Increased local traffic that may require the expansion of roadway infrastructure.
- Increased impervious space that increases stormwater runoff and affects water quality and quantities.

The best way to manage negative effects associated with development that may be facilitated by the build alternatives is through local land use and development policies that are under the jurisdiction of local governments. As discussed previously, local governments have the authority under Wisconsin state statues to control land use decisions. Municipalities within the Ozaukee County primary and secondary study areas are already using a number of tools to manage development within their communities including comprehensive plans, zoning regulations and land division ordinances (see **Subsection I-2.2.9**). These tools help local governments determine the amount and location of development and its type and density. Plan commissions are present in all study area communities in Ozaukee County. One of the primary responsibilities of plan commissions is to make sure development is being implemented in accordance with local plans

and ordinances.[39] Some communities within the primary study area also have architectural review boards, historic preservation and landmark commissions and open space commissions that create an extra layer of oversight for the development review process.

In 2008, Ozaukee County in coordination with SEWRPC prepared a Multi-Jurisdictional Plan for Ozaukee County. The process included participation from all 14 local governments in Ozaukee County. The plan set forth a vision for future development and natural resource protection throughout the county and included the preparation of local government comprehensive plans for all the communities in Ozaukee County.

Municipalities can utilize cooperative boundary agreements as authorized under Section 66.0307 of the Wisconsin State Statutes to determine boundary lines between cities, villages and towns. These agreements allow communities to proactively manage their borders instead of reacting to individual requests for annexation. The city and town of Port Washington have a boundary agreement in place.

Capital improvement plans are an effective way for local governments to match future capital expenditures for things such as roads, sewers, water systems and government buildings and equipment with projected revenues.[40] These plans help local governments determine if its available financial resources are consistent with their comprehensive plan.

In Ozaukee County, impacts to natural resources would be managed by local zoning ordinances that preserve environmental corridors with overlay districts and conservation districts, and by floodplain and shoreland zoning ordinances that are required by Wisconsin State Statues. Other programs preserving natural areas in Ozaukee County include MMSD's Greenseams program, and the Ozaukee Washington Land Trust (OWLT) and Ulao Creek Partnership. Through the Greenseams program, MMSD purchases and manages open tracts of land for flood and water quality management. The OWLT partners with public and private landowners to preserve natural areas, typically through conservation easements. Similar activities occur in the Ulao Creek watershed through the Ulao Creek Partnership. According to the Ozaukee Park and Open Space Plan, as of 2009, 32.5 square miles of environmental corridors and isolated naturals, or 72 percent, were under protection through adopted sewer service areas plans, public and private ownership, conservation easements, or public land use regulations.[41] To further support local regulations, state and federal regulations help manage impacts to natural resources such as wetlands (DNR Chapter 30 permits and the Corps of Engineers Section 404 permits), water quality (NR 151), and threatened and endangered species (NR 27 and Endangered Species Act).

To manage stormwater, Chapter NR 216 of the Wisconsin Administrative code requires county and local governments in urbanized areas to obtain a Wisconsin Pollutant Discharge Elimination System (WPDES) Stormwater Discharge Permit. Chapter NR 151 of the Wisconsin Administrative Code requires that municipalities with WPDES permits reduce the amount of total suspended solids in stormwater runoff by 40 percent for reconstruction projects. For new construction projects, permanent control measures must be constructed to reduce the amount of total suspended solids in stormwater runoff by 80 percent. In addition, Chapter NR 151 requires that all construction sites that have one acre or more of land disturbance must achieve an 80 percent reduction in the amount of sediment that runs off the site during the construction period.

Local comprehensive plans, zoning and farmland preservation plans can be utilized by Ozaukee

[39] *Plan Commission Handbook. Second Edition. 2012. Center for Land Use Education. University of Wisconsin- Stevens Point*

[40] *Ohm, Brian W. Guide to Community Planning in Wisconsin. University of Wisconsin-Madison/Extension. 2000.*

[41] *A Park and Open Space Plan for Ozaukee County. Community Assistance Report No. 133 (3rd Edition). June 2011*

County communities to preserve agricultural resources. Ozaukee County has developed a Farmland Preservation Plan that includes recommendations for the long-term preservation of farmland. Also, farmland preservation zoning classifications can be found in the Ozaukee County secondary study area. Federal and state conservation programs have also been created to help protect agricultural resources and rural lands. Federal programs include the Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP) and Wetland Reserve Program (WRP). Wisconsin's Farmland Preservation Program (FPP) allows farmers who agree to maintain farmland in agricultural use to receive annual State income tax credits. According to the Ozaukee County comprehensive plan, there were 351 Wisconsin FPP contracts encompassing 21,881 acres of farmland in Ozaukee County towns and the city of Mequon. The vast majority of the contracts are located within the secondary study area in the northern half of the county.

Consistency with the SEWRPC regional land use plan is another way for local governments to have coordinated land use polices that promotes an efficient land use pattern and preserves natural resources and farmland. The key recommendations from the regional plan are:

- New urban development should be accommodated within and around existing urban centers as infill development, through redevelopment, and through the orderly expansion of planned urban service areas on lands proximate to these centers.
- The regional plan envisions a range of commercial and industrial areas.
- The primary environmental corridors, secondary environmental corridors, and isolated natural resource areas of the Region should be preserved in essentially natural, open uses, continuing to account for about 23 percent of the area of the Region.
- The prime, or most productive, farmland in the Region should be preserved.

TRANSIT ACCESS TO EMPLOYMENT

The Milwaukee County Transit System (MCTS) provides relatively good coverage of the county with local bus service. According to SEWRPC, MCTS provides access to 93 percent of Milwaukee County's employers with 500 or more employees.[42] MCTS also operates buses in Ozaukee County that primarily serves commuter trips on the I-43 corridor. The route serves primarily Ozaukee County riders working in Milwaukee. The service provides for reverse commute trips to Milwaukee County riders working in Ozaukee County, but on a more limited basis.

One of the primary concerns raised by local stakeholders about development in Ozaukee County that may be facilitated by the I-43 build alternatives is that the majority of jobs in Ozaukee County are not accessible by transit. This affects the ability of lower income, transit-dependent populations in the city of Milwaukee to obtain employment and creates isolated neighborhoods with high concentrations of poverty. This was confirmed at the July 11, 2013, focus group meeting. Stakeholders stated that more transit investment is needed in the region to improve access to jobs, especially for those who do not have access to a vehicle.

A report titled *Transportation Equity and Access to Jobs in Metropolitan Milwaukee* was completed in 2004 by researchers at the University of Wisconsin-Milwaukee. It discusses how a "spatial mismatch" has been created between the region's affordable housing supply in the city of Milwaukee and the availability of low skilled jobs in suburban areas. The report states that "because low-income persons frequently do not have access to an automobile, effective public transportation is often crucial in bridging the gap between the inner-city locations of low-income

42 SEWRPC. Planning Report No. 54: A Regional Housing Plan for Southeastern Wisconsin: 2035. March 2013.

populations and the increasingly suburban locations of job opportunities." The report's research confirmed the presence of a spatial mismatch in the Milwaukee region and found 81 percent of families living below the poverty line are located in the city of Milwaukee; only 30 percent of businesses with strong hiring projections for entry-level workers are located in Milwaukee; and the remaining 70 percent are in the suburbs.

The spatial mismatch between available jobs and affordable housing is a complex issue and has many contributing factors, including declining MCTS transit service levels, a lack of a coordinated regional transit system, limited transit services in job-rich suburbs, restrictive suburban zoning regulations that indirectly discourage affordable housing, and relatively low rates of vehicle ownership and valid driver's licenses in some areas of the city of Milwaukee.

More recently, the Public Policy Forum published a related report called *Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs*.[43] The report examines the challenges associated with accessibility to the major employment centers (a concentration of at least 10,000 jobs) in Milwaukee, Waukesha, Washington and Ozaukee counties for workers in Milwaukee who do not have access to a vehicle for work trips. The report found that of the 29 job centers located within these counties, 15 have relatively high levels of public transit access (Milwaukee County), four are completely inaccessible by transit (Washington and Waukesha counties) and 10 are served by transit on a limited basis (all four counties).

The Public Policy Forum report recommended some examples of how new or modified bus routes could be developed to serve suburban job centers in a cost-effective manner. One of the report's recommended routes that would serve the Milwaukee and Ozaukee county indirect effects study area is the 80X. It would provide a north-south express transit route connecting job centers in Oak Creek, downtown Milwaukee and Mequon. The report also recommended an express bus route, 10X, connecting UWM with downtown Milwaukee and Brookfield Square and a new route, 351, that would connect West Allis to the Westridge Business Park in New Berlin.

SEWRPC recently completed the 2035 regional housing plan, which incorporated an analysis that looked at the ratio of available jobs and housing. The primary purpose of the analysis was to determine if communities with a substantial amount of existing and/or planned employment also have existing or planned workforce housing. The SEWRPC analysis found a current and projected jobs/housing imbalance for many of Milwaukee's suburban communities.

Within Ozaukee County, Mequon, Thiensville, Cedarburg, Grafton, Fredonia and Belgium were found to have a lower-cost job/housing imbalance and a moderate-cost job/housing imbalance. The village of Saukville and city of Port Washington have a moderate-cost job/housing imbalance. This means that these communities have either a higher percentage of lower-wage jobs than lower-cost housing and/or they have a higher percentage of moderate-wage jobs than moderate-cost housing. According to SEWRPC, a moderate-cost imbalance is the most common type of current and projected job/housing imbalance in the region and also tends to occur in suburban communities.

According to the SEWRPC regional housing plan, improved transit service would help provide links between affordable housing and jobs. The plan states that 17 percent of households in the city of Milwaukee did not have access to a car in 2005-2009, and only 41 percent of employers in the region are accessible by local or rapid transit service.[44] As a result, households in the

[43] *Public Policy Forum. Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs. December 2013.*

[44] *SEWRPC. Planning Report No. 54: A Regional Housing Plan for Southeastern Wisconsin: 2035. March 2013.*

City of Milwaukee that lack access to a car are not able to access the majority of employment centers in the region. According to SEWRPC, if the transit components of the 2035 regional transportation plan were implemented, many major employment centers that are not currently served by public transit would become accessible for people without access to a car, including those that work weekend hours and second and third shifts.

According to SEWRPC, the public shared-ride taxi system operated by Ozaukee County provides connections between stops on the rapid transit services and some major employers to facilitate reverse commute travel from Milwaukee County. The employers are primarily concentrated in the Mequon-Thiensville, Cedarburg-Grafton, and Saukville areas. These services provide access to about 12 percent of the employers in Ozaukee County that have at least 100 employees.

According to the Public Policy Forum report, the primary challenge to effectively serving suburban jobs centers with new transit service is funding. According to the report, MCTS often relies on federal funding sources to develop new routes such as the Job Access and Reverse Commute (JARC) program and Congestion Mitigation and Air Quality Improvement program (CMAQ). However, JARC is subject to federal funding reductions and CMAQ only provides start up funds for a maximum of three years. Funding for transit is further complicated by the fact that Wisconsin legislation limits WisDOT's ability to provide capital funding for transit outside traffic mitigation projects. As stated in Section 85.062(2), Wisconsin Statutes, "No major transit capital improvement project may be constructed using any state transportation revenues unless the major transit capital improvement project is specifically enumerated under subsection (3)."

As a result, transit implementation is largely the responsibility of local governments in Wisconsin and the implementation of the recommended expansion of public transit in Southeastern Wisconsin is dependent upon local governments attaining dedicated funding for public transit. Currently, the local share of funding of public transit in Southeastern Wisconsin is provided through county or municipal budgets, and represents about 15 percent of the total operating costs and 20 percent of total capital costs of public transit. Thus, the local share of funding public transit is largely provided by property taxes, and public transit must annually compete with mandated services and projects. Increasingly, due to the constraints in property tax-based funding, counties and municipalities have found it difficult to provide funding to address transit needs, and to respond to shortfalls in federal and state funding. For example, MCTS has reduced transit service levels to address fiscal challenges, which has resulted in a 22 percent decline in total annual bus miles between 2000 and 2012.[45] Unlike MCTS, most public transit systems nationwide have dedicated funding, typically a sales tax of 0.25 percent to 1.0 percent, and they are not nearly as dependent upon federal and state funding. This type of dedicated transit funding would require the approval of the Wisconsin State Legislature.

MCTS has been obtaining federal grants to implement a system of express bus routes. The routes primarily serve destinations in Milwaukee County. In 2012, MCTS started the RedLine, BlueLine and GreenLine and are planning to initiate three more express routes in 2015 known as the 10X, 30X and 27X. These routes are largely funded by CMAQ grants, which only provide up to three years of funding for transit service. Once the grants run out, MCTS will need to find alternate sources of operational funds. Implementation of the 80X recommended by the Public Policy Forum report would be subject to MCTS pursuing and receiving a future CMAQ grant.

Consistency with the SEWRPC recommendations in the 2035 regional housing plan could help

[45] *Public Policy Forum. Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs. December 2013.*

to address the existing and projected jobs/housing balance discussed above. The plan advises local governments with existing and planned employment land uses that are sewered to conduct detailed analyses of their communities to confirm if an existing or planned job/housing imbalance exits. For communities that have a higher percentage of lower-wage jobs than lower-cost housing, new affordable multifamily housing developments are recommended. For communities with a higher percentage of moderate-wage jobs than moderate-cost housing, additional modest sized single-family homes on small lots would help to improve the imbalance. Progress towards achieving the recommendations in the SEWRPC housing plan is complicated by the fact that SEWRPC is an advisory agency. Local governments would need to make substantial changes to local land use plans and zoning regulations to increase the region's supply of affordable housing.

I-2.5.2. Encroachment-Alteration Effects

NEIGHBORHOODS

As discussed in **Subsection I-2.4.2**, the greatest likelihood for neighborhood encroachment-alteration effects would occur on the south segment of the study corridor. Neighborhood encroachment-alteration effects could make the neighborhoods adjacent to I-43 more susceptible to urban decline if people begin to move out of the neighborhood. Urban decline is often associated with diminished property values, lower home owner rates and increases in crime.

The neighborhood encroachment effects would be moderated by the fact that these neighborhoods are stable North Shore areas that have low poverty rates, higher home ownership rates and fairly stable population figures. The attributes that make these neighborhoods desirable places to live such as close proximity to downtown and desirable school districts would not be changed by the build alternatives.

WisDOT's community sensitive solutions (CSS) efforts that would occur as part of future project phases would help to minimize impacts from a larger-scale freeway. Also, the build alternatives would present an opportunity to construct noise barriers, where feasible and reasonable. According to **Subsection 3.15**, Noise, in the EIS, there are existing noise impacts as well as noise impacts with the build alternatives. The build alternatives would reduce congestion along the freeway and minimize traffic that diverts to local streets. This would improve air quality by reducing idling and stop and go traffic. Also, it would improve safety on local streets by minimizing conflicts between pedestrians and vehicles especially on heavily traveled arterial corridors.

BUSINESS ENCROACHMENT EFFECTS

As discussed in **Subsection I-2.4.2**, the build alternatives are not expected to have encroachment alternation effects on business districts within the primary study area. Any negative impact that may be caused by business relocations or expanding infrastructure is expected to be offset by economic development that could be facilitated by the build alternatives in the primary study area.

NATURAL RESOURCE ENCROACHMENT EFFECTS

The indirect effects discussed in **Subsection I-2.4.2** can contribute to stream bank instability, a loss of habitat and water quality degradation. The build alternatives are largely confined to the existing highway footprint to avoid and minimize adverse indirect effects. Additional minimization measures, which include widening I-43 to the inside of the median, using retaining walls and

minimizing slopes also mitigate the potential indirect effect to wetlands as well as natural habitats. To mitigate unavoidable wetland impacts, WisDOT will implement measures outlined in the July 2012 WisDOT-WDNR memorandum of understanding "Compensatory Mitigation for Unavoidable Wetland Losses Resulting from State Transportation Activities." These measures will minimize and mitigate the potential indirect effect on wetlands and habitat integrity. Also, the design team is evaluating a range of stormwater best management practices, including in-line storage, retention ponds and ditches to store and treat runoff to minimize the roadway development impacts to the surrounding streams, rivers and drainage basins. See **Section 3** of the EIS for more information on natural resource effects.

I-3. CUMULATIVE EFFECTS

Cumulative effects as defined by the CEQ are "*the impacts on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7).*"

The cumulative effects analysis considers the resources that could be affected directly or indirectly by the I-43 North-South Corridor Study alternatives when combined with other actions that potentially affect the same resources. Disturbances to resources from highway improvements or land use changes may impact an area's hydrology, the quality of habitat, and species diversity. Impacts may also affect human communities by causing changes in traffic patterns, aesthetics, and housing and employment patterns.

The methodology used to assess cumulative effects for the I-43 North-South Corridor Study is based on the WisDOT Guidance for Conducting a Cumulative Effects Analysis, which includes the CEQ's 11-step process identified in the handbook titled *Considering Cumulative Effects under the National Environmental Policy Act*, January 1997. The 11-step process is categorized into the following three sections: scoping; describing the affected environment; and determining the environmental consequences /mitigation measures. These steps will be outlined in the proceeding analysis.

I-3.1. SCOPING CUMULATIVE EFFECTS

The scoping phase of the cumulative effects analysis included identifying cumulative effects issues, establishing a geographic scope and time frame for the analysis and identifying other actions affecting resources, ecosystems and human communities of concern.

Section I-2.2 above contains information about demographics, land use trends and natural, recreational and cultural resources that was utilized to inform the cumulative effects analysis. In addition, the stakeholder input that was described in **Subsection I-2.1.2** above helped identify potential cumulative effects.

I-3.1.1. Cumulative Effects Issues

As detailed in **Section 3** of the EIS, the I-43 North-South Corridor Study is expected to directly affect resources along the corridor including:

- Agricultural lands
- Surface water quality and quantity
- Wetlands and floodplains
- Environmental corridors and stream crossings
- Residential properties
- Commercial properties
- Municipal tax base

The potential indirect effects associated with the I-43 North-South Corridor Study are detailed in the previous section of this report. Indirect effects include:

- Land use effects
- Encroachment-alternation effects to neighborhoods, businesses and natural resources

Based on the anticipated direct and indirect project effects, the following resources were reviewed for potential cumulative effects within the study corridor

- Agricultural lands
- Surface water quality and quantity
- Wetlands and floodplains
- Environmental corridors and stream crossings
- Air quality
- Residential properties
- Commercial properties
- Municipal tax base
- Regional land use patterns

I-3.1.2. Geographic Scope and Time Frame for Analysis

The resources identified for potential cumulative effects are those that may experience direct and indirect effects discussed previously in **Section 3**. The study areas for cumulative effects of evaluated resources are shown in **Table I-22**. The study team utilized guidance from the CEQ[46], EPA[47] and the American Association of Highway and Transportation Officials (AASHTO)[48] to develop the study area of those resources that may experience cumulative effects. The CEQ recommends that a cumulative effects analysis should be conducted on the scale of human communities, landscapes, watershed or airsheds. Thus, the study area for the effects analysis varies by resource and the distance an effect can travel. AASHTO points out that a study area for a cumulative effects analysis should be "large enough to provide the context necessary for understanding the health of the resource and compact enough to present a proper perspective" Further, the guidance recommends the cumulative impact assessment boundaries must be at least as large as the direct and indirect effects study areas because direct and indirect effects are components of cumulative impacts.

[46] *Council on Environmental Quality. Considering Cumulative Effects Under the National Environmental Policy Act. January 1997.*

[47] *Consideration Of Cumulative Impacts In EPA Review of NEPA Documents. U.S. Environmental Protection Agency, Office of Federal Activities (2252A). EPA 315-R-99-002/May 1999*

[48] *American Association of Highway and Transportation Officials. Legal Sufficiency Criteria for Adequate Indirect Effects and Cumulative Impacts Analysis as Related to NEPA Documents. NCHRP Project 25-25, Task 43. August 29, 2008.*

Table I-22: Cumulative Effects Study Area by Environmental Resource

Environmental Resource	Cumulative Effects Study Area	Basis for Study Area
Agricultural lands	Ozaukee County	Agricultural land is most prevalent in Ozaukee County and is subject to ongoing development pressures within the project study area, as well as the primary and secondary study areas for the indirect effects analysis
Surface water quality and quantity	Milwaukee River Watershed and Fish Creek Watershed in Milwaukee and Ozaukee counties	Water quality and quantity at any specific location are influenced by activities within the entire watershed. Water resources are subject to existing urbanized nature of Milwaukee and Ozaukee counties and ongoing development in Ozaukee County.
Wetlands and floodplains	Indirect analysis primary study area in Milwaukee and Ozaukee counties (**Exhibit I-2**)	Accounts for locations where resources have the highest likelihood to experience direct and indirect effects.
Environmental corridors and stream crossings	Indirect analysis primary study area in Milwaukee and Ozaukee counties (**Exhibit I-2**)	Accounts for locations where resources have the highest likelihood to experience direct and indirect effects.
Air quality	Southeastern Wisconsin Intrastate Air Quality Control Region #239	Air quality at any specific location is influenced by activities by activities at the regional level.
Residential properties	Milwaukee and Ozaukee counties	Includes the project study area as well as the primary and secondary indirect effects study areas. Accounts for potential effects of the I-43 North-South corridor and residential trends affected by established and ongoing redevelopment in Milwaukee and Ozaukee counties.
Commercial properties	Milwaukee and Ozaukee counties	Includes the project study area as well as the primary and secondary indirect effects study areas. Accounts for potential effects of the I-43 North-South corridor and commercial trends affected by economic trends in Milwaukee and Ozaukee counties.
Regional land use patterns	Milwaukee and Ozaukee counties	Includes the project study area as well as the primary and secondary indirect effects study areas. Accounts for potential effects of the I-43 North-South corridor, development and economic trends. Based also on dominant travel patterns.

The time frame for the analysis is 2040 – 20 years after construction – which coincides with the anticipated design year of a future project, and the availability of population, employment and land use information.

I-3.1.3. Identify Past, Present, and Reasonably Foreseeable Future Actions

Table I-23 provides a list of the other past, present or reasonably foreseeable future actions, that when considered with the I-43 North-South Freeway study corridor study may have cumulative effects on the environment.

Table I-23: Past, Present and Reasonably Foreseeable Actions

Time frame	Action	Location
Past	Historic urban/suburban development	Milwaukee and Ozaukee counties
	Agricultural development	Ozaukee County
	Original construction of I-43	Milwaukee and Ozaukee counties
	Marquette Interchange reconstruction	Milwaukee County
	Straightening of Ulao Creek	Ulao Creek basin
	Redevelopment of Bayshore Mall	City of Glendale
	Development of WIS 60 commercial corridor	Village of Grafton
	Purchase of preservation lands by Ozaukee Washington Land Trust and MMSD	Ozaukee County
	Oak Creek coal-fired power plant	Milwaukee County
Present	Ozaukee County fish passage program	Ozaukee County
	Ongoing commercial development in WIS 60 corridor and Port Washington Road corridor	Village of Grafton
	Purchase of lands for preservation by the Ozaukee Washington Land Trust	Ozaukee County
	Ulao Creek restoration activities	Ulao Creek Subwatershed
	Reuse of former industrial areas for industrial purposes (i.e. Century City)	City of Milwaukee
	Southeast freeways reconstruction (including I-94 North-South corridor and Zoo Interchange)	Milwaukee County
Future	City of Mequon East Growth Area plan	City of Mequon
	Expansion of commercial development north of WIS 60 near WIS 32 interchange	Town of Grafton
	Strip commercial redevelopment along Port Washington Road	City of Glendale
	Planned Ozaukee County residential growth	Ozaukee County
	Redevelopment of former Northridge Mall	City of Milwaukee
	Business park expansion in Ozaukee County	Ozaukee County
	Reconstruction of WIS 60 between US 45 and 11th Avenue in Grafton	Ozaukee and Washington counties
	Reconstruction of WIS 167 (Mequon Road) between US 145 (Pilgrim Road) to WIS 181 (Wauwatosa Road)	Village of Germantown and city of Mequon
	Extension of Cedar Creek Road between County O and Port Washington Road	Town of Grafton
	Southeast Wisconsin freeways reconstruction (including I-43 between North Avenue and Silver Spring Drive, and the I-94 East-West Corridor)	Milwaukee County
	Reconstruction of I-43 north of WIS 60.	Ozaukee County

I-3.2. DESCRIBE THE AFFECTED ENVIRONMENT AND DETERMINE THE ENVIRONMENTAL CONSEQUENCES AND POTENTIAL MITIGATION MEASURES

This section assesses the resources that could experience cumulative effects as a result of the I-43 North-South corridor build alternatives and the other past, present and reasonably foreseeable actions listed in **Table I-23**. For each resource, the affected environment is first described. This includes establishing a baseline condition for the resources and considering the resources' capacity to withstand stress in relation to regulatory thresholds. Then, an evaluation of the environmental consequences is conducted for each resource. This includes examining the cause and effect relationship between human activities and affected resources and determining the magnitude and significance of the cumulative effects. The evaluation also considers avoidance, minimization and mitigation measures WisDOT can undertake for the build alternatives to minimize cumulative effects to the greatest practical extent. The analysis also considers other local, state and federal policies and laws that can further manage cumulative effects resulting from the direct and potential indirect effects of the project. The findings of the analysis are summarized by resource in the following subsections.

I-3.2.1. Agricultural Lands

AFFECTED ENVIRONMENT

Agriculture is a prevalent land use and important economic activity in Ozaukee County. As shown in **Table I-24**, farmland occupied about 77,600 acres, representing about 52 percent of the county in 2007. About two-thirds of the farmland is located in the northern half of the county in the towns of Port Washington, Saukville, Belgium and Fredonia. The towns of Belgium and Fredonia combined contain about 42 percent of all farmland in the county. Farmland is also found in the southern half of the county in the city of Mequon and towns of Grafton and Cedarburg. These three communities combined contain nearly 30 percent of the county's farmland.

Table I-24: Farmland Acres in Ozaukee County by Community – 2007

Municipality	Acres	Percent of Total
City of Mequon	10,399	13
Town of Cedarburg	7,338	9
Town of Grafton	4,608	6
Town of Saukville	10,927	14
Town of Port Washington	8,217	11
Town of Belgium	18,283	24
Town of Fredonia	14,556	19
Other cities and villages	3,273	4
County Total	**77,601**	**100**

Source: SEWRPC. Public Review Draft – A Farmland Preservation Plan for Ozaukee County: 2035. SEWRPC Community Assistance Planning Report No. 87 (Second Edition). June 2013.

According to the *Ozaukee County Farmland Preservation Plan*, the county contained 513 farms in 2007. The average farm size was 138 acres, which was somewhat smaller compared to the statewide average of 194 acres. The 513 farms in Ozaukee County produced over $59 million of agricultural products in 2007. Dairy farming comprised more than half of this total, with grain crops and horticulture making up the remainder. The average Ozaukee County farm produced $115,020 of agricultural products in 2007, which was a 60 percent increase from the 2002 level of $71,901, according to the farmland preservation plan, according to the plan.

Although farming is still prevalent in Ozaukee County, it is a declining land use. According to the farmland preservation plan, the number of farmland acres in the county decreased by 33 percent between 1976 and 2007. The main reason is the conversion of farmland to urban development. This has driven up the cost of farmland in the county. According to the farmland preservation plan, the average sale price of agricultural land in the county increased from $1,618 per acre in 1976 (equivalent to $5,805 in 2007 dollars) to $11,963 in 2007. However, it should be noted that the average sales price dropped significantly between 2007 and 2009 due to the economic recession.

The conversion of farmland to urban land uses is expected to continue within Ozaukee County. According to SEWRPC, the county is projected to add over 22,800 residents and 16,800 jobs by 2050. Also, none of the communities in southern Ozaukee County have agricultural preservation classifications in their land use plans. The land use plans for the city of Mequon, village and town of Grafton and city and town of Cedarburg anticipate the remaining agricultural lands will transition to mostly low density residential uses over time. The pressure to convert agricultural land uses to urban land uses is less in the northern half of Ozaukee County where the market for development is smaller. Plus, local government policies seek to protect farmland in this portion of the county. The townships of Saukville, Port Washington, Belgium and Fredonia have agricultural preservation classifications in their land use plans and the towns have agricultural preservation zoning classifications.

Ozaukee County has developed a Farmland Preservation Plan.[49] The plan is focused on attaining orderly development in Ozaukee County and minimizing the loss of productive farmland. The county also has a Land and Water Resource Management Plan.[50] The plan includes recommendations for the long-term preservation of farmland including implementing farmland preservation programs such as the Wisconsin Working Lands Initiative and promoting the Farm and Ranch Land Protection Program as well as other farmland incentive programs. According to the farmland preservation plan, the county contained 351 active contracts with the Wisconsin Farmland Preservation Program (FPP), encompassing 21,881 acres of farmland. The Wisconsin FPP is a key farmland preservation program that provides annual state income tax credits to farmers that maintain farmland in agricultural use.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

The build alternatives could require the acquisition of up to 10 acres of agricultural land for highway right of way. Impacts are characterized as strip acquisitions and all farmed parcels would remain viable and accessible. These direct agricultural impacts from the I-43 North-South Freeway Corridor Study in combination with the ongoing conversion of farmland to urban land uses, may cumulatively contribute to a decline in farming in Ozaukee County.

[49] *SEWRPC, 2013.*

[50] *Ozaukee County. Land and Water Resource Management Plan 2011-2015. Plan Version 5. February 10, 2011.*

The decision to allow development is ultimately determined by local governments through land use plans and zoning ordinances. Development on farmland zoned for agriculture would require a change in zoning and a permit from local governments. Furthermore, development will depend, in part, on the availability of sewer and water services, which is not widely available in some portions of the southern half of the county and a large portion of the northern half of the county. See **Exhibit I-10** for sewer and water service areas.

Overall, the cumulative effect to agricultural lands is not expected to be substantial. WisDOT is minimizing the impact of build alternatives by widening I-43 to the inside median between the northbound and southbound travel lanes and using steeper side slopes where practicable. Also, no farms would be split and existing access to farms would not be changed. In addition, the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) has determined that an agricultural impact statement would not be required, which is an indication that the agricultural impacts from the build alternatives are considered minimal by the government agency.

I-3.2.2. Surface Water Quality and Quantity

AFFECTED ENVIRONMENT

The I-43 North-South corridor is located in the Milwaukee River South sub-watershed and the Fish Creek watershed, both of which discharge into Lake Michigan. The Milwaukee River watershed contains a mix of rural and urban uses; about 33 percent urban, 25 percent agriculture, 21 percent grasslands, 12 percent forests and 6 percent wetlands.[51] Water quality in the Milwaukee River watershed has been affected by human activities that cause point and nonpoint sources of pollution. Point sources are pollutants that are discharged to surface waters at discrete locations.[52] Common sources of point source pollution include discharges from sewage treatment plants and industrial discharges. Nonpoint sources of pollution are discharges of pollutants to the surface waters that cannot be readily identified as point sources of pollution.[53] Nonpoint sources enter surface waters via stormwater runoff from rural and urban land uses.

Point sources of pollution have been highly regulated for decades through the Federal Clean Water Act and the National Pollutant Discharge Elimination System (NPDES). The Wisconsin Department of Natural Resources (WDNR) regulates runoff from nonpoint sources of pollution from urban and rural land uses through NR 151 of the Wisconsin Administrative Code. Given the dispersed nature of nonpoint sources of pollution, it has been difficult to control.

Throughout the Milwaukee River watershed, point and nonpoint source pollution have degraded surface water quality. **Table I-25** summarizes estimated pollution loads for point and nonpoint sources to the watershed. Nonpoint sources of pollution are the largest contributor of pollutants within the Milwaukee River watershed. Stormwater runoff from farm fields carry suspended solids from soil erosion, nutrients and pesticides to streams. Runoff from urban environments contains suspended solids from sources such as eroding stream banks and impervious surfaces like parking lots, buildings and streets and highways. Urban development is also the source of water pollutants such as fecal coliform bacteria, salts and nutrients. The Milwaukee River is on the WDNR “Impaired Waters,” list as a result of pollutant loads in the watershed. Also,

[51] *http://dnr.wi.gov/water/watershedDetail.aspx?key=924696. Accessed November 20, 2013. Similar data for the Fish Creek watershed is not available.*

[52] *SEWRPC. Water Quality Conditions and Sources of Pollution in the Greater Milwaukee Watersheds. Technical Report No. 39. November 2007.*

[53] *SEWRPC, 2007.*

the river has a Section 303(d) designation, which means that the water body does not meet Federal Clean Water Act standards. The Milwaukee River is considered impaired because of bacterial contamination and it has fish consumption advisories due to high concentrations of contaminants in fish tissues.[54] Fish Creek is not considered impaired.[55]

Table I-25: Annual Average Pollutant – Milwaukee River Watershed

Pollution Type	Point*	Nonpoint**	Estimated Total
Biochemical oxygen demand	13.7%	86.3%	5,233,160 lbs/year
Total suspended solids	1.6%	98.4%	58,383,650 lbs/year
Fecal coliform bacteria	5.8%	94.2%	40, 826.66 trillion cells/year
Total Phosphorus	54.0%	46.0%	274,500 lbs/year

*Source: Water Quality Conditions and Sources of Pollution in the Greater Milwaukee Watersheds. Southeastern Wisconsin Regional Planning Commission. Technical Report No. 39 *Where applicable, includes discharges from sewage treatment plants, combined sewer overflows, separate sanitary sewer overflows and industrial discharges ** Includes urban and rural runoff*

A noteworthy water resource in the study area is the Ulao Creek sub-watershed, which is part of the greater Milwaukee River watershed. The Ulao Creek Partnership in Ozaukee County is active in watershed management through a variety of restoration and stewardship projects.[56] The 16-square-mile watershed contains a 95-acre federally designated waterfowl habitat, and a 490-acre swamp that is a locally designated Significant Natural Area and contains critical species habitat. The watershed is targeted for management because of its location in an area that is seeing continuing conversion of agriculture and open space uses to residential and commercial development. Research in the sub-watershed indicates that historic disturbance from agricultural and suburban development makes the creek more vulnerable to pollutant runoff and reduced species diversity.[57]

The quantity of stormwater runoff is also a concern for the study area. According to the Milwaukee Metropolitan Sewerage District (MMSD), in areas with low levels of development, depending on soil conditions, as much as 50 percent of rainfall can be absorbed directly into the ground, with only about 10 percent of this water running off the land. In contrast, where the land has been extensively developed, very little water is absorbed into the ground. Instead, more than half of the water runs off the land because of hard impervious surfaces like buildings, streets, highways and parking lots. According to MMSD, low flow conditions in highly urbanized areas can be equally as stressful for waterbodies creating conditions of lower flow and higher water temperature extremes during dry periods. This occurs because rainfall sheds off the land too quickly in urbanized areas, not allowing rainwater time to replenish the groundwater flow to the stream in a slow, sustainable manner.

The amount of stormwater runoff from highways increases proportionately to the amount of impervious surface. Runoff from roadways can increase the amount of water in area streams above normally carried capacities. Stormwater that runs off of I-43 throughout the study corridor is collected by inlets and conveyed in storm sewer pipes directly to streams and rivers in the more urbanized areas, or by overland flow through ditches in less densely developed areas.

[54] *SEWRPC. A Land and Water Resource Management Plan for Milwaukee County: 2012-2021. Community Assistance Planning Report No. 312. August, 2011*

[55] *http://dnr.wi.gov/water/waterDetail.aspx?key=3924909. Accessed November 20, 2013.*

[56] *http://www.ulaocreek.org/*

[57] *Ulao Creek Partnership. Ulao Creek Watershed Restoration and Stewardship Plan. 2003.*

The MMSD and its partners have been working to reduce flooding in its service area as a result of extensive flooding that occurred in Milwaukee County in 1997, 1998 and 2000 that caused $96 million of damage to homes, businesses and neighborhoods.[58] After a severe flood event in 2010, Nicolet High School constructed stormwater management facilities on its campus. MMSD also purchased an 84-acre tract of land as part of its Greenseams program in the northeast quadrant of the Mequon Road interchange. The purpose of the program is to preserve land in developing urban areas to store and drain water into the ground naturally. The preserved Greenseams properties help prevent future flooding and protect flood management infrastructure. Currently, the program has protected more than 2,000 acres of land in the region.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

Increases in impervious surface area from the I-43 North-South Freeway Study build alternatives, in combination with ongoing urban development identified in **Table I-23** may cumulatively affect surface water quality and quantity within the Milwaukee River and Fish Creek watersheds.

As shown in **Table I-26**, the build alternatives would increase the freeway's impervious area, which would increase the amount of stormwater runoff that could enter nearby streams and rivers. The freeways impervious surface would increase from 122 acres to 187 acres in the Milwaukee River watershed, which is a 53 percent increase compared to existing conditions. In the Fish Creek watershed, the freeway's impervious surface would increase from 23.1 acres to 34.9 acres, which is a 51 percent increase compared to existing conditions. The change in the freeway's impervious surface would have very little effect (0.2 percent increase) for the total Milwaukee River watershed under the build alternatives. Impervious surfaces for the Ulao Creek and Indian Creek sub-watersheds would experience a 3.1 percent increase and 2.3 percent increase, respectively. The total impervious area in the Fish Creek watershed would increase by 1.9 percent as a result of the freeway project's build alternatives.

While runoff volumes would increase under the build alternatives, the water quality analysis indicates that the use of best management practices would reduce the level of pollutants in stormwater runoff compared to the existing conditions and provide the opportunity to bring the I-43 study corridor into compliance with Wisconsin's stormwater management regulations.

[58] *http://v3.mmsd.com/milwaukeecogrounds.aspx. Accessed September 13, 2013.*

Table I-26: I-43 North-South Freeway Corridor – Changes in Watershed Impervious Area

		No-Build / Existing Conditions				Build / Proposed Conditions				
Watershed	**Subwatershed**	**Watershed Area (acres)**	**Total Watershed Impervious Surface (acres)**	**I-43 Impervious Surface (acres)**	**Total Percent Impervious**	**Total Watershed Impervious Surface (acres)**	**I-43 Impervious Surface (acres)**	**Total Impervious Surface (percent)**	**I-43 Impervious Surface (percent increase)**	**Total Watershed Impervious Area (percent increase)**
Milwaukee River	Ulao Creek	10,240	983	48.0	9.6	1,013	78.0	9.9	63.0	3.1
	I-43 Milwaukee River North	8,203	2,461	28.0	30.0	2,473	39.6	30.1	41.0	0.5
	Indian Creek	2,240	464	25.4	20.7	474	35.9	21.2	41.0	2.3
	I-43 Milwaukee River South	3,293	2,305	20.6	70.0	2,318	33.6	70.4	63.0	0.6
	Remaining Milwaukee River watershed	424,024	36,466	0	8.6	36,466	0.0	8.6	0.0	0.0
	Total Milwaukee River watershed	**448,000**	**42,003**	**122**	**9.4**	**42,068**	**187.0**	**9.4**	**53.0**	**0.2**
Fish Creek	--	3,432	618	23.1	18.0	630	34.9	18.3	51.0	1.9

Notes: Indian Creek – 3.5 sq mi (MMSD Indian Creek Study), % impervious computed using sub-basin CNs from Study. Ulao Creek - 7,941 ac south of WIS 60 (I-43 Corridor Drainage Map), 16 sq mi total (Ulao Creek Partnership), % imp from Ulao Creek Watershed Restoration and Stewardship Plan. Milwaukee River North – 8,203 ac (I-43 Corridor Drainage Map), % impervious estimated relative to other subwatersheds, land use and TR-55. Milw R South – 3,293 (I-43 Corridor Drainage Map), % impervious estimated based on land use and TR-55. Milw R Total – 700 sq mi (SEWRPC 208 Plan Update), % impervious computed based on land use from Plan and TR-55. Fish Creek — 3,432 ac (I-43 Corridor Drainage Map), % impervious estimated relative to Indian Creek subwatershed.

Current and future land development within the study area watersheds could cumulatively impact water quality despite any improvements implemented during the reconstruction of the I-43 North-South corridor project. There are both redevelopment and development activities occurring in the watersheds as documented in **Subsection I-2.2.9** of this report. Increased impervious area from these developments could increase the likelihood of stormwater carrying sediment and other pollutants in streams that are already heavily degraded from historic urbanization.

As discussed in **Subsection 3.10**, Water Resources, of the EIS, WisDOT and FHWA are evaluating several best management practices to minimize the amount of runoff that enters water bodies, reduces flow velocity, and improves the water quality of the runoff. The use of in-line storage, retention/detention basins and ditches to manage stormwater from the build alternatives are being evaluated along the study corridor as the most practical and efficient stormwater management measures.

To mitigate the impact of nonpoint source runoff from private development, NR 151 sets performance standards for stormwater quality control measures. For example, 80 percent of the total suspended solids from site runoff must be removed on new construction sites one acre or larger. After construction, permanent measures must be in place to continue removing 80 percent of total suspended solids in stormwater runoff from the site. For highway construction projects, WisDOT is required to implement stormwater management measures to remove 40 percent of the total suspended solids discharged from their storm sewers after construction. Best management practices required under stormwater and nonpoint runoff rules are expected to improve water quality as future projects and ongoing redevelopment occur.

Short-term highway construction impacts to water quality would be avoided or minimized by using WisDOT's *Standard Specifications for Road and Bridge Construction* (2009b) and complying with Wisconsin's Trans 401 regulations that regulate construction site erosion control and stormwater management for transportation facilities. DNR and local governments are responsible for monitoring the performance of stormwater management measures and making corrective actions for non-WisDOT projects. WisDOT would monitor performance of its control measures through its WisDOT-WDNR Cooperative Agreement (Memorandum of Understanding on Erosion Control and Stormwater Management). This Memorandum of Understanding requires WisDOT to implement a stormwater management program for its projects that is consistent with Section 402(p) of the Clean Water Act, Chapter 283 of the State Statutes, and Chapter NR 216 Wisconsin Administrative Code.

As noted above, Trans 401 outlines stormwater management and erosion control procedures for WisDOT projects. As applied to this study, this rule requires removal of 40 percent of total suspended solids for the study area after construction. Also, to comply with Section 88.87(2)(a) of the Wisconsin State Statutes, WisDOT's Southeast Region seeks to maintain the peak discharge rate at the design year storm event, which is generally the 25-year or 50-year storm event. Another mitigation measure is construction of buffer areas upstream of waterways. Additional coordination with DNR will determine stormwater management measures if the build alternative is selected as the preferred alternative. WisDOT would implement best management practices for stormwater and monitoring performance and, therefore, would not cumulatively contribute to water quality impacts.

The increased impervious area from the I-43 build alternatives and urban activities throughout the watershed in the project area would contribute to increased stormwater volume. The MMSD has stated a concern about increased stormwater volumes, which can affect flooding

and stream bank stability. The MMSD regulates flood management in local communities through its Chapter 13 rules. While WisDOT is not subject to MMSD Chapter 13 rules, the cumulative effects of increased stormwater volumes can be minimized through implementing best management practices for stormwater control developed through the WisDOT/DNR liaison process. These measures, which would include stormwater retention, focus on stormwater quality, but have a secondary benefit of managing stormwater volume as well.

I-3.2.3. Wetlands and Floodplains

AFFECTED ENVIRONMENT

Wetlands in southeastern Wisconsin have historically been drained and filled by farming practices and urban development. **Table I-27** demonstrates the loss of wetlands between 1836 (before European settlement) and 1990 when modern land use patterns were established. The net loss of wetland acres for Ozaukee and Milwaukee counties during this time period was 0.2 percent and 70.2 percent, respectively.

Construction in floodplains reduces their flood storage capacity. These activities have impacted the area's hydrology and diminished the ability of existing wetlands to absorb and release water slowly back into the environment. Flood elevations crest even higher in future storms because floodwater cannot be stored, causing damage to surrounding structures.

Table I-27: Historic Loss of Wetland Acres

	Percent of County Land Area		Net Loss	
Location	**1836**	**1990**	**Acres**	**Percent**
Ozaukee County	10.9	10.9	29	0.2
Milwaukee County	10.2	3.0	11,081	70.2
Southeastern Wisconsin	16.8	10.2	110,655	39.2

Source: SEWRPC Planning Report No. 42: A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin

The loss of wetlands and floodplains in the region has led to the removal of native plants and animals, degradation of water quality, increased flooding and a reduction in ground water recharge. As noted in the **Subsection I-3.2.2** above, flooding has resulted in millions of dollars in property damage in Milwaukee County. Remaining wetlands and undeveloped floodplains in both counties are important to the region's hydrology and to the flora and fauna dependent on the habitat provided by the wetlands.

The Wisconsin Department of Natural Resources (DNR) and Army Corps of Engineers (USACE) protect and regulate wetlands through Section 404 of the Clean Water Act and through state regulations. Furthermore, DNR has identified wetlands within primary environmental corridors as unsuitable for disposal of dredge or fill materials. SEWRPC identifies primary environmental corridors as corridors of regional environmental significance.

Local communities are required by Section 87.30 of the Wisconsin State Statues to implement floodplain zoning. Minimum standards for floodplain regulations are provided in NR 116 of the Wisconsin Administrative Code. Floodplain regulations govern filling and development activities within the 100-year floodplain and prohibit nearly all forms of development in the floodway and

restrict filing and development within the flood fringe. Also, local communities are required by Section 62.231 and 61.351 of the Wisconsin State Statues to implement shoreland-wetland zoning. NR 117 of the Wisconsin Administrative Code establishes minimum standards for shoreland zoning ordinances that must include the protection of wetlands five acres in size lying in shoreland areas.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

The build alternatives would impact about 22 acres of wetlands. The build alternatives also would fill approximately 4.56 acres of floodplain. These impacts combined with existing and future development activities as outlined in **Table I-23** could have a cumulative impact on wetland and floodplain resources in the study area. As noted in **Subsection I-2.2.9**, commercial development is expected to expand near the WIS 60 interchange in Grafton and the city of Mequon is considering expanding residential, commercial and industrial development as part of the East Growth Area Plan. Also, the town of Grafton recently changed its lands zoned for a minimum of 3-acre lots to a minimum of 1-acre lots, which encompasses most of the town's remaining land designated for residential uses. Future highway projects, as outlined in **Table I-23**, could also impact wetlands and floodplains. These include future reconstruction segments of I-43 and future upgrades to the WIS 167 and WIS 60 corridors in Ozaukee County.

Filling activity in floodplains and wetlands would negatively affect water quality and stormwater volumes discussed in **Subsection I-3.2.2** above. Filling would also reduce the quality of habitat and the diversity of species by allowing faster growing invasive species to become established before slower growing native species. These effects would be minimal in Milwaukee County because it is highly urbanized, but the effects could be more pronounced in Ozaukee County where agricultural and open lands are transitioning into urban or low density suburban uses.

The cumulative effect to wetlands and floodplains would be minimized and avoided with existing regulations that restrict development activity in wetlands and floodplains. Section 404 of the Clean Water Act regulates wetland filling. Concurrently, the DNR regulates wetland filling through NR 103 and Section 401 water quality certification for federal 404 permits.

As discussed in the previous subsection, local communities manage floodplain development through implementation of Wisconsin Administrative Code NR 116, which requires local communities to establish zoning ordinances that maximize flood protection by limiting development in floodplains. NR 117 has a similar requirement for local communities to establish zoning for shoreland and wetland protection.

WisDOT and DNR have an established a Cooperative Agreement that outlines the procedures to implement measures to avoid and minimize impacts to all natural resources, including wetlands and floodplains.

WisDOT and FHWA will implement avoidance and minimization measures to reduce impacts to wetlands and floodplains. Avoidance and minimization measures would include widening the freeway to the inside median between the northbound and southbound travel lanes in the north segment of the corridor and using steeper sideslopes where appropriate. To further avoid and minimize a cumulative effect on wetlands, impacts of the build alternatives would be managed according to WisDOT's *Wetland Mitigation Banking Technical Guideline*. In addition, WisDOT would minimize the cumulative effect on floodplains by designing structures with adequate capacity for the 100-year flood flow. Also, WisDOT would not increase the base flood elevations by more than 0.01 foot.

I-3.2.4. Environmental Corridors and Stream Crossings

AFFECTED ENVIRONMENT

SEWRPC is responsible for designating environmental corridors. Environmental corridors support southeastern Wisconsin's most important elements of the natural resource base, including wetlands, woodlands, prairies, wildlife habitat, and streams, as well as historic, recreational and scenic sites. According to SEWRPC, primary environmental corridors are at least 400 acres in size, 2 miles long and 200 feet wide. Milwaukee County has more than 9,000 acres of primary environmental corridors, and Ozaukee County has more than 20,000 acres.[59] Environmental corridors typically follow stream valleys, surround major lakes and flood lands. In light of historical and planned development in Milwaukee and Ozaukee counties, the preservation of this resource base is especially important. SEWRPC reports that preserving environmental corridors can reduce flooding and noise pollution, improve water quality and maintain air quality.

Local municipalities within the study area seek to protect these resources from further encroachment through zoning and permitting regulations. In Milwaukee County, the majority of the remaining environmental corridors are publicly owned to ensure their preservation. In Ozaukee County, local communities minimize impacts to environmental corridors through land use planning and zoning regulations. Other activities preserving natural areas in Ozaukee County include MMSD's Greenseams program and preservation projects and programs implemented through the Ulao Creek Partnership and the Ozaukee Washington Land Trust. Through the Greenseams program, MMSD purchases and manages open tracts of land for flood and water quality management. The Ozaukee Washington Land Trust partners with public and private landowners to preserve natural areas, typically through conservation easements. The Ulao Creek Partnership partners with private landowners and public agencies to educate the public and implement projects that improve water quality and natural habitats in the Ulao Creek watershed. According to the Ozaukee County comprehensive plan, as of 2009, over 20,000 acres of environmental corridors and natural areas, or 72 percent, were under protection through adopted sewer service area plans, public ownership, conservation easements, or local zoning ordinances.[60]

The Ozaukee County Fish Passage Program is working to complete a large-scale habitat improvement and restoration project along the Milwaukee River, and its tributaries. This program is concerned with improving waterway connectivity to allow for access to high quality habitat for native fish and wildlife. Past agricultural and urban development activities that constructed dams and culverts, along with debris build up act as barriers to fish and animal passage. Ozaukee County's Fish Passage Program includes Ulao Creek and its crossing under I-43. The creek has seen historic channelization from farming activities and previous freeway construction.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

While most environmental corridors in the study area are in protective ownership or have protective measures in place, environmental corridors and other natural areas in areas without these protections could be cumulatively affected by the I-43 North-South Corridor build alternatives and past, present and future actions outlined in **Table I-23**. The build alternatives

[59] *SEWRPC. A Regional Land Use Plan for Southeast Wisconsin: 2035. Planning Report No. 48. June, 2006.*

[60] *SEWRPC. A Park and Open Space Plan for Ozaukee County. Community Assistance Planning Report No. 133 (3rd Edition). June, 2011.*

would affect 4 acres of environmental corridors and isolated natural areas and cross Indian Creek, Ulao Creek and Fish Creek or their tributaries. All crossings would occur at existing crossings and no new crossings would be created.

Environmental corridors provide multiple benefits including flood management, water pollution control and refuge for wildlife. The cumulative removal of environmental corridors from the build alternatives and other developments would impair the natural functions of the corridors and the benefits they provide.

Improperly designed culverts at stream crossings create barriers for aquatic organisms. Culverts and pipes have a greater effect on stream hydrology than bridges because the normal stream bottom transitions to a human-made bottom. In low-flow conditions, flat culvert bottoms tend to spread the stream flow very thinly, sometimes making it difficult for fish to swim through the culvert. Erosion at the downstream exit of the culvert or pipe can result in a “perched” outfall, making stream passage difficult.

To minimize potential cumulative impacts to environmental corridors, WisDOT would widen the freeway mainline to the inside in the existing median, along with steepening side slopes where practicable. Potential temporary effects from construction would be avoided and minimized by using WisDOT’s *Standard Specifications for Road and Bridge Construction* and complying with Wisconsin’s Trans 401 regulations that oversee construction site erosion control and stormwater management. WisDOT will also continue coordination with the Ozaukee County Fish Passage program to incorporate design criteria developed for the program. Local communities in the study area have land use policies, zoning and permitting regulations in place to limit development in environmental corridors and natural areas.

I-3.2.5. Air Quality

AFFECTED ENVIRONMENT

The Clean Air Act of 1970 established National Ambient Air Quality Standards (NAAQS). These were established to protect public health, safety, and welfare from known or anticipated effects of air pollutants. The most recent amendments to the NAAQS contain criteria for sulfur dioxide (SO_2), particulate matter (PM_{10}, 10 micron and smaller along with $PM_{2.5}$, 2.5 micron), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and lead (Pb).

The study area freeway system is located within the Southeastern Wisconsin Intrastate Air Quality Control Region #239. Ozaukee County is currently in attainment status for five of the six criteria pollutants, and has been redesignated to a maintenance area for the eight-hour ozone standard. Milwaukee County is currently in attainment status for four of the six criteria pollutants, has been redesignated to a maintenance area for the eight hour ozone standard and is in non-attainment for PM2.5 (see **Subsection 3.16**, Air Quality, in the EIS for more information).

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

The build alternatives, along with other activities and developments in the study area, may have a cumulative impact on air quality in the region. Other activities in the region, such as the expanded Oak Creek coal-fired power plant and continued regional traffic growth are sources of air pollutants. By the year 2040, average weekday traffic in the I-43 North-South Freeway study corridor is expected to increase by 32 percent. Early coordination with Wisconsin DNR and EPA indicates that the build alternatives would not have significant air quality impacts.

The Wisconsin DNR manages, monitors and enforces air quality programs in Wisconsin. To help manage the air quality program, the Wisconsin DNR works with a range of industries, agencies, interest groups, and individuals to develop the State Implementation Plan (SIP) that demonstrates how Wisconsin will attain compliance with national air quality standards. FHWA also provides congestion management and air quality grants for transportation projects in nonattainment areas that will reduce transportation related air emissions.

Ultimately, EPA plays a major role in managing Wisconsin's compliance with the Clean Air Act, which includes monitoring the SIP. If the state and southeast Wisconsin region cannot achieve attainment standards, EPA can impose sanctions, such as stricter emissions rates for new developments and withholding federal funds for transportation projects.

To obtain federal funding, the reconstruction of the I-43 North-South Freeway study corridor would have to be included in transportation plans that conform to the SIP. At the regional level, SEWRPC prepares a transportation improvement program to assure conformance with the SIP. Conformity with the SIP means projects included in the transportation improvement program will not worsen air quality or delay attainment of air quality standards. The I-43 North-South Freeway study corridor is included in SEWRPC's conforming transportation improvement program; therefore, it would not contribute to a substantial negative cumulative impact to air quality, as measured by current pollutant standards.

In addition to meeting air quality standards, there is growing concern about the direct and cumulative effects of MSATs. WisDOT and FHWA evaluated the potential change in MSATs from the build alternatives and the No-Build Alternative.

According to the MSAT analysis, MSATs will decrease in the future because of EPA's national pollution control programs. In 2007, a new EPA rule to regulate MSATs, Control of Hazardous Air Pollutants from Mobile Sources, went into effect. The rule sets new standards for fuel consumption, vehicle exhaust emissions, and evaporative losses from portable containers that will be phased in between 2011 and 2015.

Greenhouse gas emissions are also a concern in the I-43 North-South Freeway study corridor air quality study area. While there are no accepted quantitative tools to estimate greenhouse gases at the study level, vehicles using the I-43 North-South Freeway Corridor can be expected to contribute to greenhouse gas emissions within the region. Currently, the major way to reduce emissions of greenhouse gases from transportation is to reduce the amount of fuel consumed. This can be accomplished by reducing congestion (more efficient driving conditions), reducing driving, and more fuel efficient vehicles.

Local governments can help manage and reduce greenhouse gases by utilizing appropriate land use and zoning policies that reduce travel demand within individual communities and southeast Wisconsin. A study published by the Urban Land Institute points to the importance of reducing vehicle miles of travel by managing growth and land use patterns.[61] Specifically, studies find that compact development (characterized by features such as diverse land use, concentrations of populations and/or employment, access to multimodal transportation and interconnected streets) can reduce driving, which translates into reduced greenhouse gas emissions. Local government plans that are consistent with the SEWRPC regional land use and transportation plans would help ensure the most efficient land use and zoning policies within the region.

[61] *Urban Land Institute. Land Use and Driving: The Role Compact Development Can Play in Reducing Greenhouse Gas Emissions. Evidence from Three Recent Studies. 2010.*

Increased amounts of greenhouse gas in the atmosphere can have impacts on the environment and human health across the planet. Examples of these impacts include rising sea levels, causing erosion of beaches and shorelines, destruction of aquatic plant and animal habitat, floods of coastal cities, and disruption of ocean current flows; a warming trend over much of the planet, broadening the range for many insect borne diseases; and chronic stress of coral reefs. The possible impacts of global warming to Wisconsin include warmer and drier weather; decreases in the water levels of the Great Lakes, inland lakes, and streams (which may affect shipping operations); increases in water temperature (lowering water quality and favoring warm water aquatic species); changes in ecosystem and forest composition; increases in droughts and floods (impacting crop productivity); and reduction of snow and ice cover (lessening recreational opportunities).[62]

I-3.2.6. Residential Neighborhoods

AFFECTED ENVIRONMENT

Well established residential neighborhoods can be found throughout the primary study area described in **Section I-2.2**, particularly in Milwaukee County communities, and in the cities of Mequon and Cedarburg and the village of Grafton in Ozaukee County. Rural density residential land uses are common in the towns of Grafton and Cedarburg as well as the non-urbanized area of the city of Mequon. For more information about land use patterns and neighborhoods, see **Subsection I-2.2.9** in this report. **Subsection 3.3**, Residential, in the EIS provides a detailed discussion about residential areas adjacent to the I-43 North-South study corridor.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

Maintaining infrastructure is important to the quality of life for a community. Highways and other transportation infrastructure provide reliable access to employment and cultural centers, improve mobility of people and goods, and reduce congestion, all of which encourage continued investment throughout the community and within neighborhoods.

Conversely, infrastructure in and adjacent to neighborhoods can cause direct and proximity impacts such as right of way acquisition, displacements, and increased air, noise and visual impacts. The combination of these impacts can negatively impact quality of life. Neighborhoods close to large infrastructure become more vulnerable to these impacts as the infrastructure expands.

The build alternatives would not split neighborhoods, but would acquire up to 11 residences and two rental properties. Twelve of the relocations occur in Milwaukee County and one in Ozaukee County. The anticipated impact is not substantial compared to an overall population in Milwaukee and Ozaukee counties and many residents could be relocated within close proximity to their existing residences. But, the direct impact to residential properties when combined with other past, present and future freeway reconstruction projects could cumulatively affect neighborhoods within Milwaukee County. As shown in **Table I-28**, between 39 and 54 residences would be impacted by southeastern Wisconsin freeway reconstruction projects in Milwaukee County that have been completed, are under construction or are in the planning phase. Additional residences are likely to be displaced in Milwaukee County as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future. This is particularly

[62] *Public Service Commission of Wisconsin and Wisconsin DNR. Governor's Task Force on Global Warming: Wisconsin's Strategy for Reducing Global Warming. July, 2008*

true for the city of Milwaukee that has multiple freeway corridors within its boundaries and had substantial loss of residences from the original construction of the freeway system.

Table I-28: Cumulative Residential Impacts of SE Freeway Projects in Milwaukee County

SE Freeway Project	Residential Displacements	Location	Status
Marquette Interchange	10	Milwaukee County	Completed
I-94 North-South	4	Milwaukee County	Milwaukee County portion completed
Zoo Interchange	8	Milwaukee County	Under construction
I-94 East-West	4-19	Milwaukee County	Planning phase
I-43 North-South	13	Milwaukee and Ozaukee Counties	Planning phase

Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East- West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS.

WisDOT has developed design modifications that avoid and minimize relocations to the extent possible. Other project features can also minimize the potential cumulative effect of the build alternatives. Noise barriers are feasible and reasonable in up to four locations along the project corridor. Traffic currently using local streets to avoid freeway congestion would also divert back to I-43, potentially reducing congestion on local streets. Improved traffic operations reduce emissions, which benefits air quality. During preliminary engineering, WisDOT will initiate a community sensitive solutions (CSS) process to enhance infrastructure elements, and improve the visual quality of the I-43 corridor.

I-3.2.7. Business Districts

AFFECTED ENVIRONMENT

I-43 is a major regional and local north-south route providing a vital link between communities in Milwaukee and Ozaukee counties with downtown Milwaukee. Businesses in the primary study area are clustered close to I-43 and near arterial streets with Interstate access, including Port Washington Road and the Good Hope Road, Brown Deer Road, Mequon Road and WIS 60 interchanges.

Milwaukee County contains the largest number of jobs compared to the other counties in the region. As of 2010, the county contained 575,400 jobs, which accounted for nearly half of the employment in the region. Milwaukee County has historically been the economic hub in Wisconsin, providing the region with a source of high paying management and professional jobs in downtown as well as a supply of service and manufacturing jobs throughout the county. With the exception of the 2000s, Milwaukee County has experienced a net gain of employment each decade going back to at least the 1950s. Declines in employment during the 2000s were associated with the national economic recession of the late 2000s. During this time, the region lost 2.7 percent of its employment. The majority of the net job losses occurred in Milwaukee County, where employment declined by 42,900. Ozaukee County's employment was 52,500 in 2010. Within the region, Ozaukee County contains the fewest number of jobs and accounts for 4.5 percent of the region's employment. During the 2000s employment in Ozaukee County remained stable with a net gain of 2,100 jobs. See **Subsection I-2.2.2** above for more information on past and projected employment in Milwaukee County.

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

The build alternatives would relocate up to two commercial businesses, one in Milwaukee County (city of Glendale) and one in Ozaukee County (city of Mequon). This direct project impact when combined with other past, present and future freeway reconstruction projects could cumulatively affect businesses within Milwaukee County. As shown in **Table I-29**, between 25 and 26 businesses would be impacted by southeastern Wisconsin freeway reconstruction projects that have been completed, are under construction or are in the planning phase. Additional businesses are likely to be relocated in Milwaukee County as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future. Maintaining jobs in Milwaukee County where existing local transit is available is especially important for low income and minority populations who are more likely to be dependent on transit to access employment. Potential cumulative business impacts in Ozaukee County would be less since I-43 is the only freeway corridor within the county. Other transportation projects identified in **Table I-23** such as the reconstruction of I-43 north of WIS 60 and future construction along the WIS 167 and WIS 60 corridors could cumulatively contribute to business relocations in Ozaukee County, although construction for these other transportation projects is currently not scheduled.

Table I-29: Cumulative Business Impacts

SE Freeway Project	Business Displacements	Location	Status
Marquette Interchange	5	Milwaukee County	Completed
I-94 North-South	0	Milwaukee County	Milwaukee County portion completed
Zoo Interchange	4	Milwaukee County	Under construction
I-94 East-West	14 - 15	Milwaukee County	Planning phase
I-43 North-South	2	Milwaukee and Ozaukee Counties	Planning phase

Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East- West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS.

The business impacts are not expected to have a substantial cumulative effect on the Milwaukee County or Ozaukee County economies. The business impacts make up a very small portion of the 20,015 business establishments that are located in Milwaukee County and 2,701 businesses in Ozaukee County as of 2010.[63] Also, the business losses are expected to be offset by business development in other nearby areas. As discussed in **Subsection I-2.4.1**, the build alternatives are expected to have the indirect effect of facilitating planned redevelopment within the primary study area. This conclusion is supported by a recent TRB report that reviewed 100 transportation case studies.[64] The research found that highway projects can cause localized negative job impacts if property takings are required, but these impacts were offset by new economic activity that occurred elsewhere in nearly all the case studies. In addition, as discussed in **Subsection 3.4**, Commercial and Industrial, of the EIS, available space is available within Milwaukee County and Ozaukee County to relocate businesses within the counties. Relocation assistance would be facilitated by WisDOT's acquisition and relocation program.

[63] *U.S. Bureau of the Census, County Business Patterns, 2010.*

[64] *Interactions Between Transportation Capacity, Economic Systems, and Land Use. SHRP2 Capacity Research. Report S2-C03-RR-1. Transportation Research Board. 2012.*

I-3.2.8. Municipal Tax Base

AFFECTED ENVIRONMENT

Local taxes are used for many basic services by local governments including garbage collection, police and fire protection, local road construction and maintenance, public facilities and other services. Local government tax revenues in Wisconsin have become more challenging in recent years as new development slowed due to the economic recession of the late 2000s, state aid for local governments has declined and strict levy limits have been created that cap the amount of money local governments can raise through property taxes.

Table I-30 shows the tax revenues that were collected for municipalities in Milwaukee and Ozaukee counties in 2012 that are adjacent to a freeway. Since these communities are adjacent to a freeway they are most likely to be impacted by freeway property acquisitions.

Table I-30: Local Government Tax Revenues for Municipalities Adjacent to a Freeway in Milwaukee and Ozaukee Counties

County	Municipality	Full Value of Taxable Property (2012)	Total Local Tax Collected* (2012)
Milwaukee County	Village of Bayside	$561,263,900	$4,192,063
	Village of Fox Point	$1,030,559,100	$6,986,229
	Village of River Hills	$470,716,900	$2,936,479
	City of Glendale	$1,909,411,000	$12,160,977
	City of Greenfield	$2,753,622,700	$21,995,429
	City of Milwaukee	$26,407,923,000	$239,551,718
	City of Oak Creek	$2,932,766,600	$19,087,098
	City of Wauwatosa	$4,963,918,700	$37,030,383
	City of West Allis	$3,738,930,800	$38,940,771
	County Total	$57,782,302,300	$413,227,056
Ozaukee County	Town of Belgium	$267,664,500	$397,920
	Town of Grafton	$532,014,900	$1,473,336
	Town of Port Washington	$188,482,900	$447,854
	Village of Belgium	$173,073,000	$704,786
	Village of Grafton	$1,118,423,500	$7,378,777
	Village of Saukville	$402,608,400	$2,699,402
	City of Mequon	$3,972,167,500	$19,548,033
	County Total	$10,345,569,700	$51,287,595

*Source: Town, Village, and City Taxes – 2012. Wisconsin Department of Revenue. *This amount is for village and city tax collections only. It does not include county or school district taxes.*

ENVIRONMENTAL CONSEQUENCES/POTENTIAL MITIGATION

The build alternatives for the I-43 North-South study corridor could cumulatively affect local government tax bases, particularly in Milwaukee County, when combined with past, present and future freeway reconstruction projects. **Table I-31** shows the known municipal tax base impacts for southeastern Wisconsin freeway reconstruction projects that have been completed, are under construction or are in the planning phase. The tax revenue losses are small compared to the total annual property taxes collected that are shown in **Table I-30**. However, a loss of tax base can affect a community's ability to provide municipal services. Additional municipal property tax base in Milwaukee County is likely to be impacted as the remaining segments of the freeway network are reconstructed along I-894, US 45, I-43 and I-94 in the future. Ozaukee County may experience this effect to a lesser extent with future reconstruction of I-43 north of WIS 60 and other transportation projects identified in **Table I-23**.

Table I-31: Cumulative Local Government Tax Base Impacts in Milwaukee County*

Project Status	SE Freeway Project	Assessed Value Loss	Annual Local Tax Revenue Loss*	Tax Year	Municipalities Impacted
Completed	Marquette Interchange	Unknown	Unknown	Unknown	Milwaukee
Milwaukee County portion completed	I-94 North-South	$1,366,623	$70,314	2005	Milwaukee, Greenfield Oak Creek
Under construction	Zoo Interchange	$11,455,600	$76,990	2008	Milwaukee, Wauwatosa, West Allis
Planning phase	I-94 East-West	$6,544,953 - $7,644,193	$60,540 - $70,709	2011	Milwaukee
Planning phase – Milwaukee County	I-43 North-South	$8,254,322	$237,700	2012	Glendale, Bayside, Fox Point, River Hills

*Source: Marquette Interchange Environmental Assessment; I-94 North-South Corridor Study FEIS; Zoo Interchange FEIS; I-94 East-West Freeway Corridor DEIS; I-43 North-South Corridor Study DEIS. *No substantial freeway reconstruction projects have occurred in Ozaukee County. The I-43 North-South Freeway build alternatives affect up to $23,689 in tax revenue loss in Ozaukee County.*

I-3.2.9. Regional Land Use Patterns

AFFECTED ENVIRONMENT

To understand regional land use patterns, it is first important to understand the historic growth patterns of metropolitan areas in the United States and the Milwaukee Metropolitan area. During the first half of the 20th century the physical layout of U.S. cities was compact and focused around a central business district that contained a mixture of uses. Neighborhoods tended to be built on a street grid and small shops and businesses were often located along a main street district within walking distance to homes. Lands that were closest to the central business district were often the most valuable because they had the greatest accessibility to employment, transportation, and goods and services.

During the second half of the 20th century, after World War II, land development patterns changed dramatically as development spread to more outlying areas and people and businesses moved farther from the central business district. Residential, commercial and industrial land uses were separated and the street grid was replaced with an arterial roadway system. Driving became essential for most trips. This change is attributable to multiple factors including the expansion of the U.S. auto industry, the implementation of the federal Interstate highway program, federal housing policies that encouraged homeownership, and local zoning ordinances that separated land use types into districts. These land use pattern changes also occurred during a time period when the U.S. was undergoing great economic growth and large population increases due to the post World War II baby boom phenomenon. The result has been metropolitan areas characterized by multiple clusters of development dispersed throughout a region instead of one central business district.[65]

The story has been similar for the Southeast Wisconsin region. According to SEWRPC, "over the 100-year period from 1850 to 1950, urban development in the region occurred in a pattern resembling concentric rings around existing urban centers, resulting in a relatively compact regional settlement pattern. After 1950, there was a significant change in the pattern and rate of urban development in the Region. While substantial amounts of development continued to occur adjacent to established urban centers, considerable development also occurred in isolated enclaves in outlying areas of the Region."[66] The population density of the urban portion of the southeastern Wisconsin region decreased significantly, from 10,700 persons per square mile in 1940 to about 5,100 in 1970, 3,900 in 1980, 3,500 in 1990 and 3,300 in 2000.[67] See **Section I-2.2** for more information about population, employment and land use trends for Milwaukee and Waukesha counties.

As the original construction of the Interstate system greatly improved accessibility to outlying areas and local governments permitted development, the value of central downtown locations diminished and disinvestment pursued.[68] Low-income residents become concentrated in central city locations as people with economic means moved to suburban locations. Also, as jobs decentralized, it became increasingly difficult for transit-dependent, low-skilled workers to obtain employment in areas of the region not served by public transportation.

The SEWRPC 2035 regional transportation plan recommends widening 127 miles of the 270-mile regional freeway system in southeastern Wisconsin.[69] This includes adding travel lanes to:

- I-94 throughout Milwaukee County and through WIS 67 in Waukesha County and to the I-94 north-south segment between downtown Milwaukee and the state border with Illinois.
- I-894 in Milwaukee County.
- US 45 in Milwaukee, Waukesha and Washington counties to the split between US 45 and US 41, north of WIS 167.
- I-43 in Milwaukee and Ozaukee counties between downtown Milwaukee and WIS 57.

To date, WisDOT has completed the reconstruction of the Marquette Interchange in downtown Milwaukee and has completed the Mitchell Interchange segment of the I-94 North-South

[65] *U.S. Environmental Protection Agency. "Our Built and Natural Environments: A Technical Review of the Interactions Among Land Use, Transportation, and Environmental Quality." Second Edition. June 2013. 78-80.*

[66] *SEWRPC. A Regional Land Use Plan for Southeastern Wisconsin: 2035 Planning Report No. 48. (2006).*

[67] *SEWRPC. A Regional Land Use Plan for Southeastern Wisconsin: 2035 Planning Report No. 48. (2006).*

[68] *The Brookings Institution Center on Urban and Metropolitan Policy. 2000. Do Highways Matter? Evidence and Policy Implications of Highways' Influence on Metropolitan Development. Marlon G. Boarnet Andrew F. Haughwout*

[69] *SEWRPC. A Regional Transportation System Plan for Southeastern Wisconsin: 2035. Planning Report No. 49 (2006)*

corridor. Segments in Racine and Kenosha counties are under construction. WisDOT recently initiated the construction of the Zoo Interchange project in Milwaukee County which allows for the addition of new travel lanes if needed in the future.

The I-43 North-South project in combination with past and future I-43 projects in Milwaukee and Ozaukee counties could induce development within Ozaukee County by improving the commute to downtown Milwaukee where a large portion of Ozaukee County's white collar workforce is employed (see **Subsection I-2.2.7**).

While the original construction of I-43 in Milwaukee and Ozaukee counties in combination with post 1950s historic development patterns played a large cumulative role in the decentralization of development and jobs in the past, subsequent improvements and widening to I-43 (downtown to WIS 57) and other freeway corridors in the region are expected to have a continued, though much smaller cumulative effect on regional land use patterns and the redistribution of population and employment for the following reasons:

- The land use patterns in Milwaukee and Ozaukee counties have developed around a mature transportation system that already has a great deal of transportation accessibility from existing freeway interchanges, state and county highways and the local arterial network
- Travel time savings are not expected to be great enough to substantially change the regional distribution of development over and beyond existing conditions since I-43 is already a limited access freeway.
- Local development regulations place limitations on Ozaukee County's development potential. The growth and intensity of development outside the urbanized areas of the county is limited by a lack of sewer and water services, large lot zoning requirements, conservation easements and environmental corridors that are protected by local zoning. Also, some of the towns in the northern half of the county have agricultural preservation zoning in place that requires a minimum of 35-acre lots.
- Local market conditions limit the economic development potential of Ozaukee County. According to the 2011 Ozaukee County Workforce Profile, the high cost of housing in Mequon and the southern portion of the county have hindered its population growth.[70] In addition, local stakeholder input confirmed that the high land values in the southern half of the county can also make business development more challenging especially for industrial users. Stakeholder input also confirmed that the market for business development in the northern half of Ozaukee County (north of WIS 60) where large amounts of undeveloped land is available is limited because employers often perceive it as being too far from the existing workforce pool and are concerned they would not be able to attract employees.

Although this effect is expected to be smaller compared to the original construction of the freeway, stakeholders are concerned that induced development in Ozaukee County would create more jobs that are not accessible by transit. This has social and economic implications for residents that do not have access to a reliable vehicle or carpool network.

For example, according to the SEWRPC 2035 regional housing plan, 17 percent of households in the city of Milwaukee did not have access to a car in 2005-2009 and only 41 percent of employers in the region are accessible by local or rapid transit service.[71] As a result, households

[70] *2012 Market Profile: Downtown Milwaukee. Prepared by Progressive Urban Management Associates, Inc on behalf of Downtown Milwaukee Business Improvement District 21.*

[71] *Employers with at least 500 employees in Milwaukee County and employers with at least 100 employees in the other six counties were included in the 41 percent figure.*

in the city of Milwaukee that lack access to a car are not able to access the majority of employment centers in the region. This affects the ability of lower income, transit-dependent populations in the city of Milwaukee to obtain employment and creates isolated neighborhoods with high concentrations of poverty. This was validated during stakeholder outreach[72] and at the July 11, 2013, focus group meeting. Stakeholders stated that more transit investment is needed in the region to improve access to jobs, especially for those that do not have access to a vehicle.

As discussed previously in **Subsection I-2.5.1**, the spatial mismatch between low-income workers and available low skilled jobs is present in the Milwaukee Metropolitan area as documented by researchers at the University of Wisconsin-Milwaukee.[73] The 2004 UWM report found 81 percent of families living below the poverty line are located in the city of Milwaukee; only 30 percent of businesses with strong hiring projections for entry-level workers are located in Milwaukee; and the remaining 70 percent are in the suburbs. The spatial mismatch is further complicated by other factors such as declining MCTS transit service levels, a lack of a coordinated regional transit system, limited transit services in job-rich suburbs, restrictive suburban zoning regulations that indirectly discourage affordable housing and relatively low rates of vehicle ownership and valid driver's licenses in some areas of Milwaukee.

More recently, the Public Policy Forum published a related report called *Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs*.[74] The report examines the challenges associated with accessibility to the major employment centers (a concentration of at least 10,000 jobs) in Milwaukee, Waukesha, Washington and Ozaukee counties for workers in Milwaukee who do not have access to a vehicle for work trips. The report found that of the 29 job centers located within these counties, 15 have relatively high levels of public transit access (Milwaukee County), four are completely inaccessible by transit (Washington and Waukesha counties) and 10 are served by transit on a limited basis (all four counties).

The Public Policy Forum report recommended some examples of how new or modified bus routes could be developed to serve suburban job centers in a cost-effective manner. One of the report's recommended routes that would serve Milwaukee and Ozaukee counties is the 80X. It would provide a north-south express transit route connecting job centers in Oak Creek, downtown Milwaukee and Mequon. The report also recommended an express bus route, 10X, connecting UWM with downtown Milwaukee and Brookfield Square and a new route, 351, that would connect West Allis to the Westridge Business Park in New Berlin.

The SEWRPC 2035 regional housing plan analyzed the ratio of available jobs and housing throughout the region to determine if communities with a substantial amount of existing and/or planned employment also have existing or planned workforce housing.[75] The SEWRPC analysis found a current and projected jobs/housing imbalance for many of Milwaukee's suburban communities. Within Ozaukee County, Mequon, Thiensville, Cedarburg, Grafton, Fredonia and Belgium were found to have a lower-cost job/housing imbalance and a moderate-cost job/housing imbalance. The village of Saukville and city of Port Washington have a moderate-cost job/housing imbalance. This means that these communities have either a higher percentage of lower-wage jobs than lower-cost housing and/or they have a higher percentage of moderate-

[72] *Interview with City of Milwaukee Alderman Michael Murphy. February 7, 2013.*

[73] *University of Wisconsin-Milwaukee, Center for Economic Development. Transportation Equity and Access to Jobs in Metropolitan Milwaukee. September 2004.*

[74] *Public Policy Forum. Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs. December 2013.*

[75] *SEWRPC. Regional Housing Plan: 2035. Planning Report No. 54. March 2013.*

wage jobs than moderate-cost housing. According to SEWRPC, a moderate-cost imbalance is the most common type of current and projected job/housing imbalance in the region and also tends to occur in suburban communities. See **Appendix I-C** for a SEWRPC map that shows the projected 2035 jobs/housing imbalance.

Consistency with the SEWRPC regional land use and transportation plans is the best way for governments to promote coordinated transportation and land use polices that will promote the most efficient land use patterns. According to SEWRPC, "the regional transportation plan is designed to serve the regional land use plan and is not a projection of current land use development trends toward further decentralization of population, employment, and urban land uses. Thus, implementation of the transportation system plan should promote implementation of the land use plan, which recommends a desirable pattern of future land use with respect to travel requirements." Local units of government are responsible for land use policies and the local street network. Counties have some jurisdiction over land use in unincorporated areas and are responsible for the county road network. WisDOT does not have jurisdiction over land use, but is responsible for the state highway system and the Interstate system in coordination with the Federation Highway Administration (FHWA).

Consistency with the SEWRPC recommendations in the 2035 regional housing plan could help to address the existing and projected jobs/housing balance discussed above. The plan advises local governments with existing and planned employment land uses that are sewered to conduct detailed analyses of their communities to confirm if an existing or planned job/housing imbalance exits. For communities that have a higher percentage of lower-wage jobs than lower-cost housing, new affordable multifamily housing developments are recommended. For communities with a higher percentage of moderate-wage jobs than moderate-cost housing, additional modest sized single-family homes on small lots would help to improve the imbalance. Adherence with the recommendations would require changes to local land use plans and zoning regulations. This may be challenging because SEWRPC is an advisory organization and is not able to mandate changes to local zoning policies.

According to the SEWRPC 2035 regional housing plan, if the transit components of the 2035 regional transportation plan were implemented, many major employment centers that are not currently served by public transit would become accessible for people without access to a car, including those that work weekend hours and second and third shifts.

According to the Public Policy Forum report, the primary challenge to effectively serving suburban jobs centers with new transit service is funding. According to the report, MCTS often relies on federal funding sources to develop new routes such as the Job Access and Reverse Commute (JARC) program and Congestion Mitigation and Air Quality Improvement program (CMAQ). However, JARC is subject to federal funding reductions and CMAQ only provides start up funds for a maximum of three years.

Funding for transit is further complicated by the fact that Wisconsin legislation limits WisDOT's ability to provide capital funding for transit outside traffic mitigation projects. As stated in Section 85.062(2), Wisconsin Statutes, "No major transit capital improvement project may be constructed using any state transportation revenues unless the major transit capital improvement project is specifically enumerated under subsection (3)."

As a result, transit implementation is largely the responsibility of local governments in Wisconsin, and implementation of the recommended expansion of public transit in Southeastern Wisconsin would be dependent upon local governments attaining dedicated local funding for public transit. The local share of funding of public transit in Southeastern Wisconsin is provided

through county or municipal budgets, and represents about 15 percent of the total operating costs and 20 percent of total capital costs of public transit. Thus, the local share of funding public transit is largely provided by property taxes, and public transit must annually compete with mandated services and projects. Increasingly, due to the constraints in property tax-based funding, counties and municipalities have found it difficult to provide funding to address transit needs, and to respond to shortfalls in federal and state funding. For example, MCTS has reduced transit service levels to address fiscal challenges, which has resulted in a 22 percent decline in total annual bus miles between 2000 and 2012.[76] Unlike MCTS, most public transit systems nationwide have dedicated local funding, typically a sales tax of 0.25 to 1.0 percent, and are not nearly as dependent upon federal and state funding. This type of dedicated transit funding would require the approval of the Wisconsin State Legislature.

[76] *Public Policy Forum. Getting to Work: Opportunities and obstacles to improving transit service to suburban Milwaukee job hubs. December 2013.*

APPENDIX I-A:
STAKEHOLDER MEETING SUMMARIES

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/9/2013

Meeting Name: Phone call with River Hills

Project ID: 1229-04-01

Phone Call: Robert C. Brunner, River Hills Village President; Carolyn Seboe (HNTB)

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

Carolyn Seboe contacted Mr. Brunner to set up a stakeholder interview with River Hills officials. Mr. Brunner declined a meeting, but provided the following information on the telephone. He said the village is zoned for residential uses and any nonresidential uses require a special use permit that must be approved by the plan commission and village board. He said special use permits are typically only provided for uses such as the country club, University School, sculpture garden and churches and synagogues. He said the village does not deviate from the zoning code. He gave an example of a home owner who has 5.5 acres and lives in an area zoned for min of 5 acre lots that requested to add a second home to their property for in-laws. He said the request would be denied unless they are on the border of the 1 or 2 acre zoning boundary. He mentioned a few of the concerns that have been raised by residents in the village. He said some residents are concerned about noise from the highway, but it is his understanding the due to the size of the lots noise barriers would not be effective. Another resident brought up concerns about flooding and wanted to make sure the flooding is addressed. He mentioned that a few years ago several residents wanted to close Green Tree Rd at I-43 to prevent traffic from the east side of the highway entering the area. They felt the new PicNSave and Jimmy Johns was creating too much traffic in the neighborhood. The board voted to close Green Tree, but reversed its decision after Glendale sued the village. Mr Brunner did not feel it was necessary to meet at this time, but said I could check in with him at a later date if I need any other information. I said I would contact him if any ICE issues arise in River Hills and I would invite him to the focus group meeting.

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/22/2013

Meeting Name: Meeting with Village of Whitefish Bay

Project ID: 1229-04-01

Attendees: Patrick DeGrave (Village Manager); Daniel Naze (Village Engineer) Carrie Cooper (WisDOT); Carolyn Seboe (HNTB)

Location: Whitefish Bay Village Hall

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

Carrie and Carolyn met with representatives from the village of Whitefish Bay to discuss the indirect and cumulative effects (ICE) analysis. Carrie first provided an overview of the I-43 corridor study process and timeline. Then, Carolyn asked the village a series of questions to obtain information for the ICE analysis.

The village's biggest concern is impacts to the Northshore Water Filtration Plant since the village owns about 1/3 of the treatment plant. The village's boundaries do not touch the freeway corridor and they do not see any negative impacts to the village at this time.

The village representatives feel freeway improvements will be an advantage to Whitefish Bay. The Silver Spring Drive Interchange is important for access to the local business district and maintaining access or improving the interchange will support the Silver Spring Drive commercial corridor. The village representatives felt the interchange was confusing when they first started using it, but now that they are familiar with it, they feel it works fine. Any changes to the interchange as long as access is maintained are not likely to affect the Silver Spring commercial corridor.

The village is fully developed. The only development being proposed at this time is located on the municipal parking lots behind the Silver Spring Drive businesses between Santa Monica and Diversey Blvd. The only other parcel that is undeveloped is bounded by Fairmount Ave., Lydell Ave., Bay Ridge Ave., and Chateau Place. No plans are proposed for this site, but the village believes it could be used for DPW facilities in the future.

Improvements to Port Washington Road including expanding it to four lanes will help traffic circulation in the area and make it easier for residents to access their homes. Improvements to Port Washington Road would also provide some traffic relief to the Jewish Community Center. The connector road from the JCC to Port Washington Road is supposed to be right- in right-out only to Port Washington Road. Some people are making left turns onto Port Washington Road and there have been some accidents. The Whitefish Bay Little League park and water tower is not linked to the connector road.

The Bender Road underpass is an important connection for Whitefish Bay residential areas.

Many Whitefish Bay residents use the freeway and would like to see the capacity expanded to make traveling easier.

The village does not have any substantial transportation plans in place other than maintenance projects. The village does not have any major congestion issues outside the freeway corridor. A few areas associated with schools have short-term traffic congestion when school is getting out.

The village's biggest development constraint is lack of undeveloped land. The residential market is strong in the village. People are buying homes, tearing them down and rebuilding. The commercial market is good. The Silver Spring business district is stable, more turn over during the recession, but there has been a resurgence of new retailers more recently. The village is trying to encourage more restaurant and bar uses along Silver Spring. For destination retailers it can be a challenge to get people to go beyond Bayshore Town Center. Businesses need to advertise.

If no action on the freeway, the village does not anticipate any effects.

Many residents work downtown and go south on the freeway or use Lake Drive.

The village is concerned about stormwater any additional stormwater that could be created from freeway expansion. The village has two lake outfalls and two river discharges and a box culvert the goes to Glendale under the freeway. They are working with Glendale on the box culvert and will be modifying in 2013.

The village representatives said they are concerned about traffic diversions during construction especially to Lake Drive. The extra traffic will be hard on the pavement. No rehabilitation planned for at least 10 years.

Bender Road underpass - important connection to residential areas
VILLAGE OF FOX POINT
Acacia Rd
Lake Michigan
Jewish Community Center (JCC)
Whitefish Bay Little League park and water tower
Devon St
Monrovia Ave
Montclaire Ave
Belle Ave
Day Ave
Lake View Ave
Silver Spring Dr
Birch Ave
Henry Clay St
Lancaster Ave
Fairmount Ave
Chateau Pl
Hampton Rd
Courtland Pl
Glendale Ave
Oakland Ave
Marlborough Dr
Lake Dr
Santa Monica Blvd
CITY OF GLENDALE
CITY OF MILWAUKEE
Biggest concern: Northshore Water Filtration Plant
Lake Michigan Outfalls
Project Limits
Port Washington Rd
43
Silver Spring Business District
Many residents work downtown and go south on the freeway or use Lake Drive.
Concerned about traffic diversions to Lake Dr during construction.
The Silver Spring Drive Interchange is important for access to the local business district. They want to maintain/improve access.

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/22/2013

Meeting Name: Meeting with Village of Bayside

Project ID: 1229-04-01

Attendees: Andrew Pederson (Village Manager); Alex Henderson (Director of Community & Utility Services) Carrie Cooper (WisDOT); Carolyn Seboe (HNTB)

Location: Bayside Village Hall

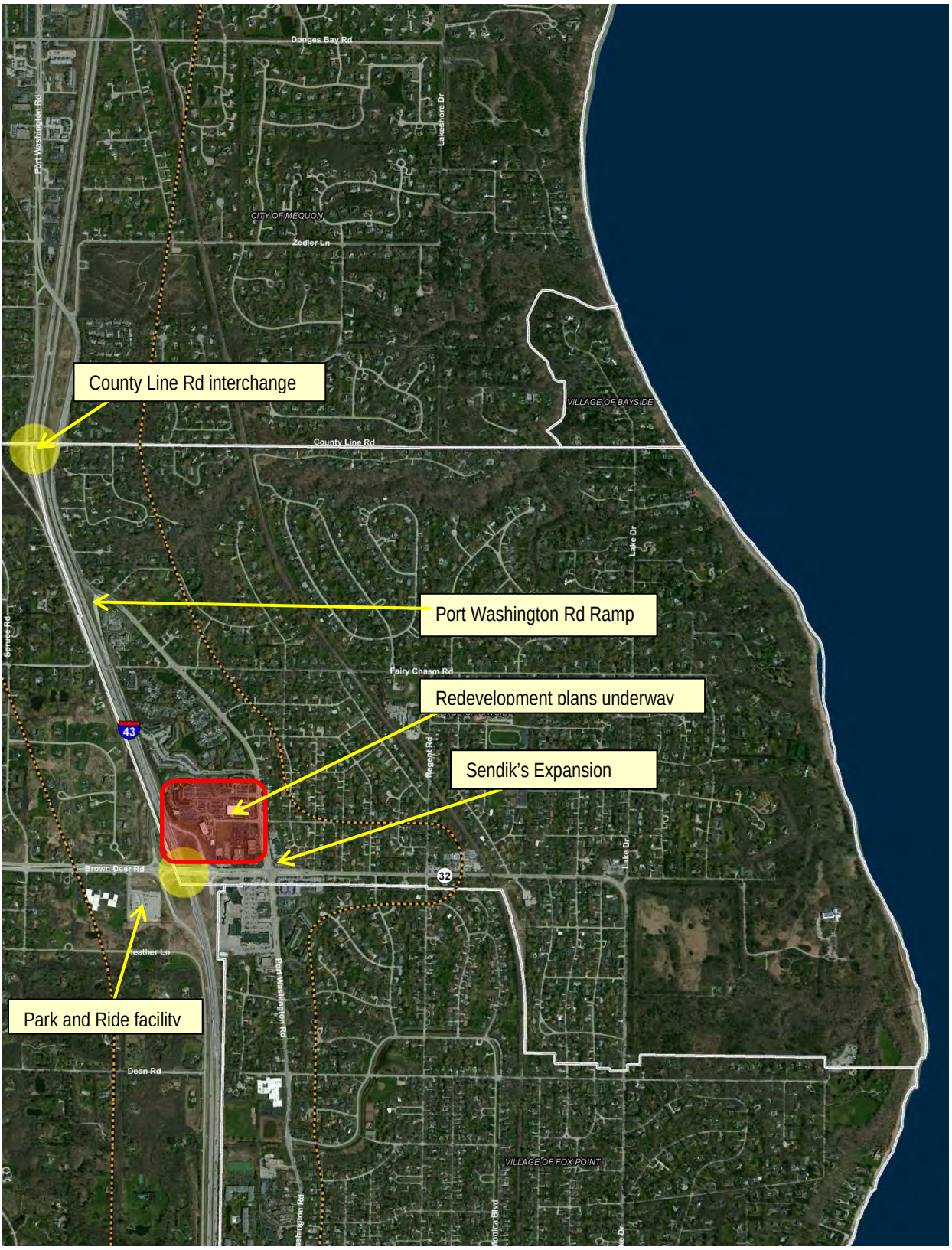
Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

Carrie and Carolyn met with representatives from the village of Bayside to discuss the indirect and cumulative effects (ICE) analysis. Carrie first provided an overview of the I-43 corridor study process and timeline. Then, Carolyn asked a series of questions to obtain information for the ICE analysis.

- Andrew said it is hard to know what meetings to attend because so many notices are sent to his mail box. He views local officials as government staff, not elected officials. He recommended going directly to the Village Board instead of asking them to attend a meeting. Carrie said he should contact the WisDOT project manager to request a meeting and WisDOT will be willing to meet with the board.
- The Port Washington Road ramp was just redone. It has improved safety and seems to be working well.
- Many roads in the Bayside area have been redone in the last 5 years including Brown Deer Road and Lake Drive. Many residents have construction fatigue.
- The village is a built out community that consists mostly of residential uses. The only commercial development in the village is located along Brown Deer Road and Port Washington Road, the east of the Interstate.
- The Sendik's grocery store at the northeast corner of Brown Deer and Port Washington was sold to a new operator and is being expanded by 3,200 square feet. The commercial buildings to the east of Sendik's were also purchased and will be remodeled.
- The village is currently reviewing land use options in the northeast quad of I-43 and Brown Deer Road. The Community Development Authority is leading the study. The study was initiated because Blue7 Solutions (a joint venture between Trisept Solutions, a Bayside information technology firm that provides services to travel industries, and Blue Star, a software development firm from India) is planning to create up to 250 jobs over the next five years to expand information technology services to the travel industry. The employees are expected to be highly skilled and earn high wages ($60,000 average annual pay). The Wisconsin Economic Development Corp. was involved in recruiting the joint venture, which could get $3.75 million in state assistance, mostly in the form of tax credits, depending on job creation.
- The village is concerned about interchange alternatives at Brown Deer Road that would reduce land available for redevelopment.
- Pedestrian access across the freeway is currently not available. The village would like to see sidewalks provided to the park and ride facility on the west side of the freeway.

- The businesses that front the north side of Brown Deer Road are not doing well. It is a busy traffic area and the businesses do not have left turns. The TCF is mostly vacant and the Katz building is vacant.
- Need to make the Brown Deer Road and Port Washington Road intersection easier to get around. Currently, vehicles have to make a lot of U-turns.
- County Line Road Interchange
    - It is a long distance to Mequon roads if someone misses the Brown Deer exit.
    - The interchange is the front entrance to the village. Aesthetics will be very important.
    - Acquisitions of homes could change dynamics of neighborhood.
    - Neighborhoods may be concerned about full access interchange due to crime concerns.
    - Would need to justify need for full interchange.
- They are concerned about how Port Washington Road will be used during construction. Increases in traffic will impact businesses. During Brown Deer Road construction McDonald's said sales went down 12%. Hire traffic flaggers instead of using local police to direct traffic.
- The village has stormwater regulations. About 600 acres of River Hills drains to Bayside. The drainage along the freeway is not adequate. If more pavement is added to the highway it will add to the stormwater load. The water from the north is going into Fish Creek.
- They are not concerned about any natural or cultural resources.
- Tree removal is a concern.
- They are concerned about bike safety along Port Washington Road.


County Line Rd interchange
Port Washington Rd Ramp
Redevelopment plans underway
Sendik's Expansion
Park and Ride facility
Donges Bay Rd
Port Washington Rd
Lakeshore Dr
CITY OF MEQUON
Zedler Ln
VILLAGE OF BAYSIDE
County Line Rd
Lake Dr
Spruce Rd
Fairy Chasm Rd
Regent Rd
43
Brown Deer Rd
32
Heather Ln
Dean Rd
VILLAGE OF FOX POINT

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/22/2013

Meeting Name: Meeting with Village of Fox Point

Project ID: 1229-04-01

Attendees: Scott Brandmeier (Director of Public Works) Carrie Cooper (WisDOT); Carolyn Seboe (HNTB)

Location: Fox Point Village Hall

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

Carrie and Carolyn met with representatives from the village of Fox Point to discuss the indirect and cumulative effects (ICE) analysis. Carrie first provided an overview of the I-43 corridor study process and timeline. Then, Carolyn asked a series of questions to obtain information for the ICE analysis.

The village does not have any planned development. It is built out and follows the zoning code. Residential homes are purchased, torn down and built new. The village does not have industrial land uses. The village has a few commercial centers – Fox Point Shops, Audubon and River Point. Some commercial is also located along the Fox Point side of Port Washington Road.

River Point Shopping Center – a new Mexican restaurant will be locating in the former Outback restaurant building. The village is concerned about impacts to the back of River Point. It serves business deliveries and parking for Burghardt Sporting Goods. Also, Aurora has an employee training facility that has access from the back side.

Port Washington Road Commercial – commercial is located between Calumet Road and just north of Bradley Road. The WeEnergies parcel could be redeveloped in the future. Scott did not feel much would change on other parcels.

The Dunwood School is a non-operating school. It is used for a YMCA day camp. Some talk about relocating the Northshore Library to the school.

Scott submitted a letter in December 2012 with his comments on the different interchange alternatives.

Scott felt Jean Nicolet should remain as a through street because it is a major access point for Nicolet High School. The high school serves multiple communities in the area and people use Green Tree to Jean Nicolet to get to the high school. An over/under pass at Daphne may help if access to high school from Green Tree is eliminated, but it may not be as direct for many people.

The Good Hope Road interchange and adjacent intersection of Port Washington and Good Hope has many problems with light timing and vehicle ques. This should be resolved.

Scott said he is concerned about traffic diversions during construction. It will create more traffic on Port Washington Road and Lake Drive. This will deteriorate the pavement and may cause cut through traffic on cross streets such as Calumet and Dean.

The village does not have any major transportation plans. Calumet and Bradley will be reconstructed. In the village 10 year CIP.

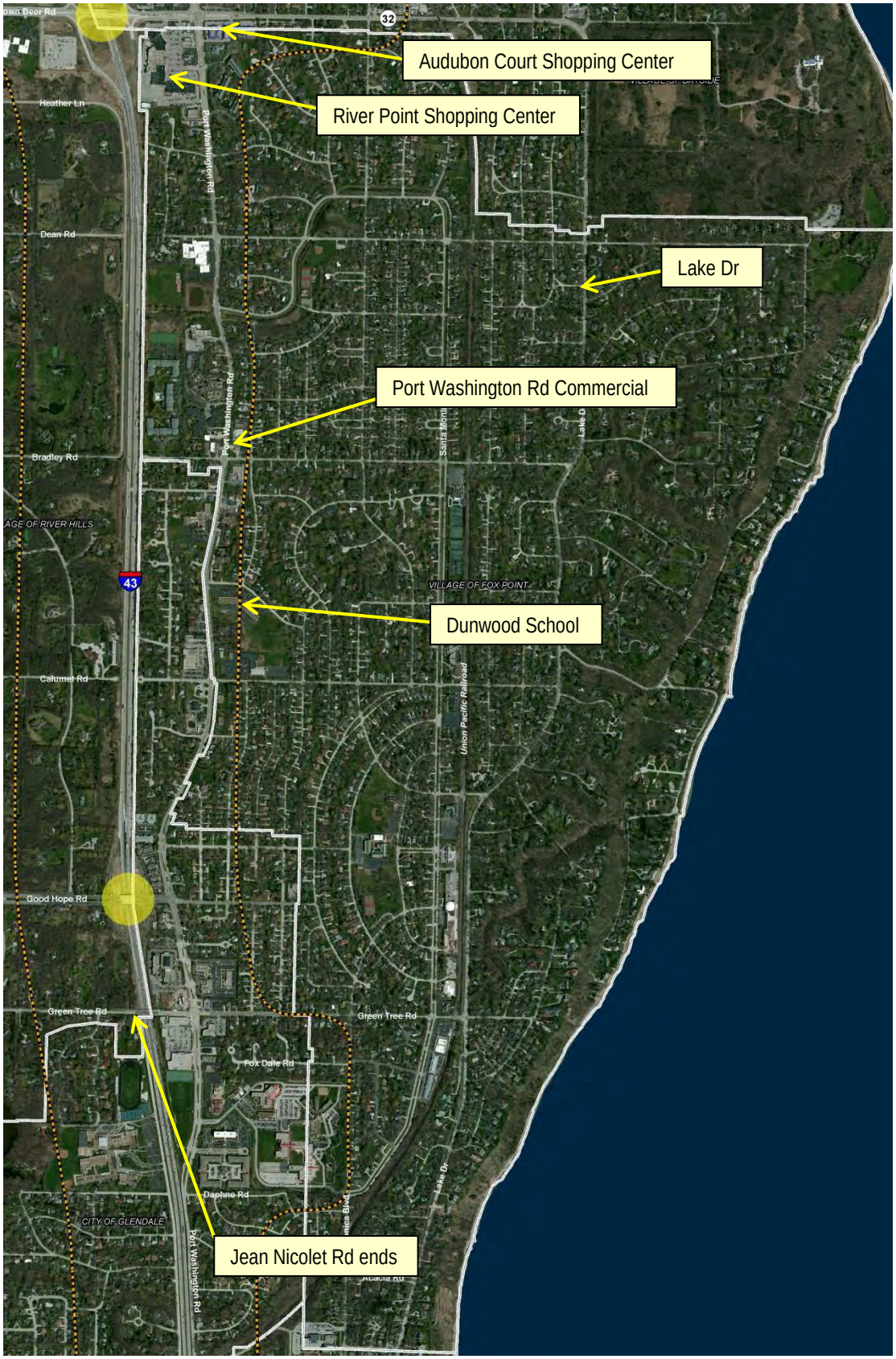
The village does not have any cultural or natural resources that they are concerned about.

The village's biggest indirect concerns are for traffic, stormwater and impacts to the tax base from acquisitions. The property owner is compensated, but the local municipality is not compensated for tax base loss.

Given the current composition of village trustees, Scott does not anticipate much change for the village in terms of more dense housing.

Scott does not feel capacity expansion of the freeway will affect the village. They have a stable population and many people use Lake Drive to get downtown.

Pedestrian/bike connections across Brown Deer and Good Hope roads are not safe. Scott would like to see bike/pedestrian connections considered. Ideally a new pedestrian connection at Bradley would be the safest.


Audubon Court Shopping Center
River Point Shopping Center
Lake Dr
Port Washington Rd Commercial
Dunwood School
Jean Nicolet Rd ends
Heather Ln
Dean Rd
Bradley Rd
Calumet Rd
Good Hope Rd
Green Tree Rd
Fox Dale Rd
Daphne Rd
VILLAGE OF FOX POINT
CITY OF GLENDALE
Union Pacific Railroad
Port Washington Rd
Santa Monica Blvd
Lake Dr
43
32

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 02/11/2013

Meeting Name: Meeting with City of Glendale

Project ID: 1229-04-01

Attendees: Glendale - Richard Maslowski, City Administrator; Todd Stuebe, Director of Community Development; Dave Eastman, Director of City Services. Study team - Carrie Cooper (WisDOT); Caron Kloser (HNTB) Carolyn Seboe (HNTB)

Location: Glendale City Hall, 5909 N. Milwaukee River Parkway

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

A meeting was held with representatives from the city of Glendale to discuss the indirect and cumulative effects (ICE) analysis for the Environmental Impact Statement. Only a brief overview of the project was provided since Glendale had recently been updated on the project and its alternatives. The following is a summary of the comments that were made at the meeting:

- Glendale is the most impacted community along the corridor.
- The project team needs to include the Clovernook neighborhood. They have an active neighborhood association. A neighborhood meeting should be held. A new alderman is running that will represent the Clovernook neighborhood.
- Something needs to be done with I-43.
- Glendale opposes the elevated freeway option.
- Many utilities were constructed before the highway and many utilities go under I-43.
- North Shore Water Filtration Plant – It serves Glendale, Whitefish Bay, Fox Point, Bayside and parts of Mequon. It would cost $65 million to replace. Glendale's first priority is to avoid impacts to the water plant.
- Nicolet High School is Glendale's second priority for avoiding impacts. They are concerned about flooding and stormwater runoff. (High school was flooded in 2010). The existing tunnel under the freeway that connects the high school with the playfields is a problem for flooding. It acts as a conduit for water, like a large storm sewer. Consider a pedestrian bridge or the extension of Coventry Court to replace tunnel.
- Silver Spring - no substantial changes proposed.
- Bayshore – the mall will enter phase 2 and Sears will be rebuilt. Likely to happen after the economy recovers. The cemetery on the north end prevents Bayshore from expanding. The phase 2 improvements will be within existing property boundaries.
- The Nicolet playfields on the east side of I-43 are a potential location for the new North Shore Library and community center. The site has good visibility. Coventry Court – a proposed overpass would augment the library plans. The library will be constructed within the next two years. Alternate location in Glendale is at the Nicolet High School property off Green Tree Road. Nicolet High School would like to sell this parcel to get money to build new athletic fields. Another potential location is being considered in Fox Point. Site selection will be dependent on I-43 plans.

- It is important to maintain Green Tree Road connectivity. Important for police/fire safety and schools.
- Proposed under/overpasses at Daphne Road and Apple Tree Road – makes sense from a traffic standpoint to push traffic to Port Washington Road if it is four lanes. The residential areas will be concerned about the connections and increased traffic in their neighborhood. The city is ok with it, but need to get input from neighborhood. Make sure alternatives don't open up neighborhood to more traffic.
- Mainline shifted west – impacts waterline and reservoir, worst option for water filtration plant. Also, impacts Nicolet High School.
- Mainline shifted east – impacts Ace Hardware. It is the only hardware store outside of Home Depot in the North Shore. It is a local favorite and valued by residents for its customer service and availability of products. The plan is still workable. The three office buildings to the north of Ace may provide parking for Ace.
- Mainline depressed – Glendale is open to it, but many questions on how it would affect drainage and noise and if sound barriers would be provided.
- The city does not have any bike or pedestrian plans. They will maintain existing resources. More people are choosing to walk in the community.
- Port Washington Road – Glendale would like to eliminate the bottleneck in the two-lane section. The railroad overpass has prevented the expansion of the road in the past to four lanes between Bender Road and Daphne Road. The city has studied the expansion in the past.
- The commercial node at Green Tree Road and Port Washington Road is mostly fully developed. Only one vacant lot remaining. Potential for a small hotel.
- Jean Nicolet – Glendale is not concerned about options that break up the street as long as it provides adequate police and fire safety connections.
- No build – the city would continue to limp along with the freeway's existing limitations.
- Aesthetics will be important. It affects the area's vibrancy and economic development potential.
- The project is not affecting the areas of Glendale that contain environmental justice populations. They are represented through the city council. The alderpersons are keeping their constituents informed.
- Glendale has no problems with the purpose and need statement.
- The freeway project could make or break Glendale.
- Glendale would like to see a new alternative considered. It would include a cut and cover option through the Clovernook area to open up connectivity. Likely to be expensive. Traffic impacts would have to be considered.
- The study area boundary should include the Clovernook neighborhood (between the freeway and the Milwaukee River. It is not necessary to include the areas west of the river.

Commercial Node
Nicolet High School
Nicolet High School Play fields
Coventry Court
Ace Hardware
Clovernook
North Shore Water Filtration Plant
Bayshore Mall phase 2
Bayshore Mall
Project Limits
VILLAGE OF RIVER HILLS
VILLAGE OF FOX POINT
CITY OF GLENDALE
VILLAGE OF WHITEFISH BAY
Calumet Rd
Good Hope Rd
Green Bay Ave
Range Line Rd
Green Tree Rd
Daphne Rd
Milwaukee River Pkwy
Mill Rd
Bender Rd
Devon St
Monrovia Ave
Montclaire Ave
Belle Ave
Day Ave
Lake View Ave
Silver Spring Ave
Birch Ave
Lexington Blvd
Henry Clay St
Lancaster Ave
Fairmount Ave
Chateau Pl
Hampton Rd
Villard Ave
Hampton Ave
Teutonia Ave
Fort Washington Rd
Santa Monica Blvd
Lake Dr
Marlborough Dr
Union Pacific Railroad
43
57
32

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/29/2013

Meeting Name: Meeting with City of Mequon

Project ID: 1229-04-01

Attendees: Kim Tollefson, Mequon Director of Community Development; Study team - Carrie Cooper (WisDOT); Caron Kloser (HNTB) Carolyn Seboe (HNTB)

Location: Mequon City Hall, 11333 N Cedarburg Rd

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

A meeting was held with Kim Tollefson from the city of Mequon to discuss the indirect and cumulative effects (ICE) analysis for the Environmental Impact Statement. Carrie Cooper provided an overview of the study and a description of the alternatives. The following is a summary of the comments that were made at the meeting:

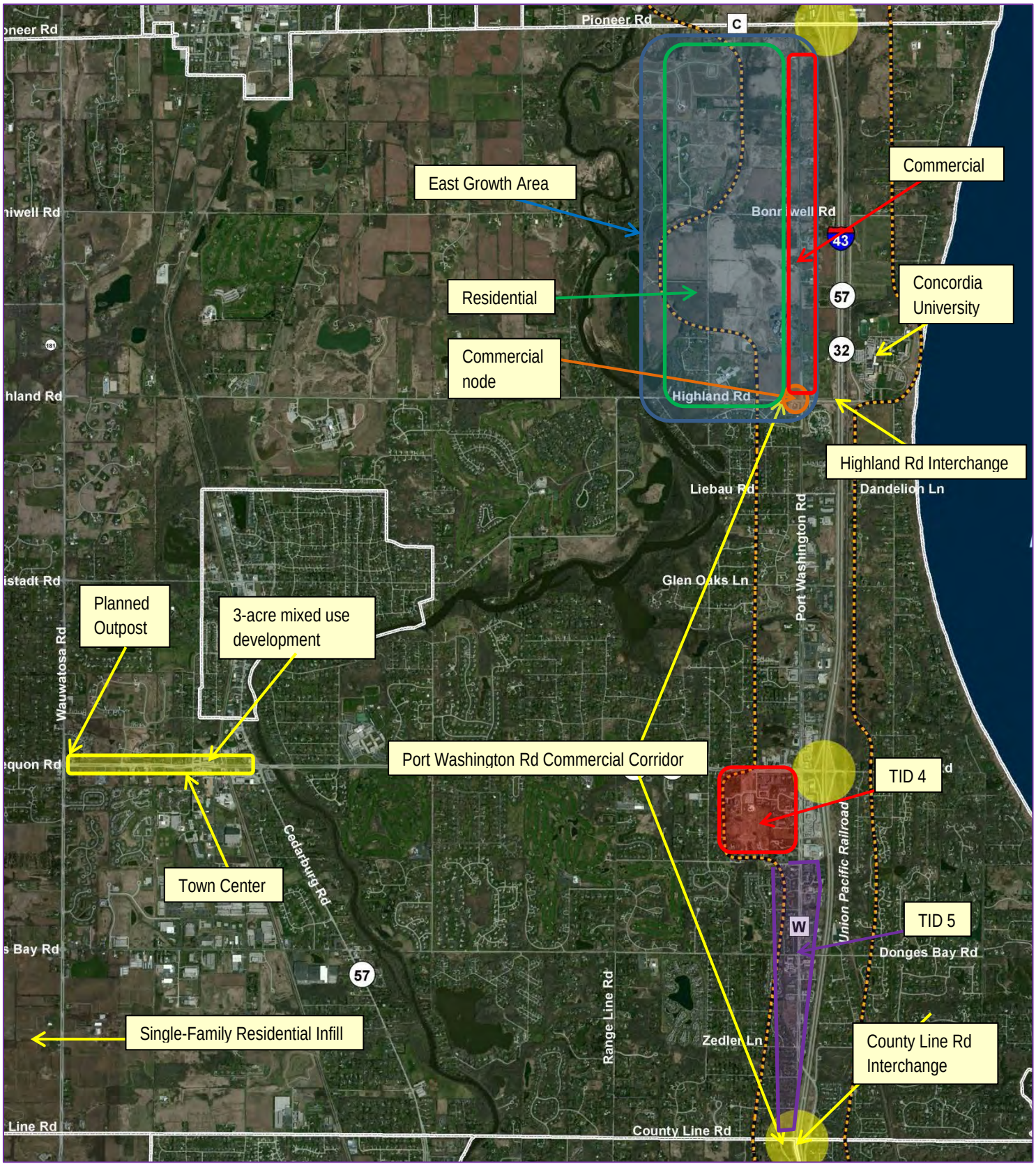
- The existing Port Washington Road commercial corridor extends from County Line Road to the south to Highland Road to the north.
- The Port Washington Road corridor to the south of Mequon Road contains many older businesses and smaller parcels that need to be assembled. The city has two tax increment districts in this area to encourage redevelopment. TID 4's boundary encompasses land on the north end of the district between approximately Mequon Road and Winding Hollow Lane. TID 5's boundary mainly encompasses land to the south of TID 4 between approximately Greenbriar Lane and County Line Road. The TID are "pay as you go", meaning improvements are only made in conjunction with actual development proposals.
- East Growth Area – Mequon is developing a land use plan for the Port Washington Road corridor between Highland Road and Pioneer Road and Ulao Creek and I-43.
    - The plan includes a mixture of land uses including single-family, multi-family and commercial.
    - The single-family subdivisions would be higher density for Mequon (1-acre lots) and would allow parcels that are less than 5-acres, which is currently dictated by the zoning code. They are also considering about 100 units of multi-family housing in the plan. The planned residential areas would be directed to the west side of Port Washington Road. Mequon is hoping to attract more families to the community to bolster the declining enrollment at the school district.
    - The commercial development would be directed to the east side of Port Washington Road. The southern area between approximately Bonniwell Road and Highland Road is planned for a commercial and multi-family mix. The area to the north between approximately Bonniwell Road and Pioneer Road is planned for a commercial and industrial mix. A commercial node is planned along both sides of Port Washington Road to the south of Pioneer Road.
    - The land use plan anticipates the Highland Avenue intersection with Port Washington Road (north side of Highland, south side already developed) would develop as small neighborhood serving commercial uses including restaurants and cafes. The recommendation is geared toward no interchange. If an interchange is created, the land use at this node would need to be evaluated further.

- Mequon will need to extend sewer service north to make the plan feasible. Currently sewer ends at St. Mary's Hospital. Sewer capacity to the south of the planning area is limited and this will need to be fixed in order to allow for the sewer to be expanded.
- The land use plan was presented by Mequon community development staff in January 2013 to the city council. No formal action has been taken yet and more council action will be required to implement the plan. The Council did direct staff to create the required zoning changes and a market analysis will be conducted. The analysis is due back to the council in June 2013. The earliest sewer service could be extended would be 2014-2016.
- The city will not build sewer on speculation. An actual development will need to be planned.
- The East Growth Area will still happen without the Highland Road interchange. If the interchange does happen then they will have to reconsider land use plans around interchange. Neighborhood services may not be the best choice. Commercial development is likely to happen faster at this node if an interchange is constructed. A market analysis is being conducted to determine demand. Mequon does not envision large scale big box retailers.
- Kim Tollefson emailed the plan to Carolyn Seboe after the meeting. Plan is on file.

- The urbanized area of Mequon is bordered generally by the Little Menomonee River corridor on the west, Highland Road on the north, Lake Michigan on the east and County Line Road on the south. The Little Menomonee River (and Highland Road) is the transition line between urban and rural land uses in Mequon. The remaining areas are all currently zoned and planned for a minimum of 5-acre lots. No change is anticipated to these areas for the foreseeable future except for the East Growth Area.
- The area to the west of Wauwatosa Road and south of Mequon Road has sewer capacity and will continue to infill with single-family housing.
  - Mequon is hosting an open house meeting to discuss zoning changes to the area west of Wauwatosa Road, north of Donges Bay Road, east of Swan Road and south of the existing subdivisions that are south of Mequon Road. They are seeking feedback on changing the zoning to three quarter acre lots. This is another area Mequon has identified for relatively higher densities to attract more families to the community.
  - The Mequon Nature Preserve is located in this area of Mequon, south of the area proposed for three quarter acre lots.
- The Town Center is a joint effort between Mequon and Thiensville to create a downtown area along the Mequon Road corridor between Cedarburg Road and Wauwatosa Road.
  - A tax increment district has been created to support public improvements
  - Zoning has been updated.
  - Mequon is trying to make the area more pedestrian friendly. Mequon Road is a state highway. They are working with WisDOT to change the cross section of the road to improve the pedestrian environment.
  - Private development plans include:
    - A mixed use commercial/residential development on the northwest side of Mequon Road and Cedarburg Road intersection. The three-acre development site will create five buildings with about 40 apartments and street-level retail space as well as a new space for the American Legion. The existing American Legion building, a gas station and two homes will be demolished. (being implemented)

        - An Outpost natural foods store at the northeast quadrant of the Mequon Road and Wauwatosa Road. (going through development approval process)

- Move study area out to Highway 57 and include Town Center
- Mequon residents are concerned about the proposed Highland Road interchange. They are concerned it will change Highland Road to four lanes and it would lose its rural character.
- County Line Interchange
    - The area is built out with single-family and multi-family homes.
    - The neighborhood is likely to have a strong reaction against a full access interchange.
    - Unsure about effects of no access.
- Development constraints
    - Commercial – the city's commercial areas are in a redevelopment phase. No greenfield sites are available for commercial. (Exception would be if East Growth Plan is implemented). Public policy often dictates commercial redevelopment opportunities.
    - Housing – the city needs to provide a greater range of housing choices. Will need to extend sewer service to expand housing stock. Even with the proposed zoning changes for smaller lot subdivisions, it won't solve the school districts concern about lack of growth. The percentage of kids in the community is not going to change. Family size/average household size will continue to decline.
- Concordia University Wisconsin – the student population is increasing. They own the parcel on the south side of Highland to the east of the I-43. They have sewer available in this area and they plan to expand their facilities.
- Transportation projects include:
    - Resurface Highway 57
    - Highway 167 (Mequon Rd) corridor study with WisDOT. Working on access management. 2030 plan. The city prefers a roundabout at Mequon and Wauwatosa roads.
- Environmental resources – protected by local regulations
- It would be nice to link the East Growth Area with Concordia University and the lakefront with a pedestrian bridge over I-43.
- Kim Tollefson emailed Carolyn Seboe suggestions for the focus group meeting. Suggestions included:
    - Michele Ziegler – resident and served on east growth committee
    - Tom Schaefer – developer and land owner of multiple commercial sites along Port Washington Road
    - Andrew Petzold – same as above
    - John Kesselman – real estate agent


Pioneer Rd
C
East Growth Area
Commercial
Bonnie Dwell Rd
43
Residential
57
Concordia University
32
Commercial node
Highland Rd
Highland Rd Interchange
Liebau Rd
Dandelion Ln
Port Washington Rd
Glen Oaks Ln
Planned Outpost
3-acre mixed use development
Wauwatosa Rd
Port Washington Rd Commercial Corridor
TID 4
Cedarburg Rd
Union Pacific Railroad
Town Center
W
TID 5
Donges Bay Rd
57
Range Line Rd
Single-Family Residential Infill
Zedler Ln
County Line Rd Interchange
County Line Rd

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 03/6/2013

Meeting Name: Meeting with Ozaukee County

Project ID: 1229-04-01

Attendees: Andrew Struck, Ozaukee County Director of Planning & Parks; Study team - Carrie Cooper (WisDOT); Caron Kloser (HNTB) Carolyn Seboe (HNTB)

Location: 121 W. Main Street, Port Washington, Wisconsin 53074

Prepared by: Carolyn Seboe

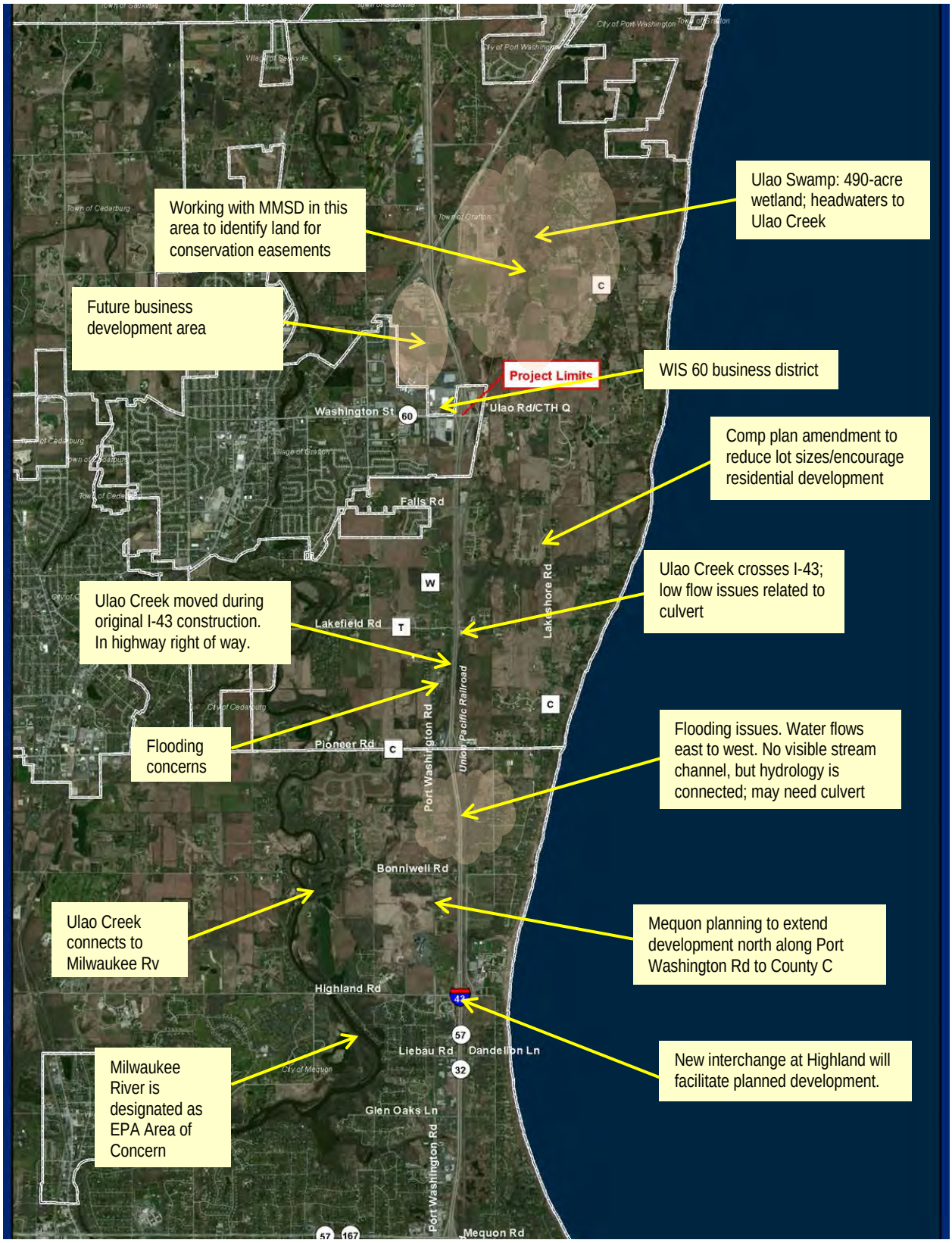
Purpose: Discuss indirect and cumulative effects

A meeting was held with Andrew Struck, Director of Planning and Parks for Ozaukee County, to discuss the indirect and cumulative effects (ICE) analysis for the Environmental Impact Statement. The following is a summary of the comments that were made at the meeting:

- Andrew asked if the county could obtain an electronic copy of the wetland delineation files for the I-43 study for informational purposes. Carrie will look into it.
- The Ulao Creek watershed is the county's biggest concern from an indirect and cumulative standpoint. Ulao Creek is a perennial stream that flows out form the south end of the Ulao Swamp and then connects with the Milwaukee River at approximately Bonniwell Road in Mequon. Ulao Swamp is located to the south of the city of Port Washington in the town of Grafton. It is a 490-acre wetland and it is designated as a Significant Natural Area and is serves as critical species habitat.
- Ozaukee County has a fish passage program that is trying to improve habitat along the Milwaukee River and its tributaries including Ulao Creek.
- Ulao Creek was moved when I-43 was originally constructed. They are still dealing with this impact with flooding and stormwater runoff. This is located south of County T/Lakefield Road where the stream crosses I-43.
- The area north of Bonniwell Road in Mequon has flooding issues. The water drains from the east of the highway to the west side of the highway. Andrew suspects the original I-43 construction probably went through wetland. There is not a visible stream channel, but it the hydrology is connected. The water flooded over I-43 at one time. A culvert may be needed. This is similar to the Greenseams property in that it no longer connected to the Milwaukee River. It is all internally drained.
- The Ulao Creek is in close proximity to the highway and is in the right of way in some areas – south of County T/Lakefield Rd.
- Ozaukee County has been doing a lot of work to restore Ulao Creek and its habitat. The creek's headwaters are in the Ulao swamp. They are working on fish habitat and trying to reestablish the natural meander of the creek.
- The area between County roads C and T near the Family Farm has flooding issues. This is due to I-43 and development off Port Washington Road.

- I-43 culverts usually designed for a 100-year flood, which provides enough capacity. The problem is that there is not a channel during low flow periods. The county did a project at the River Barn Park with a culvert for Trinity Creek at Highway 57 to create a low flow channel. They replaced the culvert with a single concrete box and used baffling.
- The county did some water quality testing south of WIS 60 between county roads I and W and is finding toxic salt levels in Ulao Creek due to its close proximity to I-43.
- The county would like to see more habitat areas created in the corridor and a better connection to the floodplain.
- The portions of Ulao Creek that are closest to the freeway (south of County T/Lakefield Rd) are entrenched, high velocity and provide no in stream habitat. It is like a ditch and does not provide rest spots for fish. Re-meandering the stream and providing in stream structures is a solution to increase habitat. The stream has started to create a slight meander, but it is not adequate.
- The county is working with MMSD and private landowners for habitat restoration to the north of WIS 60 in the Ulao Swamp area. In some cases MMSD buys a conservation easement, other owners are not ready for the easement, but willing to cooperate. This area is a priority for MMSD because it is largely undeveloped, but some landowners could sell their property. They would like to expand habitat restoration to the south of WIS 60
- The Milwaukee Estuary, including portions of the Milwaukee River, is an EPA designated area of concern that seeks to improve impaired water bodies. Ulao Creek feeds into the Milwaukee River, which flows into the estuary.
- Ulao Creek provides a large opportunity to address fish populations and habitat. Fish can make it through Milwaukee County and get to habitat in Ozaukee County where the amount of habitat can be increased. There are not a lot of opportunities in Milwaukee County to increase habitat. Northern pike that live in Lake Michigan spawn upstream and need the habitat in Ulao Creek for spawning. They get out of the Milwaukee River's main channel to spawn. In addition to Ulao, the Trinity and Pigeon creeks also provide opportunity for fish habitat, but the Ulao is the biggest creek.
- Carrie mentioned WisDOT will be looking for wetland mitigation sites near the I-43 corridor and asked Andrew if he has an potential sites in mind. Andrew said he is working with MMSD on similar item. It may be difficult to find available parcels that are large in this area. All the potentially restorable wetlands in Ozaukee County have been mapped by the county. Ideally the county would like to find a win-win situation that helps WisDOT mitigate wetland impacts, but also creates habitat for fish. The Mequon wetland could be an example. Carrie mentioned the wetland mitigations regulations are specific and WisDOT will need to show they created a new wetland, restoration may not be allowed. A strategy meeting with WisDOT, MMSD and the county would be helpful. Andrew said property owners north of WIS 60/east of I-43 may be more open to wetland mitigation in comparison to property owners to the south of WIS 60.
- A Highland Road interchange could encourage more development. The area already has development with St. Mary's Hospital and Concordia University.
- The WIS 60 area is shown as a major industrial/commercial center in the local and county comprehensive plans. The development is spurred by its access to I-43, not the capacity on the highway mainline. Six lanes won't drive the development, it is the access.
- The WIS 60 business district will likely move north per local plans. The village does not have any immediate annexation plans, but land is for sale in this area.
- Mequon is planning development along Port Washington Road/County W.

- County C and Mequon Road interchange ramps backup to freeway. The northern part of Mequon is using County C. If a Highland Rd interchange is provided it will provide relief to County C and Mequon Road.
- Land use changes are likely around County C interchange. Both Mequon and town of Grafton are planning for development. Andrew is concerned about the proximity of Ulao Creek in this area.
- The town of Grafton recently completed a comprehensive plan amendment to change residential densities from 5 acre lots to 2 acre lots to the east of I-43. The town has been good about adhering to open space policies, but they are planning for more residential development. Farmland is decreasing.
- The land around the County C park and ride (north east quad of C and I-43) is for sale, but it has access issues. This could be a potential wetland mitigation site.
- A Highland Rd interchange will facilitate land use change along Port Washington Road since Mequon is planning for development.
- The county has several natural resource protections in place. They have a Park and Open Space Plan, wetland and floodplain regulations and a policy for environmental corridor protection.
- The village of Grafton is planning to extend commercial/business development north of WIS 60 along the I-43 corridor. The freeway project may help facilitate this development especially if access to WIS 60 is improved, but land use policies will drive the development. It is likely that the village will ultimately annex to WIS 32. Capacity expansion will play a role.
- The area to the east of I-43/north of WIS 60 does not have much potential for development. It contains Ulao creek, sewer and water are hard to provide – have to cross the creek. If Grafton does connect with Lake Michigan water in the future, they may be able to development east of the interstate easier.
- The area has a lot of platted subdivisions that are not developed. That is changing as the economy recovers.


Working with MMSD in this area to identify land for conservation easements
Ulao Swamp: 490-acre wetland; headwaters to Ulao Creek
Future business development area
Project Limits
WIS 60 business district
Washington St
Ulao Rd/CTH Q
Comp plan amendment to reduce lot sizes/encourage residential development
Falls Rd
Ulao Creek crosses I-43; low flow issues related to culvert
Ulao Creek moved during original I-43 construction. In highway right of way.
Lakefield Rd
Lakeshore Rd
Union Pacific Railroad
Port Washington Rd
Flooding concerns
Pioneer Rd
Flooding issues. Water flows east to west. No visible stream channel, but hydrology is connected; may need culvert
Bonniwell Rd
Ulao Creek connects to Milwaukee Rv
Mequon planning to extend development north along Port Washington Rd to County C
Highland Rd
Liebau Rd
Dandelion Ln
New interchange at Highland will facilitate planned development.
Milwaukee River is designated as EPA Area of Concern
Glen Oaks Ln
Mequon Rd

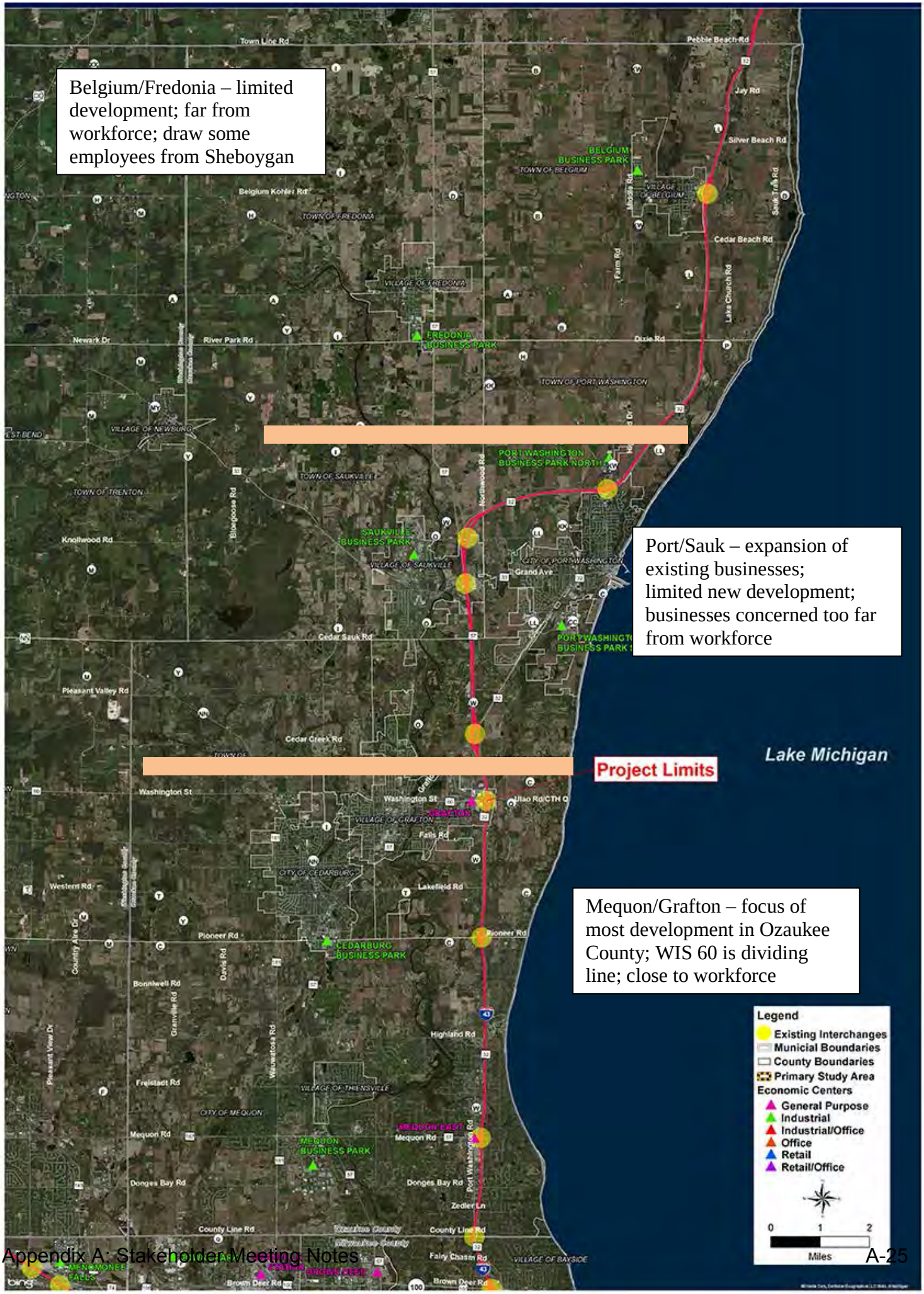
Meeting	ICE - Ozaukee Economic Development
Date, Time	October 10, 2013
Location	Fiddleheads Coffee Roasters, 192 S Main St Thiensville, WI 53092
Attendees	Kathleen Cady Schilling, Ozaukee Economic Development Monica Wauck, WisDOT (I-43 N-S Study) Carolyn Seboe, HNTB Caron Kloser, HNTB

Meeting Summary

A meeting was conducted with Kathleen Cady Schilling to discuss Ozaukee County economic development and indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-43 North-South Corridor Study. The following is a summary of the points that were made at the meeting.

- The most development in Ozaukee County is occurring in Grafton and Mequon.
- Development in Saukville and Port Washington is more challenging because it is farther from the labor pool.
- Employers don't like to go north of Grafton because they are concerned about attracting employees.
- Saukville and Port Washington do not see a lot of new industrial development, but they have some existing businesses that are expanding. Examples are Charter Steel in Saukville and Allen Edmonds in Port Washington.
- Industrial space between 50,000 and 60,000 tends to fill up fast in Port and Saukville areas.
- Business development is very quiet in Belgium and Fredonia. A business with 100 employees has recently has express interest in Belgium. 100 employees would be important for Belgium.
- Businesses are currently going into existing industrial/business parks. Very little new construction is happening. Communities tend to wait for water and sewer service brought to the area with residential development before any potential new expansion of existing business parks occurs.
- Port Washington has an existing industrial park on the south side. Some land remains for development. The city's land use plan shows an expansion of the industrial area to the south of the existing park. This would create about 60 to 70 acres of new industrial land. The area is not served by sewer and water and a lift station would be required. The city is not likely to extend the sewer until residential development occurs and pays for the extension. Then, it will provide sewer for the industry. About 100 acres of industrial land could be expanded in the north Port Washington business park in the future but there is currently no sewer service to the land.
- Saukville has the existing Dekora Woods business park on the north side of the community. Two lots are still available. The village's land use plan shows the expansion of the business park to the west and north. The CDA in Saukville is proactive and will purchase farm land and sell it to industrial users.
- Cedarburg is mostly focused on their historic main street district and less focused on industrial development. The city won't be intensely developed. The city has an industrial area on the south side. Not a lot of land is left; some redevelopment of existing industrial uses may happen. A business park is located on the north side along WIS 60 is planned. About 20 to 30 acres of development could become available. Sewer and water need to be extended.
- The town of Cedarburg has the Five Corners Business Park. A few industries are located in this area, but business development has been slow. The town is trying to create a town center, but it is in close proximity to the successful downtown Cedarburg in the city. Neighborhood commercial is the most likely development type to occur.
- Belgium – the village has an existing industrial park on the north side. It has a lot of remaining land available. The challenge with this industrial area is that trucks must go through downtown Belgium to get to the interstate. This increases the time it takes to get to the interstate, which can be a disadvantage for businesses. A new road that bypasses downtown is needed.

- Fredonia – It has an existing industrial area on the south side of the community. Development is very slow, but they do have some successful existing businesses. WIS 57 provides good road infrastructure for the village.
- Agricultural is strong in the Belgium/Fredonia area.
- Highland Avenue Interchange – Significant vacant parcels are available north of Highland Road. Development will depend on what the city of Mequon allows. A sewer lift station will be needed.
- Mequon has an industrial area on the south side. It still has land available. Access to the business park is challenging because Donges Bay Road and County Line Road do not cross the Milwaukee River. The business park has some major employers. Mequon also has a business park (East Mequon Corporate Center) on the east side along Port Washington Road.
- A Mequon location is very desirable to businesses, but land is expensive. If a business is looking to retrofit an existing vacant building then, Mequon is a good location. If a business is looking to build new, Saukville and Port Washington are better locations because land is less expensive. Mequon is starting to use TIF so this may make it more affordable for new construction.
- Grafton has some industrial development, but is mostly commercial. The commercial development around WIS 60 will continue. Some office may infill. A small business park is located in Grafton. A few parcels remain available within existing TIF area.
- Public transportation is an issue. The flyer goes to Grafton, but has limited hours. The county has offered a consistent shared ride services to businesses, but no businesses have utilized the service.
- Land use/development effects of the I-43 project:
    - The proposed expansion of the highway will assist areas south of WIS 60. There is still a concern that this area is too far from downtown.
    - Capacity expansion will help residential development by making the commute easier. More people will consider living in Ozaukee County. Development will follow population growth.
    - A new interchange at Highland Road will greatly increase the development potential of this area and the Port Washington Road corridor will fill in faster.
- Ozaukee County's greatest competitor for residential development is Waukesha County. For businesses, Ozaukee County tends to compete more with Washington County.
- Ozaukee County is on the Milwaukee to Green Bay corridor. It is not as strong of a development corridor as the Chicago to Milwaukee (hottest) and the Milwaukee to Waukesha corridor. Ozaukee County really doesn't compete with Sheboygan; it is too far from the metro area.
- Businesses that leave Milwaukee County for Ozaukee County tend to be Ozaukee County residents that do not want to commute anymore. This trend has slowed they do not see a lot of businesses moving from Milwaukee. Some of this is due to concerns about access to labor. Making the commute easier may persuade some business owners to stay in Milwaukee, but they may still desire to have their business in closer proximity.
- Improvements to WIS 60 corridor are important to improve east/west connections in the county. Currently they are poor. This would create a strong connection to US 45. This may help Saukville and Port Washington. WIS 60 plans are long term – 30 + years. Both I-43 and WIS 60 plans will strengthen the development potential of Ozaukee County.
- There is a strong feeling for agricultural preservation north of Grafton, which could feel development pressure in the future, but the market demand for development is not as strong either. Development is still slow in areas north of WIS 60.


Belgium/Fredonia – limited development; far from workforce; draw some employees from Sheboygan
Port/Sauk – expansion of existing businesses; limited new development; businesses concerned too far from workforce
Mequon/Grafton – focus of most development in Ozaukee County; WIS 60 is dividing line; close to workforce
Project Limits
Lake Michigan
BELGIUM BUSINESS PARK
FREDONIA BUSINESS PARK
PORT WASHINGTON BUSINESS PARK NORTH
SAUKVILLE BUSINESS PARK
CEDARBURG BUSINESS PARK
MEQUON BUSINESS PARK
Town Line Rd
Pebble Beach Rd
Jay Rd
Silver Beach Rd
Belgium Kohler Rd
Cedar Beach Rd
Newark Dr
River Park Rd
Dixie Rd
Knollwood Rd
Grand Ave
Cedar Sauk Rd
Pleasant Valley Rd
Cedar Creek Rd
Washington St
Ulao Rd/CTH Q
Falls Rd
Lakefield Rd
Pioneer Rd
Bonnwell Rd
Highland Rd
Freistadt Rd
Mequon Rd
Donges Bay Rd
Zedler Ln
County Line Rd
Fairy Chasm Rd
Brown Deer Rd
Legend
Existing Interchanges
Municial Boundaries
County Boundaries
Primary Study Area
Economic Centers
General Purpose
Industrial
Industrial/Office
Office
Retail
Retail/Office
0
1
2
Miles

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 01/29/2013

Meeting Name: Meeting with town of Grafton

Project ID: 1229-04-01

Attendees: Town - Amanda Schaefer, Clerk/Planner; Matt Clementi, Consultant Town Engineer; Bob Wolf, Plan Commissioner; Julia McNally, Plan Commissioner / Open Space Commissioner; Marjie Tomter, Open Space Commission Chairperson. Study team - Carrie Cooper (WisDOT); Caron Kloser (HNTB) Carolyn Seboe (HNTB)

Location: Grafton Town Hall, 1230 11th Ave. Grafton, WI 53024

Prepared by: Carolyn Seboe

Purpose: Discuss indirect and cumulative effects

A meeting was held with the town of Grafton to discuss the indirect and cumulative effects (ICE) analysis for the Environmental Impact Statement. Mike Treazise provided an overview of the project and discussed the highway options within the town. Then, Carolyn Seboe asked a series of questions relating to the ICE analysis. The following is a summary of the comments that were made at the meeting:

- What is WisDOT feeling on four vs six lanes? (WisDOT is looking at traffic models, considering expansion as well as TDM such as opening up shoulders during peak travel times.)
- How will Falls Road be reconstructed? (It will be reconstructed as an overpass that meets current standards.) How can the town promote bike lanes on the bridge? (WisDOT adheres to complete streets on local streets and should be able to accommodate bicycles.)
- Falls Road is an important connection for the town's multi-use trail, now called the Legacy Trail.
- Will noise barriers be provided this far north? (WisDOT is evaluating whole corridor, but likely do not have the density to qualify for barriers. Plus, homes need to be within 300 feet to benefit the most.)
- The town feels noise barriers are not aesthetically pleasing. They would prefer trees or a combination of berms and trees from an aesthetic standpoint.
- Will plantings be taken into consideration? (A context sensitive solutions process will be conducted during the design phase.)
- It would be nice to have a safe pedestrian/trail crossing under the highway at some place. Lakefield Road would be a natural place given the existing equestrian centers. The town's multi-use/Legacy Trail crosses I-43 at Lakefield.
- Will roundabouts be considered? (it is standard practice for WisDOT to consider roundabouts at intersections)
- How are bicycles accommodated at roundabouts? (bicyclist are encouraged to cross as pedestrians and use refuge islands or they can travel through the roundabout with cars)
- What is the impact to wetlands? (Wetland impacts will depend on the mainline option that is chosen. Wetland mitigation will occur. WisDOT will work with the DNR.)

- A wildlife crossing should be considered, perhaps at Falls Road. (WisDOT will be looking into this with DNR, most likely would occur at stream crossings.)
- Discussion about median treatments depending on mainline option – widening inside versus outside.
    - Widening outside seems to have more wetland impacts.
    - Widening inside - concerned about the look of concrete barriers not being consistent with the town's rural character. Don't want to block rural view of town from highway. (It will depend on the height of the barrier). What height is necessary for safety, but still preserves views? (Mike will look into it.) Tension wires would preserve the view. (Many options available, early in planning process)
    - For median treatments, aesthetics are important, but safety is top priority. Grafton students were in fatal accident on I-43, affected the whole community. Traffic will only increase.
- How would shoulder lanes work? (most likely would use red and green x's) Would they be in Ozaukee County? (yes, potentially)
- The town just underwent a land use plan update. They amended the plan to allow minimum one-acre lots on the east side of I-43. Trying to attract families to town by allowing more affordable lot options. The previous plan only allowed a minimum of 3-acre lots. The town board approved the land use amendment and zoning change (R-2 to R-3) the night before this meeting. Since there is a lack of affordable lots in the town, people have to build in the village or north of Grafton to find affordable options. Also, a developer could buy land and then petition the village to annex, and the town has lost land anyways. The land use amendment minimizes this risk. Land use plan and zoning map will be updated.
- The R-3 district has a conservation subdivision ordinance and a conservancy overlay that protects woodlands and natural features.
- All subdivisions have to be approved by the Plan Commission. Have strict design standards for development. Standards are worked into zoning code. Also, town has a Development Guidelines document that addresses aesthetics.
- The Port Washington Road district, north of County C/Pioneer Rd, is planned for smaller scale commercial uses. Mequon has zoning authority over this area and asserts their influence on the type of development that they will allow. Intergovernmental cooperation between Mequon and the town is improving and this will make it easier for businesses to be successful. The current zoning code is very restrictive and often makes it too expensive for development. Mequon has recently allowed a few changes to the code to make it more business friendly. Example is permitting businesses to hand temporary banners for advertisement.
- A car dealership was proposed north of County C and east of I-43. Did not happen.
- The town is ready for development. They have regulations in place to provide quality development.
- The town has a lot of residential. They would like to have more commercial tax base, but most commercial goes to the village where sewer and water are available.
- The town does not have sewer and water services and is not able to provide sewer/water.
- The Family Farm is for sale. It will likely be converted to commercial.
- County C alternatives – the town's only concerns is if roundabouts are proposed. They are concerned it would increase the amount of right of way needed, that would impact businesses. The Mobilmart is planning an expansion. Make sure alternatives allow existing businesses to be viable.

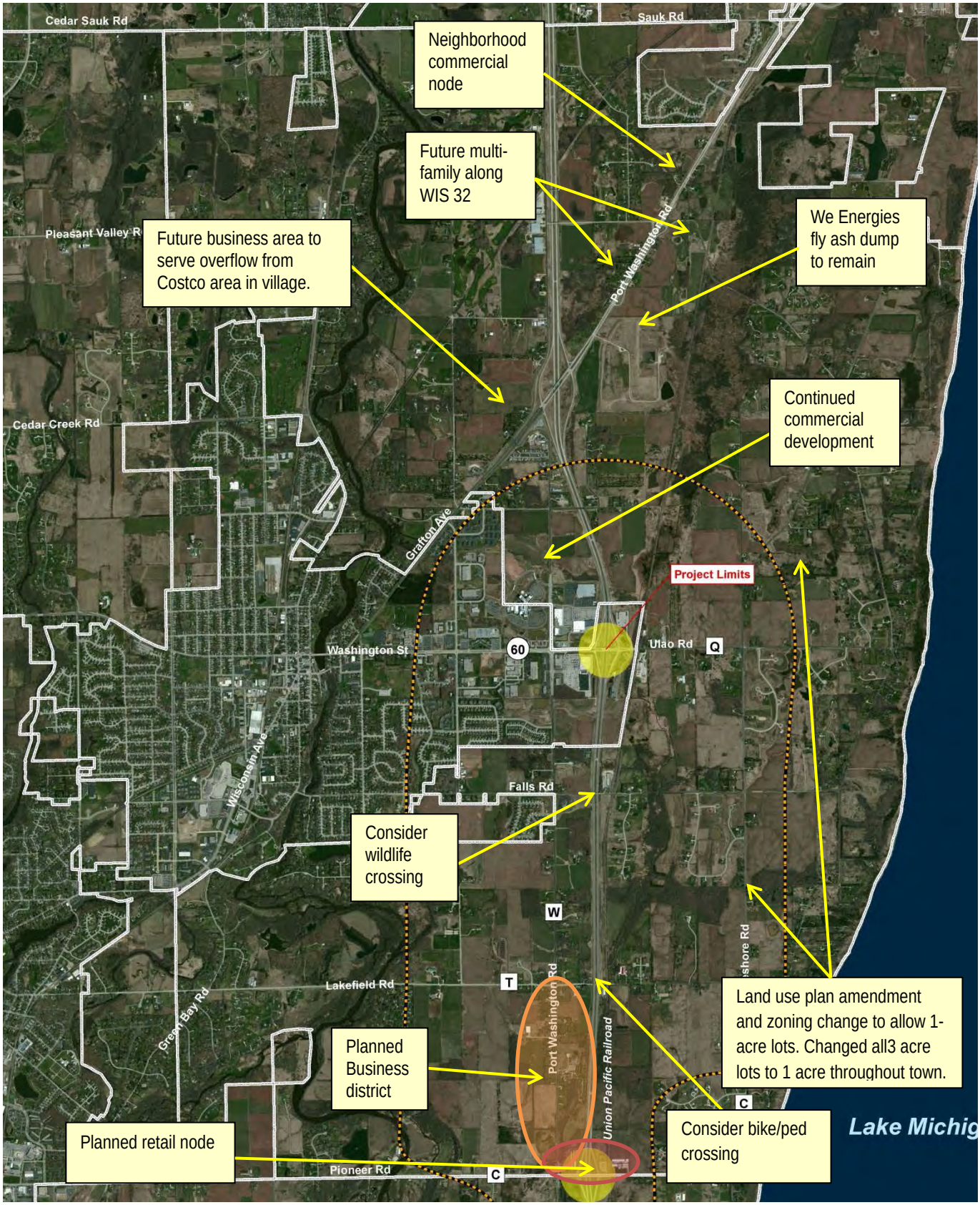
- The town does not anticipate much effect if a Highland Road interchange is built. They see it as a shortcut to MATC. It may provide some traffic relief for Pioneer Road. It may create some more competition for planned commercial at Pioneer Road.
- The town does not have an agricultural preservation ordinance and no agricultural land is shown on the land use plan. No vision for large farms, small farms would be permitted. Only one working farm left in town. Some fields are leased for hay. They have a lot of equestrian facilities.
- Annexation – the town and village have a good relationship. The village has extraterritorial zoning authority, but does not provide input on zoning. Annexation typically occurs when property owners petition the village for annexation. Isolated town areas will likely be annexed over time.
- EDGE (Economic Development for Grafton Enhancement) – is promoting the community (town and village) as a whole.
- Development c constraints
    - Townships are not able to offer financial assistance with tax increment financing and revolving loan funds, it is state law
    - All areas of the town have extraterritorial zoning oversight by adjacent cities and towns.
    - Can't provide sewer and water services
- Market demand
    - There is demand for smaller scale businesses. No demand for large or medium box retailers. More boutique/smaller scale retail.
    - Residential – have very high end large lot subdivisions. Prior to economic recession market was strong from R-3 lots (minimum 1-acre). Currently if lots are priced right they sell fast. For example, in 2011 a developer had lots in a subdivision priced between $135,000 and $150,000. The developer went under and the land was bought by another developer who priced the lots at about $90,000. They sold right away. The new zoning code that allows a minimum of 1-acre lots will provide more flexible and increase demand for housing.
- The town has many natural resource areas including Lion's Den, Lake Michigan shoreline, Ulao watershed, birding hotspot. The town has land in permanent preservation through the Ozaukee/Washington Land Trust. The natural features of the community are a big draw, but also concern about the effects of development on the natural resources. Town trying to find a balance.
- In terms of development north of WIS 60 and how it would be affected by capacity expansion, the town feels every little bit helps. It has good visibility from highway.
- If no action from WisDOT, right now no effect, but later in time people would start to notice as traffic increases. People would be less willing to live in Grafton if the commute to downtown is worse. The traffic is already bad south of Mequon Road and traffic is starting to back up north of County C. People choose to live in Grafton due to the ease of access to I-43. There is a well-defined peak hour with a clear directional split. It is also important to improve the safety of the highway.

10/2/13 – follow up call to Amanda Shaffer to discuss the town's plans for the area around I-43 and WIS 32.

According to Amanda, the WIS 32 area to the east of I-43 is within the city of Port Washington's extraterritorial zoning jurisdiction. The town and city decided that this would be an appropriate place for the town to have multifamily uses if the demand for such uses exists. This is the RM-1 area on the land use map. The B-2 area

on the north side of WIS 32 would be for neighborhood serving commercial uses. Some annexations by Port Washington could happen in this area depending on the desires of the private land owners. The M-2 industrial area on the south of WIS 32 is mostly owned by We Energies and it contains a fly ash dump. Amanda felt that this would not change in the future because We Energies has been offered large sums of money by developers in the past and they have turned them down.

The area on the west side of I-43 to the north of WIS 32 is planned as a retail district and would be a continuation of retailers to the south like Costco. The towns B-1 district allows medium box and potentially larger retailers. The B-1 zone has lot area regulations, but does not have restrictions on building footprint. This area is within the village of Grafton's extraterritorial zoning boundaries but Amanda does not think this area is likely to be annexed by the village. This area does not have sewer and water services, but Amanda felt this would not impede larger retailers and pointed out that Cabellas in Richfield does not have public sewer and water services. The PWB-1 district is more likely to be annexed by the village.


Neighborhood commercial node
Future multi-family along WIS 32
We Energies fly ash dump to remain
Future business area to serve overflow from Costco area in village.
Continued commercial development
Consider wildlife crossing
Land use plan amendment and zoning change to allow 1-acre lots. Changed all3 acre lots to 1 acre throughout town.
Planned Business district
Planned retail node
Consider bike/ped crossing
Project Limits
Cedar Sauk Rd
Sauk Rd
Pleasant Valley R
Cedar Creek Rd
Port Washington Rd
Grafton Ave
Washington St
Ulao Rd
Falls Rd
Wisconsin Ave
Lakefield Rd
Green Bay Rd
Union Pacific Railroad
Pioneer Rd
Lake Michig

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Date of Meeting: 03/20/2013

Meeting Name: Meeting with Village of Grafton

Project ID: 1229-04-01

Attendees: Darrel Hofland (Village Administrator) Carrie Cooper (WisDOT); Carolyn Seboe (HNTB)

Location: Grafton Village Hall, 860 Badger Circle

Prepared by: Carolyn Seboe

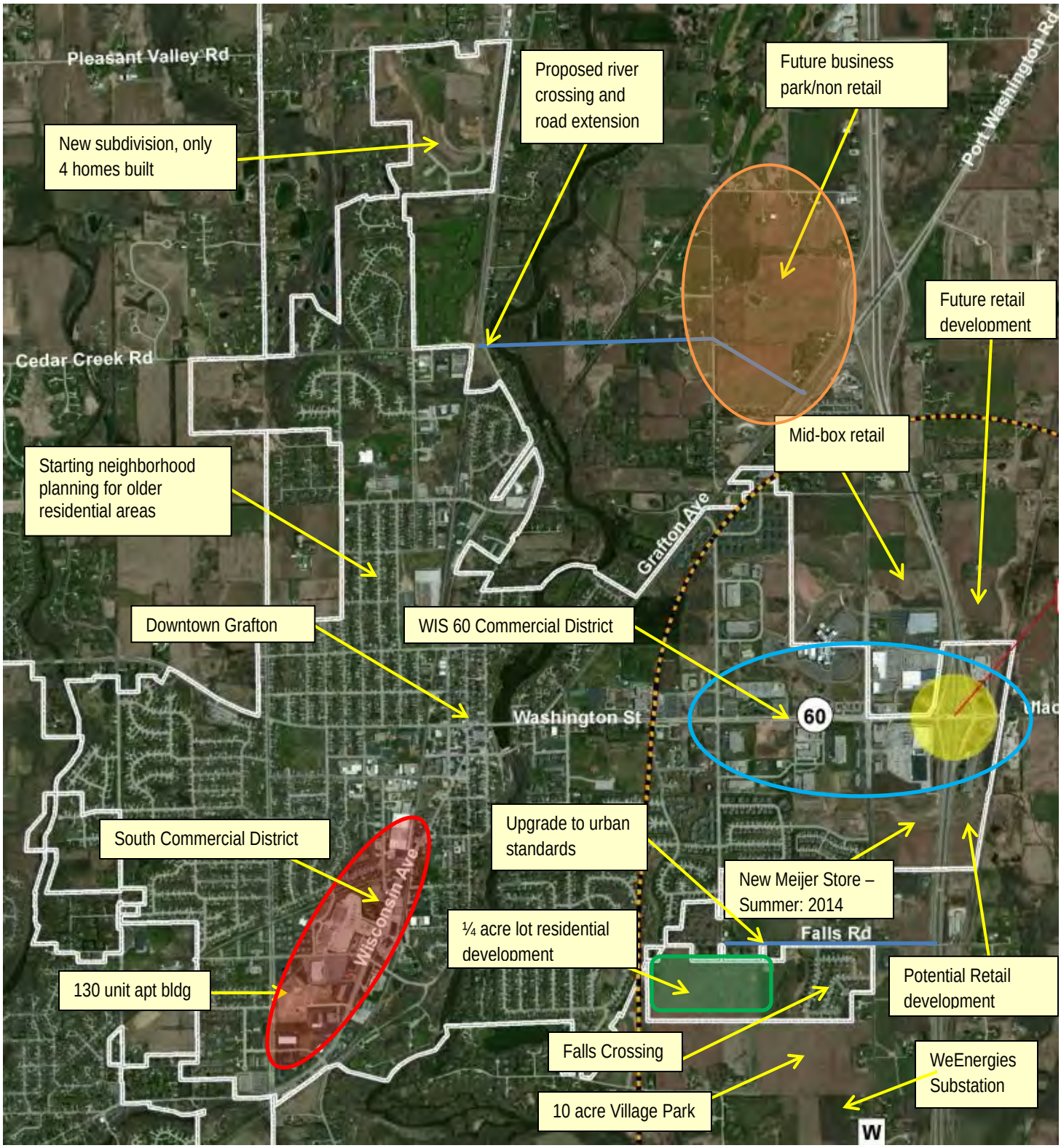
Purpose: Discuss indirect and cumulative effects

A meeting was held with the village of Grafton to discuss the indirect and cumulative effects (ICE) analysis for the Environmental Impact Statement for the I-43 North-Study Study. The village administrator participates in the project technical advisory committee and did not require background information on the study. A series of questions were asked to obtain information for the ICE analysis. The following is a summary of the comments that were made at the meeting.

- The village has a stormwater discharge permit and exceeds the 40% total suspended solids requirement. The village is committed to good stormwater management. The village is doing regional ponds that remain in private ownership.
- The village has a comprehensive plan. They follow their land use plan rigorously. They make sure all zoning changes are consistent with the plan.
- The village's practice is to only annex land that will develop immediately. They seek to have unanimous consensus from property owners being annexed.
- Darrel will provide past development reports that characterize the past growth of the community.
- A new Meijer store is opening summer 2014 to the west of Port Washington Road, south of the existing Home Depot. The development has been approved by the village. It has four outlots that will be used for stormwater.
- The area to the south of the existing Hampton Inn and Suites to the east of I-43 along Washington Street (off Ulao Rd) is for sale and will likely develop as retail. The property is owned by Steinhafels.
- The area immediately north of the existing Costco, to the east of Port Washington Road, is likely to develop as mid box retail within the next two years.
- The area approximately to the north of Port Washington Rd, west of County W, east of East River Rd and south of Terminal Rd will be developed with non-retail uses in the future. It could potentially be a future business park. Sewer and water will need to be extended to serve the development. Ultimately this area is likely to be annexed into the village.
- The village is working with the county to obtain a river crossing with Cedar Creek Rd and extending the road to Port Washington/County W near the I-43 interchange. This road would serve the future development mentioned in the previous bullet, but would also help alleviate traffic at the WIS 60 interchange. County Road I will be rerouted to Port Washington Road. Likely a 20-year timeframe for this to happen. Plans are shown in the Grafton comprehensive plan, the county's plan and SEWRPC's plan.

- The area to the north of the Colder's furniture store, south of Arrowhead Rd, east of I-43 and west of the railroad tracks is likely to be developed for retail uses. No specific proposals.
- The area east of I-43, along Ulao Rd is expected to be a future business park. They get calls from developers looking to build elderly housing in this area, but village is reluctant to develop multi-family in this area – multi-family planned is in the area known as the South Commercial District.
- Falls Road to the west of I-43 to approximately Cheyenne Avenue will be upgraded to an urban section, currently rural road.
- The land in the village to the south of Falls Road, west of I-43 will be developed by the time the Interstate is reconstructed. Planned for ¼ acre lots.
- A new subdivision to the south of Falls Road was developed very quickly. Close to interstate, developer sold as lot/house package. Convenient for people who want to build. (subdivision called Falls Crossing)
- A 10-acre village park is planned to the south of the Falls Crossing subdivision. It will connect with a road in the subdivision.
- A We Energies substation was just constructed to the west of Port Washington Road to the south of the village and south of Falls Road.
- The village strives to minimize wetland impacts from private development. Typically they will allow a driveway to impact the wetland, but no other impacts allowed.
- Grafton's development plans are not likely to change based on the proposed I-43 improvements. When Costco came to the village, the village made roadway improvements to the interstate ramps at Highway 60 and upgraded the Port Washington Road and WIS 60 intersection to handle traffic. These investments were meant to not only accommodate Costco, but also the entire commercial district. They have the infrastructure in place to serve the planned development.
- Capacity expansion is more likely to benefit residents since the biggest benefits will be for commuters. The retail uses are not likely to benefit as much since adequate local roads and freeway access are already in place.
- The WIS 60 commercial district draws patrons from the entire North Shore area including the northern communities in Milwaukee County. They also serve the southern half of Sheboygan County and the east half of Washington County. Germantown is the next regional node. It is far enough from Grafton for retailers to have locations in both Germantown and Grafton.
- The downtown Grafton area has been doing well and has seen retail and residential investment.
- Redevelopment of the area known as the South Commercial District, located along Wisconsin Avenue on the village's southwest side, has been slow going. All the national franchises are going to I-43/WIS 60 area. The village is working with existing businesses and property owners to transform how they view themselves. In the past it served as a regional shopping district. Now it is more suited for a neighborhood shopping district and for apartments and condominiums.
    - A 130 unit apartment building is planned east of 1st Ave at Oak Street.
- In the past Bayshore was considered the main competitor for retail in Grafton. However, Bayshore and Grafton serve different retail niches. All high end retailers go to Bayshore. Now Mequon is their main competitor, which has similar types of commercial uses. Mequon is planning to expand their Port Washington Road commercial corridor. That will compete with Grafton's Highway 60 development. The potential for a Highland Rd interchange will increase the competition between Grafton and Mequon. County C interchange will be competitive for retail if sewer and water are provided.

- It is the village's goal to maintain Falls Road as the dividing line between commercial and residential. North of Falls Road – commercial, south of Falls Road – residential. Some developers are starting to buy land south of Falls Road on speculation and are interested in the area for commercial uses. The village wants to make sure they do not overdevelop retail. They want to maintain a smaller amount of quality retail areas.
- Grafton is the number one location for students at Concordia who live off campus and also has many people that live in Grafton and work at Concordia.
- The commercial market in Grafton is strong. The biggest challenge is that most land is owned by developers and the land values are high. The developers are waiting for the best deal. The Meijer's property sold for about $250,000/acre. It included a lot of undevelopable land due to environmental constraints.
- The village has tried to minimize the amount of small retail spaces in the WIS 60 commercial district. They do not want this area to compete with their downtown.
- The village has plenty of capacity for sewer and water, with six existing wells and the potential to add another one. Grafton, Cedarburg and Mequon are planning long term to construct a water filtration plant to serve their communities using Lake Michigan water. This is at least 20 years out. They want to hold off as long as possible because water rates will increase significantly due to the initial capital costs for constructing the facility. The communities want to work with WisDOT to create a conduit under the interstate for the future water supply when I-43 is reconstructed.
- The residential market in Grafton was very strong prior to 2008. They had tremendous single-family growth. The last two to three years they have only seen about 10 houses per year. They expect it will pick up again, but still only anticipate about 40 new homes per year for the next five years. They expect more growth in the apartment and condominium market in the near term.
- The village's existing housing stock is in good condition and they have a high owner occupancy rate. They are starting to study some of the older neighborhoods (post WWII housing stock consisting mostly of cape cods) to make sure those neighborhoods remain stable.
- When asked about where people are coming from when they buy a home in Grafton, Darrel described his own subdivision that was recently developed. About ¾ of the people are not from Grafton. Many are young families from Mequon. At least 1/3 has international origins especially from India, but also Russia. The younger families tend to be employed in IT and financial planning professions and both parents are typically employed in good paying jobs. Grafton is half way between Milwaukee and Sheboygan and allows spouses to be employed in both areas.
- Grafton's development is limited by Lake Michigan. They will always have less population because of it. Can't get retail intensity of Waukesha area that is central in metro area.
- Grafton expects to benefit if the State of Wisconsin removes the residency requirement for city of Milwaukee workers.
- Growth in manufacturing has been strong in Grafton in last five years including building expansions and job growth. They have owners that live within 20 miles of Grafton and are committed to the area. They tend to be moderate to higher paying manufacturing jobs. Examples include biomedical, IT, chemical, metal stamping companies.
- For the focus group meeting Darrel suggested inviting some of Grafton's large employers such as Aurora. Could also consider Chamber or Seek professionals. He has encouraged Grafton's top ten employers to participate on the community advisory committee.


Pleasant Valley Rd
New subdivision, only 4 homes built
Proposed river crossing and road extension
Future business park/non retail
Port Washington Rd
Future retail development
Cedar Creek Rd
Mid-box retail
Starting neighborhood planning for older residential areas
Grafton Ave
Downtown Grafton
WIS 60 Commercial District
Washington St
60
South Commercial District
Upgrade to urban standards
Wisconsin Ave
New Meijer Store – Summer: 2014
¼ acre lot residential development
Falls Rd
130 unit apt bldg
Potential Retail development
Falls Crossing
WeEnergies Substation
10 acre Village Park
W

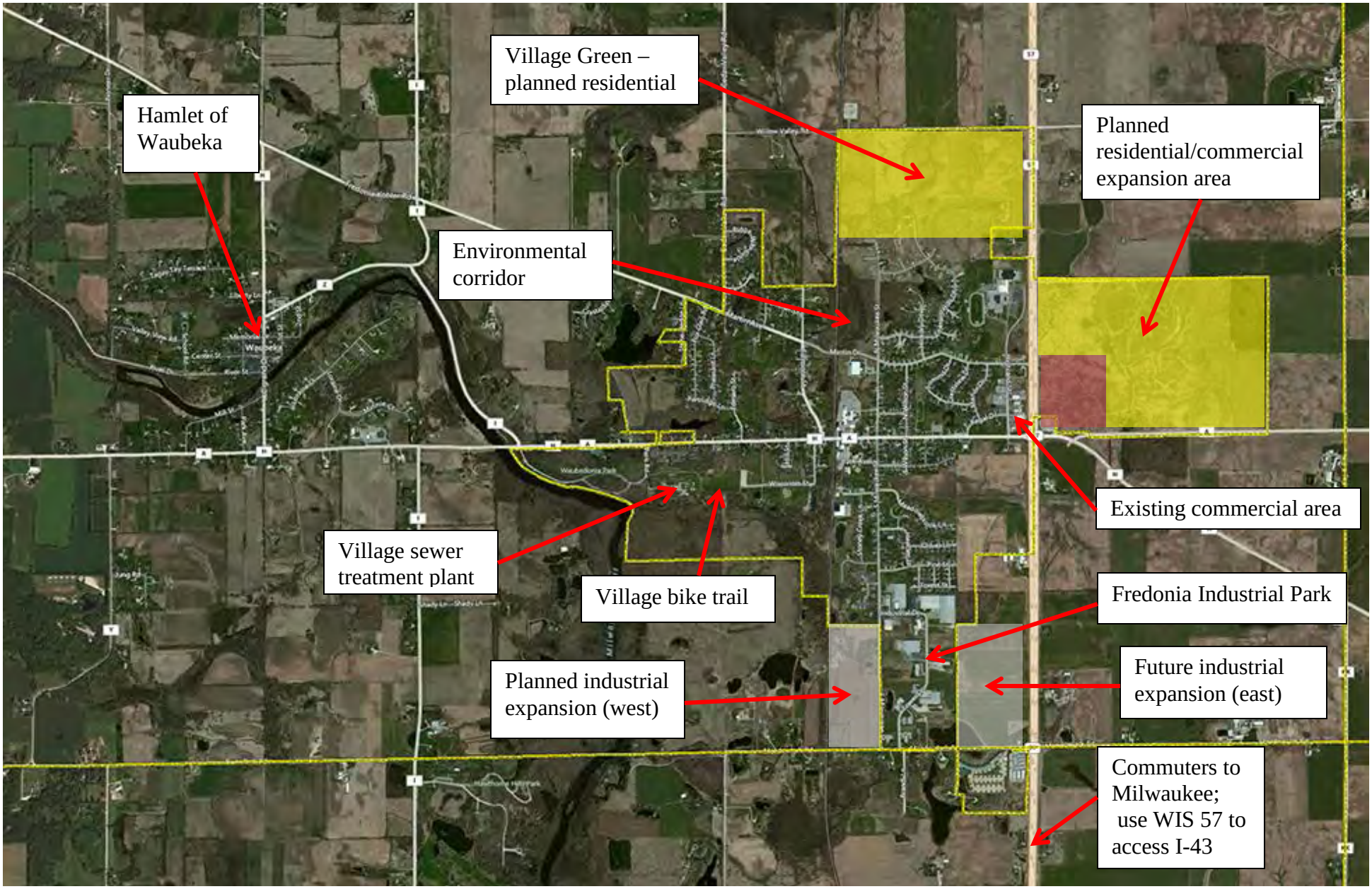
Meeting	ICE – Village of Fredonia
Date, Time	October 9, 2013; 10 a.m.
Location	Village Hall, 242 Fredonia Ave Fredonia, WI 53021
Attendees	Charles Lapicola, Fredonia Village President Carolyn Seboe, HNTB Caron Kloser, HNTB

Meeting Summary

A meeting was conducted with the village president to discuss village land use, economic development and indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-43 North-South Corridor Study. The following is a summary of the points that were made at the meeting.

- The value of farmland increased during the recession and the value of developable land decreased.
- Fredonia is a bedroom community. People from Fredonia commute to the Milwaukee area – downtown, airport, Franklin. Fewer residents commute to Mequon. Fredonia supplies skilled workforce to Milwaukee.
- Access to WIS 57 is important for Fredonia. WIS 57 has a lot of traffic in the morning and afternoon.
- More lanes on I-43 are needed. The Bender Road lane drop adds 30 minutes to the drive between downtown and Fredonia. I-43 needs to be six lanes to at least Mequon Road, but WIS 57 would be ideal.
- The Fredonia Park and Ride is heavily used for private vehicle carpooling, but not for buses. Ozaukee County express will pick up at the park and ride upon request.
- The village currently contains a small commercial area along Highland Street north of County A and east of WIS 57. They have a few commercial establishments (gas station, McDonalds, banks), but residents have to leave the community for most goods/services. Saukville captures some of the commercial development, but Grafton is the commercial center for the county. Most of the village's existing residential areas were constructed 10 to 20 years ago.
- The village has a mixed residential/commercial expansion area planned on the east side of the village (within existing village boundaries) at the northeast quadrant of WIS 57 and County A. Sewer and water were extended to the site, but the land was sold back for farm uses after the recession. Once the market picks up again, the farmland will be purchased and the development will move forward.
- The area known as the Village Green on the north side of the village (within village's existing boundaries), west of WIS 57 is planned for residential expansion. The development went bankrupted and the bank sold about 20 to 30 lots at a reduced price and homes were built. The north end of the Village Green was sold back for farming. It is likely that the farmland will be rebought and turned into residential.
- The village has a small industrial park on the south side. It is built out. The village receives inquiries about available industrial land, but no land is available for industrial development. If land was available, it would be sold. The village anticipates expanding the industrial park to the west and east. Farmland would need to be sold and land would need to be annexed into the village so sewer and water could be provided. The west side of the existing industrial park would be easiest to develop. Access is already available via Milwaukee Street and sewer and water are already available along Milwaukee Street. The Wisconsin Southern railroad also traverses the land. The eastern side would require new road infrastructure and sewer and water would need to be extended. The village is looking for lighter industrial uses similar to existing industrial uses (i.e. baking, printing, sanitary wipes).
- The area already has a lot of truck traffic. Don't expect it to increase much.
- The village sewerage treatment plant was built to handle the village and development in the hamlet of Waubeka. Waubeka currently does not utilize the system, but they will eventually need to join. It is likely that Waubeka will become part of the village at some point. It would double the size of the village. In addition to Waubeka, other village expansions are likely as residential septic systems fail; people will need to hook into the sewer system; the village only allows sewer service extension if the land is annexed to the village.

- There is pent up demand for development from the recession. “Development is ready to explode.” The Village has a lot of reserve capacity within existing expansion areas – at least 15 years or more of development can be accommodated.
- The town has allowed a lot of small subdivisions.
- The I-43 improvements/capacity expansion will facilitate Fredonia’s planned residential development. These trends are already occurring. The congestion on I-43 is hurting Milwaukee more than it affects Fredonia. People do not want to shop in Milwaukee because the traffic is a hassle. This hurts Milwaukee’s income by not allowing Fredonia easier access to Milwaukee. Fredonia residents would like to go to Milwaukee. Need to improve access to Milwaukee for Fredonia’s trained workforce that works in Milwaukee.
- It is important for communities to have full access interchanges. Do not construct partial interchanges.
- Fredonia does not want WIS 57 to be a limited access freeway in the future. Too much land and access would be lost. WIS 57 is fine at 55 mph.
- The transition from I-43 to WIS 57 is challenging. Signage needs to be moved back so people can anticipate the exit to WIS 57 farther in advance.
- All the primary and secondary environmental corridors in the village are protected by village zoning. No environmental impacts are expected from planned development – reviewed during land use planning.
- The village has an updated recreation and trail plan. They are planning to expand an existing bicycle trail to the east and potentially linking it to the village’s commercial area.
- The village adopted the county comprehensive plan. They do not have an individual plan.
- It’s very important for all communities north of Fredonia to have full access to the interstate (this is what I have in my notes, but now I am not sure if it was referring to the partial vs. full interchange comment)


Village Green – planned residential
Hamlet of Waubeka
Planned residential/commercial expansion area
Environmental corridor
Existing commercial area
Village sewer treatment plant
Village bike trail
Fredonia Industrial Park
Future industrial expansion (east)
Planned industrial expansion (west)
Commuters to Milwaukee; use WIS 57 to access I-43

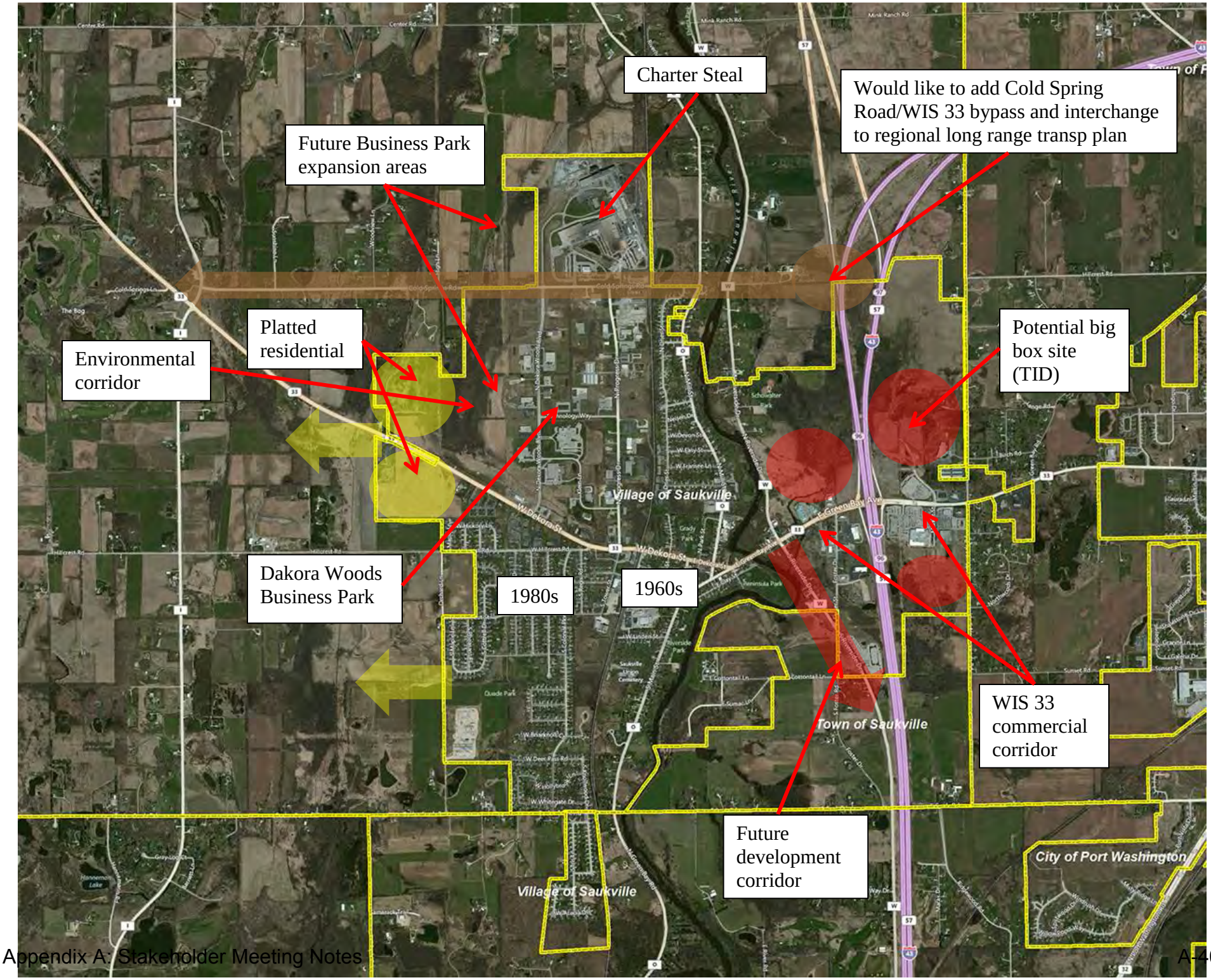
Meeting	ICE – Village of Saukville
Date, Time	October 10, 2013; 1 p.m.
Location	Village Hall, 639 E. Green Bay Road, Saukville, WI
Attendees	Dawn Wagner, Village Administrator Roy Wilhelm, Director of Public Works/Village Engineer Marilyn Haroldson, Economic Development/Planning Monica Wauck, WisDOT (I-43 N-S Study) Carolyn Seboe, HNTB Caron Kloser, HNTB

Meeting Summary

A meeting was conducted with village staff to discuss village land use, economic development and indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-43 North-South Corridor Study. The following is a summary of the points that were made at the meeting.

- The village's adopted land use plan is current and no changes have been made.
- The Dekora Woods Business Park is located on the north side of the village. Some lots remain in the business park (7-10 acres), and there is potential for expansion (about 20 acres) to the west and north. Expansion to the west is constrained by an environmental corridor. The village is on-par with other communities in terms of market demand for business park development. Vacancies in existing buildings fill up, but no new construction has been occurring. The village is not against heavy industry as long as it is consistent with the village plan.
- The village's commercial area is located on the east and west sides of I-43 along the WIS 33 corridor. Several national retailers have located in this location including a WalMart. Additional commercial development is planned along the WIS 33 corridor and the villages zoning ordinance permits medium and large retailers. A TID has been established. The village has a big box reuse plan requirement built into their ordinance. There is some new commercial development interest in the WIS 33 corridor; but new construction deals tend to fall apart. The existing vacant spaces are filling up.
- There is potential for long term commercial development on County W, south of the village, near I-43. Sewer and water services are available.
- The village's existing residential areas are located on the east (1960s construction) and south sides (1980s construction) of the village. There is little, to no residential activity right now. The Redman subdivision on the northwest side of the village was platted, but no infrastructure was put in place. The land is for sale. Residential growth is planned to the west of the village within the town. It is zoned for low density development. The area has many environmental corridors, which increases the cost for developers because the environmentally sensitive land can't be developed.
- The village does not solicit annexations. They only annex if petitioned by private land owners. The village and the town do not have a joint boundary agreement.
- WIS 33 is a heavily used interchange. Port Washington is a tourist attraction. Also, a large amount of traffic from the west of the village uses WIS 33 through the village to access I-43. The village recently met with SEWRPC to discuss including a WIS 33 realignment along Cold Springs Road and a new I-43 interchange (north of WIS 33) in the regional long range transportation plan. The new interchange and highway realignment will need to occur at some time in the future or the WIS 33 interchange will need to be expanded to handle future traffic.

- The village is curious to know the current traffic counts at the WIS 32 and WIS 33 interchanges to see if there is any effect from the recent reconstruction of WIS 33 between I-43 and South Tower Drive. Traffic moves much better since the road improvements.
- The village does not feel that I-43 capacity expansion would change planned development. However, they feel, adding capacity would facilitate their land use plans by encouraging residential development. If the commute between downtown and Saukville is improved, more people may consider living in Saukville. This would make the village more marketable. They have the land use plans in place and residential land is ready for construction as noted above – the Redman subdivision is platted.


Charter Steal
Would like to add Cold Spring Road/WIS 33 bypass and interchange to regional long range transp plan
Future Business Park expansion areas
Platted residential
Environmental corridor
Potential big box site (TID)
Village of Saukville
Dakora Woods Business Park
1980s
1960s
Town of Saukville
WIS 33 commercial corridor
Future development corridor
City of Port Washington
Village of Saukville

Meeting	Downtown Stakeholders – City of Milwaukee DCD; Downtown BID; Milwaukee County Economic Development; Historic Third Ward
Date, Time	August 29, 2013; 10 a.m.
Location	City of Milwaukee Department of City Development, 809 N Broadway
Attendees	Greg Patin, DCD Steve Looft, Downtown BID Nancy O'Keefe, Historic Third Ward Association Emily VanDeraa, Milwaukee County Economic Development Jason Lynch, WisDOT Monica Wauk, WisDOT Carolyn Seboe, HNTB

Meeting Summary

A meeting was conducted with downtown stakeholders to discuss indirect and cumulative effects for the I-94 East-West Corridor Study. The I-43 North-South Corridor Study was also discussed.

The following is a summary of the comments that were made at the meeting:

- Greg asked about the potential to develop the land that would be vacated by the realignment of the freeway on the east leg. Jason said it would no longer be needed for freeway use, but grade changes would need to be overcome.
- The city is coordinating with WisDOT on the Lake Interchange project. The project will free up land in downtown and the Third Ward. Several large developments are pending in this area such as the Couture hotel/apartment tower.
- The city is looking for opportunities to fill land that was left vacant by the Marquette Interchange. Exploring recreational uses.
- Infill development is occurring in downtown. Apartment development is strong right now. 100 units is a common scale for apartment developments.
- The Brewery (former Pabst Brewery) continues to grow and attract development.
- The west side of downtown and along Wisconsin Avenue is an area of concern, but also an area of interest. This area will see change. More residential growth is anticipated. The area needs a demographic shift to encourage redevelopment.
- Downtown Milwaukee is very stable. It experiences losses, but also gains. Slow growth, but comfortable, making progress. Not like Sunbelt growth.
- Downtown has about 80,000 jobs – this number has remained stable. Fortunate to not be like some cities that continue to lose jobs.
- The younger generation (22 to 33 year olds) is very interested in living downtown and being close to its amenities. They tend to stay local and utilize downtown businesses. Employers should understand this shift when considering business locations.
- The success and energy of the Third Ward is spilling over to the south and renovations are occurring in the Fifth Ward. The Third Ward continues to grow and has opportunities to development large parking lot areas.
- The city is trying to improve the aesthetics/lighting of the passage under I-794 between the Third Ward and downtown. Improving the connection will help the energy of the Third Ward move north.

- Park East corridor – land to the east of the river is mostly developed or will be. MATC is finishing a parking lot and a housing development at Ogden and Broadway. The county is evaluating options for the west side of the corridor. They are considering marketing the parcels for private development or reserving the land for a potential Bradley-like public/quasi-public use.
- The city is a long land mass and has many different exciting places, but the areas in between those places can be uninteresting. Goal of the downtown plan is to improve those the connections between the activity centers and encourage people to move between the activity centers. Greg did not think the I-94 E-W alternatives would affect this goal.
- The Italian Community Center in the Third Ward is seeking development opportunities within their parking lots.
- The Reed Street Yards is a planned development that is seeking water based research/technology firms and light manufacturing.
- Steve Looft felt improved traffic flow along I-94 would benefit downtown by improving the connection between downtown and the western suburbs. Better traffic flow would encourage business owners to consider downtown locations and would help existing businesses recruit employees. Currently employers are concerned employees won't want to travel along I-94 to get to work.
- Steve acknowledged the bottleneck on I-43 at Bender, but didn't think the traffic congestion between downtown and the northern suburbs was as bad as I-94. He felt the lakefront route provides a convenient and fast connection to Mequon and other north shore communities. Nancy on the other hand felt the congestion was challenging on I-43 and it made it difficult to conveniently access downtown. Steve hears most complaints about the I-94 corridor from downtown businesses.
- Greg Patin said freeway capacity expansion could make it easier for downtown residents to shop at retail centers in the suburbs and avoid downtown retailers.
- Steve felt that people live in downtown because they want the amenities downtown has to offer that you can't find anywhere else.
- Greg said it is challenging to forecast the land use effects of the freeway. There are so many factors that are in play regarding development. The freeway is not all bad and not all good. Many decisions come into play for development. Metro Milwaukee is not growing much; rising gas prices may influence people's decisions.
- Steve said data and trends show slow, but steady growth in downtown (1 to 1.5%). It is an international movement that people are choosing to live in urban environments.
- A lot of reverse commuting is going on. People living in downtown are commuting to the suburbs. Employment areas are spread across the region, not all in downtown.
- Steve and Nancy felt the easier it is to get people to downtown the better it will be for downtown investment. Need to make sure people can get in and out of downtown.
- More power thinkers/executives are living in downtown. This has helped to change regional trends of where people live and work.
- The speed limits on the freeway would remain the same.
- Greg would like to share the design plans with some of his coworkers and have an internal discussion on this topic. He will let us know if DCD has any additional comments.

Notes prepared by Carolyn Seboe, HNTB

Meeting	Milwaukee County
Date, Time	February 28, 1:30 p.m.
Location	
Attendees	Dobra Payant, WisDOT Carrie Cooper, WisDOT Charlie Webb, CH2M Hill Carolyn Seboe, HNTB Clark Wantoch, Milwaukee County, Director of Highway Operations Aziz Aleiow, Milwaukee County

Meeting Summary

A meeting was conducted with Milwaukee County to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and I-43 North-South Corridor Study. After introductions, an overview of both studies was provided and the alternatives that are being evaluated were discussed.

The following is a summary of the comments that were made at the meeting:

- Clark oversees the county's highway projects and maintenance.
- Clark spoke with Brian Dranzik before the meeting to find out if he has any concerns about transit impacts. The county does not anticipate much impact to transit other than making sure bus access at park and ride lots is replaced if impacted by the project. Clark relayed that Brian also said the county would like to coordinate with WisDOT to include a bus only ramp at the Brown Deer Road interchange along I-43 to connect with the park and ride lot.
- The county contracts with the state for snow removal services for the freeways. Clark's main concern about the project is that the designs account for future maintenance and the safety of maintenance workers including lane width and areas to be plowed.
- The Milwaukee County parks department owns the county parkways and is responsible for their maintenance. Clark said we should check with the parks department as the Mitchell Park Blvd may be under their jurisdiction and the county may have some plans for the boulevard.

Notes prepared by Carolyn Seboe, HNTB

Meeting	African American Chamber of Commerce (AACC)
Date, Time	February 25, 3:00 p.m.
Location	Prism Technical, 6114 West Capitol, Suite 200, Milwaukee, WI
Attendees	Keegan Dole, WisDOT Carrie Cooper, WisDOT Charlie Webb, CH2M Hill Carolyn Seboe, HNTB Dr. Eve M. Hall, AACC, President/CEO Randy Crump, AACC, Chairman of the Board

Meeting Summary

A meeting was conducted with the AACC to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and I-43 North-South Corridor Study. After introductions, an overview of both studies was provided and the alternatives that are being evaluated were discussed.

The following is a summary of the comments that were made by Dr. Hall and Mr. Crump at the meeting:

- The 35th Street interchange is dangerous now especially from US 41. Dr. Hall grew up in this area.
- Discussed how the freeway development process compares today to when the freeways were originally constructed. The team discussed that today we have more laws that require public input and a process that requires the evaluation of alternatives and disclosure of impacts. Dr. Hall's home as a child was moved to a different area for the construction of I-94.
- Dr. Hall provided an overview of the AACC. They have been in operation since 1993 and they focus on building minority, particularly African American, businesses. They have 150 members that includes minority owned businesses, nonprofit partners and corporate partners. They primarily represent businesses in the Milwaukee area, but they are asked to get involved in other communities throughout the state including Kenosha, Racine and Green Bay. Some specific initiatives include developing a revolving loan program; creating an African American professional contractors business list that identifies quality businesses; organizing a women's business group; and promoting the next generation of minority businesses. The AACC has been through some transitions in recent years and they are working to rebuild their credibility in the community so they can help influence policies that affect their members.
- Most African American businesses are on the north side of Milwaukee.
- The North Milwaukee State Bank partners with WisDOT and Chambers of Commerce to offer micro loan funds. This program has been successful at helping local minority contractors participate in transportation construction employment. WisDOT guarantees the funds. The Chamber helps process the smaller deals that banks typically won't consider due to processing costs/small loan amount.
- The I-94 and I-43 corridors are important for African American businesses. These are the access points they use to get to downtown, Brookfield, Madison. They experience problems with safety and traffic.
- Concerned about access and traffic during construction. Need to keep businesses informed about construction activities so they can plan accordingly.
- Many of the local streets already have access and congestion issues. This will get worse when the freeways are under construction. An example is the intersection of Port Washington Road and Silver Spring Road. It is hard to access some of the businesses and this discourages people from using the businesses.
- In terms of capacity expansion, the AACC feels a more balanced transportation approach is needed that incorporates transit. They are concerned about highway capacity expansion stretching development out further. Seems like people are wasting so much gas and time driving back and forth along these corridors in

single occupancy vehicles. Need to incorporate transit. Other communities in the country are embracing transit.

- It seems that transportation is built to get people out of the city. Miller Park is an example. It provides and easy in/out of the ball park, but all the benefit is contained within Miller Park, the benefit is not shared with the regional economy.
- The Milwaukee area is separated between the haves and have nots and this is affecting major corporations in the region. The president/CEO of SC Johnson stated this concern in a speech.
- The AACC is not against freeways, but a more balanced approach that includes transit would be better for the regional economy.
- The frontage roads along I-94 may be a good solution to help keep all access points open and help make the access points more easily identifiable. Some of the existing access points are confusing. The 27th Street-25th Street interchange is an example.
- The 27th and Wisconsin area is prime for redevelopment. Maintaining freeway access will be important.
- Traffic operations along the 27th Street corridor north of I-94 are poor. If access is consolidated at 27th Street, how will this affect traffic on the local road? The team said local road impacts still need to be studied.
- It is important for the project team to talk with the local neighborhoods to find out what is important. An example is how important the ACE Hardware store in Glendale is to the area.
- The no action alternative does not seem likely because something needs to be done to address the freeway's deficiencies. The replace in kind alternative would be ok if it addressed some of the major safety and access issues.
- A better approach that is better for our region will include a more balance transportation system that incorporates commuter rail and transit. We need to be able to function within our community (access points), but have touch points outside the city to make sure we connect people with jobs.
- People who do not have cars are not able to access suburban job markets because there is a lack of transit. This same worker in other communities (Washington DC for example) has access to transit and can access jobs.
- The Chamber will be invited to the focus group meeting. They will send a staff member or recommend someone appropriate.

I-94 East-West Corridor Study and I-43 North-South Freeway Corridor Study
Indirect and Cumulative Effects
Meeting Minutes for Stakeholder Interviews

Meeting	Hispanic Chamber of Commerce of Wisconsin
Date, Time	March 14, 2013 3:00 p.m.
Location	Café El Sol at United Community Center, 1028 S 9th St Milwaukee
Attendees	Dobra Payant, WisDOT (I-94 E-W Study) Charlie Webb, CH2M Hill Carrie Cooper, WisDOT (I-43 N-S Study) Carolyn Seboe, HNTB Maria Monreal-Cameron, President / CEO Hispanic Chamber of Commerce Ivan Gamboa - Tri City National Bank and Cesar E. Chavez Business Improvement District Ricardo Diaz- Executive Director, United Community Center Nancy Hernandez, Abrazo Marketing

Meeting Summary

A meeting was conducted with Maria Monreal-Cameron, Ivan Gamboa and Ricardo Diaz to discuss indirect and cumulative effects for the Environmental Impact Statements being prepared for the I-94 East-West Corridor Study and the I-43 North-South Corridor Study. Charlie Webb provided an overview of the I-94 project and Carrie Cooper provided an overview of the I-43 project. The attendees represent organizations on the south side of Milwaukee and were therefore mostly interested in discussing effects related to the I-94 project.

The following is a summary of the comments that were made at the meeting:

- How well are the public meetings being attended? (Nearly 200 individuals have attended past meetings).
- It is becoming harder to do business on the large local arterials because access is being controlled so tightly do to the traffic volumes. This is less desirable to do business. The lack of highway capacity hurts small businesses on Highway 100 and Bluemound Road. Parking is being eliminated on-street and the value of buildings is decreasing. Buildings are becoming obsolete. You have to tear down existing building and reconfigure whole lot to fit to adjust to the access restrictions.
- If 35th Street is closed that will make the congestion on 43rd/Miller Park Way worse.
- How much is the 35th Street interchange used. (About 600 cars/day. It is similar to the other interchanges in the corridor.)
- The expansion of development has already happened. Capacity expansion of the freeway is needed to let people get in the city easier. Milwaukee has just as many redevelopment opportunities as the outlying areas. The suburbs are mostly built out. The primary redevelopment opportunities for Hispanic businesses are in Milwaukee near the lakefront and in the Menomonee Valley.
- It is important to get products in and out efficiently especially for the Menomonee Valley.
- The Canal Street interchange serves the Menomonee Valley. (no change anticipated for this interchange.)
- How would the Cesar Chavez Business Improvement District obtain better signage on the freeway near 13th Street? (Carrie Cooper and Dobra Payant will provide Ivan with a contact at WisDOT)
- If the interchanges are modified, it is ok as long as signage is provided.
- National Avenue is impacted by traffic volumes.
- Good access is needed for the livelihood of businesses.
- Main commercial corridors served by the I-94 corridor include:
    - Bluemound Road – Hawley to US 45: would be impacted by a Hawley Road interchange closure
    - National Avenue – Businesses at 35th Street and other commercial nodes
    - Avenues West – plans to revitalize 27th Street corridor (north of I-94)

    - Redevelopment of the former Concordia College campus located southeast of State Street and north of 33rd Street in Milwaukee's Concordia neighborhood. (Background: The Forest County Potawatomi Community is moving forward with $25 million redevelopment plan for the former campus. Of the seven buildings, one will be demolished and six will be renovated. Uses included tribal government offices, the Spotted Eagle High School, space for business incubators, office spaces. A new data center was constructed in 2012.)
    - Cesar Chavez Drive/16th Street - uses 13th Street access
    - Miller Park Way – very congested
    - Hawley Road – Wheaton Franciscan Hospital investing in facility
    - West Allis – Six Points redevelopment
- Options that end up creating new developable parcels could help mitigate impacts to loss of access.
- Discussion about existing congestion issues in downtown and reasons for the congestion.
- Contact Maria Monreal-Cameron at the Chamber to discuss focus group participants. Ivan Gamboa may be an option.

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Project ID: 1229-04-01

Date of Meeting:	March 4, 2013
Location:	DNR Milwaukee Office
Meeting Purpose:	Indirect and cumulative effects discussion
Prepared by:	Caron Kloser
Attendees:	Kristina Betzold, DNR Carrie Cooper, WisDOT Carolyn Seboe, HNTB Caron Kloser, HNTB

The purpose of the meeting was to discuss potential indirect and cumulative effects of the I-43 North-South Freeway project on natural resources. The following summarizes discussion points:

- Air quality – Milwaukee is in non-attainment for ozone and PM2.5. Ozaukee County is in non-attainment for ozone and it is almost at non-attainment for PM2.5. It may be possible that the project could cause Ozaukee County to go into non-attainment status for PM2.5. However, improvements could also improve air quality if congestion is reduced. The projected traffic volumes are on the edge for having to do a PM2.5 hot spot analysis. EPA is getting mixed results on hot spot analysis and is rethinking the methodology.
- No recreational trails cross the project corridor. Not impacting the Oak Leaf and Interurban trails.
- The Milwaukee River is immediately west of the southbound Silver Spring exit ramp. No state stewardship or LAWCON funds were used to purchase or improve properties in the river corridor.
- Discussion of potential LAWCON funds used at DNR conservation site at Bonniwell Road. Previous correspondence from DNR indicated no funds were used on properties in the corridor. **Action - Kristina to confirm internally.**
- No additional recreation or conservation areas planned in the corridor.
- Watershed reviews:
    - Ulao Creek - potential for cumulative benefit to creek if the crossing under I-43 is improved for capacity (bank full width) and aquatic organism passage (AOP). If these improvements are not included in design, there is a potential for adverse indirect and cumulative effects in the upstream watershed. The watershed has high quality and critical habitat. It will be important to maintain hydraulic and hydrologic connections. If these connections, capacity and AOP are maintained there could be an overall cumulative benefit to the upstream watershed. Biological diversity could improve.
    - MMSD Green Seams property – The property is managed for flood control, but it has hydrological connection to the Milwaukee River and a rare riverine forest. There is a great deal of ground and surface water interaction. The culvert crossing at i-43 needs attention to improved capacity for water flow and AOP. If the stream crossing is designed with improved connections, there could be a cumulative benefit to resources in the watershed. Fish and animals will be able to move between the two resource areas.
    - Fish Creek – the creek flows through urbanized area to Fairy Chasm gorge (a State Natural Area) and on to Lake Michigan. Similar to previous water resources, there could be a

cumulative benefit if stream crossing is improved to maintain hydrologic connection, hydraulic capacity and AOP.

  - Indian Creek – highly urbanized setting. Maintaining hydrologic connection at the I-43 crossing could be a cumulative benefit.

- Area of Potential effect for resources should include watershed, hydrological or hydraulic connections, or environmental corridor connections. Include upstream areas at crossings.
- Typical protections include:
  - Endangered species laws
  - Chapter 30
  - WPDES Construction site storm water
  - WisDOT/DNR Cooperative Agreement
  - Ozaukee County fish passage activities
  - NR 216
- Other developments to be aware of:
  - Concordia has expansion plans to parking area in SE quadrant of Highland Road/I-43 crossing.
  - Nicolet High School has submitted an application for a second storm sewer outfall to the Milwaukee River.
  - ACTION – Kristina to confirm with Jamie Lambert there are no other significant private developments.
- Generally environmental corridors, wetlands and floodplains give you a good sense of resources potentially affected by indirect and cumulative effects. As noted previously, with proper design, the project could result in benefits to natural resources
- Threatened and endangered species – refer to previous meeting with DNR for information. Project effects on T/E species likely low as direct impacts are low or can be managed. (i.e. construction restrictions in water during spring)
- Archeological/Historical resources – will have information available in June
- Contaminated properties – Hazmat study starting in spring. DNR staff may be able to help identify sites and information.

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Project ID: 1229-04-01

Date of Meeting:	March 25, 2013
Location:	WisDOT Downtown Office
Meeting Purpose:	Storm water design criteria
Prepared by:	Caron Kloser
Attendees:	See attached attendance sheet

As part of the initial storm water coordination meeting, the group discussed potential indirect and cumulative effects (ICE) – MMSD brought up the following opinions related to indirect and cumulative effects:

- Direct impact of project is increased flow and velocity from increased impervious area, decreased stream stability, decreased opportunity for water infiltration
- There is a cumulative effect of past and future freeway construction on the watershed
- There is a cumulative effect on public safety due to increased runoff and stream bank failure
- A volumetric analysis would more accurately identify the direct and cumulative effect of the freeway.

Caron noted that the ICE analysis would be mainly qualitative in nature, using results from WisDOT's preliminary storm water assessment and data from existing literature such as the MMSD Facilities Plan and SEWRPC watershed studies.

MMSD Additions:

- Impact of project is increased volume of runoff from increased impervious area, which potentially poses a public safety issue in that the increased volume is likely to cause bank erosion.
- Analysis of the effects of the increased volume of runoff should be undertaken for the Milwaukee River as well as all connecting tributary streams.

I-43 North-South Freeway Corridor Study

MEETING SUMMARY

Project ID: 1229-04-01

Date of Meeting:	May 14, 2013
Location:	Concordia University
Meeting Purpose:	Project update
Prepared by:	Caron Kloser
Attendees:	Patrick Ferry, Concordia University Curt Gielow, Concordia University Al Prochnow, Concordia University Mario Valdez, Concordia University Steve Hoff,WisDOT Manojoy Nag, WisDOT Paul Stankevich, Kapur and Assoc. Caron Kloser, HNTB Corp.

WisDOT staff met with Concordia University (CUW) officials to discuss the I-43 North –South Freeway Corridor project status, including a proposed interchange at Highland Road. The meeting also provided an opportunity to gather information for the Environmental Impact Statement regarding indirect and cumulative effects, future development plans and potential impacts of the project on campus plans and historic resources.

- The university is ambivalent about having an interchange at Highland Road. It could create safety concerns since direct access to and from a new interchange could increase crime on campus. A new interchange would help reduce university-related traffic on Lakeshore Drive, which would please residential neighbors (The university encourages students, faculty and staff to use Port Washington Road to access the campus. The university is not interested in contributing financial support to the interchange.
- City of Mequon has a survey underway which includes questions about support for a new Highland Road interchange. Surveys are due May 31 and the City will likely base its position on the new interchange based on survey results. If the City supports an interchange, then WisDOT and City would work out a cost share agreement for a “not to exceed” amount of funds toward the construction cost.
- Federal Highway Administration is now reviewing the report which would determine if a new interchange is justified.
- A new Highland Road interchange spacing of two miles between Mequon Road and Pioneer Road is a desirable location if a new interchange is built. The interchange would be a “relief valve” for traffic congestion at the Port Washington Road/Mequon Road intersection.
- The proposed Highland Road interchange would be a tight diamond configuration, with very little right of way required from the university. The existing bridge over I-43 would need to be widened, as would the bridge over the UP Railroad. There may be some reconstruction at the university entrance to accommodate reconstruction at the UP overpass. Closing the Highland Road bridge during construction would cause problems for the university.
- In response to university question about historic significance of properties in the area, Caron explained the historic review process, noting that Concordia University is potentially historic and more detailed

review is ongoing. If the university is eligible for listing on the National Register of Historic Places, then WisDOT must take additional measures to avoid and minimize impacts to the property.

- Caron confirmed that if the campus is eligible for listing on the NHRP, it does not require any action on the university's part, and the designation would not affect the university's future plans for the campus. Staff indicated they would not be interested in pursuing formal historic designation of the campus. The designation is more relevant to the highway project, which requires special considerations to avoid the property.
- University staff did not feel that the proposed interchange would create any concerns from a historic resource standpoint; that is, little to no right of way would be required and the overall campus setting would not be impacted.
- Caron also noted that the project team is preparing a detailed analysis of indirect and cumulative effects and inquired about future development plans at the university.
    - The university is has purchased 30 acres to the north of their property and would pursue rezoning to allow future campus development. The university is pursuing the acquisition of two additional parcels to the north of their property.
    - The existing storm water detention pond may be moved from its present location north parking lot J to the northwest corner of the N. Lake Shore Drive/Highland Road intersection
    - The university owns the vacant 40-acre parcel south of Highland Road and wants to rezone the parcel for future campus development. There are current plans to construct tennis courts at the north end of the parcel, near Highland Road.
    - The city of Mequon previously used the site as a garbage dump.
- The presence or absence of the interchange is not expected to change the university's plans for the campus. However, university staff could expect to see more development on the east side of Port Washington Road up to County C (Pioneer Road).
- If no interchange is built, there would be continuing tension with residents on Lakeshore Drive over campus traffic using the road. The campus is continuing to grow and traffic and parking needs will continue to be an issue. The university may be "hamstrung" to deal with these issues if no interchange is built.
- University staff is concerned whether the state would force the university to contribute funds toward the interchange construction. Steve Hoff said the state could not force that, however, the city may approach the university to help pay for the interchange.
- It was noted that 3 of the 4 interchange quadrants are occupied by non-profit property owners.
- In summary, the university is ambivalent about the interchange, they want a safe campus and support alleviating neighborhood traffic impacts, they would not support the interchange financially.
- Some staff felt the interchange is a positive for the city of Mequon
- The group discussed the possibility of a park and ride lot on a portion of the 40-acre parcel south of Highland Road. The university plans to develop the parcel, but would be open to discussions with the city and the state if there is a benefit to the university.
- The group discussed alternatives at County Line Road which includes reconstructing the interchange as a partial or full interchange or removing access completely. Is there an opportunity to explore a park

and ride lot at County Line or expand the existing lot at County C? The department would pursue those options internally first.

APPENDIX I-B:
FOCUS GROUP MEETING SUMMARY

MEETING OVERVIEW

The Wisconsin Department of Transportation (WisDOT) conducted a focus group meeting on July 11, 2013 to obtain feedback on the project's potential indirect and cumulative effects (ICE). The meeting was held from 9 a.m. to 12 p.m. at the council chambers in Mequon City Hall. The ICE analysis is a component of the Environmental Impact Statement (EIS) being prepared for the I-43 North-south corridor study.

A broad range of stakeholders attended the meeting including local, regional and state government/quasi-government representatives, local businesses, real estate professionals, economic development organizations and natural resource and open space organizations. In total, 34 people attended the meeting. The meeting was staffed by project team members that included representatives from WisDOT, FHWA and the consulting firms of HNTB, Kapur and Dixon &Co.

The meeting was divided into two parts. The first half included a presentation that provided background information about the I-43 North-South corridor study and a review of EIS terminology. Next, an overview of the process being used to analyze indirect and cumulative effects was presented. Then, the primary and secondary ICE study areas were introduced and the population, employment and land use trends affecting the ICE study areas were presented. The first half of the meeting concluded with a large group discussion to confirm the study area trends and to learn about other trends that might be relevant for the analysis.

For the second part of the meeting, the project team presented an overview of the proposed spot improvement alternative and the modernization options. Then, an overview of the potential indirect and cumulative effects was presented.

After the presentation, the participants were broken up into six different small groups to discuss the study areas and the potential indirect and cumulative effects of the project. The participants had a list of 6 questions to spur conversation. The meeting concluded with a report back session.

The following display boards were available for participants to review:

- Primary and secondary study area boundary maps
- Existing land use maps
- Natural resource maps
- Population change maps
- Sewer and water service areas
- Development trends

For more information, see the following appendices:

- Appendix A: Participant sign-in sheets
- Appendix B: Meeting agenda
- Appendix C: Focus group presentation
- Appendix D: List of small group questions

LARGE GROUP DISCUSSION COMMENTS

The following is a summary of comments received during the large group discussion about the population, employment and land use trends and natural resources within the primary and secondary study areas.

- Mark Herbert (Aurora Health Care): Aurora has seen a steady increase in hospital use. They should be comfortable in the current facility for at least the next five years.

- Emily Van Deraa (Milwaukee County Economic Development): Milwaukee has a strong reverse commute. Many younger adults are choosing to live downtown and many are working in the suburbs and Ozaukee County.

- Shawn Graff (Ozaukee Washington Land Trust): There's a lot of open space left in Ozaukee County, and this analysis should mention the opportunities for parks and preservation.

- Marjie Tomter (Town of Grafton): Want to see planning that could include light rail in the future. Also want planning for better bike and recreation trails.

- Ann Bachrach (Agape Community Center): There's heavy industrial use and lots of traffic that uses I-43 to reach the north/northwest side of Milwaukee and Mill Road corridor. She is seeing renovations in the Teutonia Avenue area that was historically industrial. She is concerned about safety at the Good Hope and Brown Deer interchanges. She also thinks the speed limit drop as you enter Milwaukee County is dangerous. Keep speed consistent.

- Kim Tollefson (City of Mequon): Mequon is revitalizing existing developed areas and focusing on some new growth areas. Mequon has potential growth opportunities along Port Washington Road. Right, now, Mequon is a bedroom community with less than 10% of Mequon residents working in the community. They are looking to increase employment opportunities. Mequon is doing a market analysis to determine how to proceed with East Growth Area. If they do move forward with the plan, they foresee a 20-30 year build out.

- August Hoppe (Ulao Creek Partnership): The original I-43 construction altered the Ulao Creek. The project should look for opportunities to restore the creek's meander and improve fish passage.

- Pam King (Grafton Area Chamber of Commerce): The WIS 33/Saukville area is seeing a lot of development. It should be in the primary study area.

- Kathleen Cady Schilling (Ozaukee Economic Development Corporation): Expects to see more development along Port Washington Road. Commercial development is occurring at WIS 33. The city of Port Washington south industrial park is filling up and residential development is increasing. Growth is pushing north to Fredonia and Belgium. These communities are pro-development even though they have a lot of farmland preservation zoning.

- Carol Ann Schneider (SEEK Professionals): Congestion on I-43 is a problem. She leaves work later to avoid traffic. It's difficult to fill unskilled labor positions without transit. Workers are being bused from Milwaukee to jobs in the suburbs, but improvements are needed to better connect workers and jobs. Ozaukee County must consider transportation needs of workers if they want to expand employment opportunities. Industry expansion can only occur if unskilled labor from Milwaukee can be accessed.

- Kristina Betzhold (WI-DNR): Drainage is an issue in Milwaukee County. In 2009, the Silver Spring Drive area of the freeway was flooded. The project should look at water quality and quantity.

- Dave Eastman (City of Glendale): He is concerned about stormwater runoff and the potential for increased flooding. Nicolet High School flooded in 2010. Many of Glendale's storm sewers are tied into I-43.

- Michele Ziegler (Mequon resident/East Growth Area Committee): Ulao Creek restoration and wetland preservation are importatn. An interchange at Highland Road would help alleviate traffic on Port Washington Road. Safety is a concern for I-43 in Ozaukee County; there have been fatalities. Side road expansion should also be considered to improve safety. Traffic will increase as Concordia University expands.

- Jude Anders (Shoreline Concepts, LLC/Clovernook resident): There have been University research studies showing increased rates of asthma and heart disease in areas near freeways. I-43 is a major truck route to

Green Bay from Chicago and the project needs to consider projected truck traffic. He asked how closely this corridor is to EPA's air quality limits. He said that current EPA regulations do not account for the smaller particles that contribute to heart disease. Steve Hoff and Christopher Hiebert explained that the project is evaluating air quality right now. Chris explained that the Regional Transportation Plan is in conformity with EPA's regulations and the need for a hot spot analysis will be evaluated.

- Dale Schmidt (Glendale Chamber of Commerce): He spent two and half years fighting noise concerns after the Silver Spring bridge project and tining was used. It produced a very unpleasant noise frequency and was eventually replaced. He requests that I-43 is paved with a smooth service and that the roadway is not tined.

- John Terry Mulcahy (Shorewest): I-43 is a tight corridor in the Glendale area. Air quality and noise hurt home values along I-43. Since the residential real estate market peaked in 2007, it bottomed out in 2012 and is rebounding. He doesn't want to see I-43 affect property values.

- Deb Jensen (MMSD): Chapter 13 was developed in 2001 to address municipal and private development impacts to water quality. She requests that WisDOT follows Chapter 13. She feels WisDOT should look at the 2-year and 100-year water volumes to assess the impact of increasing impervious area within watersheds. Increased stormwater volumes increase erosion, which destabilizes river/stream banks; creates a public safety risk and affects sewers and other utilities along streams. The project analyses should include water quantities, downstream effects and discharges including tributary areas. Can be most damaging in local channels.

- Randy Crump (African American Chamber of Commerce): He is concerned about air quality and access to jobs for low skilled workers. He also stressed that improved transit, including light rail, need to be addressed to connect low-skill workers to jobs.

- Maria Pandazi (City of Milwaukee): Please take into account alternative modes of transportation, and not just light rail. In particular, there's a need for better transit routes from downtown to the northwest side of Milwaukee. If there's an anticipated increase in jobs in Ozaukee County, you need to look at land use policies that allow people to live near their jobs.

- Nate Piotrowski (Village of Brown Deer): As a city planner he is inherently skeptical of highway capacity expansion, but he recognizes the expansion and modernization of the freeway is essential for businesses since I-43 is a vital link for Brown Deer. He said I-43 is the least aesthetically pleasing stretch of freeway in the area and the aesthetics should be improved. He feels transportation alternatives still need to be considered to strengthen local communities and encourage economic development. SEWRPC has a recommendation for a rail corridor through the northwest side that would help the historic centers of several communities compete with development along the freeway. Brown Deer has many employment centers and there's a strong need to get people from downtown to the northwest side. Young, diverse populations want alternatives to driving. The office market in Brown Deer is struggling, but industrial is strong.

- Bill Hart (Columbia St Mary): Regarding light rail, people outside SE Wisconsin aren't interested in it. This is not the right venue to discuss transit alternatives; people need to be talking with their elected officials. Port Washington Road between Mequon Road and Highland Road has been experiencing increased traffic in the past five years. Backups are getting worse and many people are using Lakeshore Drive as an alternative. Highland Road and Port Washington Road need to be expanded.

- Benji Timm (City of Milwaukee): Business is starting to come back. One issue for the 30th Street Industrial Corridor and other central city industries is that many of the arterials that lead to the freeway are difficult to drive. The arterials back up. The economy is improving and more truck traffic is occurring.

- Darrel Hofland (Village of Grafton): I-43 is a critical truck route. WisDOT should also look at WIS 60 and its connection to I-43 because it's critical for trucking and business.
- Marjie Tomter (Grafton Open Space Commission): WisDOT should plant as many trees as possible along the freeway to improve aesthetics and absorb vehicle emissions.

SMALL GROUP DISCUSSION COMMENTS

Small Group Facilitated by Carolyn Seboe; Note taker: Shaylyn Connelly

Small Group Participants

Marji Tomter, Town of Grafton, Open Space Commissioner
Shawn Graff, Ozaukee Washington Land Trust, Executive Director
August Hoppe, Ulao Creek Partnership, President
Christopher Hiebert, SEWRPC, Chief Transportation Engineer
Benji Timm, City of Milwaukee Department of City Development, 30th Street Industrial Corridor Project Manager
Kim Tollefson, City of Mequon, Director of Community Development

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?

Shawn suggested the primary study area be expanded to include the city of Port Washington because improving I-43 south of the WIS 32 interchange will have an impact on Port Washington.

Kim is concerned about the Mequon Town Center and the affect Highland will have on traffic. She would like to know if the interchange will change or alleviate some of the traffic going through the Town Center.

Benji – He felt the primary study area was bigger than he expected, but he agreed that it encompasses the business areas served by the freeway corridor and the areas that may benefit from improved traffic operations. He said it would be ok to move the western boundary in Milwaukee to 60th Street because that tends to be the dividing line for industries in terms of whether they use US 45 or I-43.

Chris asked about the difference between the primary and secondary study areas. Carolyn said the primary study area is where effects are most likely to occur and where the most detailed information is collected. Chris also felt that the city Port Washington and the village of Saukville should be included in the primary study area and possibly Fredonia. These communities have direct access to I-43 just north of the project limits via WIS 32 and 57.

Benji agreed with adding Port Washington and Saukville to the primary study area. The corridor will assist in getting Milwaukee city workers to these workplaces in these locations.

Shawn and Chris added there would likely be an increase in residential development from the improved corridor to Saukville/Port Washington because of the WIS 32 interchange.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

Shawn and Marji reminded us of Grafton's Open Space Plan. The town is planning a multi-use path (for pedestrian and equestrian uses) and they would like WisDOT to consider a connection under the bridge at Lakefield Road. They requested: "Don't hinder, help" the path.

Shawn is concerned with connectivity of the inter-urban trails, recreational areas, and encouraging development.

3. **What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?**

Benji, who is involved in the redevelopment of Century City in Milwaukee, is concerned with the ability of the Milwaukee workforce to reach jobs and the movement of goods. The improved project corridor would help move workers by improving transportation efficiencies. Improvements to interchanges will decrease back-ups, congestion, and delays. Time is money to Milwaukee industries; a decrease in travel time is beneficial for the movement of goods. Brown Deer and Silver Spring interchanges are the biggest problems based on complaint he's heard. He thinks these problems will be solved by this project.

Benji said Century City has 60 acres ready for industrial development and it is beginning to attract investment. The Milwaukee Industrial Park on the northwest side was developed during the 1980s and 1990s and accommodates large format industries. It is a strong industrial area.

Shawn believes if the Highland Road interchange is built, it may decrease congestion at Mequon Road, but will spur development (residential and otherwise) at/near Highland and therefore cause a traffic congestion problem at the Highland interchange. He was concerned that building the interchange will just move the traffic problem, not solve it. Chris responded that the traffic analysis completed for the project incorporates projected residential growth.

Kim said the current 5 acre residential lot requirement in Mequon near I-43 (between Highland and Pioneer) may not be the best use of land. The city is finding the 5 acre residential lots are often being used for churches, lawn care services, and other low intensity commercial uses that are permitted in the residential zone. As a result, the city is considering implementing the East Growth Area (EGA) west of I-43 and east of the Milwaukee River along Port Washington Road between Highland and Pioneer roads.

Kim felt the freeway expansion and potential Highland Road Interchange would help facilitate Mequon's EGA plans, but the plan could be implemented without an interchange.

Kim said the EGA committee did not evaluate the Highland Road interchange as part of the plan, and it does not support or oppose the interchange at this time. The city of Mequon conducted a household survey that included a question about the Highland Road interchange. It asked the public if they want the interchange, and, if so, would they be willing to accept a specific amount of property tax increase. Mequon is still waiting on the results and will share them with the project team when available.

Kim said the EGA plan anticipates small scale retail nodes at the intersections of Port Washington Road with Highland and Pioneer. Retail growth near Highland would be minimized to avoid cannibalizing existing businesses to the south along Port Washington Road. Commercial growth would be focused at the Pioneer Road intersection and would serve commuter traffic. Multifamily uses are anticipated to the east of Port Washington Road between approximately Bonniwell and Highland. The area to the west of Port Washington Road would be zoned for single family residences on ¾ acre lots. The area to the east of Port Washington Road between approximately Bonniwell and Pioneer would be a mix of commercial/industrial uses.

Kim said Mequon would not change the existing 5-acre residential lot requirement west of the Milwaukee River. It is possible a new interchange at Highland Road could speed up the pace of 5-acre residential lot development west of the river. Per Kim the land west of the Milwaukee River, north of Highland Road, east of Cedarburg Road, and south of Bonniwell Road is already accounted for by existing residential subdivisions, platted residential areas, parks and Ozaukee Washington Land Trust property. The lands between Pioneer and Bonniwell and the Milwaukee River and Wauwatosa are most likely to be affected, but

would remain under 5-acre residential lot zones. Wauwatosa Road is generally the dividing line between residents that use I-43 and residents that use US 45.

Carolyn asked if anyone is familiar with the town of Cedarburg's plans for a town center at the 5 corners area. Shawn said the town has been talking about the plans for some time, but no consensus has been agreed upon within the town. It is difficult to predict if the plans will be implemented.

August is concerned with connectivity of the Ulao Creek to the Ulao swamp, and the work of the Ozaukee County Fish Passage Program. He wants to make sure the project does not create new problems and that opportunities to improve the existing problems are considered. Re-meandering the stream is important for fish habitat.

Chris asked if development will negatively affect Ulao Creek. Marji responded that many people in the town of Grafton want a rural setting and view urban development as negative. She feels many people will be upset by the zoning change the town recently undertook that eliminated the 3-acre lot classification and replaced it with a 1-acre lot classification. Marji also said there is not much open land left for development. Big parcels of land have been purchased for nature preserves, the Lakewinds Elk Farm, etc. This will limit development.

Shawn mentioned the Milwaukee River is not the only concern. A portion of the freeway drains directly to Lake Michigan. He hopes the project team will be creative with stormwater management. Make mitigation efforts such as retention ponds in to nature preserves so people in town can enjoy it. Be creative, not just ponds. Marji agrees.

Shawn asks about the re-meandering of Ulao south of WIS 60. August says there is a plan for the re-meandering but no funding yet. Could we coordinate with Ozaukee County to assist?

4. When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?

Kim – every interchange has possibly significant impacts to Mequon's land use. At County Line Road, residents will want to maintain the exiting partial access and would not like a no-access option. The businesses near Mequon Road will be concerned about access. At Pioneer Road, there is potential for commercial development.

Shawn – He feels all communities will re-evaluate their industrial, residential, and commercial development growth plans as a result of freeway capacity expansion. There are no real 'teeth' to the Farm Land Preservation plan (Working Lands Initiative) in Ozaukee County.

Kim – The project presents an opportunity to improve aesthetics. Consistency between the architectural aesthetics in Milwaukee and Ozaukee counties is extremely desirable. Don't want "border" between counties or cities. Shawn and Marji agreed, adding the possibility of green elements is also needed. Shawn mentioned Ozaukee County is a Bird City County.

5. What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?

No comments were made.

6. How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.

No comments were made.

Small Group Facilitated by Caron Kloser; Note taker: Elizabeth Anderson

Small Group Participants

Mark Herbert, Aurora Medical Center – Grafton, Manager of Facilities Operations
Darryl Johnson, River Works Development Corporation, Executive Director
Lisa Haselow, Ozaukee County Parks and Planning Department, Intern
Matt Aho, Ozaukee County Parks and Planning Department, Fish Passage Program Manager
Emily Van Deraa, Milwaukee County Economic Development, Project Manager

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   Aho – There may be impacts at Highway 60 – perhaps move study area boundary to the north and west near Highway 60. (See green arrows on group map.)

   Herbert – Consider extending the project limits to include Highway 60– perhaps move the lane drop farther north. However, this becomes an issue of needing to draw the [project limit] line somewhere.

   Herbert – Retail stores at Highway 60 interchange (e.g. Costco) attract people who aren't from the area. Local streets are difficult to maneuver, especially for people not familiar with the area. Additionally, there is a significant orthopedic / elderly population that visit Aurora Hospital, and sometimes find access confusing.

   Aho – There is new development planned near the Highway 60 interchange. The interchange operates fine now, but it would be a problem in the future.

   Johnson – He asked if there is a way to tie in mass transit to the project.

   Van Deraa – Downtown [Milwaukee] development is mostly housing, including affordable housing. Biggest space left for future growth and development (including affordable housing development? is west of I-43 and south of County Line Road. There are jobs here now (and more may be coming) such as new hospital(s). Mass transit could connect downtown affordable housing with jobs in this area

   Aho – He asked why the ICE study area boundary does not encompass Whitefish Bay.

   Kloser – It's already pretty built out/developed there – there isn't much room for growth or new developments.

   Johnson – Why not extend the study area farther south – e.g. to Capitol Drive?

   Kloser – Traffic at Silver Spring is influenced more by land use south of Silver Spring – it made for a logical location for a south project limit.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

   Aho – Fish passage / aquatic organism passage (AOP) is important, not only at larger streams like Ulao Creek, but also at smaller stream crossings. The project team can work with Kristina Betzhold (DNR) and Ozaukee County on AOP considerations and design. "Remeandering" of streams that were once dredged helps create a healthier system.

   Van Deraa – (Agreeing with Aho) it helps to slow the water down and create more natural conditions.

Kloser – (suggests Highland Road topic)

Aho – Development density at Highland Road can be expected to increase.

Kloser – (suggests lane capacity topic)

Johnson – He travels north to Costco along I-43 frequently. Sometimes traffic is smooth, sometimes it's not.

Herbert – It seems there's a solid block of cars going in one direction.

Van Deraa – Adding lanes to the north won't help traffic closer to downtown [Milwaukee].

Herbert – Improving the choke point (lane drop on I-43?) to the north could help downtown [Milwaukee] traffic.

Aho & Johnson – Highland Road [interchange] will attract businesses.

Kloser – (suggests quality of life topic, e.g. air quality)

Van Deraa – There will always be some opposition to a project, especially from people adjacent to it. Air quality might be affected, but it won't change that much.

Herbert – Congestion is worse for air quality than moving traffic. In the future, cars will emit fewer emissions due to older cars no longer being used and stricter government regulations on emissions.

Kloser – (suggests County Line Road interchange topic) what might be the effects of the interchange going from a partial to a full interchange? What might be the effects of access being removed?

Van Deraa – (compared County Line Road to former partial interchange at Sawyer Road in Madison) when they improved it (assumed to a full interchange), it made a big difference in travel movement – making it easier for on/offs.

Kloser – There are TIF areas between County Line and Mequon Road – would this help or hinder development?

Aho – A full interchange [at Highland] would help development in that area by providing more access.

Haselow & Herbert – (agree with Aho)

3. What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?

Kloser – What are the indirect effects from expanding vs. not expanding the freeway?

Herbert – Any plan that provides more access will have a positive impact – it will reignite interest in the area.

Herbert – On Friday and Sunday afternoons there is traffic [on I-43] from Chicago/Illinois residents who vacation in Door County. Improving access and aesthetics along the route will persuade travelers to stop in these areas on the way. It will encourage out-of-state travelers to spend more money here.

Van Deraa – Badger Meter in Brown Deer is huge, and there are other low-skill jobs in the area. There isn't great access for people without jobs. (She mentioned statewide push for regional transit.) Transit is needed to connect jobs (e.g. in Brown Deer) with people/workers (e.g. low-income in Milwaukee.)

Kloser – Is there enough protection for areas that Ozaukee County wants to preserve?

Aho – I think so. There is a strong push to preserve an area in the city of Port Washington along the lake, north of the Lion's Den Gorge Nature Preserve. (See group map.) Ozaukee County is working with the Nature Conservancy and the Ozaukee Washington Land Trust to identify funding to purchase the property. I-43 work would not have an impact on this area.

Johnson – He asked if there are Smart Growth plans for each community along the corridor and if the I-43 study would look at these plans.; Kloser – Yes, each community has a Comprehensive Plan.

4. **When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?**

   Herbert – Developments at Highway 60.

   Aho – Development is occurring at a fast rate west of I-43 along Highway 60.

   Kloser – What are potential business development effects on the economy? on filling wetlands? on quality of life issues? on natural resources?

   Aho – The Ulao Creek watershed is the biggest subwatershed of the Milwaukee River watershed. There are wetlands between County C and Highway 60 – I would hate to see these wetlands impacted. Preserve natural area to northeast of I-43, as recommended by SEWRPC, between Highway C and Highway T. (See map notes.)

   Van Deraa – There are efforts by MMSD to buy back wetlands for floodwater storage.

5. **What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?**

   Herbert – [If the freeway isn't reconstructed] life will go on, but it will stifle or limit growth.

   Aho – [If the freeway isn't reconstructed] growth will occur in pockets that already has good access.

   Van Deraa – The number of TIFs may be affected (may decrease). It's better to have growth without using tax credits.

   Johnson – Companies locate where infrastructure is already in place and will support them.

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   Herbert – For those with no means to travel [no car] there won't be an impact. Existing public transportation is not great. There's a difference between providing access and improving the freeway.

Small Group Facilitated by Connie White; Note taker: Mark Becherer

<u>Small Group Participants</u>

Nate Piotrowski, Village of Brown Deer, Community Services Director/Planning and Zoning Specialist
Maria Pandazi, City of Milwaukee Department of City Development, Senior Planner
Bill Hart, Columbia Saint Mary's Hospital, Vice President/COO
Mathew Reimer, City of Milwaukee Redevelopment Authority, Government Project Coordinator

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   Hart /Pandazi – Add the section to the east to the primary boundary. Basically extend the line on North Avenue to the lake. This would then include Whitefish Bay, and also St Mary's and UWM, which both rely heavily on I-43.

   Piotrowski – Consider adding Shorewood/Whitefish Bay/East side of Milwaukee. These areas are built out, but highly dependent on I-43 and they could see redevelopment opportunities for the project.

   Reimer – Expand the primary area to include Shorewood, Whitefish Bay east to the Lake.

   Hart – Real estate costs on the east side of Milwaukee are on an all-time low. Could see major redevelopment similar to what happened in the Chicago Loop area. Twenty years ago there was nothing, now there are skyscrapers.

   Hart/Piotrowski/Pandazi - The western boundaries look good. Although, may want to consider continuing the boundary north along Wauwatosa Road through Cedarburg and the Town of Grafton to Pleasant Valley Road.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

   Pandazi – North of Highland Drive is currently open land with some areas along Port Washington Road being preserved to keep it as open land. A new interchange may create a conflict if development follows.

   Pandazi – There may be pressure to change agricultural protection policies.

3. **What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?**

   Hart – Regarding the Mequon/Port Washington intersection: if expanded they would need to remove properties.

   Piotrowski - How do relocations impact the commercial properties along the corridor? There already are communities fighting over big box developments. The Mequon interchange will have an impact on this. It depends on what Mequon controls there. For example if the commercial relocations go somewhere else.

   Pandazi – A new Highland Road interchange could put pressure on other commercial nodes in the corridor if significant development is allowed.

   Pandazi – This can put pressure on Mequon and ultimately cause more competition between the communities in terms of attracting commercial development instead of regional cooperation.

   Pandazi – The project could impact North Shore communities in terms of where and how commercial development occurs.

   Pandazi – Without the Highland Road Interchange Port Washington Road will carry more traffic and the increased traffic could not only affect Port Washington Road, but the overflow could affect other arterials.

   Hart – It may take the pressure off. If you add in the interchange it will develop quicker.

   Piotrowski – But the Highland Road area has many sensitive wetlands nearby with Ulao Creek and Milwaukee River. Development will be challenging. There will be a conflict between development and preservation.

Pandazi – But this could be mitigated a bit.

Piotrowski - What is proposed detour route during construction and how long will construction occur? The impact on businesses during construction could be large. This will increase traffic on nearby arterials.

Hart - Columbia patients come mainly from the north and when from south it is mainly people from north of Capital Drive.

Piotrowski – The project will have a positive impact on business/industrial areas as a gateway element for the Brown Deer/Bayside/Granville section of Milwaukee. There may be a possible conflict point near Highland if interchange goes in. There are many sensitive wetlands near here with Ulao Creek and Milwaukee River.

Pandazi - Bender Road area is tight with businesses right up next to the road and a lot of traffic. People that have chosen to live in this area knew in advance the proximity of traffic to their properties. There needs to be noise walls in this area. Burying the freeway would have been good, but not doable. Need to add more green in this area.

Piotrowski - Extend the noise wall. Some aesthetic treatments are available that could make it more pleasing to look at. Some great examples in Australia. Also, include some public art.

Air quality has the most effect in the south end.

Piotrowski/Pandazi – A diamond interchange at Brown Deer Road will have a positive impact on the local businesses, especially the Bayside Office Park. A diamond will be safer and more aesthetically pleasing than the current interchange. It will provide a better entrance to Brown Deer. Aesthetics are important at Brown Deer Road and Good Hope Road.

4. When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?

Piotrowski – Northridge – Granville Station redevelopment into manufacturing/distribution center. General push for industrial development (moving away from commercial) on NW side of Milwaukee and Brown Deer. Redevelopment may occur in the old Northridge Mall area shifting from retail to industrial land use. Will need better access to and from I-43 for truck traffic. Should create more jobs in the area. Needs I-43 improved to be successful

Penzey's spices, Milwaukee Industrial Park, and 30th Street Industrial Corridor were all cited as projects and developments that could add to the cumulative effects of development. An improved I-43 would help these developments.

Need a big picture transportation plan. I-43 capacity increase is needed, but also need to develop additional options. The current bus option takes too long and the Milwaukee/Ozaukee county line serves as a divide.

5. What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?

Piotrowski – "No Build" or "replace in kind" will not help economic development.

Pandazi/Piotrowski–Modernization needs to occur to help drive economic development in Milwaukee County. Also need to improve aesthetics. Not only does I-43 not operate well, it also does not provide a pleasant viewscape. This is a major gateway to Milwaukee and needs to be improved.

Hart – No Build/in-kind replacement will not help.

Safety is not addressed in the no-build/replace-in-kind alternatives. You do not want to be on I-43 between 4 and 6 p.m. presently.

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   Piotrowski – Modernization of highway could help industrial development which could in turn drive neighborhood residential development.

   Piotrowski - Transit is needed out to Ozaukee. More attractive transportation options will provide opportunity for people to live and work further north.

   Employers would need to lead effort to provide a lower cost and more dense housing option in Ozaukee County. Leadership on this will not come from the municipalities.

   The rest of Wisconsin does not understand the importance of rail to SE Wisconsin. Need to continue to look at rail options.

   A better employment center will support better neighborhoods.

Small Group Facilitated by Monica Wauk; Note taker: Paul VanHenkelum

Small Group Participants

Carol Ann Schneider, Seek Professionals
Darrel Hofland, Village of Grafton
Kathleen Cady Schilling, Ozaukee County Economic Development
Pam King, Grafton Area Chamber of Commerce
Scott Lee, WisDOT
Kristina Betzold, Wisconsin DNR

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   Schilling – Include Saukville in the primary study area because a lot of development is occurring along WIS 33

   Hofland – expand area along Cedar Creek Road and then down Wauwatosa road

   King – Include UW-Milwaukee as an impacted area

   Group – Include 45 in Washington County as a secondary impact area. The group felt that people living as far as US 45 would use I-43 if they were going to the east side of Milwaukee or north on I-43. The group also commented that many of the arterials between I-43 and US 45 were difficult to drive/ slow.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

   Lee – He asked if fixing drainage along I-43 would reduce the flooding around the intersections of Good Hope Road and Mequon road.

Betzold – Storm water would be an indirect impact, by increasing the water in the tributaries around the project. Adding another lane will increase the amount of impervious area, which increases storm water runoff.

Betzold – Due to climate change, 50 year storms are now becoming 2 year storms.

Betzold – Closing the interchange at County Line Road would impact traffic on Port Washington Road. Also, if the Highland Road interchange does not open, it will increase the traffic on Mequon Road.

Schneider – Freeway construction will increase the traffic on Port Washington Road.

King – adding an interchange at Highland Road would increase the commercial development along Port Washington Road north of Mequon Road.

Betzold – The lands next to the I-43corridor need sewer capacity growth to serve existing development.

Hofland - Ulao Creek needs to be improved since it was “straightened out” during the original construction of the freeway.

Hofland - Mequon and Grafton are talking about creating a water district to extract water from Lake Michigan. They would like to incorporate intake pipes underneath I-43 during the reconstruction project to avoid future freeway impacts.

3. What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?

Betzold – If a Highland Road interchange is built, the DNR will receive an increase in wetland fill permits from private commercial development that could be spurred by the interchange. The wetland impacts of the freeway in combination with wetland impacts from private development would be a cumulative effect.

Schilling – A Highland Road interchange should help out the subdivision located south of Concordia University by reducing cut through traffic through from people looking to get to Concordia University.

General – The Highland Road interchange should have a positive impact on Grafton and downtown Cedarburg.

Betzold, King, Schilling – They said they feel very uncomfortable using the Brown Deer Road interchange because the weaving traffic makes it unsafe.

Lee – He asked if the existing I-43 infrastructure was inadequate and contributing to the flooding that happened in Glendale a few years ago. Kristina said that in general I-43 constricts the natural flow of water and a reconstruction project would potentially improve drainage.

Hofland – Improving safety is important and will make for a better driving experience.

4. When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?

Schilling, King – Highland Road interchange would increase community development potential, but could also cumulatively affect natural resources.

Betzold – Commercial development in Ozaukee County would become more attractive with an interchange at Highland Road, especially along Port Washington Road in Mequon.

Schilling – Mequon would need to modify its 5 acre residential lot requirement to allow substantial development to occur. An interchange alone would not be sufficient to spur development.

Lee – The expansion of Aurora and Concordia would be facilitated by increased capacity on I-43.

5. **What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?**

   Schilling – No-build would slow down local growth to the communities and also would affect the connection to downtown Milwaukee. If the freeway is not improved it would be difficult for Ozaukee residents to get to downtown jobs and amenities and it would be harder to attract employees to employment centers in Ozaukee County.

   Group – No-build does not solve the drainage and safety issues along the corridor.

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   This topic was discussed only briefly, but the group generally agreed on the following:

   - None of the freeway alternatives affects minority and low income populations since they don't address transit.
   - In Milwaukee County, there is a need for more transit access to industrial areas on the northwest side.
   - There is a need for more shared ride taxi service in Ozaukee County for work purposes.

Small Group Facilitated by Ashley Booth; Note taker: Mike Treazise

Small Group Participants

Julia McNally, Town of Grafton, Open Space Commissioner
Randy Crump, African American Chamber of Commerce
Eric Thom, Continental Properties Company
Debra Jensen, MMSD

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**

   Eric – project may induce additional growth to the north. Expand limits northwards to the hwy 57 split. The retail life of buildings tends to be 10 years now due to new computer technologies and changes in user habits.

   John - Consider extending construction horizon as WisDOT seems to be reconstructing too often. It seems like they have been working on this corridor constantly.

   Deb – evaluate storm impacts on rivers and tributaries. Assess volumes & evaluate upstream flooding. Evaluate safety impacts of stream bank erosion. Consider streams and expansion impacts. Look & plan for drainage impacts outside of the normal limits. Look farther south at Lincoln Creek & impacts on the downstream areas.

   Julia – Evaluate Ulao Creek during large storm events.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

John – Property values and noise in Clovernook neighborhood to the west between Bender and Daphne. Noise impacts to 2nd row of homes on east side. Flooding concerns in immediate area.

Julie – A Highland interchange would be a positive for Columbia St. Mary's & Concordia University because it would improve access to the facility.

John – A Highland interchange would provide Mequon with another viable E-W corridor.

Eric – There would be big backups without the Highland Interchange.

Deb – consider using projects/improvements along local roads to improve both traffic and stormwater BMPs

3. **What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?**

Julia – Consider that towns have limited budgets for adjacent infrastructure improvements

John – Park & Rides should be expanded and provide bus service.

Julia – There should be an official Park & Ride at Hwy 60. Improve access to transit options and encourage ridesharing. The unofficial Park & Ride at the Target parking lot is not an ideal option.

Eric – Re: Highland: Consider Concordia plans and effects of expansion of Port Washington between County C and Highland.

Julia – also be aware of potential development to the north of County C. Highland Road interchange in combination with adding lanes to the freeway will open up the area between Highland and WIS 60 for development.

Deb – perhaps change lot size planning and introduce other heavier population opportunities in Mequon.

Julia – Town of Grafton did exactly that to allow smaller lots.

Eric – project will improve density & how will some municipalities be able to react to the growth.

Deb – an indirect effect would be local roads and parking lots which are large contributors to heavy metals and contaminants. Look to use BMPs to help improve contamination.

4. **When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?**

Eric – unless there are definitive dates for these projects, there won't be much commitment to developments. There is high potential for a boom, but they won't commit to developments until there is more known.

Randy – there is somewhat a potential for improving cross employment opportunities in different communities. Need to have other multi-modal transportation options. Sees lots of demand for jobs – and as a result need for shuttles/buses/rail, etc.

Deb – Flood management – evaluating 1% storm probability. Especially for houses within floodplains – additional flooding would be a possible risk to other structures. 2020 would likely be the start of study/design efforts of alternatives along the branches. Consider Thiensville flood management and fish passage improvements.

Julia – be aware of E-W Hwy 60 corridor, Meijr site development which will be a destination retailer. Be aware of the Ozaukee/Washington County Land Trust which is looking to expand the Lion's Den Conservancy along Lake Michigan.

5. **What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?**

   Eric – you wouldn't get anywhere near as fast development.

   Julie – it would be short sighted.

   Eric – construction traffic will hurt development in Milwaukee and Ozaukee Counties. Understand trucking impacts – perhaps divert to other corridors.

   Randy – Truck Traffic already a concern.

   Eric – Mequon / Northridge area – the more traffic through, the more development.

   Deb – DOT must make changes to make positive improvements to stormwater BMPs and flooding.

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   Randy – There needs to be alternative transportation means. This must happen to improve transit and access to jobs and affordable housing.

Small Group Facilitated by Karen Baker Mathu; Note taker: Paul Stankevich

Small Group Participants

Michele Ziegler, Mequon East Growth Committee
Dale Schmidt, Glendale Chamber of Commerce
Dave Eastman, City of Glendale
Dennis Buettner, Glendale Planning Commission and Clovernook resident, Buettner & Associates
David Moss, Bayshore Town Center
Brian Klippel, Bayshore Town Center
Jude Anders, Clovernook resident, Shoreline Concepts, LLC
Jay Waldschmidt, WisDOT

Summary of Comments

The following is a summary of the comments that were made at the meeting.

1. **Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?**
   Dave Eastman commented that the study area should be extended further east towards Lake Michigan to include other areas flooded in 2010 floods.

2. **What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)**

   Combined with question 3.

3. **What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?**

Jay Waldschmidt, described the difference between direct and indirect effects and encouraged the discussion to focus on indirect effects.

Michele Ziegler questioned the impact of the project on wetlands and waterways and indicated that storm water management would be an important aspect of the project.

She also questioned if the potential interchange at Highland Road would increase truck traffic along Highland Road and adjacent streets.

Michele Ziegler felt that an Interchange at Highland Road would have a positive impact on the area. She also commented that Port Washington Road is congested and needs some sort of relief. The flow of traffic along Port Washington Road is not good, is very congested and has lots of delays.

Dale Schmidt commented that traffic patterns in the area would change with the addition of an interchange at Highland Road. Both the hospital and Concordia University would benefit from a new interchange. He also commented that while this may alleviate traffic on Port Washington Road, it could be a potential loss in drive-by traffic and commercial customers for the businesses on Port Washington Road.

A new Highland Road interchange could reduce traffic on Lake Shore Drive, provide better access to MATC and there could be synergy of Concordia students and enhanced access to businesses.

Michele Ziegler felt that storm water and wetland issues in the vicinity of Highland Road would hinder development in the area. In addition, she commented about pedestrian safety between Port Washington Road and Concordia University related to additional roadway traffic on Highland Road. Future development in the area should enhance pedestrian safety.

Dale Schmidt suggested that the future pavement not be tined as to provide less noise to adjacent properties, which in turn can affect housing values.

Michele Ziegler commented that the CTH C park-and-ride lot is heavily used and could be expanded.

David Moss noted that without an interchange at County Line Road, there will be changes to traffic patterns at the Brown Deer Road and Mequon Road interchanges. This would probably increase traffic on Brown Deer Road and would affect the residents that use it. It could possibly strengthen retail on Brown Deer Road with more Brown Deer Road traffic.

David Moss commented that Port Washington Road between Bender and Daphne should be four lanes to be consistent with the SEWRPC recommendations. In addition, congestion on the freeway during peak hours could impact access to Bayshore Mall. Improvements to I-43 would have a positive impact on Bayshore Town Center. If traffic exacerbates, it could slow growth and present challenges; development plans are ongoing.

Jude Anders commented that the freeway elevation should not be raised for air quality purposes. There was also a comment about the visual impact of a raised freeway.Dennis Buettner commented that a lowered freeway would be beneficial to nearby properties due to potential noise reduction.

4. **When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?**

Michelle Ziegler referenced the East Growth Area report that the committee submitted to the Mequon Common Council regarding allowable businesses along Port Washington Road up to Pioneer Road. At Pioneer Road, they are planning for lower traffic development plans. She commented that Mequon has some east side developments and they are looking at smaller lot sizes on Port Washington Road.

5. **What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?**

   Bayshore is looking at a potential 17,000 square foot new development, regardless of I-43 plans. Planning related to a possible new location for the North Shore Library is ongoing and the options will have no effect on those plans, although access could be improved possibly.

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

   Limited minority populations.

Appendix A: Participant sign-in sheets

Indirect and Cumulative Effects Meeting Sign-In Sheet

Project I.D. 1229-04-01
I-43North-South Freeway Corridor Study
Silver Spring Drive to WIS 60
Mequon City Hall, 11333 N. Cedarburg Rd.
July 11, 2013 from 9 a.m. - Noon

U.S. Department of Transportation Federal Highway Administration

Please Note: The information in this document (including names, addresses, phone numbers, e-mail addresses, and signatures) is not confidential, and may be subject to disclosure upon request, pursuant to the requirements of the Wisconsin open records law sections 19.31—19.39 of the Wisconsin Statutes.

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Dale Schmidt - Glendale C of C

Chris Hewett - SEWRPC -

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✓	Bill	Hart	St. Marys	

Appendix B: Meeting Agenda

I-43 North-South Freeway Corridor Study
Indirect and Cumulative Effects Analysis
Focus Group Meeting

July 11, 2013; 9 a.m. to Noon
Mequon City Hall

AGENDA

1. Arrival..... 8:45 – 9:00

2. Background Information..... 9:00-9:15
   - I-43 North-South project overview
   - EIS terminology

3. Review Study Area..... 9:15 – 9:30
   - Process for evaluating indirect and cumulative effects
   - Study area boundaries
   - Population and employment trends
   - Land use and development trends

4. Large group discussion..... 9:30 – 9:45

5. Summary of Findings..... 9:45 – 10:15
   - Present freeway alternatives
   - Present potentially affected areas

Break..... 10:15 – 10:30

6. Small Group Discussion..... 10:30 – 11:30
   - Discuss the project's indirect and cumulative effects

7. Report Back..... 11:30-12:00
   - Present small group highlights
   - Any outstanding comments

Appendix C: Focus Group Presentation

I-43 N-S Freeway Corridor Study
Silver Spring Drive to WIS 60
Milwaukee and Ozaukee Counties

Indirect and Cumulative Effects

Focus Group Meeting

Mequon City Hall

July 11, 2013

Meeting Purpose

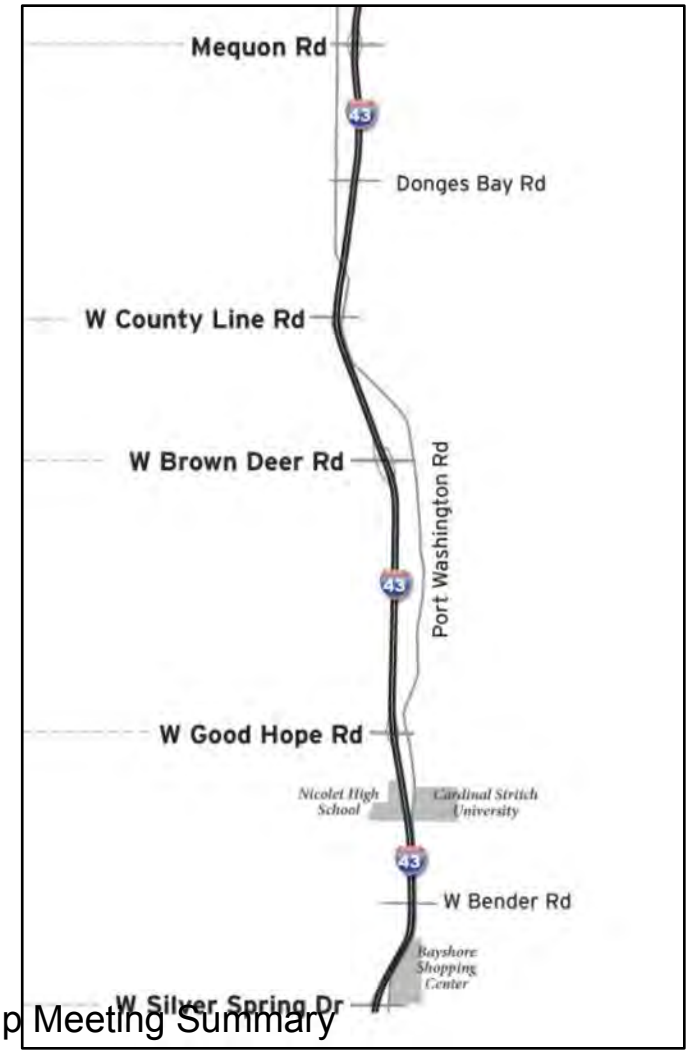
- Facilitate a discussion with a broad range of stakeholders.
  - Government representatives
  - Businesses
  - Real estate professionals
  - Economic development organizations
  - Environmental organizations
- Obtain input on indirect and cumulative effects (ICE) analysis.
- Help WisDOT evaluate the range of alternatives.

Meeting Agenda

- Part 1
  - Background information – 9 to 9:15
  - Review ICE study area – 9:15 to 9:30
  - Large group discussion – 9:30 to 9:45
- Part 2
  - Summary of ICE findings – 9:45 to 10:15
  - Break – 10:15 to 10:30
  - Small group discussion – 10:30 to 11:30
  - Report back – 11:30 to 12 p.m.

Project Corridor

South End

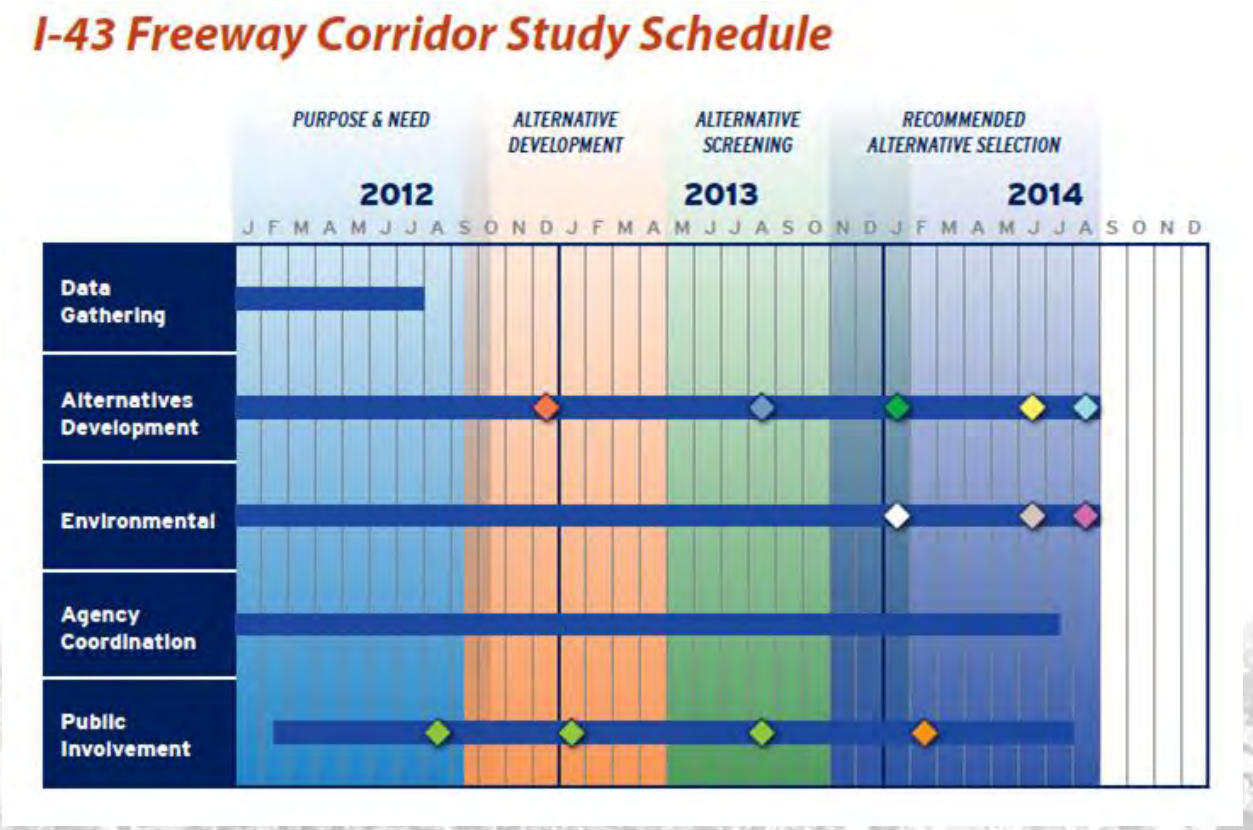


North End

Project Description

- Reconstruct 14 miles of I-43 between Silver Spring and WIS 60
  - Urban corridor with physical constraints in Milwaukee County
  - Rural corridor with wider median in Ozaukee County
- Interchanges
  - Five existing interchanges
  - Potential new interchange at Highland Road
- Diverse/multiple stakeholders located throughout the corridor

Key Study Milestones



- PIM 1 – August 2012
- PIM 2 – January 2013
- TAC/CAC 2 – March 2013
- TAC/CAC 3 – July 2013
- PIM 3 – August 2013
- Identify Recommended Alternative – January 2014
- Draft EIS – January 2014
- Public Hearing – February 2014
- Final EIS – June 2014
- ROD – August 2014

Purpose and Need

- Freeway design and geometric deficiencies
- Safety
- Existing and future traffic
- Carrying out long range transportation plans
- Maintaining regional and statewide system linkages

Corridor Traffic

- Traffic volumes – annual average daily traffic
  - Existing (2010): 46,100 to 80,000
  - Future No Build (2040): 61,200 to 105,900
  - Future Build (2040): 67,800 to 120,500
- High volume of truck traffic
  - 16 to 20 percent on north end of corridor
- Existing traffic is very peak directional
  - 55/45 on the south end
  - 70/30 on the north end

Alternatives

- No-build/Replace-in-Kind
  - Maintenance and minor improvements
  - Replaces pavement and bridges in same configuration
  - Serves as a comparison to the build alternatives
- Spot improvements
  - Replaces roadway and bridges primarily within existing right of way
  - Addresses some safety and operational issues
- Freeway modernization
  - Reconstructs freeway to modern design standards
  - May add one new travel lane in each direction

EIS Terminology

- National Environmental Policy Act (NEPA)
  - Requires federal agencies to consider the environmental impacts of their proposed actions and reasonable alternatives to those actions
- Environmental Impact Statement (EIS)
  - A detailed document prepared by federal agencies to meet NEPA
- Three types of impacts evaluated in EIS:
  - Direct
  - Indirect
  - Cumulative

Direct Impacts

- Definition:
  - *Caused by a construction activity related to the "footprint" of a transportation project.* ***Occurs at the time the project is constructed*** *and* ***in the same location*** *as the project.*
- Examples:
  - Filling wetlands
  - Property acquisitions
  - Business relocations
  - Noise and air quality impacts

Indirect Effects

- Definition:
  - *Caused by the action and are **later in time or farther removed in distance**, but are still **reasonably foreseeable**. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.*
- Examples:
  - New interchange spurs highway serving development
  - Improved travel times make an area more attractive to development
  - Induced development facilitates local economic development plans

Cumulative Effects

- Definition:
  - *The impact on the environment, which results from the* ***incremental impact of the action when added to other past, present, and reasonably foreseeable future actions*** *regardless of what agency or person undertakes such other actions. Can result from individually minor but collectively significant actions taking place over a period of time.*
- Example:
  - Cumulative wetland impact:
    - Past urban development fills wetlands
    - Highway project fills wetlands
    - New development facilitated by a new interchange fills wetlands

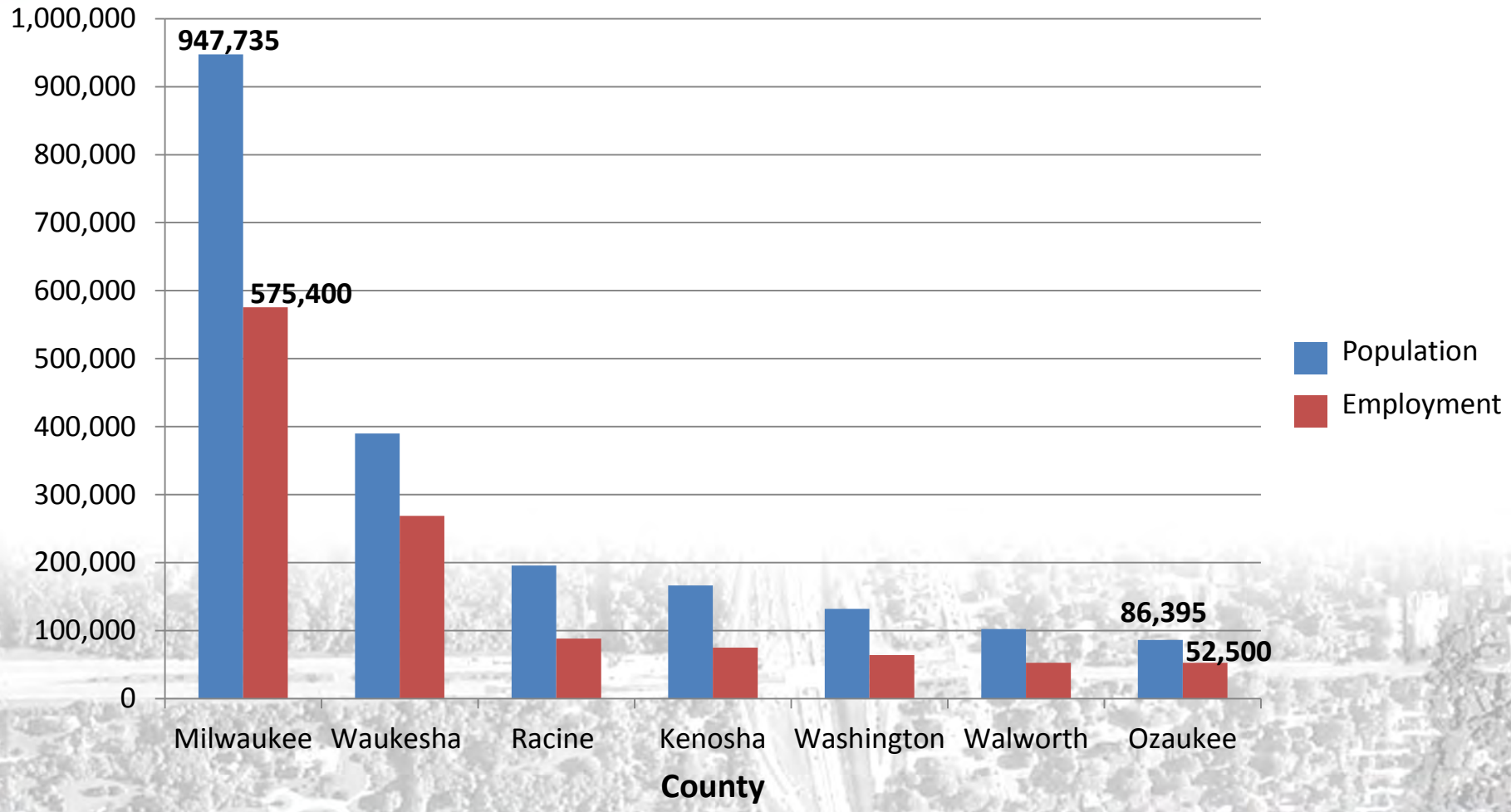
Evaluating Indirect/Cumulative Effects

- Using a step-by-step process based on WisDOT and nationally accepted guidance documents.
  - Define the study area and analysis timeframe
  - Analyze the study area's trends and resources
  - Identify impact causing transportation activities
  - Analyze potential effects *(qualitatively)*
  - Assess consequences of effects and identify mitigation
- Includes stakeholder feedback.
  - Stakeholder meetings
  - Focus group meeting

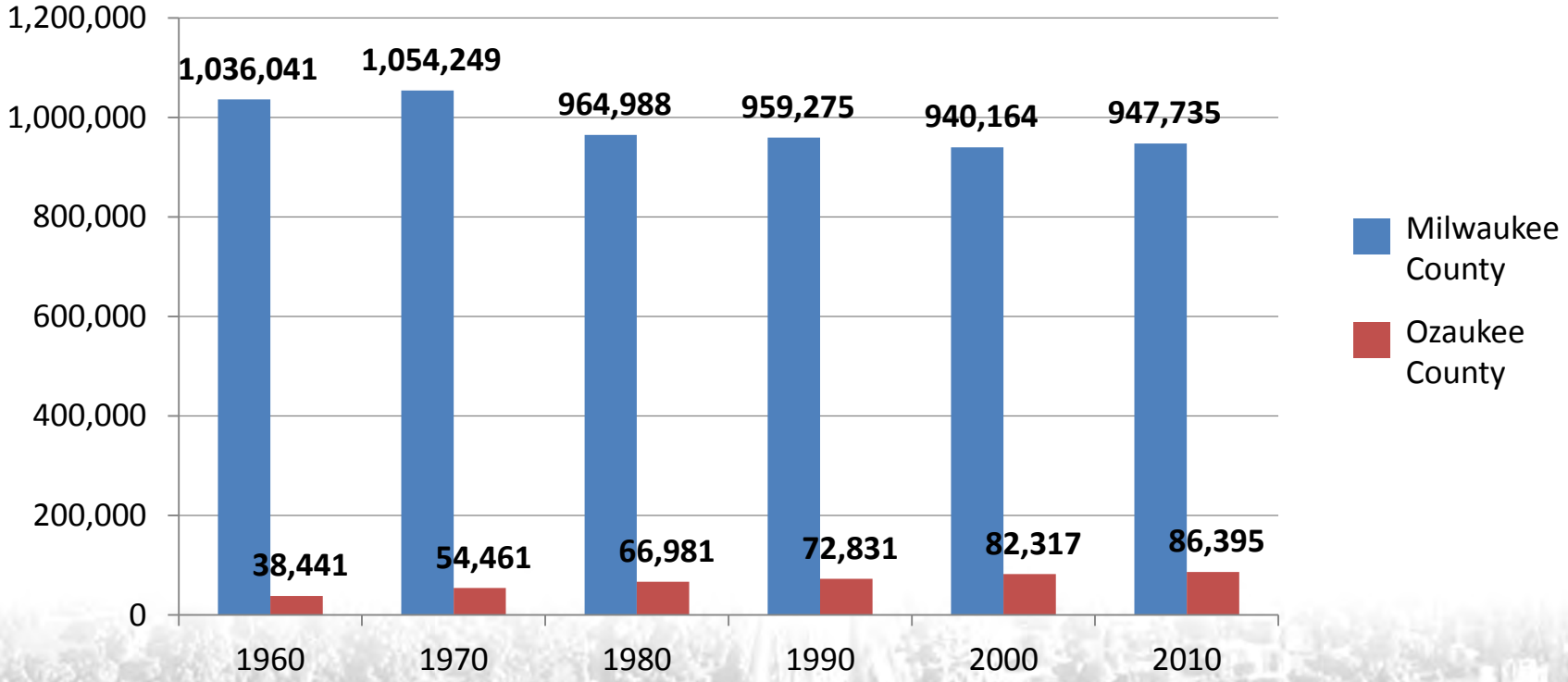
ICE Study Area Boundaries

- Evaluating two study areas
  - Primary
    - Closest to project corridor
    - Collect most detailed information
    - Area where effects are most likely to occur
  - Secondary
    - Milwaukee and Ozaukee counties
    - Collect broad trend-level data
    - Consider intraregional influences

Current Population and Employment: 2010



Past Population: 1960-2010

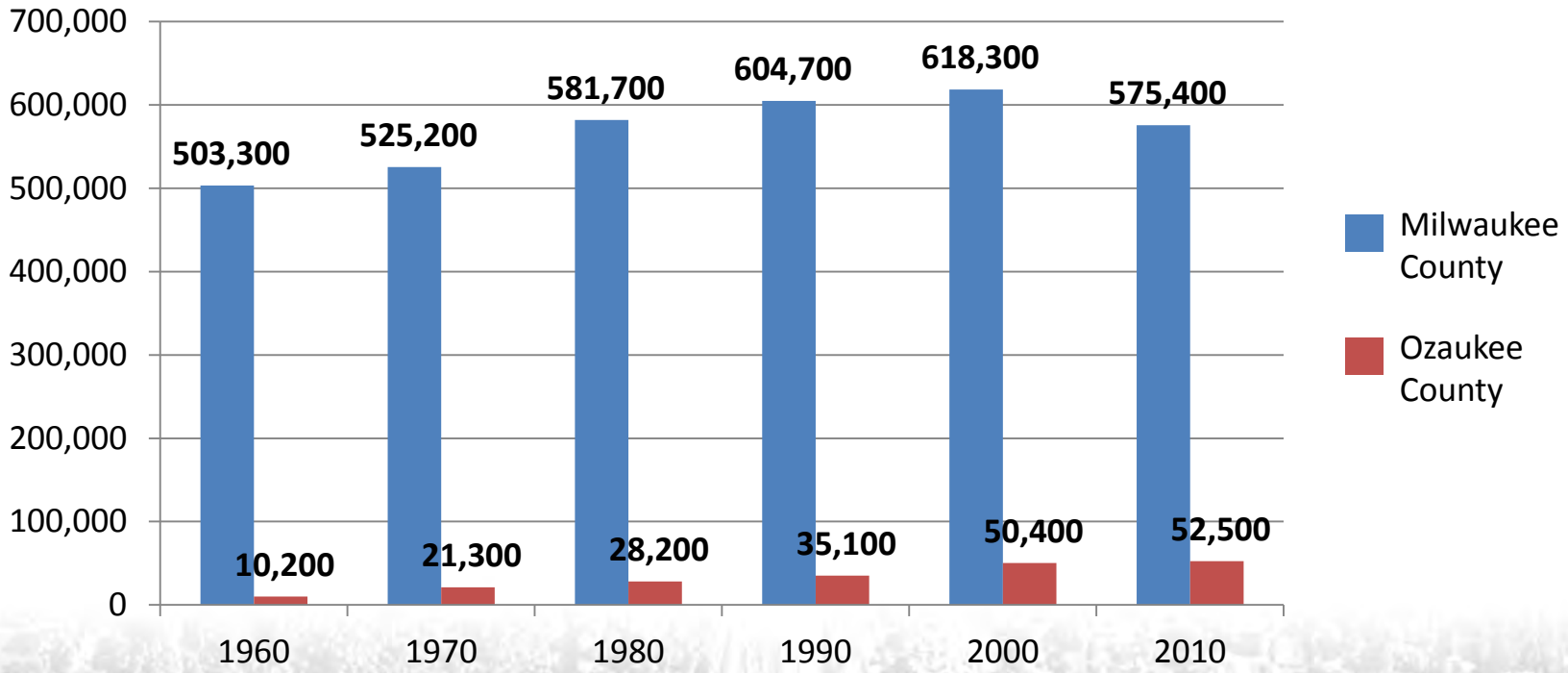


Change by decade	1960 to 1970	1970 to 1980	1980 to 1990	1990 to 2000	2000 to 2010
Milwaukee County	18,208	(89,261)	(5,713)	(19,111)	7,571
Ozaukee County	16,020	12,520	5,850	9,486	4,078

Population Projections: 2010-2050

Population	Milwaukee County	Ozaukee County
2010	947,735	86,395
2050	976,704	109,075
Change (2010-2050)	**28,969**	**22,680**
Percent change (2010-2050)	3	26
Percent change (1980-2010)	(2)	29

Past Employment: 1960-2010



Change by decade	1960 to 1970	1970 to 1980	1980 to 1990	1990 to 2000	2000 to 2010
Milwaukee County	21,900	56,500	23,000	13,600	(42,900)
Ozaukee County	11,100	6,900	6,900	15,300	2,100

Employment Projections: 2010-2050

Employment	Milwaukee County	Ozaukee County
2010	575,400	52,500
2050	608,900	69,300
Change (2010-2050)	**33,500**	**16,800**
Percent change (2010-2050)	6	32
Percent change (1980-2010)	(1)	86

Primary Study Area: Milwaukee County

Population: 2000 to 2010

Community	2000	2010	Change	Percent Change
Milwaukee	164,879	160,873	-4,006	-2%
Glendale	13,362	12,881	-481	-4%
Whitefish Bay	5,135	5,117	-18	0%
Shorewood	1,118	1,104	-14	-1%
River Hills	1,631	1,597	-34	-2%
Brown Deer	12,170	11,999	-171	-1%
Fox Point	7,040	6,692	-348	-5%
Bayside	4,415	4,300	-115	-3%
Total	**209,750**	**204,563**	**-5,187**	**-2%**

Primary Study Area: Ozaukee County

Population: 2000 to 2010

Community	2000	2010	Change	Percent Change
Mequon	22,047	23,234	1,187	5%
Thiensville	3,254	3,244	(10)	0%
Cedarburg	6,618	7,037	419	6%
Grafton (village/town)	12,332	13,347	1,187	8%
Total	**44,251**	**46,862**	**2,611**	**6%**

Recent Population: 2010 - 2012

- Milwaukee County
  - Gained 6,827 persons
  - Largest increase in region
- Ozaukee County
  - Gained 490 persons

County	Change	Percent Change
Milwaukee	**6,827**	**0.72**
Waukesha	2,226	0.57
Kenosha	1,304	0.78
Washington	699	0.53
Walworth	666	0.74
Ozaukee	**490**	**0.57**
Racine	(649)	(0.33)
Region	11,563	0.58

Recent Population: 2010 - 2012

- I-43 corridor communities
  - Milwaukee County
    - Reversed declining population trends
  - Ozaukee County
    - Slight population gains

County	Municipality	Change
Milwaukee	Milwaukee	3,749
	Glendale	46
	Whitefish Bay	25
	Shorewood	30
	River Hills	9
	Brown Deer	78
	Fox Point	31
	Bayside	20
Ozaukee	Mequon	117
	Town of Grafton	52
	Village of Grafton	34
	Cedarburg	34
	Thiensville	(4)

Land Use Trends

- Primary study area – Milwaukee County
  - Fully developed mature communities.
  - High to medium density urbanized area.
  - Residential neighborhoods range from affluent to distressed.
  - Established commercial corridors and nodes.
  - Large industrial areas.
  - Redevelopment of former industrial areas.
  - Limited redevelopment opportunities in north shore communities.

Land Use Trends

- Primary study area – Ozaukee County
  - Established urban areas with adjacent tracts of open land.
  - Existing low to medium density residential areas.
  - Extensive areas of planned large lot subdivisions.
  - Existing and planned commercial/business nodes.
  - Mixture of new development and redevelopment.

Land Use Trends

- Secondary study area
  - Northern Ozaukee County
    - Non urbanized areas
    - Population concentrated in small communities
    - Extensive lands in agricultural preservation
    - Limited sewer and water services
  - Southern Milwaukee County
    - High population growth in downtown, Third Ward, Near South Side
    - New downtown commercial developments
    - Employment base for many Ozaukee County residents
    - Franklin/Oak Creek available land for development

Large Group Discussion

- What population and employment trends do you see emerging?
- How would you describe land use and development trends?
- Are we missing any important information?

Build Alternatives

- Spot improvements
  - Maintains existing freeway configuration and access points
  - Addresses some safety and operational needs
  - Improvements focused at interchanges
- Modernization alternatives
  - Reconstructs freeway to modern design standards
  - Evaluates range of options for existing interchanges
  - Considers new interchange at Highland Road
  - May include additional travel lanes

Spot Improvements

- South of Bender Road to the UP Railroad
  - Replace temporary barriers
  - Improve pavement
  - Add median shoulder/barrier
- All existing interchanges
  - Improve ramp storage
- Brown Deer Road Interchange
  - Remove two loop ramps to improve weaving

Preliminary ICE Findings

- Will discuss two main types of effects
  - Land use effects relating to changes in transportation accessibility.
  - Effects related to the project's design features.

Land Use Effects

- Changes in the location, type or pace of development
- Occur from improved transportation accessibility/travel times
- Likelihood of land use effects is strongly related to:
  - Available land
  - Market demand
  - Sewer and water services
  - Local development policies
  - State of the regional and local economy

Land Use Effects

- Project impact causing activities
  - Adding new travel lanes to mainline
  - Potential new interchange at Highland Road
  - Potential access changes at County Line Road Interchange
  - Reconstruction of existing interchanges
  - Expansion of Port Washington Road (local project)

Land Use Effects

- Adding new travel lanes to mainline
  - Facilitates development in Ozaukee County primary study area
    - Supporting factors
      - Improvements to transportation accessibility increases land access and value
      - Strong traditional commute pattern between downtown and Ozaukee County
      - Projected population and employment growth in Ozaukee County
      - Supportive development policies, market demand, available land
    - Discouraging factors
      - Mature transportation system
      - High degree of existing transportation accessibility
      - Established land use patterns
      - Many factors influencing development

Land Use Effects

- Potential new Highland Road Interchange
  - May increase development pace of Mequon's East Growth Area
    - Improved transportation accessibility makes land more valuable/desirable
    - Available land in close proximity to population base
    - Requires sewer service expansion; zoning change
    - Requires ongoing support from elected officials
  - May increase pace of residential development west of Milwaukee River
    - Easier commute between residential areas and downtown employment.
    - Lands zoned for 5-acre lots not likely to change

Land Use Effects

- Reconstruction of existing interchanges
  - Supports existing land use patterns and planned development
- Potential access changes at County Line Road
  - No access: less convenient access for adjacent neighborhoods and businesses on Port Washington Road
  - Partial access: maintains existing land use patterns
  - Full access: may facilitate redevelopment in Mequon and Bayside
- Expansion of Port Washington Road between Bender and Daphne roads (local project)
  - Fully developed area with adjacent residential areas
  - No effect

Land Use Effects

- Potential consequences of induced development
  - Impacts to natural resources
  - Increases in impervious area
  - Increases in traffic
  - Changes in community character
  - Concerns about jobs moving to non-transit accessible locations
- Managed by local development policies, environmental regulations, regional plans
  - Local comprehensive plans; zoning and land division regulations
  - SEWRPC land use and transportation plans
  - Stormwater, wetland and floodplain rules

Project Design Feature Effects

- Alterations to the behavior and function of the physical environment farther from the corridor and later in time
- Direct project impacts that may lead to indirect effects:
  - Property acquisitions
  - Noise and air quality impacts
  - Visual impacts
  - Increased impervious area
- Examples:
  - Property acquisitions reduces neighborhood quality of life
  - Relocation of business anchor diminishes vitality of business district
  - Increased impervious area increases stormwater runoff

Project design feature effects

- Impact causing activities
  - Reconfiguration of mainline on south end of corridor
  - Proposed Mequon Road and Port Washington Road intersection design w/o Highland Road interchange
  - Character of north freeway segment
  - Natural resource impacts (stream crossings, wetland impacts, increased impervious area)

Project Design Feature Effects

- Reconfiguration of mainline on south end
  - Neighborhood quality of life concerns – Glendale
- Mequon/Port Washington without Highland Road interchange
  - Larger intersection; 3-lane left turn movement (SB to EB)
  - May be more challenging for vehicle and pedestrian mobility
- Character of north freeway segment in Ozaukee County
  - Concerns about preserving rural community character

Project Design Feature Effects

- Natural resource effects
  - Stream crossings/culverts
  - Wetland impacts
  - Increased stormwater runoff
- Opportunity for environmental benefits
  - Incorporate low flow at stream crossings to improve fish passage
  - Wetland avoidance, minimization and mitigation measures
  - Use stormwater best management practices

Small Group Discussion

- Review questions
- Discuss potential indirect and cumulative effects
- Prepare for report back session

Appendix D: List of small group questions

Small Group Discussion Questions

Please Indicate:

Name: _____

Organization: _____

Title: _____

Directions

- Write down your answers to the questions on the following pages.
- Discuss your answers with your small group.
- Turn in your hand written notes before you leave.

Your facilitator will be taking notes to summarize the group's discussion for the report back session.

Definitions to Keep in Mind

The federal Council on Environmental Quality (CEQ) regulations (40 CFR §§ 1500 -1508) define the impacts and effects that must be addressed and considered by Federal agencies in satisfying the requirements of the National Environmental Policy Act (NEPA) process. This includes direct, indirect and cumulative impacts:

Direct effects are caused by the action and occur at the same time and place. (40 CFR § 1508.8)

Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems. (40 CFR § 1508.8)

Cumulative impact is the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. (40 CFR § 1508.7)

1. Do you recommend any changes to the primary or secondary study area boundaries? If so, what changes should be made and why?

2. What aspects of the proposed transportation project do you think may cause indirect or cumulative effects? (i.e. capacity expansion, reconstruction of existing interchanges, new interchanges, stream crossings, etc.)

3. What areas could be affected (i.e. business districts, neighborhoods, streams, environmental corridors, etc.)? What are the effects and are the effects positive or negative?

4. When combined with the impacts of the I-43 North-South project, are there other projects or developments that have occurred or are planned that could result in cumulative effects to communities or natural or cultural resources?

5. What are the indirect or cumulative effects of the no-build, replace-in-kind and spot improvement alternatives? How do the effects compare to the modernization alternative?

6. **How might minority and low income populations be affected? Please indicate neighborhoods or business areas that may be affected and discuss the types of changes that may occur, positively or negatively. Also, discuss how the availability of transit services affects low-income and minority populations.**

APPENDIX I-C:
PROJECTED JOB/HOUSING IMBALANCES IN SOUTHEASTERN WISCONSIN: 2035

Map VIII-11
PROJECTED JOB/HOUSING IMBALANCES IN SUB-AREAS IN THE SOUTHEASTERN WISCONSIN REGION: 2035

● MAJOR EMPLOYMENT CENTERS: 2035

SEWERED COMMUNITIES IN SUB-AREAS WITH A PROJECTED JOB/ HOUSING IMBALANCE: 2035

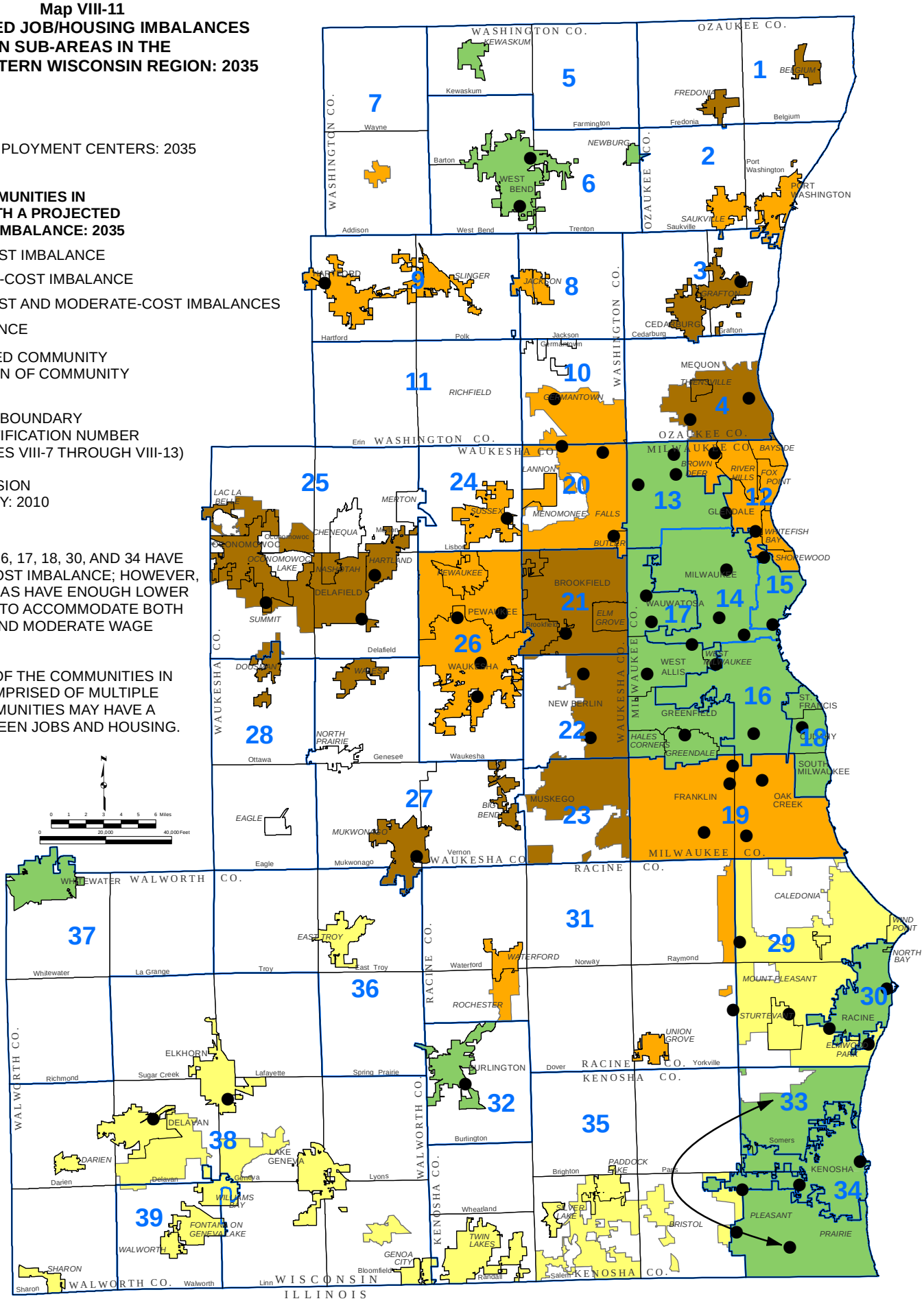
- LOWER-COST IMBALANCE
- MODERATE-COST IMBALANCE
- LOWER-COST AND MODERATE-COST IMBALANCES
- NO IMBALANCE
- UNSEWERED COMMUNITY OR PORTION OF COMMUNITY

39 SUB-AREA BOUNDARY AND IDENTIFICATION NUMBER (SEE TABLES VIII-7 THROUGH VIII-13)

CIVIL DIVISION BOUNDARY: 2010

NOTES:
SUB-AREAS 13-16, 17, 18, 30, AND 34 HAVE A MODERATE-COST IMBALANCE; HOWEVER, THESE SUB-AREAS HAVE ENOUGH LOWER COST HOUSING TO ACCOMMODATE BOTH LOWER WAGE AND MODERATE WAGE WORKERS.

ONE OR MORE OF THE COMMUNITIES IN SUB-AREAS COMPRISED OF MULTIPLE SEWERED COMMUNITIES MAY HAVE A BALANCE BETWEEN JOBS AND HOUSING.



Source: Local Government Comprehensive Plans and SEWRPC.