

**ST. CROIX RIVER CROSSING PROJECT SUPPLEMENTAL DRAFT EIS**  
**CHAPTER 6**  
**LAND USE IMPACTS**

**6.0 INTRODUCTION**

The purpose of this chapter is to describe the potential impacts of Alternatives B-1, C, D and E as well as the No-Build Alternative on land use in the project area. Both direct and indirect (secondary) impacts are described.

Direct impacts are defined as those impacts which occur at the same time and place as the proposed action. Direct effects on land use include the acquisition of right-of-way (e.g., homes, businesses or farmland), creation of new access points and the redevelopment or reuse of previously acquired right-of-way no longer needed for transportation purposes.

Indirect (sometimes referred to as secondary) effects are defined as those impacts caused by the action which would occur later in time and/or would be farther removed in distance but are still reasonably foreseeable. Indirect effects on land use may include effects related to changes in patterns of land use, population density, or growth rates.

The potential impacts to broader patterns of regional growth and development resulting from this project in combination with other actions are described in Chapter 13 (Cumulative Impacts).

**6.1 AFFECTED ENVIRONMENT**

**6.1.1 Regional Context**

The proposed project would result in an improved transportation facility crossing the St. Croix River between eastern Washington County, Minnesota, and western St. Croix County, Wisconsin. As described in Chapter 1, the project is located at the eastern edge of the Twin Cities metropolitan area. The Lift Bridge provides one of the four river crossings between the urbanized area and less developed western Wisconsin.<sup>1</sup>

Washington County defines the eastern edge of the seven-county planning area of the Metropolitan Council, the regional planning agency for the Twin Cities area.<sup>2</sup> However, areas of western Wisconsin have been included in the Minneapolis – St. Paul Metropolitan Statistical Area (MSA) as defined by the U.S. Census Bureau (Figure 6-1) since 1970, indicating a high degree of economic and social integration between this area and the Twin Cities urban core.

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<sup>1</sup> The four river crossings occur at Taylors Falls, MN/ St. Croix Falls, WI; Osceola, WI; Stillwater, MN/Houlton, WI; and Hudson, WI (I-94). The nearest bridges to the Lift Bridge are Osceola (20 miles to the north) and Hudson/I-94 (7 miles to the south).

<sup>2</sup> Current legislation restricts the Metropolitan Council's authority to the portion of the Twin Cities area contained within the State of Minnesota.

**Figure 6-1 – Regional Setting (8.5x11 – b/w)**

For outlying counties to be included in the MSA, they must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth. The Census Bureau included St. Croix County in the Twin Cities MSA starting in 1973. Pierce County was added in 1992. The thirteen counties of Anoka, Carver, Chisago, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington and Wright (in Minnesota) as well as Pierce and St. Croix in Wisconsin define the 13-county MSA. Metropolitan Council considers Polk County within the metropolitan area's influence, and has been tracking development trends in 'collar counties' adjacent to the 7-county metro area, including Polk County, since the 1980's.

## **6.1.2 Study Area**

The Minnesota areas examined for potential land use impacts include Washington County and the communities of Stillwater and Oak Park Heights, Bayport, and townships such as Stillwater, May and New Scandia. Wisconsin areas included the Towns of St. Joseph, Somerset, Richmond and Hudson, the Villages of Somerset and North Hudson and the Cities of New Richmond and Hudson. Locations of these communities can be found in Figure 6-1.

These geographic areas were further refined for specific discussions of direct and indirect impacts. A more detailed description of the area studied follows in each section below.

## **6.1.3 Existing Conditions and Trends**

### **6.1.3.1 Existing Land Use**

#### **Washington County, Minnesota**

Existing land use in Washington County is described in the Washington County Comprehensive Plan (1997 update) and shown in Figure 6-2 and Table 6-1. Bounded on the east by the St. Croix River and on the south and southwest by the Mississippi River, Washington County is a partly rural county located in the Twin Cities seven-county metropolitan area. According to the county's Comprehensive Plan, land use in Washington County is changing rapidly as development moves eastward. Suburban development is clustered along the western side of the county. Sewered development exists in the suburban communities of White Bear Lake, Oakdale, Woodbury, Lake Elmo, Cottage Grove, Newport, and St. Paul Park. Developed areas (which are also sewered) along the eastern side of the county adjacent to the St. Croix River include the communities of Stillwater, Oak Park Heights, Bayport, and Afton.

Analysis of land conversion in the County's Comprehensive Plan notes that in the twenty years between 1970 and 1990, 15,481 acres of vacant and agricultural land were converted to other uses; a rate of 774 acres per year in the ten year period. Between 1990 and 1997 (the latest year for which data is available), an additional 28,580 acres of agricultural or undeveloped land were converted to non-agricultural uses, a rate of 4,083 acres per year, over five times the rate of the two preceding decades. Residential land use shows a similar pattern increasing from 19,833 acres in 1970 to 31,483 acres in 1990, a rate of 583 acres per year, while residential use increased from 31,483 acres in 1990 to 45,089 acres in 1997, at a rate over three times that of the preceding decades. Commercial and industrial uses increased from a combined 5,412 acres in 1990 to 6,963 acres in 2000.

**TABLE 6-1  
WASHINGTON COUNTY LAND USE BY PERCENT OF TOTAL AREA**

	1970		1990		1997	
	Acres	%	Acres	%	Acres	%
Vacant and Agricultural	209,992	78%	194,511	72%	165,931	62%
Residential	19,833	7%	31,483	12%	45,089	17%
Commercial	959	0%	1,711	1%	2,771	1%
Industrial	2,968	1%	3,701	1%	4,192	1%
Other	36,228	13%	38,574	14%	51,997	19%
Total	269,980	100%	269,980	100%	269,980	99%

Source: Washington County Comprehensive Plan (1997 update), Metropolitan Council GIS (1997 data). Some totals are incomplete due to rounding.

### **Residential Development Patterns**

Between 1990 and 2000, Washington County realized a healthy share of regional growth: 12 percent of the metro area’s building permits were issued to projects located in the county. Communities such as Woodbury, Oakdale, Stillwater and Cottage Grove developed an urban character in this timeframe and are expected to continue to do so in the future. Future population growth would concentrate in these communities and others such as Forest Lake, Hugo and Bayport. Other communities such as Afton, Scandia, May and Denmark Township and eastern Cottage Grove are expected to grow slowly and maintain a more rural character.

Similar patterns can also be seen in the number of residential units constructed in the same decades as recorded in the U.S. Census (see Table 6-2). Most of the selected communities have seen a sizable share of growth in the last 10-15 years, with ranges of 17-25 percent of their housing stock constructed between 1990 and 2000. The high rate of new construction for Washington County overall stands apart from the growth in these communities clustered next to the river – for example, the City of Bayport experienced very little new housing construction since 1990, accounting for only 6 percent of the total housing units.

### **Generalized Land Use Patterns**

#### City of Stillwater, Minnesota

Land use patterns in the City of Stillwater consist of a mixed use downtown area, parallel to the St. Croix River following the historical settlement pattern along Trunk Highway (TH) 95 or Main Street to the north, west and south. There are retail commercial, office, institutional (public, places of worship) and multifamily land uses within the mixed use core of downtown. Residential neighborhoods surround this core area. Later residential neighborhood development branched out from the core, following major roadways such as TH 96 into Stillwater Township and CSAH 12. Retail and office commercial uses are clustered along the north side of the TH 36 corridor, with some additional multi-family uses located in the area as well. Most new residential development has occurred within Stillwater Township, but staged annexation and provision of municipal services have resulted in a relatively orderly progression of urbanized land.

**Figure 6-2 – Washington County Existing Land Use (2000) (8.5x11 – color)**

BACK

**TABLE 6-2  
HOUSING UNITS – YEAR STRUCTURE BUILT**

Geographic Area	Total Housing Units	Built Prior to 1970	Built 1970 - 1979	Built 1980 - 1989	Built 1990 – March 2000	
					Number	Percentage of Total Built 1990-2000 <sup>(1)</sup>
<b>MINNESOTA</b>						
Washington County	74,462	19,822	13,825	13,715	24,100	33.7
City of Bayport	761	582	88	42	49	6.4
City of Grant	1,379	390	357	398	234	17.0
City of Lake Elmo	2,347	770	685	421	471	20.1
City of Oak Park Heights	1,534	330	571	268	365	23.8
City of Stillwater	5,804	2,832	1,203	672	1,097	18.9
Stillwater Township	818	225	148	243	202	24.7
<b>TWIN CITIES MSA – WI (13 COUNTY AREA)</b>	1,136,615	N/A	N/A	147,880	198,835	17.5

Source: 2000 Census – U.S. Census Bureau

<sup>(1)</sup>Indicates percentage of total housing units within each jurisdiction built between 1990 and 2000.

## City of Oak Park Heights, Minnesota

The City of Oak Park Heights clusters around the TH 36 corridor, with commercial uses directly abutting the roadway. Some of the original Lower Oak Park Heights neighborhoods were located in close proximity to the TH 95/ TH 36 interchange, although these areas were acquired and cleared of houses in preparation for an earlier St. Croix River Crossing Project. Immediately to the south of the commercial area that borders the length of TH36 between Greeley Avenue and TH 95, single family residential uses are found. In the last five years, there has been an increase in development of previously undeveloped commercial and residential areas west of Washington Avenue and TH 5 (Manning Avenue) on the south side of TH 36. New uses have lent this area a primarily retail commercial character. A large sized residential development south of 58th Street (Boutwell's Landing) is complete and adds multi-family housing as well as parkland to the area.

### **TH 36 Corridor Area – Land Uses Adjacent to the Project Corridor**

West of the project area, the TH 36 corridor shows a pronounced rural character through the City of Lake Elmo and the City of Grant. Development in these areas is characterized by occasional single family homes next to service roads. There is limited access to TH 36 which is a divided highway with a limited number of signalized intersections. There are a small number of commercial enterprises (nursery, feed and tack, landscape supply) abutting the TH 36 corridor between I-694 and the TH 5 interchange.

Commercial land use, largely retail, dominates the TH 36 corridor at the west end of the project area, beginning at the TH 5 interchange and proceeding east to Osgood Avenue. This segment of the project corridor lies generally within the City of Stillwater to the north of TH 36 and the City of Oak Park Heights to the south. These commercial uses include “big box” retail centers and “strip” retail centers, as well as freestanding retail sites. Service and office uses are intermixed with retail developments. West of Norell/Washington Avenues, new medium density residential development has been built, along with additional retail centers. East of Osgood Avenue, free-standing commercial sites, multi-family residential uses as well as governmental uses (the Washington County Government Center) can be found. As TH 36 follows the curved bluff edge north to merge with TH 95, the land in Lower Oak Park Heights that was cleared for the 1995 Final EIS Preferred Alternative lies to the southeast of the roadway. To the south of this area, the Xcel King Power Plant and the Metropolitan Council's wastewater treatment plan is visible along the river.

As TH 36 and TH 95 merge and turn to the north, the west side of the road is dominated by the bluff edge with single-family residential sites occupying the top of the bluff. A historic scenic overlook is also located along the bluff edge in this area. Between the east side of TH 95 and the St. Croix River lies a wastewater treatment plant and the Sunnyside Marina and Condominiums complex. Proceeding north into downtown Stillwater, the city-owned Municipal Barge Facility property (proposed for future use as a park) lies to the east while a small retail area occupies an indentation in the bluff edge on the west side of the roadway.

Nelson Street marks the beginning of the Stillwater downtown area. Commercial areas line both sides of TH 36/TH 95 and extend several blocks to the west up the bluff slope. Lowell Park, bisected by the TH 36 bridge approach, follows the St. Croix River edge along the length of the downtown area.

## St. Croix County, Wisconsin

Existing land use in St. Croix County is shown in Figure 6-3. Within the project area, the unincorporated area of Houlton is home to 26 businesses, a Hudson School District elementary school and a veteran's building. Retail stores and service businesses, including banks, kennels, auto dealers, real estate agents and a mini storage facility are currently found in the area. The majority of the land pattern in the Town of St. Joseph is rural, or rural residential. However, the Village of Somerset and the City of New Richmond and Hudson are also host to a broad diversity of land uses, serving as prime locations for commercial and industrial uses given the availability of municipal services.

Analysis of land use in unincorporated areas of St. Croix County between 1973 and 1993 prepared for the St. Croix County Development Management Plan (March 21, 2000), show a trend of urbanization and land conversion from agricultural uses to primarily low-density residential character (Table 6-3).<sup>3</sup> According to the available data, two general trends in land development can be illustrated. First, between 1973 and 1993, approximately 5,000 acres were added to the incorporated areas of the county. While the data does not distinguish between different types of land use within the incorporated area, it is assumed that land added to the incorporated area would be developed as urban. This assumption is made due to the access to municipal services (water and sanitary sewer) in incorporated areas. The second trend within the data illustrates the conversion of approximately 25,600 acres of the county's agricultural land and 3,000 acres of the county's wetlands to other uses. These uses have been categorized into three general types—a) residential; b) transportation and utilities; and c) industrial, commercial, recreational, government and institutional—which have increased by 3, 1, and 0.6 percent respectively.

The St. Croix County Development Management Plan concludes that changes in various land uses have had a major impact on St. Croix County's landscape over the past twenty years. The most noticeable change, according to the plan, has occurred in the western part of the county where agricultural land has been converted to residential use. The plan states that, given observed demographic trends, communities in western St. Croix County are expected to experience continued pressure for residential growth. As a result, it is anticipated that agricultural land uses in western St. Croix County will continue to decline as they have since the 1970s.<sup>4</sup> With respect to this trend, it is noteworthy that agricultural land in western St. Croix County (Town of St. Joseph, Somerset, and Hudson Townships, in particular) is generally less productive in comparison with the agricultural land in the rest of the county. Direct farmland impacts of the Build Alternatives are discussed in Section 6.2.1.3.

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<sup>3</sup> The areas and percent measures in Table 6-3 and discussed below are provided for general comparison only. Because of changes due to automation of land use data collection (i.e., geographic information systems), some of the differences between 1973 and 1993 are assumed to be the result of data collection techniques rather than actual changes in land use.

<sup>4</sup> This pattern of declining agricultural land use is noted in the St Croix County Development Management Plan Trends Analysis section and in a University of Wisconsin Madison PATS study.

**TABLE 6-3**  
**ST. CROIX COUNTY LAND USE IN UNINCORPORATED AREA <sup>(1)</sup>**

	1973		1993		Change	
	Acres	% Total	Acres	%	Acres	%
Agricultural and Vacant	353,309	(75%)	327,691	(70%)	(25,618)	(-5%)
Transportation and Utilities	14,665	(3%)	17,825	(4%)	3,161	(1%)
Residential	13,664	(3%)	26,112	(6%)	12,448	(3%)
Wetlands and Surface Water	14,871	(3%)	10,131	(2%)	(4,740)	(-1%)
Forested	61,391	(13%)	68,366	(15%)	6,975	(2%)
Industrial, Commercial, Recreation, Government and Institutional	1,823	(0.4%)	6,321	(1.3%)	2,675	(.9%)
Total Area (Unincorporated)	459,723	98%	454,905	97%	4,818	(1%)
Incorporated Area <sup>(2)</sup>	11,549	2%	16,367	3%	4,818	(1%)
Total County Area	471,272	100%	471,272	100%	471,272	NA

Source: St. Croix County Development Management Plan (March 21, 2000)

<sup>(1)</sup> Because of changes due to automation of land use data collection (i.e., geographic information systems), some of the suggested differences between 1973 and 1993 are assumed to be the result of data collection techniques rather than because of actual changes in land use.

<sup>(2)</sup> Incorporated area is not a separate land use type but includes multiple land uses. Approximately 5,000 acres of land was added to incorporated areas between 1973 and 1993.

**Figure 6-3 – St. Croix County Existing Land Use (1993) (8.5x11 – color)**

BACK

## **Residential Development Patterns**

Since 1990, it is clear that the rate of urbanization occurring in western Wisconsin communities has also increased. However, the share of metro area growth occurring in these areas remains more or less the same as it has been over the last 30 years. Since approximately 1995, net migration has been the primary driver accounting for population growth in St. Croix County, rather than natural increase alone.

In reviewing Census data for St. Croix County housing construction, recent growth patterns indicate a greater comparative rate of new construction on the Wisconsin side of the river than in Washington County (Section 6.1.3.1).

While the County overall has experienced steady rates of new construction in the 1980s and the 1990s, certain local jurisdictions grew more in the 1990s than at any time previously. Examples of this trend are the Village of Somerset, the Town of Star Prairie and the Town of Hudson, with 40 percent or more of their housing stock constructed between 1990 and 2000. All of the localities in the area grew notably, with rates of increase between 18 and 30 percent in the same 10-year time frame. See Table 6-4 for residential development in Wisconsin.

## **Generalized Land Use Patterns**

### Unincorporated community of Houlton

The predominant land use in Houlton is single family residential homes. Other uses include retail and service commercial clustered next to the roadways. An elementary school is also found on County Trunk Highway (CTH) E.

### Town of St. Joseph

Scattered rural residential uses and agricultural operations are found throughout the Town of St. Joseph. There is scattered rural residential (at densities of approximately 1 unit per 3 acres) development found in the western part of the Town, closest to the unincorporated community of Houlton. This land is still agricultural or open space in nature.

### Town of Somerset/Village of Somerset

The Town of Somerset has 65 percent of its land area devoted to farmland. Scattered residential uses follow county roads, with some clusters next to features such as water bodies (lakes and streams), park and recreation areas. Generally speaking there is more residential development on the southern edge of the town, close to the boundary shared with the Town of St. Joseph. There is very little existing commercial land use as a result of Town land use policy and the absence of municipal services.

The Village of Somerset has grown tremendously within its corporate boundaries and also as a result of annexation of adjacent territory seeking municipal services to support development. Some commercial uses have located in the Village and serve the larger area (Town and Village of Somerset, Town of St. Joseph, Town of Star Prairie). Industrial growth has occurred, adding 150 jobs to the diversity of land uses in the village over the last 5 years.

**TABLE 6-4  
HOUSING UNITS – YEAR STRUCTURE BUILT**

Geographic Area	Total Housing Units	Built Prior to 1970	Built 1970 - 1979	Built 1980 - 1989	Built 1990 – March 2000	
					Number	Percentage of Total Built 1990-2000 <sup>(1)</sup>
<b>WISCONSIN</b>						
<b>St. Croix County</b>	23,410	8,540	4,690	3,912	6,268	26.8
<b>City of Hudson</b>	3,673	1,506	578	530	1,059	28.8
<b>City of New Richmond</b>	2,553	1,131	398	425	599	23.5
<b>Town of Hudson</b>	1,956	162	403	552	839	42.9
<b>Town of Richmond</b>	521	162	149	94	116	22.3
<b>Town of Somerset</b>	953	228	251	186	288	30.2
<b>Town of Star Prairie</b>	1,003	231	216	149	407	40.6
<b>Town of St. Joseph</b>	1,187	294	325	227	341	28.7
<b>Village of North Hudson</b>	1,306	452	285	308	261	20.0
<b>Village of Somerset</b>	615	173	103	89	250	40.6
<b>Village of Star Prairie</b>	193	100	24	34	35	18.1
<b>Twin Cities MSA (13 County Area)</b>	1,136,615	N/A	N/A	147,880	198,835	17.5

Source: 2000 Census – U.S. Census Bureau

<sup>(1)</sup>Indicates percentage of total housing units within each jurisdiction built between 1990 and 2000.

### City of New Richmond

The City of New Richmond is located at the intersection of State Trunk Highway (STH) 64 and STH 65 and is sited on the Willow River. Over the last 10 years, it grew by approximately 24 percent within its incorporated boundary and adjacent to it, as well, prompting annexation requests and consequent approvals. The realignment of STH 64 is seen as an opportunity to shape growth along that corridor as it enters the city on the west, to its intersection with STH 65 in the middle of the city.

The city hosts a wide range of land uses, including industrial parks and commercial areas. Agricultural land and open space reserves are planned for in the city's draft comprehensive plan, on the west and north edges of the city's incorporated boundaries. Approximately one-third (33 percent) of the city's acreage is residential and 19 percent is classified as agricultural. Open space and recreational is 17 percent of the total land area. Commercial and industrial areas account for 5 percent each of the land area. Finally, the city has also mapped approximately 38 acres of 'Environmental Corridors' within its boundaries, which are sensitive areas with additional regulations on development. Typically these areas follow riverbanks and other unique natural features.

Areas designated for growth in the New Richmond plan are to the southwest of STH 65. Expansion in this general area calls for a transition in development types between higher density grid-pattern residential into lower density traditional subdivision designs in the outlying areas. The area around the STH 64 diamond interchange region, located to the west of the city, is planned to afford new growth and development in the form of commercial uses back filled with higher density grid pattern residential and multi-family uses.

### Town of Star Prairie/ Stanton/ Erin Prairie/ Richmond

The majority of land in the unincorporated areas in the above-noted towns is agricultural. Erin Prairie and Stanton make up two of six towns possessing the highest concentration of productive agricultural land in the county. Seventy percent (70 percent) of the land area in the Town of Erin Prairie is comprised of prime farmland while 67 percent of the Town of Stanton is classified as prime farmland. In both towns, forested areas account for about 11 percent of land cover, and wetlands around 2 percent. In the Town of Star Prairie, approximately 72 percent of its land area is used as farmland, with a relatively high proportion of wetlands (4 percent) and forested areas (23 percent) compared to other towns in St. Croix County.

### Town of Hudson/ Village of North Hudson/ City of Hudson

The Town of Hudson like most other unincorporated areas in St. Croix County has a high percentage of farmland – approximately 69 percent of the total acreage is either cropland, grassland or forage land. The remaining land cover is predominantly forested/ woodlands, approximately 28 percent of land cover.

### **STH 35/64 Corridor - Land Uses Adjacent to the project corridor**

Along the STH 64 project corridor in the Town of St. Joseph, single family homes occupy the areas immediately north and south of STH 64 and CTH E to the top of the bluff at

STH 35, forming the unincorporated community of Houlton. Scattered residential and commercial uses (such as a mobile home park and auto repair/ storage yards) can be found both east and west of STH 35. South of Houlton along STH 35, residential uses occupy the west side of the road, while agricultural patterns are dominant on the east side, north and south of CTH E. Steady land use change (typically from agricultural to residential) has occurred within the Town's boundaries in the last 5 years as witnessed by building permits issued by the Town. Aerial photography indicates that most residential development has occurred to the east, north and south of the area closest to Houlton. With the exception of a few subdivisions (Settler's Glen) recently approved and underway, there has been little land conversion in the immediate vicinity of any of the proposed alternatives.

**Counties adjacent to the project area**

Southern Polk County

The portion of Polk County adjacent to the project area is generally more forested and has more water features than St. Croix County. The town of Osceola, for instance, has 54 percent of its land area classified as farmland, 38 percent as forest and 7 percent as wetlands.

Northern Pierce County

The Town of River Falls, adjacent to St. Croix County, maintains a more agricultural land use character. The town's land cover data indicates that 78 percent of the area is classified as farmland, and 21 percent as forest lands.

**6.1.3.2 Population, Households, and Employment**

Historic (1970-2000) population growth rates for Washington County, Minnesota, and St. Croix County, Wisconsin, are shown in Table 6-5. In absolute terms between 1990 and 2000 St. Croix County grew by 12,902 residents, where Washington County increased its population by 55,234 persons. Future population and household growth in these same five counties is shown in Table 6-9 and discussed in Section 6.1.3.4.

**TABLE 6-5  
HISTORIC POPULATION GROWTH, MINNESOTA AND WISCONSIN COMMUNITIES**

	<b>1980 Total</b>	<b>Population Change since 1970</b>	<b>1990 Total</b>	<b>Population Change since 1980</b>	<b>2000 Total</b>	<b>Population Change since 1990</b>
Washington	113,571	30,263	145,896	32,325	201,130	55,234
Chisago	25,717	8,225	30,521	4,804	41,101	10,580
Polk	32,351	5,685	34,773	2,422	41,319	6,546
Pierce	31,149	4,497	32,765	1,616	36,804	4,039
St. Croix	43,262	8,908	50,251	7,137	63,155	12,904

Source: U.S. Census Bureau

The nature of growth in St. Croix County's communities has diversified over time (see Table 6-6). Change in St. Croix County has been characterized predominantly by residential development in the 1970s and 1980s. As residential development continued through the 1990's, other commercial and industrial activity began to locate in the area. The Cities of Hudson and New Richmond, and the Village of North Hudson as well as the Village of Somerset have all been locations where this land use diversity has occurred. The trend for the towns and villages of St. Croix County has been one of evolution from small crossroads villages economically and socially linked to Hudson or the eastern Twin Cities metropolitan area to more economically self-sufficient and diversified communities. The comprehensive plans of each community speak to these current trends and reinforce the goal of cultivating this diversity and self-sustaining profile over the next 20 years. The Wisconsin communities' comprehensive plans are discussed in greater detail in Section 6.1.4.2.

**TABLE 6-6  
POPULATION AND COMPONENT OF CHANGE, ST. CROIX COUNTY**

	<b>Population</b>	<b>Total Annual Change</b>	<b>Births</b>	<b>Deaths</b>	<b>International Immigration</b>	<b>Net Domestic Migration</b>
1970	34,354	—	—	—	—	—
1975	39,100	1,300	—	—	—	—
1980	43,262	862	—	—	—	—
1985	45,391	477	778	349	—	—
1990	50,251	714	613	295	—	—
1995	55,496	1,127	653	362	5	719
1996	56,916	1,420	747	454	13	991
1997	58,485	1,569	756	405	17	992
1998	60,143	1,658	757	432	10	1,173
1999	61,634	1,491	760	412	18	971
2000	63,155	1,521	N/A	N/A	N/A	N/A
2001	65,704	2,549	931	630	32	2,178
2002	68,122	2,418	770	535	26	2,104

Source: Real Estate Center at Texas A&M University, U.S. Census Bureau

### 6.1.3.3 Recent Development and Growth Patterns

Data collected from local officials (staff planners, town clerks, board chairs) for both Minnesota and Wisconsin demonstrate the population trends discussed in Section 6.1.3.2. The pace of permitting activity in most of the communities in Wisconsin has generally been increasing over time. Some of the Minnesota communities have experienced variable levels of building activity, for a variety of reasons. See Table 6-7 for building permit activity in Minnesota and Wisconsin communities.

**TABLE 6-7  
BUILDING PERMIT ACTIVITY 1995 TO 2003, WISCONSIN AND MINNESOTA COMMUNITIES**

Municipality/ Location	Number of Permits Issued by Year								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>Wisconsin</b>									
Town of Somerset Population (2003): 2,957	N/A	N/A	N/A	N/A	N/A	30+ (data incomplete) SF	88 SF	73 SF	92 SF
Village of Somerset Population (2003): 1,874	5 total 1 SF 4 fourplex	15 total 9 SF 6 DUPL	14 total 6 SF 8 DUPL	18 total 14 SF 4 DUPL	23 total 15 SF 8 fourplex	20 total 4 SF 16 DUPL	93 total 17 SF 76 DUPL	74 total 62 SF 12 DUPL	65 total 53 SF 4 DUPL 8 fourplex
City of New Richmond Population (2003): 6,952	76 total 17 SF 24 DUPL 35 MF	90 total 33 SF 16 DUPL 41 MF	52 total 28 SF 16 DUPL 8 MF	183 total 35 SF 22 DUPL 126 MF	94 total 20 SF, 34 DUPL 40 MF	60 total 24 SF 26 DUPL 10 MF	165 total 37 SF 24 DUPL 104 MF	166 total 110 SF 48 DUPL 8 MF units	216 total 77 SF 50 DUPL 71 MF
Town of St. Joseph Population: 3,600	29 SF	26 SF	26 SF	46 SF	37 SF	39 SF	28 SF	26 SF	36 SF
City of Hudson Population: 11,510	133 total 28 SF 105 MF	151 total 57 SF 94 MF	159 total 69 SF 90 MF	190 total 78 SF 112 MF	272 total 146 SF 126 MF	254 total 164 SF 90 MF	272 total 166 SF 106 MF	235 total 103 SF 132 MF	263 total 93 SF 170 MF
Town of Roberts Population: 1,230	0	2 SF	1 SF	0	0	25 SF	69 SF	74 SF	46 SF
<b>Minnesota</b>									
May Township <sup>(1)</sup> Population: 2,928	18 SF	18 SF	18 SF	18 SF	18 SF	18 SF	21 SF	9 SF	18 SF
Marine on St. Croix Population: 602	N/A	N/A	N/A	N/A	N/A	N/A	5 SF	1 SF	6 SF
New Scandia Township Population: 3,692	N/A	N/A	N/A	N/A	28 SF	21 SF	30 SF	33 SF	33 SF
City of Afton Population: 2,839	N/A	N/A	10 SF	9 SF	N/A	N/A	N/A	14 SF	15 SF

Notes: "Permits Issued" is specific to new construction. Numbers cited refer to residential units (ex: 4 fourplex = 1 fourplex with 4 residential units).

Abbreviations: SF = Single Family DUPL = Two Units (Duplex, Twin Homes, etc) MF = Multi Family N/A = Not Available

<sup>(1)</sup>This is an average number of permits. Data was not more specific.

**TABLE 6-7 (continued)**  
**BUILDING PERMIT ACTIVITY 1995 TO 2003, WISCONSIN AND MINNESOTA COMMUNITIES**

Municipality/ Location	Number of Permits Issued by Year								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Minnesota									
West Lakeland Township Population: 3,547	43 SF	80 SF	57 SF	89 SF	81 SF	47 SF	36 SF	23 SF	17 SF
Stillwater Township Population: 2,553	N/A	N/A	N/A	N/A	N/A	N/A	9 SF	5 SF	5 SF
City of Bayport Population: 3,162	N/A	N/A	N/A	N/A	N/A	N/A	3 SF	4 SF	4 SF
Baytown Township Population: 1,533	N/A	N/A	N/A	N/A	N/A	N/A	1 SF	1 SF	1 SF
City of Oak Park Heights Population: 3,957	N/A	N/A	N/A	N/A	N/A	N/A	0	0	8 SF
City of Stillwater Population: 15,143	N/A	N/A	N/A	N/A	N/A	N/A	198 SF 16 MF	124 SF 152 MF	91 SF
City of Grant Population: 4,026	N/A	N/A	N/A	N/A	N/A	N/A	12 SF	10 SF	4 SF

Notes: "Permits Issued" is specific to new construction. Numbers cited refer to residential units (ex: 4 fourplex = 1 fourplex with 4 residential units).  
 Abbreviations: SF = Single Family DUPL = Two Units (Duplex, Twin Homes, etc) MF = Multi-family N/A = Not Available

Some of the key factors influencing permitting activity, as discussed in a meeting with local officials held on February 19, 2004 are as follows:

- The relative affordability of Wisconsin land relative to Minnesota land values;
- Annexations that are based on gaining access to municipal water and wastewater treatment services (e.g. Village of Somerset and Town of Somerset); and
- Planned growth consistent with comprehensive plan policy (e.g. City of New Richmond).

See Section 6.2.2.2 for further details of the February 2004 local officials meeting.

#### 6.1.3.4 Transportation Patterns

One measure of the growing self-sufficiency of St. Croix County's communities is the workplace location of St. Croix County residents. Census data shows that since the 1970's there have been residents living in western Wisconsin who choose to travel to the Twin Cities for work and other household purposes on a daily basis. The pattern continues with 2000 Census data. Travel behavior data from the 2000 Census illustrates the workplace location for employed St. Croix County residents (see Table 6-8). This data shows that close to 62 percent of St. Croix County residents within the project study area work in Wisconsin. Another 8 percent work in Stillwater, Oak Park Heights or Bayport. This is the equivalent of about 35,000 work-related trips of the daily 50,000 trips that are made by St. Croix County workers.

**TABLE 6-8  
DESTINATION OF ST. CROIX COUNTY WORKERS' TRIP TO WORK**

<b>Residents of St. Croix County with workplace in:</b>	<b>2000 Census</b>	<b>Percent of Total</b>
Within Wisconsin	30,846	61.8%
Bayport	2,203	4.4%
Oak Park Heights/ Stillwater	1,941	3.9%
Maplewood	1,007	2.0%
Woodbury	1,297	2.6%
St. Paul (Excluding Downtown)	2,531	5.1%
St. Paul Downtown	1,250	2.5%
Minneapolis (Excluding Downtown)	1,327	2.7%
Minneapolis Downtown	325	.7%
Other (7 County Metro)	7,210	14.4%
<b>Total</b>	<b>49,937</b>	<b>100.0%</b>

Although existing trends and conditions indicate increasing vehicle travel throughout the metro area (based on distance traveled to work, time spent commuting and overall vehicle miles traveled), the concentration of jobs, housing schools and other household destinations within the St. Croix River valley, a sub-region drawing on the resources of both Minnesota and Wisconsin communities, suggests that the existing and future river crossing does more than serve commuter needs. It serves as a link between interconnected communities that share similar retail, commercial and employment markets.

#### 6.1.3.4 Future Population Trends

Continued growth trends are anticipated in the two primary counties (Washington and St. Croix). By 2030, an additional 19,400 households are anticipated in St. Croix County. Washington County will accommodate another 67,200 households by 2030. The new households will generate additional demands on existing road infrastructure and school districts, and provide purchasing power to growing commercial markets in both counties.

Washington County will add the greatest number of households of all five counties, followed by St. Croix County. However, the next greatest population increase is expected in Chisago County, with an additional 13,000 households by 2030. Polk and Pierce will realize lesser gains, ranging between approximately 6,500 households in Polk County and 4,800 households in Pierce County in the same time frame. Table 6-9 shows future population growth by county.

**TABLE 6-9  
FUTURE POPULATION GROWTH BY COUNTY**

<b>County</b>	<b>Population 2000</b>	<b>Future<sup>(1)</sup> Population 2030</b>	<b>Change 2000-2030</b>	<b>Households 2000</b>	<b>Future Households 2030</b>	<b>Change 2000-2030</b>
<b>Chisago</b>	41,101	69,520	28,419	14,517	27,620	13,103
<b>Washington</b>	201,130	344,280	143,150	71,462	138,680	67,218
<b>Polk</b>	41,319	52,257	10,938	16,254	22,803	6,549
<b>St. Croix</b>	63,155	106,026	42,871	23,410	42,799	19,389
<b>Pierce</b>	36,804	45,850	9,046	13,015	17,891	4,876

<sup>(1)</sup> Data sources differ: Metropolitan Council prepares forecasts of population for Washington County. Polk, Pierce and St. Croix County population forecasts were released by the Wisconsin Department of Administration in January of 2004. Chisago County projections prepared by State Demographic Center, MN Planning. Census data was used for population and household counts in 2000.

## 6.1.4 Land Use Planning and Regulation

### 6.1.4.1 Planning Authority

#### State Regulations – Lower St. Croix National Scenic Riverway

The Lower St. Croix National Scenic Riverway Cooperative Management Plan (2002) provides broad policy direction and suggested zoning guidelines (see Appendix A of the Cooperative Management Plan, pages 59-64). The rationale cited in the 2002 Cooperative Management Plan for providing zoning guidelines is because local governments adopt zoning ordinances based upon state rules. Both the state of Minnesota and state of Wisconsin have state regulations governing land use within the boundary of the Lower St. Croix National Scenic Riverway. Chapter 6105 of the Minnesota Rules provides for minimum statewide requirements for land use along wild, scenic, and recreational rivers, which includes the Lower St. Croix National Scenic Riverway.

Chapter NR 118 of the Wisconsin Administrative Code provides guidance for land use within the Lower St. Croix National Scenic Riverway boundaries. The Wisconsin Department of Natural Resources has proposed amendments and revisions to NR 118 based on concepts outlined within the Cooperative Management Plan.

Specific details about how the zoning guidelines affect local jurisdictions' zoning authority are discussed at the end of section 6.1.4.2.

#### Minnesota

The Metropolitan Council has regional planning authority for the seven-county Twin Cities metropolitan area (Figure 6-1). Washington County, in which the Minnesota portion of the project lies, is included within this seven-county area. The Council reviews community comprehensive plans, runs the regional transit system, collects and treats wastewater, conducts surface and groundwater management programs, plans regional parks, and administers funds that provide housing opportunities for low- and moderate-income families. The Council's *Regional Development Framework*, adopted in January 2004, is the agency's report that documents growth management policies for the Twin Cities metropolitan area. Further discussion of the *Regional Development Framework* is available in the land use planning technical memorandum.

Communities within the seven-county metropolitan area are required by state statute to maintain a comprehensive land use plan in conformity with the *Regional Development Framework*. By defining a Municipal Urban Service Area (MUSA) and encouraging reinvestment in the urban core, the *Regional Development Framework* seeks to guide future development toward existing growth centers and to limit continuing development into rural areas. The Minnesota portion of the project area is within the "Urban Area" defined in the *Regional Development Framework* as the cities of Stillwater and Oak Park Heights have urban levels of regional sewer and transportation service. However, the area to the west of the project area (Lake Elmo, Grant) is described in the *Regional Development Framework* as "Diversified Rural" and maintains a profile of low density development along the TH36 corridor, creating a break between the urbanized metro core and the Stillwater area (Figure 6-4).

**Figure 6-4 – Metropolitan Council Planning Framework (2030) (8.5x11 – color)**

BACK

## Wisconsin

St. Croix County, Wisconsin, is located at the western edge of the six-county planning area of the West Central Wisconsin Regional Planning Commission (WCWRPC). The WCWRPC performs a different function from the Twin Cities Metropolitan Council in that it provides planning assistance but does not set policy for, or otherwise regulate, the counties in its planning area.

Planning and zoning authorities for selected villages and towns in St. Croix County is shown in Table 6-10.

### 6.1.4.2 Future Land Use

#### Washington County, Minnesota

The Washington County Comprehensive Plan (1997 update) provides future land use guidance to unincorporated areas of the county. The plan identifies areas of suburban housing in close proximity to existing urban core areas and areas of future expansion. These areas of urban growth closely align with the *Regional Development Framework's* MUSA. Some discrepancy occurs in the northern section of the county where the *Regional Development Framework* projects urban growth within the future MUSA line, and the Washington County Plan designates the area for long-term agriculture, particularly in Hugo and Forest Lake Townships. The Washington County Plan also focuses extensively on preserving rural character through the use of Open Space development concepts and the long-term preservation of open space and natural resource areas. "...Clustering of houses on small lots is a defining characteristic of this land use Plan. The purpose of clustering houses is to provide a more efficient use of the land while preserving good agricultural land, open space, scenic views, natural drainage systems and other desirable features of the natural environment."

Several categories of future land uses are identified on the generalized land use plan map, (Figure 6-5) including:

- Suburban Housing (densities that support urban sewer and water);
- Transitional Areas;
- Rural Residential (16 units per 40 acres);
- Semi-Rural Residential (8 units per 40 acres);
- General Rural (4 units per 40 acres);
- Long-Term Agriculture (2 units per 40 acres);
- Long-Term Agriculture (1 unit per 40 acres);
- Commercial/Industrial; and,
- Parks and Natural Areas.

With respect to the TH 36 corridor east of TH 5, the Washington County Comprehensive Plan identifies land uses as 'Commercial/Industrial' along TH 36 from the west project limit to approximately Osgood Avenue, 'Suburban Housing' as TH 36 merges with TH 95 and proceeds north, and 'Commercial/Industrial' within downtown Stillwater. These designations are largely consistent with existing land use patterns in the project area.

**TABLE 6-10  
PLANNING AND ZONING AUTHORITY FOR SELECTED VILLAGES AND TOWNS IN ST. CROIX COUNTY,  
WISCONSIN**

	<b>Master Plan/ Comprehensive Plan</b>	<b>General Zoning Ordinance</b>	<b>Extraterritorial Zoning Exercised</b>	<b>County Subdivision Regulations</b>	<b>Local Subdivision Regulations</b>	<b>Extraterritorial Plat Review Exercised</b>
<b>Village of North Hudson</b>	Adopted 1987	Adopted 1994	Not exercised	N/A	Adopted 1994	Exercised
<b>City of New Richmond<sup>(1)</sup></b>	Under revision at present time. Expected adoption in 2004	Local zoning ordinance adopted in 1994.	Not exercised	Implemented by county ordinance	Subdivision regulations adopted in 1994.	Exercised
<b>Village of Somerset</b>	Adopted 2002	Adopted 1994	Not exercised	N/A	Adopted 1994	Exercised
<b>Town of Hudson</b>	Adopted 1989	Local ordinance adopted 1994	No authority	Implemented by county ordinance	Additional local ordinance adopted 1992	N/A
<b>Town of St. Joseph</b>	Adopted 1996, under revision at present time	Has adopted county ordinance	No authority	Implemented by county ordinance	Additional local ordinance adopted 1993	N/A
<b>Town of Somerset</b>	Adopted 1998	Has adopted county ordinance	No authority	Implemented by county ordinance	Additional local ordinance adopted 1999	N/A

Source: Policy Analysis Section of St. Croix County Development Management Plan (March 2000).

<sup>(1)</sup>City of New Richmond data obtained by SRF Consulting Group.

**Figure 6-5 – Washington County Future Land Use (2015) (8.5x11 – color)**

BACK

Washington County has established basic zoning regulations for each of the townships; however, townships have the authority to establish more (but not less) restrictive zoning regulations for their community. The incorporated cities of Stillwater and Oak Park Heights have adopted comprehensive plans and zoning regulations of their own.

### **City of Stillwater**

The City of Stillwater's Comprehensive Plan (1995) designates the north side of TH 36 to Osgood Avenue as 'Business Park Commercial'. Land adjacent to TH 95 as it proceeds north into downtown Stillwater is designated 'Two-family Residential', and the downtown area is designated 'Central Business District'. These designations and accompanying zoning follow existing land use patterns. The Comprehensive Plan does not suggest any future changes in land use or character in these areas.

### **City of Oak Park Heights**

The Oak Park Heights Comprehensive Plan and Zoning Map (1998) suggests a mix of commercial and residential uses along the south side of TH 36, although 'General Business' predominates near intersections. The Comprehensive Plan also provides direction for the redevelopment of the area west of Oakgreen Avenue. A diversity of commercial retail (big-box) and multi-family housing has recently been developed in this area. The intent is to increase commercial goods and services as well as residential densities in the city's remaining undeveloped land. A large area west of Beach Road North is zoned 'Industrial.' To the east of Beach Road North (including the land cleared for the 1995 Final EIS Preferred Alternative), the land is zoned for 'Low and Medium Density Residential'. East of TH 95, the Sunnyside Marina and Condominiums area is zoned 'Multiple Family Residential'. The Wastewater Treatment Plant area is zoned, in part, as 'Open Space Conservation,' and the remainder of the area (to the south) is zoned as 'Industrial'.

### **St. Croix County, Wisconsin**

On March 21, 2000, the St. Croix County Planning Board adopted the St. Croix County Development Management Plan. Development of the plan included analysis of physical characteristics and socio-economic trends, extensive public involvement and the development of three development alternative scenarios.

As the Plan evolved, a "modified current trends" alternative was selected as the approach to managing future development in the county. This alternative is designed to accommodate the county's projected growth within a policy and implementation framework that:

- Protects natural resources by establishing environmental corridors, implementing stormwater management, and retaining open space;
- Maintains rural character by establishing appropriate rural areas and densities and by encouraging conservation site design;

- Preserves productive agricultural lands by identifying potentially productive agricultural lands and recommending a site assessment process for evaluating agricultural viability; and,
- Directs urban uses to urban areas by limiting industrial and large-scale commercial activity to areas with public utilities.

The St. Croix County plan seeks to mitigate the impacts of continued development in the area by preserving natural resources, supporting agriculture, and encouraging fiscally responsible extension of municipal utilities. The plan calls for the less densely populated portion of the county to generally maintain a rural appearance, with agriculture being the predominant use and any new development limited primarily to residential areas at densities and with site designs consistent with the rural character of the area. Three planning areas are designated in the draft plan: urban, transitional, and rural. Each planning area is recommended to have a different development pattern and density (Table 6-11). The designation of planning areas within the county is shown in Figure 6-6.

**TABLE 6-11  
ST. CROIX COUNTY PLANNING AREAS**

<b>Planning Area</b>	<b>Residential Gross Density (d.u. = dwelling unit)</b>	<b>Density Bonus for Cluster/Conservation Site Design</b>	<b>Open Space Goal for Cluster/Conservation Site Design Development</b>	<b>General Character/Uses</b>
Urban	Maximum of 14 d.u./acre multi-family, 4 d.u./acre single or two family	N/A	N/A	Urban uses (residential, commercial, industrial), planned for public utilities
Transitional	Maximum of 3 d.u./acre sewerred, 1 d.u./acre unsewerred, ghost platting required	Cluster/conservation site design allowed, no bonus, minimum lot size based on site conditions	At least 50 percent of the site permanently preserved in open space	Suburban and urbanizing character, large subdivision development, some commercial, some clustered development
Rural	Average of 8 d.u./ 40 acres, 2 acre minimum lot size	25 percent of applicable site density, minimum lot size based on site conditions	At least 50 percent of new residential development in conservation site design, with 65 percent to 85 percent of such sites in permanent open space or agriculture	Rural character, non-farm residential, smaller farms, limited commercial, clustered development

Source: St. Croix County Development Management Plan (March 21, 2000)

**Figure 6-6 – St. Croix County Planning Areas (2020) (8.5x11 – b/w)**

The plan also maps some of the natural resource and physical constraints to development found within the county's boundaries. Limitations for septic systems, potentially productive agriculture land, depth to ground water and steep slopes are mapped in the plan document, suggesting that there could be potential consequences for natural systems that may result from certain development decisions. For example, Figure 6-7 shows limitations for septic systems throughout most of the County. When compared to Figure 6-6, the clustered pattern of urban/transitional/ rural planning areas indicates that there is a large land area classified as rural that would likely be served by septic systems rather than municipal sanitary sewer. This scenario could create adverse impacts on groundwater if the pace of development relying on septic systems places too much stress on natural systems in rural areas.

The St. Croix County plan focuses urban development around existing cities and villages, and stresses cluster developments and conservation site design to preserve rural character outside these urbanized areas. As described previously, towns in Wisconsin that have adopted county zoning enforcement may subsequently opt out but only at such time as the county adopts a comprehensive revision of the zoning ordinance. A town may also adopt its own comprehensive zoning but only if it has not previously adopted the county ordinance. Such a zoning ordinance would require approval of the county board.

#### **City of Hudson:**

The City of Hudson guides future growth and development based on their 1993 Comprehensive Plan. The plan discusses demographic trends, including work commuter patterns to the Twin Cities, and utilizes this data to develop a future land use plan. The resulting guide map establishes several land use categories, including five residential and three commercial categories, as well as industrial, conservancy, public, institutional, and park categories. The majority of the city is zoned for sewer single-family development, with lot sizes ranging from one-half to three-quarters of an acre. This translates into a gross density of two units per acre or less.

#### **City of Glenwood City:**

Glenwood City is in the process of updating their current plan that was first drafted in 1973. Currently, Glenwood City does not rely on long-range land use planning to any great extent to guide their growth and development.

#### **City of New Richmond:**

The City of New Richmond has a draft comprehensive plan that is being prepared under the Wisconsin Smart Growth Comprehensive Planning Law. The plan regulates long-range land use planning, staging for annexation and infrastructure extensions. The plan is scheduled for approval by 2005.

**Figure 6-7 – St. Croix County – Limitations for Septic Systems (8.5x11 – color)**

BACK

### **Villages of North Hudson, Roberts:**

The Village of North Hudson adopted a comprehensive land use plan in 1987 which has not been updated. The Village does, however, have a zoning ordinance (1994) and a local subdivision ordinance (1994). The Village of Roberts has a master plan (1992) and administers a zoning code and local subdivision regulations. North Hudson and Roberts have exercised their authority to conduct plat reviews within their extraterritorial jurisdictions (i.e., unincorporated areas within 1.5 miles of the corporate limits).

### **Village of Somerset:**

The Village of Somerset adopted a comprehensive plan in 2002. It administers local zoning and subdivision controls as well as municipal water and sanitary systems.

### **Towns of Hudson, St. Joseph, and Somerset:**

All three towns have comprehensive land use plans in effect. These plans are subject to county subdivision regulations that are supplemented by local regulations. The Town of Hudson and the Town of St. Joseph have their own zoning ordinance. The Town of St. Joseph is also in the process of updating its comprehensive plan at the present time. The Town of Somerset has adopted county zoning.

### **Lower St. Croix National Scenic Riverway Management Plan, Minnesota and Wisconsin**

#### Wisconsin

The Cooperative Management Plan gave guidance to protection of the lands and waters of the Lower St. Croix Riverway. Once the Management Plan was adopted in January of 2002, changes to administrative rules in Wisconsin were prepared by the WisDNR. These amendments established standards and criteria to regulate land use within five distinct Lower St. Croix National Scenic Riverway districts (zones). The amendments also clarified the treatment of non-conforming uses and structures as well as administrative procedures associated with implementation of the rules.

Effectively, changes to administrative rule NR 118 in Wisconsin mandates that counties, cities, towns and villages adopt zoning ordinances that implement the rules outlined in NR 118. While local zoning ordinances may be more restrictive than the administrative rules standards for setbacks from high water and blufflines, permitted land uses, density and lot dimensions, structure heights, slope preservation and vegetation management, stairways and location of waste treatment systems, they are not permitted to be less restrictive.

These changes to the state code require that local jurisdictions structure their ordinances so that the Management Plan guidelines are realized as development continues in the riverway.

## Minnesota

Prior to adoption of the Cooperative Management Plan in 2002, Minnesota adopted a series of rules similar to Wisconsin's, establishing minimum development standards to regulate the impact of new development on the waters and lands within the riverway. The rules are found in 1997 MN Rules, Chapter 6105, subsection 6105.0351 through 6105.0550. These rules have not yet been updated to incorporate concepts from the 2002 Cooperative Management Plan.

Although there are differences in the two states' definitions (for example, Minnesota created two riverway land use districts of urban and rural, in contrast to Wisconsin's five riverway land use districts), the criteria addressing setbacks from high water lines and blufflines, permitted uses, density and lot dimensions, structure height and other issues are very similar to the amendments made to Wisconsin regulations in NR 118. Additionally, local units of government have similar obligations to create land use and zoning regulations that ensure these minimum criteria are met.

## 6.2 ENVIRONMENTAL CONSEQUENCES

### 6.2.1 Direct Impacts

#### 6.2.1.1 Right-of-Way Acquisition

A range between 56 and 65 acres of net new right-of-way would be acquired in Minnesota for the Alternatives B-1, C – Option 1, C – Option 2, D and E. Between 73 and 138 acres of net new right-of-way would be required in Wisconsin depending on the sub-alternative selected. Additional details regarding right-of-way acquisition are discussed in Chapter 5.

The No-Build Alternative will not create direct impacts because no land would be needed for right of way acquisition. However, redevelopment of previously acquired right of way could create some impacts as noted below in Section 6.2.1.2.

#### 6.2.1.2 Redevelopment of Previously-Acquired Right-of-Way

As described in Chapter 5, a number of homes and businesses in Oak Park Heights were relocated in preparation for construction of the 1995 Final EIS Preferred Alternative before the project was stopped in 1996. Right-of-way also was acquired in Wisconsin. Right-of-way in both Minnesota and Wisconsin that would not be needed for implementation of the preferred Alternative would be considered surplus and would be available for other uses. This section describes impacts that could result from redevelopment of these areas.

## **Minnesota**

About 5 acres of property located in the City of Oak Park Heights and previously acquired by Mn/DOT for the 1995 Final EIS Preferred Alternative would be considered excess and available for redevelopment under Alternatives C, D and E. However, Alternative B-1 would consume all of this specific area of excess land. The City of Oak Park Heights has indicated an interest in redeveloping this land for residential use. A potential future land use scenario for the property was outlined as part of the development design study conducted for the Metropolitan Council by

Calthorpe Associates in late 1999 (see Section 6.3.2.2). The study suggested the area could be redeveloped into a residential neighborhood (its former use), with the possibility of limited professional office space and convenience retail as well (see Table 6-7). Current city (Oak Park Heights) zoning for this area calls for low-and medium-density residential use.

One of the items proposed to mitigate the impact of the project on the St. Croix River and the valley includes the placement of limited restrictive covenants on any excess right-of-way identified in this property (see Chapter 14), restricting development to heights consistent with the height restrictions in the 2002 Cooperative Management Plan (CMP) for the Lower St. Croix National Scenic Riverway. While redevelopment of this area would have land use impacts (e.g., from intensified use), the area to be redeveloped is small and anticipated future uses would be consistent with previous land use.

Surplus right of way (resulting from the acquisition of commercial businesses along TH 36) would yield between 24 to 27 acres of excess right of way, depending on the alternative selected. This land would be made available for redevelopment through Mn/DOT's Right of Way disposition process. The affected communities have jurisdiction over the regulation of future land uses and development approval for these excess properties. Some of the land could be replatted and developed as stand-alone uses. Other parcels may be constrained by access or irregular dimensions and may be best re-used as expansion areas for existing businesses.

## **Wisconsin**

Approximately 10 acres of property in the Town of St. Joseph previously acquired by Wis/DOT for project right-of-way (for the 1995 Final EIS Preferred Alternative) would be available for non-highway use following implementation of a selected alternative. It is anticipated that this land would be sold following project completion under its current zoning (ag-residential) as when purchased. The only land area guided for non-residential uses according to the comprehensive plan is in the northeastern quadrant of the proposed new interchange in the vicinity of CTH E and new STH 64.

The excess right of way is located in the rural portion of St. Croix County, and its redevelopment would need to be consistent with rural density and comprehensive plan guidance. As with the surplus right-of-way land in Minnesota, it is proposed that this land be subject to the development restrictions of the Lower St. Croix National Scenic Riverway as part of project mitigation. Because of the small area affected and the existing land use restrictions for the area, any impacts resulting from redevelopment would be expected to be minor.

Surplus right of way (consisting primarily of agricultural properties) would result in a range between 44 and 99 acres of excess right of way, depending on the alternative selected. This land would be made available for redevelopment by Wis/DOT's right of way disposition or turnback process. Use of some of the excess agricultural right of way as agricultural lands could be problematic given that the proposed Alternatives B-1, C – Option 1 and C – Option 2 generally cause a split in some existing agricultural operations. If the excess right of way is unusable for efficient agricultural production, another use (such as highway commercial or rural residential) could be foreseeable in the future once the lands are available for development.

### 6.2.1.3 Farmland Impacts

#### Minnesota

No farmland in Minnesota would be directly affected by any of the proposed Build Alternatives or the No-Build Alternative.

#### Wisconsin

There would be no direct farmland impacts from the No-Build Alternative in Wisconsin.

Direct farmland impacts from the four proposed Build Alternatives will be described in the Agricultural Impact Statement (AIS) that is being prepared by the Wisconsin Department of Agriculture, Trade and Consumer Protection; the AIS will be included in Supplemental Final EIS.

Estimated farmland impacts in Wisconsin from right-of-way acquisition for the proposed Build Alternatives roadway and interchange are summarized in Table 6-12. The total farmland area to be acquired would vary with the alignment alternative selected (see Chapter 3) from 66 acres (Alternatives D or E) to 129 acres (Alternative B-1). Another key component of judging farmland impacts is to assess the degree to which prime or unique farmland would be impacted by any of the proposed. The Natural Resource Conservation Service (NRCS) is in the process of completing Farmland Conversion Impact Rating Forms (AD-1006) for the proposed Build Alternatives. The NRCS findings and copies of the completed AD-1006 forms will be included in the Appendix of the Supplemental Final EIS.

**TABLE 6-12  
SUMMARY OF FARMLAND IMPACTS (ST. CROIX COUNTY)**

	Build Alternative			
	B-1	C – Option 1	C – Option 2	D/ E
Estimated Area of Total Farmland to Be Acquired	129 acres	123 acres	95 acres	66 acres

### 6.2.2 Indirect Impacts: Potential for Land Use Changes

#### 6.2.2.1 Factors Affecting Indirect Land Use Change

Regional transportation facilities have the ability to influence land use through improved accessibility, improved travel times to key destinations and controlled access. These factors can influence the type, location and timing of land use. However, a predictive model for estimating how these factors would specifically influence land use has not been developed, largely due to the complexity of overall factors that influence land use. In addition to accessibility to transportation facilities, other factors include:

- **The state of the regional economy** – economic demand fueling new jobs, household formation and home construction, financing, business location decisions, perception of available work force, suppliers and local markets, and property values;

- **Location attractiveness** – ease of access to jobs, shopping, services; natural amenities (physical features); ‘quality of life’ factors (schools, parks/ recreational facilities, community identity); character of existing development;
- **Availability of developable land** – absence of remarkable physical constraints and a sufficient supply of willing sellers and/ or area vacancy rates; absorption and backlog of existing housing/ commercial space;
- **Local political/ regulatory conditions** – tax on business, property, sales. Development incentives (such as tax abatement); regulatory environment (speed and ease of development review process); and
- **Land use controls** – local zoning and comprehensive plans; land use policies that support development; other local controls such as permitting and nuisance ordinances.<sup>5</sup>

A recent Twin Cities study by the University of Minnesota Center for Transportation Studies attempted to measure the relationship between transportation facilities and land use. This study of regional Twin Cities urbanization has concluded that over a 30 year period, there has been a statistically significant correlation between the locational choice of new housing development and transportation improvements as measured by access to arterial highways. However, the degree of correlation has varied over time, with a correlation coefficient value at its highest (0.38) in the 1980s to a low of 0.04 in the 1990’s. A correlation coefficient of 1.0 signifies a direct relationship between two variables.<sup>6</sup>

The same study performed a multiple regression analysis hypothesizing that in addition to access to arterial highways, location of a town, village or city within the 24 county study area had a clear relationship to the variation in housing construction among localities. The coefficient of determination resulting from the combined location and access to highways regression analysis reaches a high point of correlation in the 1980s at 0.25, but there remains unexplained 75 percent of the variation among local municipalities in the number of building permits issued.

Another component to understanding the influence of transportation improvements on indirect land development is that of travel time savings resulting from such improvements. Increased travel speed and reduced trip time has been demonstrated to be a primary benefit that directly relates to growth in travel demand, as measured by growth in vehicle miles traveled.<sup>7</sup> The outcome of this work found a statistically significant relationship between transportation improvements that resulted in higher travel speeds, and development of all types (single family, multifamily, office, retail and industrial uses), with much of this development occurring 2-3 years after opening of an improved highway project that demonstrated increased capacity and higher travel speeds.

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<sup>5</sup> These factors were listed as contributors to development trends, in addition to transportation access, in the NCHRP report, “Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects, TRB 2002, page 59

<sup>6</sup> This study was titled Highway Improvements and Land Development Patterns in the Greater Twin Cities Area, 1970-1997: Measuring the Connections, published by the Center for Transportation Studies in 2002. It measured building permit data compared to accessibility to arterial highways in 241 Municipal Civil Divisions (MCDs) in 24 counties in the greater metro area.

<sup>7</sup> Cervero, Robert. 2003. Road Expansion, Urban Growth, and Induced Travel. A Path Analysis. Journal of the American Planning Association, 69 (2), 145-163.

### 6.2.2.2 Discussions with local government and planning officials

While these studies document the relationship between transportation facilities and land use, they do not provide a predictive model for estimating the changes to land use that would result from the improved mobility and controlled access provided by the Build Alternatives. The following analysis is informed by discussions with local government and planning officials, use of the travel demand forecasting model to evaluate effects resulting from work-related trips, and observations of land use influences from extant transportation facilities.

Planners, town and village clerks and other local officials from communities in Washington County and St. Croix County were invited to participate in a discussion of current and future land use patterns, to facilitate collection of local level data on building activity and to serve as a forum to discuss the proposed new river crossing's influence on these trends and patterns.

The meeting was held on February 19, 2004 at the St. Croix County Government Center. Discussion of metro area growth trends affirmed patterns of growth on the outer edges of the 13 county area, three of which are Polk, Pierce and St. Croix Counties in Wisconsin. While building permit data collected from the U.S. Census shows that the majority of building activity (78.4 percent of new housing starts) was undertaken within the 7-county area, which includes Washington County, a growing proportion was occurring in the remaining 5 "collar" counties, which includes the three Wisconsin counties mentioned above. Each community represented gave a report on rates of building permit issuance within their boundaries. Wisconsin communities noted steady rates of growth over the last few years, whereas Minnesota communities had a wide diversity of experience, from relatively rapid growth (Baytown Township), steady growth (e.g. May Township) and static/ limited growth (Bayport).

Discussion of the proposed river crossing's influence prompted the observation that given the pace of growth already occurring, it was not likely that the bridge would create a new 'population explosion'. It was agreed that the bridge could organize or direct growth in towns, villages and cities. Some officials noted that the greatest influence over growth and development in western Wisconsin comes from the relative affordability of land and development costs in St. Croix County compared to Minnesota communities.

Participants also agreed that expanding accessibility and mobility in the area beyond the Stillwater Crossing would likely result in growth, but that there isn't a direct causal relationship yet one factor builds upon the other. Locational decisions are not based only on access to daily destinations. Land costs, quality of life, physical attributes of the landscape, tax policy and school quality are all factors influencing household location decisions.

### 6.2.2.3 Accessibility-Based Growth Redistribution Scenarios

The St. Croix County Development and Management Plan (adopted in 2002) assumed that a new river crossing would be constructed by 2020. Therefore, it was assumed that the socioeconomic assumptions used in these forecasts, which are based in part on that plan, includes the assumption of a new bridge.

A methodology was developed to estimate the potential growth-related effects of reduced accessibility based on the hypothesis that residential development in 2030 may be at a lesser level if a new bridge is not built and congestion on the existing bridges causes a reduction in accessibility to jobs.

A technique was developed to test the effect of reduced river-crossing access on development levels in the areas of western Wisconsin included in the travel demand forecasting model, including southern Polk and northern Pierce, as well as St. Croix Counties. Since the base year 2030 forecasts are assumed to include the new river crossing, the technique needed to work from the premise that growth would be lower if the bridge was not built (instead of the more-intuitive analysis of increasing development due to increasing accessibility). The following process was used:

1. Commercial-industrial development in western Wisconsin was assumed to occur regardless of the alternative. The western Wisconsin area is currently a net exporter of labor force and continued economic development could be reasonably expected to reduce the jobs-housing imbalance and therefore reduce commuting demand. In addition, commercial-industrial development is efficiently focused on villages and cities with industrial parks.
2. “Reasonable access” was defined as a travel time to work within 120 percent of the estimated average travel time to work from a given Traffic Analysis Zone (TAZ) in western Wisconsin. The value used for each TAZ was the reported mean travel time to work from the 1990 Census Transportation Planning Package and adjusted based on the known change in the county-wide mean travel time to work between 1990 and 2000 which has been released by the 2000 U.S. Census. This measure reflects not only reasonable access to jobs but the tradeoff between longer work-trip distances and lifestyle or cultural choices for certain areas.
3. The forecast year 2030 number of job opportunities located within the above-calculated average travel time to work was calculated for each TAZ using the four-lane Build Alternative (Alternative C) (without traffic on the existing bridge). This number, indexed back to the existing condition, defines the maximum accessibility and the value upon which the forecast population growth was based.
4. The forecast year 2030 number of job opportunities located within the average travel time to work was calculated for each TAZ for the No-Build alternative and indexed relative to the existing condition.
5. The numeric growth in households and population from 2000 to 2030 was calculated for each community and each TAZ.
6. A revised numeric growth was estimated based on the following:
  - a. If the accessibility index was the same under both the Build and tested alternative, the assumed baseline 2030 forecast growth was used.



**Figure 6-8 – Maximum Growth Redistribution (8.5x11 – b/w)**

**TABLE 6-13  
WISCONSIN MODEL AREA ACCESSIBILITY-BASED DEMOGRAPHIC  
FORECASTS**

	<b>2030 Projected Growth No-Build</b>	<b>2030 Accessibility Based Growth No-Build</b>
2000 Population	95,976	95,976
2030 Population	167,200	141,613
Population Growth (2000 to 2030)	71,224	45,636

### **6.2.3 Findings**

#### **6.2.3.1 Commercial Development Impacts**

Observations of land use patterns adjacent to controlled access facilities such as those proposed in the Build Alternatives reveal that commercial uses tend to cluster immediately adjacent to access points (interchanges) where they can take advantage of the visibility afforded by the transportation facility and offer travelers ease of access to the commercial facility and then return to the roadway. Types of commercial uses most frequently found adjacent to interchanges along highly traveled corridors in high-growth areas, with available land in close proximity. These uses include travel oriented services such as gas stations, restaurants, hotels and recreational facilities. The generally observed area of influence is up to ½ mile from the interchange intersections.<sup>8</sup>

Industrial activities dependent on trucking to provide supplies or deliver product also benefit from ease of access to transportation facilities that provide reliable mobility to other markets. Visibility to roadway travelers is not required to achieve the benefit and therefore may select more cost-efficient land further away from the interchange. However, industrial activities are also highly dependent on municipal utilities. Lack of water and wastewater facilities greatly restricts industrial development in rural areas.

#### **Minnesota**

Land use types are not expected to change substantially along TH 36 or TH 95 into downtown Stillwater as a result of any of the selected alternatives. However, the intensity of these land uses may increase through development of undeveloped land in this area, or redevelopment of underutilized parcels.

The No-Build Alternative would result in continued commercial development along the TH 36 corridor, consistent with the area’s profile as a sub-regional commercial area. However, the No-Build Alternative would not displace existing businesses or result in partial land acquisition that could impact current day operations.

<sup>8</sup> Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects, TRB 2002, p.62

Under all Build Alternatives, conversion of TH 36 between TH 5 and Osgood Avenue to a grade separated facility is proposed. The proposed buttonhook-type interchanges allow for two access points to be provided to support the commercial activity in this segment. While the buttonhook interchanges provide somewhat more circuitous access to commercial parcels than existing, the improved mobility (over 2030 No-Build conditions) in combination with increased traffic volumes is expected to support existing and planned redevelopment in the adjacent commercial areas.

Commercial uses in downtown Stillwater are not expected to change as a result of the Build Alternatives. As discussed in Chapter 5, commercial uses in downtown Stillwater are largely oriented toward tourists visiting the area and local residents in Houlton and Stillwater. With regards to Alternatives B-1, C and D, the closure of the Lift Bridge to regional vehicular traffic would relieve highly localized traffic congestion but still allow access to the commercial services used by local residents and tourists. The fact that downtown Stillwater is a unique destination and is not dependent on through-traffic suggests that land uses in this area are not vulnerable to changes in regional through-traffic patterns.

## **Wisconsin**

The No-Build Alternative would likely result in limited new commercial development in the Town of St. Joseph, within close proximity of the roadway corridor, given existing zoning, comprehensive plan policy and landholding patterns. However, in the larger project area, comprehensive plan policy reiterated by local officials indicates a desire to develop a diversity of land uses to advance each respective community's self-sufficiency. The goal of attracting more diverse land uses is identified by the Village of Somerset, the Town of Somerset, the City of New Richmond and the City of Hudson. These plan policies suggest that land use change of this nature is expected regardless of the status of the Stillwater River Crossing.

As discussed in Chapter 4, under the Build Alternatives STH 35/64 would change from an unlimited access roadway under existing conditions to a controlled access roadway with a single interchange. Vehicle access to the highway would be allowed only at the proposed interchange, whose location varies by alternative.

Research examined and observation of other interchanges in similar situations suggests that the high volumes of traffic anticipated on STH 64, and control of access point to this facility would create a demand for travel-related commercial activity at the location of the proposed interchange with STH 35. Town of St. Joseph leaders also indicate they would consider rezoning of land in proximity to this interchange to allow commercial development. This would represent a change from current agricultural- rural residential zoning currently found in these locations. The area of influence for this change is mapped in the Town's official Land Use Plan and is confined to the southeast quadrant of proposed realignments of CTH E and an earlier Proposed STH 35 alignment. While the level of influence is expected to be equal for each of the Build Alternatives as they have similar roadway volumes, the resulting development is expected to have slightly different character with Alternative C - Option 2 as the interchange is a folded diamond located near the river bluff along STH 35. Development around this interchange would

likely be focused on the east side of STH 35 only, as commercial use adjacent to the river bluff is considered inappropriate by local officials and discouraged by local policy plans. This policy of additional development regulations along the river bluff and shore is underscored by the land use policy described in the official Lower St. Croix National Scenic Riverway Management Plan.

### 6.2.3.2 Residential Development Impacts

#### **Minnesota**

Based on current growth trends and overall land use character of municipalities as defined in their comprehensive plans, the No-Build Alternative would not likely create noteworthy changes for residential development patterns in Washington County. Urban areas such as Stillwater and Oak Park Heights would take on a larger share of growth and 'rural areas' such as the City of Grant, New Scandia and May Township would retain a pronounced low density character, defined by densities of 1 unit per 5 acres or 1 unit per 10 acres. There are a few Washington County townships with allowed densities of 1 unit per 2.5 or 3 acres, such as Lakeland Township and Baytown Township. These areas have seen steady growth and have relatively little undeveloped acreage at the time of writing.

Under the No-Build Alternative as well as the Build Alternatives, it appears likely that Chisago County may experience greater development pressure because of its perceived accessibility to metro area destinations. Population growth as forecast by the Minnesota State Demographer anticipates consequential increases of approximately 13, 000 households by 2030, an increase of 120 percent of the current day population. See Table 6-9 for further detail.

In the area of the TH 36/TH 95 interchange, residential uses on the bluff to the northwest of the interchange are not expected to change. Any of the alternatives would not result in substantial changes to accessibility to this area, and noise and visual impacts are not expected to discourage residential uses. To the south and southwest of the interchange, the city of Oak Park Heights has indicated a desire to redevelop some of the land previously cleared for the 1995 Final EIS Preferred Alternative for medium- to high-density residential use. Proceeding north along TH 95, residential uses above the bluff to the west of the roadway and planned park uses to the east of the roadway are not anticipated to change as a result of any of the Build Alternatives.

Improved access to Wisconsin is not anticipated to influence additional residential development in Minnesota communities as proportionately few Washington County residents currently commute to jobs in western Wisconsin. Therefore, the increased access from residences in Minnesota to jobs in western Wisconsin is not anticipated to affect residential development patterns. No substantial change in Minnesota residential land use is anticipated as a result of any of the Build Alternatives.

#### **Wisconsin**

The No-Build Alternative would likely result in continued development in western Wisconsin, based on observed trends for building permits issued, new house construction, discussions with local officials and review of local and county-level long-range plans. See Table 6-7 and Section 6.2.2.2 for additional information. The Wisconsin Department of Administration

population projections show substantial population increases for all three Wisconsin counties under consideration, although growth in Polk and Pierce County is far over-shadowed by St. Croix County.

As discussed in Section 2.2.2.3 above, 2030 population projections have assumed improved accessibility to the Stillwater area and the greater Twin Cities metropolitan area. Working backwards from this assumption using the regional travel demand model, a reduction in approximately 25,000 persons could be anticipated under a No-Build scenario, assuming a fully elastic relationship between job accessibility and residential development. This reduction of population would be found not only along the STH 35/64 corridor but the I-94 corridor as well, as reduced capacity at the Stillwater crossing would adversely affect mobility in this area as well. In total, assuming an average 2030 household size of 2.4 persons, this would assume approximately a 10,661 reduction in households in the western Wisconsin portion of the modeled area.

However, research discussed in Section 6.2.2.1 demonstrates that this is not a fully elastic relationship with correlations between residential development and transportation facilities suggesting a substantially lower relationship.

The Accessibility-Based Growth Redistribution Scenarios then provide, in a reverse manner, a “worst-case” (due to the full elasticity assumption) anticipated growth that could occur based on improved accessibility in the home-work trip. However, both city and county plans in western Wisconsin acknowledge that rapid and sustained growth is occurring and would continue to occur with or without a new St. Croix River Crossing. Planning officials in these communities note that tremendous growth has occurred despite the uncertainty regarding a new river crossing, citing quality of life factors as well as competitive land prices as factors encouraging development in western Wisconsin. Pressure generated by metro-area development demand is also a contributing factor. Local policies are supportive of this residential growth, balanced with commercial and industrial development that would provide a sustainable mix of land use types.

### 6.2.3.3 Consistency with Local Land Use Plans

The preceding analysis has identified three areas of land use changes that could be induced by the project: infill and limited intensification of existing commercial uses along the TH 36 corridor in Minnesota; future conversion of agricultural land to commercial uses near the new STH 64/STH 35 interchange in Wisconsin; and new residential development and associated services at various locations in St. Croix County, Wisconsin.

The Build Alternatives are generally consistent with existing land use plans for the cities of Stillwater and Oak Park Heights, and for Washington County, in Minnesota, and with the Metropolitan Council’s *Regional Development Framework*. It is also consistent with the St. Croix County Development Management Plan and local comprehensive plans for the Village of Somerset, the Towns of Somerset, St. Joseph and Hudson as well as the City of New Richmond. The Washington County Comprehensive Plan and the St. Croix County Development Management Plan, in particular, include a new St. Croix River crossing in their planning efforts.

While new development could have impacts such as those described in Chapter 13 (Cumulative Impacts), the existing county and local plans and policies, as well as other applicable land use and development regulations would help direct and mitigate any such impacts. These local plans are seeking to attract and manage new growth while preserving some unique qualities. The Town of St. Joseph wishes to retain its rural character but still accommodate growth. The Village of Somerset projects growth based on the wastewater treatment plant capacity. The City of New Richmond has planned consequential annexations of land to accommodate growth but has clearly stated its desire to retain the scale and feeling of a small town with rural surroundings.

Both Washington and St. Croix counties are planning for growth in the next 15 to 20 years, continuing the gradual trend of urbanization of the past twenty or more years. This future growth is anticipated regardless of any changes that may result from a new St. Croix River Crossing. The recent public process used to create the St. Croix County Development Plan included considerable public discussion regarding the amount of residential growth, particularly involving conversion of agricultural land to residential use. The plan reflects an agreement that it is appropriate that this growth occur, particularly in the western part of the county where the quality of agricultural land is poorer.

Because this growth is supported and desired from local communities, this indirect influence on the amount of growth occurring in the areas cannot be considered adverse as it is consistent with local planning efforts. However, managing this growth – both from the provision of utilities and community facilities as well as managing the potential for further negative impacts to water and natural resources – may be a potential challenge.

## 6.3 MITIGATION

### 6.3.1 Mitigation of Direct Land Use Impacts

#### 6.3.1.1 Right-of-Way Acquisition

Mitigation of impacts from right-of-way acquisition and property relocation are discussed in Chapter 5 of this Supplemental Draft EIS.

#### 6.3.1.2 Redevelopment of Previously-Acquired Right-of-Way

As described in Section 6.2.1.2, redevelopment of some areas previously acquired for roadway right-of-way but no longer needed for transportation use would be consistent with existing and planned new land use requirements (including those for the Lower St. Croix National Scenic Riverway where applicable), and thus are not anticipated to result in impacts requiring mitigation.

#### 6.3.1.3 Farmland Impacts

As described in Section 6.2.1.3, farmland impacts would result regardless of the alignment sub-alternative selected. Farm owners would be compensated in accordance with 49 CFR Part 24, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended).

An Agricultural Impact Statement is being completed by the Wisconsin Department of Agriculture, Trade and Consumer Protection. Findings will be published in the Supplemental Final EIS.

### **6.3.2 Mitigation of Indirect Land Use Impacts**

As indicated in Section 6.2.2.3, the Build Alternatives are consistent with local and regional land use plans. These impacts do not require mitigation under the National Environmental Policy Act (NEPA) standards.

Potential mitigation items applicable to all Build Alternatives are described in Chapter 14. This list includes land use measures to address potential impacts to the Lower St. Croix National Scenic Riverway. Upon identification of a Preferred Alternative, a mitigation package, appropriate to the level of impacts, will be identified by the lead agencies from the list of mitigation items as well as additional mitigation items identified by agencies or the public during the SDEIS comment period. Additional potential impacts associated with the mitigation package items for the Preferred Alternative will be presented in the Supplemental Final EIS.

#### **6.3.2.1 Previous Planning Assistance Provided in Anticipation of a New River Crossing**

##### **St. Croix County Development Management Plan**

As described in Section 6.1.4.2, the current St. Croix County Development Management Plan was funded in part by Wis/DOT and WisDNR as mitigation for potential impacts related to the planned implementation of the 1995 Final EIS Preferred Alternative.

##### **Metropolitan Council Development Design Study**

The Metropolitan Council commissioned a study (“St. Croix Valley Development Design Study”) in August 1999 to develop innovative growth and site design options for selected communities in Washington County, Minnesota, and St. Croix County, Wisconsin. For the purposes of the study, it was assumed that the St. Croix River valley would continue to experience growth and development pressure and that a new St. Croix River bridge would be constructed. The study was intended to give St. Croix River valley communities design tools they could use to accommodate current and future development in ways that are efficient in using land and other resources and are more walkable and transit-friendly. However, the local communities would ultimately decide whether and how to use these design ideas.

Working with local officials and residents, schematic plans and site development ideas were prepared that could be adapted to areas in Washington and St. Croix counties. Six demonstration sites on both sides of the St. Croix River were selected to illustrate various types of development that could also be applied to other communities in the valley. The sites include the Town of St. Joseph and City of New Richmond in St. Croix County, Wisconsin, and North St. Paul, Lake Elmo, Oak Park Heights, and Stillwater in Washington County, Minnesota. A summary of each of the six development design scenarios is presented in Table 6-14.

**TABLE 6-14  
DEVELOPMENT DESIGN SCENARIOS AND OPPORTUNITY SITES  
(METROPOLITAN COUNCIL/CALTHORPE ASSOCIATES)**

OPPORTUNITY SITE	CONCEPT	SUMMARY
Town of St. Joseph, WI	<b>Rural Cluster:</b> Freestanding residential development clustered in a rural area.	Ideal sites for such development, to demonstrate their applicability anywhere in the entire study area, would be located adjacent to existing development. They also would have environmental constraints such as wetlands, forested areas, and/or steep slopes. One of six possible sites will be selected.
New Richmond, WI	<b>Downtown Revitalization and Streetscape Enhancement:</b> Walkable, small-town infill and redevelopment in a freestanding growth center.	New Richmond, a freestanding city not yet really part of the Twin Cities area, will see considerable growth in decades to come. Planning for walkable, town-like new development and infill development in its built-up areas would help New Richmond grow gracefully.
North St. Paul, MN	<b>Downtown Revitalization and Streetscape Enhancement:</b> Infill development and redevelopment in an older suburban downtown whose community is bisected by a major roadway.	There is potential for filling in development of street-facing, mixed-use buildings in the downtown, which could add diversity to the city's housing supply, reinforce the existing pedestrian scale and orientation of downtown, and help reconnect the two halves of the city across TH 36. Margaret Street should be a major gateway to the city from the highway.
Lake Elmo, MN	<b>Preserving and Re-creating Village Character for New Development:</b> Housing mixed with commercial development along a small-town main street, with potential for transit-oriented development.	Lake Elmo is a quaint rural town of 6,500 with an historic village center south of Highway 5. Extending the village character of Lake Elmo to the north requires creating a strong connection across the highway. The intersection of Highway 5 and Lake Elmo Avenue could become a true gateway with the addition of street-facing buildings, pedestrian improvements, and landscaping.
Oak Park Heights, MN	<b>Walkable Residential Development:</b> Infill development in a newer suburban setting on vacant lands overlooking the St. Croix River that were cleared for the 1995 Final EIS Preferred Alternative bridge alignment.	Vacant land condemned by Mn/DOT for the previously proposed bridge alignment presents an unparalleled opportunity for attractive and innovative development. With mature trees, existing utilities, proximity to the river and access from TH 95 and TH 36, this site could once again become a residential neighborhood, along with the possibility of some professional office space and convenience retail.
Stillwater, MN	<b>Downtown Revitalization and Streetscape Enhancement:</b> Redevelopment of an underutilized site within an historic small town, with potential for transit-oriented development. New development should be compatible with the scale, materials, and architecture of the area.	The downtown site covers two and a half blocks, roughly bounded by 3rd Street South, Chestnut East, 2nd Street South, and Oak Street. The redevelopment would work best without conventional off-street parking. The preferred location of a transit hub, for use by visitors and transit users, would be on the riverfront area on the existing rail line. A variety of housing opportunities within easy walking distance of services and the transit hub would make this site an example of transit-oriented development.

Source: The St. Croix Valley Development Design Study, Calthorpe Associates (January 2000).

## 6.4 SUMMARY OF LAND USE IMPACTS

### 6.4.1 Direct Impacts

Direct impacts are defined as those impacts which occur at the same time and place as the proposed action. Typically this includes acquisition of land for right-of-way, removal of existing access points, creation of new access points and redevelopment or reuse of lands previously acquired as right of way. The study area includes the area directly abutting the project's construction limits adjacent to the construction limits of the approximate 6 mile project corridor, for all Build Alternatives. These would include impacts to existing residential, commercial, park and agricultural uses.

### 6.4.2 Indirect (Secondary) Impacts

Analysis of indirect impacts considered a broader study area, including large portions of Washington and St. Croix Counties. Three geographic areas potentially affected by regional access changes under the Build Alternatives were identified:

- **TH 36 Corridor in Washington County, Minnesota:** With implementation of the Build Alternatives, improved local access along TH 36 in Washington County, Minnesota, in combination with improved river crossing capacity, might support new development or redevelopment of some business establishments in the commercial areas adjacent to TH 36.
- **CTH E/STH 64 or STH 35/STH 64 Interchange Areas in St. Croix County, Wisconsin:** Depending on the Build Alternative selected, the new CTH E/STH 64 or STH 35/STH 64 interchange location and design could increase the potential for future conversion of adjacent agricultural land to commercial use.
- **St. Croix County and Polk County, Wisconsin:** Any of the proposed Alternatives would improve highway access between Minnesota and Wisconsin. However, access would be provided only at a limited number of interchanges throughout the project corridor. In Wisconsin, there is one proposed interchange for each Build Alternative, varying by alternative either at existing STH 35, relocated CTH E or realigned STH 35. This improved accessibility would complement the ongoing development of the area by resolving some uncertainty associated with new bridge approach and road alignments. Based on traffic forecasting for the project and the existing location of jobs and housing, secondary land use impacts from improved river crossing capacity would be limited primarily to portions of St. Croix County and Polk County, Wisconsin (see Section 6.2.2). Increased development in these counties could exert pressure on the natural environment, including protected habitat areas. The potential for increased pressure on the natural environment would add to the effects of a trend of rural residential development pattern, which has been permitted and observed in unincorporated areas since the 1990's, but dating back to the 1970's in St. Croix County.

### 6.4.3 No-Build Alternative Impacts

The No-Build Alternative (maintenance of the existing Lift Bridge crossing, no new access on the Wisconsin side along the STH 35/64 corridor) would create no direct impacts related to right of way acquisition or new access points. The potential for redevelopment and/ or reuse of previously acquired right of way in Oak Park Heights and the Town of St. Joseph is likely, given policy direction established in the Oak Parks Heights Comprehensive Plan and in the Town of St. Joseph Comprehensive Plan and general market interest in development in both municipalities in the last 5 to 8 years.

Current trends are likely to continue, as shown in land conversion (Table 6-3), net migration (Table 6-6) to St. Croix County and building permit issuance (Table 6-7). These trends of population growth influenced by metro-area trends and development pressure have been established since the 1970s but seem to be more evident since the 1990s, as noted in Table 6-6 particularly. The cost of land as a component of overall development costs in western Wisconsin relative to eastern Minnesota would continue to be a strong contributor to the area's development appeal regardless of the nature of the bridge crossing.

Present day development in St. Croix County has diversified the land use pattern in many of the western most communities such as Hudson, the Villages of North Hudson and Somerset as well as New Richmond. As these communities continue to create commercial, industrial and cultural destinations, they become more self-sufficient and residents or workers do not rely on making a trip across the river to meet daily needs. This is illustrated by Census data on workplace destination among St. Croix County residents.

In Washington County, the No-Build alternative has the potential to exert greater pressure on development density levels, particularly in areas of the county that are currently committed to rural densities equivalent to approximately 1 unit per 10 acres, or greater. This increased market pressure would be somewhat tempered by the difference in land and development costs between Minnesota and Wisconsin. Land economics would play a strong role in guiding the rate, scale and locational decisions of new development projects. At some price threshold, new development would not locate in the more rural areas of Washington County because the market would not bear the respective costs.

### 6.4.4 No Effect

Geographic areas not anticipated to experience secondary land use impacts from the project and thus not included in the analysis include:

- **Downtown Stillwater, Minnesota and Houlton, Wisconsin:** Although the proposed Alternatives B-1, C, D and E would result in a bypass of downtown Stillwater and Houlton, Wisconsin, economic analysis (see Chapter 5) indicates that commercial land uses in these areas are not anticipated to change as a result of the project (see Section 6.2.2.1). It is additionally unlikely that commercial development on the TH 36 Corridor or elsewhere along the SDEIS corridor would diminish the prominence and unique attributes of Downtown Stillwater.

- **Adjacent to STH 35/64 Corridor in Wisconsin:** Access control for Alternatives B-1, C, D and E in Wisconsin would limit highway-type commercial development along the corridor (see Section 6.2.2.1). As a result, new commercial development immediately adjacent to the STH 35/64 highway corridor would likely occur only at interchange areas such as the CTH E/STH 64 and STH 35/STH 64 interchange areas, discussed above.
- **Washington County, Minnesota:** With the exception of some new development along the TH 36 corridor discussed above, Washington County is projected to continue to grow and develop in a similar fashion whether or not any of the proposed Build Alternatives are implemented. The prevailing land use guide plan and zoning for Washington County would likely concentrate most urban density development in existing centers (such as Stillwater, Oak Park Heights and communities along the western boundary of the County, from Hugo to Cottage Grove to Woodbury).
- **Pierce County, Wisconsin:** The presence of I-94 as a major transportation corridor crossing the St. Croix River along the northern edge of Pierce County already provides enhanced mobility and access to the Twin Cities area. A new crossing of the St. Croix at any of the proposed Build Alternative locations would not impact land use patterns in Pierce County because the existing corridor provides greater convenience and travel time savings than any of the Alternatives can offer.