REVIEW OF THE YEAR 2035 REGIONAL LAND USE AND TRANSPORTATION SYSTEM PLANS

3

Credit: Wisconsin Bike Fed

3.1 INTRODUCTION

Before preparing a new regional land use and transportation system plan for the year 2050, it is important to evaluate the preceding year 2035 land use and transportation plans, and the underlying forecasts, relative to change that has occurred in the Region since 2000, the plan base year. Part I of this chapter reviews the population, households, and employment forecasts on which the year 2035 plans are based, in light of actual trends to date. Part II provides an overview of the year 2035 regional land use plan and an assessment of how well the plan has been implemented. Similarly, Part III provides an overview of the year 2035 regional transportation system plan, an assessment of the implementation status of the plan, and a review of the transportation forecasts attendant to the plan.

This chapter reviews the year 2035 land use and transportation plans and their underlying forecasts, assessing how well the plans have been implemented since their adoption.

3.2 PART I: REVIEW OF THE YEAR 2035 POPULATION, HOUSEHOLD, AND EMPLOYMENT FORECASTS

The regional land use and transportation system plans preceding VISION 2050 were designed to accommodate anticipated future change in population, households, and employment in the Region through the year 2035. Prior to the preparation of those plans, the Commission in 2004 prepared a range of population, household, and employment projections—high, intermediate, and low—to the year 2035 for the Region. The intermediate projections were considered the most likely to be achieved for the Region and constituted the Commission's "forecast," which was used as the basis for the preparation of the year 2035 plans. The high and low projections were intended to provide an indication of the population, household, and employment levels

that could conceivably be achieved under significantly higher and lower, but nevertheless plausible, growth scenarios for the Region.[1]

As indicated in Table 3.1 and Figure 3.1, the actual population of the Region was about 2,025,900 persons in 2013, representing an increase of 94,700 persons, or 5 percent, over the 2000 base year population of 1,931,200 persons. The Commission's year 2013 forecast population of 2,064,900 persons exceeded the actual 2013 population by about 2 percent. The forecast population differed from the actual population by less than 3.0 percent in Kenosha, Milwaukee, Racine, Washington, and Waukesha Counties; by 4.3 percent in Ozaukee County; and by 6.6 percent in Walworth County.

As indicated in Table 3.2 and Figure 3.2, the actual number of households in the Region was about 805,000 in 2013, representing an increase of 56,000 households, or 7 percent, over the 2000 base year figure of 749,000 households. The Commission's year 2013 forecast of 826,200 households exceeded the actual number of households in 2013 by about 3 percent. The forecast differed from the actual number of households by less than 4.0 percent in each county except Kenosha and Walworth, where the differences were 4.4 percent and 6.0 percent, respectively.

As shown on Figure 3.3, total employment, or the number of jobs, in the Region decreased during the early 2000s, increased through the mid-2000s, and then decreased during the economic recession of the late 2000s. Since 2010, the number of jobs in the Region has increased slightly, to about 1,208,300 in 2013. The Commission's year 2013 forecast of 1,266,700 jobs exceeded the actual number of jobs in the Region in 2013 by approximately 5 percent (see Table 3.3). Among the seven counties, the differences between forecast and actual employment levels ranged from 3.7 percent in Ozaukee County to 10.2 percent in Racine County. In evaluating the employment forecasts, it is important to recognize that the forecasts are intended to indicate the long-term trend in the number of jobs through the year 2035. The forecasts do not reflect the fluctuation in job levels that may be expected to occur as a result of periods of growth and decline in the economy typically associated with shorter-term business cycles.

Summary and Conclusions for Part I

Part I of this chapter has provided a review of the forecasts of population, households, and employment used in the preparation of the year 2035 regional land use and transportation plans in light of recent population, household, and employment trends in the Region. That review indicated the following:

- The Commission population forecast for the Region for the year 2013 was higher by approximately 2 percent than the actual level in 2013, as estimated by the Wisconsin Department of Administration.

- The Commission household forecast for the Region for the year 2013 was higher by approximately 3 percent than the actual level in 2013, as estimated based upon the Wisconsin Department of Administration annual housing survey and census data.

[1] *A projection indicates the future value of a variable, such as population or employment, under a set of assumptions which affect that variable. Typically more than one projection is developed, each with its own set of assumptions. A forecast involves an element of judgment, it being the projection deemed most likely to occur.*

Table 3.1
Actual and Forecast Population in the Region by County: 2013

County	Actual Population 2000[a]	Actual Population 2013[b]	Forecast Population 2013[c]	Percent Difference Between Actual and Forecast Population: 2013
Kenosha	149,600	166,900	171,400	2.7
Milwaukee	940,200	950,400	961,500	1.2
Ozaukee	82,300	86,700	90,400	4.3
Racine	188,800	195,200	197,600	1.2
Walworth	92,000	102,600	109,400	6.6
Washington	117,500	132,600	135,500	2.2
Waukesha	360,800	391,500	399,100	1.9
Region	1,931,200	2,025,900	2,064,900	1.9

[a] *2000 Census.*

[b] *Wisconsin Department of Administration estimate.*

[c] *SEWRPC intermediate-growth scenario.*

Source: U.S. Bureau of the Census and SEWRPC

Table 3.2
Actual and Forecast Households in the Region by County: 2013

County	Actual Households 2000[a]	Actual Households 2013[b]	Forecast Households 2013[c]	Percent Difference Between Actual and Forecast Households: 2013
Kenosha	56,100	63,200	66,000	4.4
Milwaukee	377,700	384,900	399,400	3.8
Ozaukee	30,900	34,500	35,200	2.0
Racine	70,800	75,900	76,200	0.4
Walworth	34,500	39,900	42,300	6.0
Washington	43,800	52,200	52,800	1.1
Waukesha	135,200	154,400	154,300	-0.1
Region	749,000	805,000	826,200	2.6

[a] *2000 Census.*

[b] *Estimate based upon Wisconsin Department of Administration Annual Housing Survey.*

[c] *SEWRPC intermediate-growth scenario.*

Source: U.S. Bureau of the Census and SEWRPC

Table 3.3
Actual and Forecast Employment in the Region by County: 2013

County	Actual Employment 2000[a]	Actual Employment 2013[b]	Forecast Employment 2013[c]	Percent Difference Between Actual and Forecast Employment: 2013
Kenosha	67,900	75,500	78,900	4.5
Milwaukee	618,300	585,200	608,400	4.0
Ozaukee	50,400	54,300	56,300	3.7
Racine	93,800	89,300	98,400	10.2
Walworth	51,200	54,800	60,200	9.9
Washington	60,300	67,600	70,500	4.3
Waukesha	267,900	281,600	294,000	4.4
Region	1,209,800	1,208,300	1,266,700	4.8

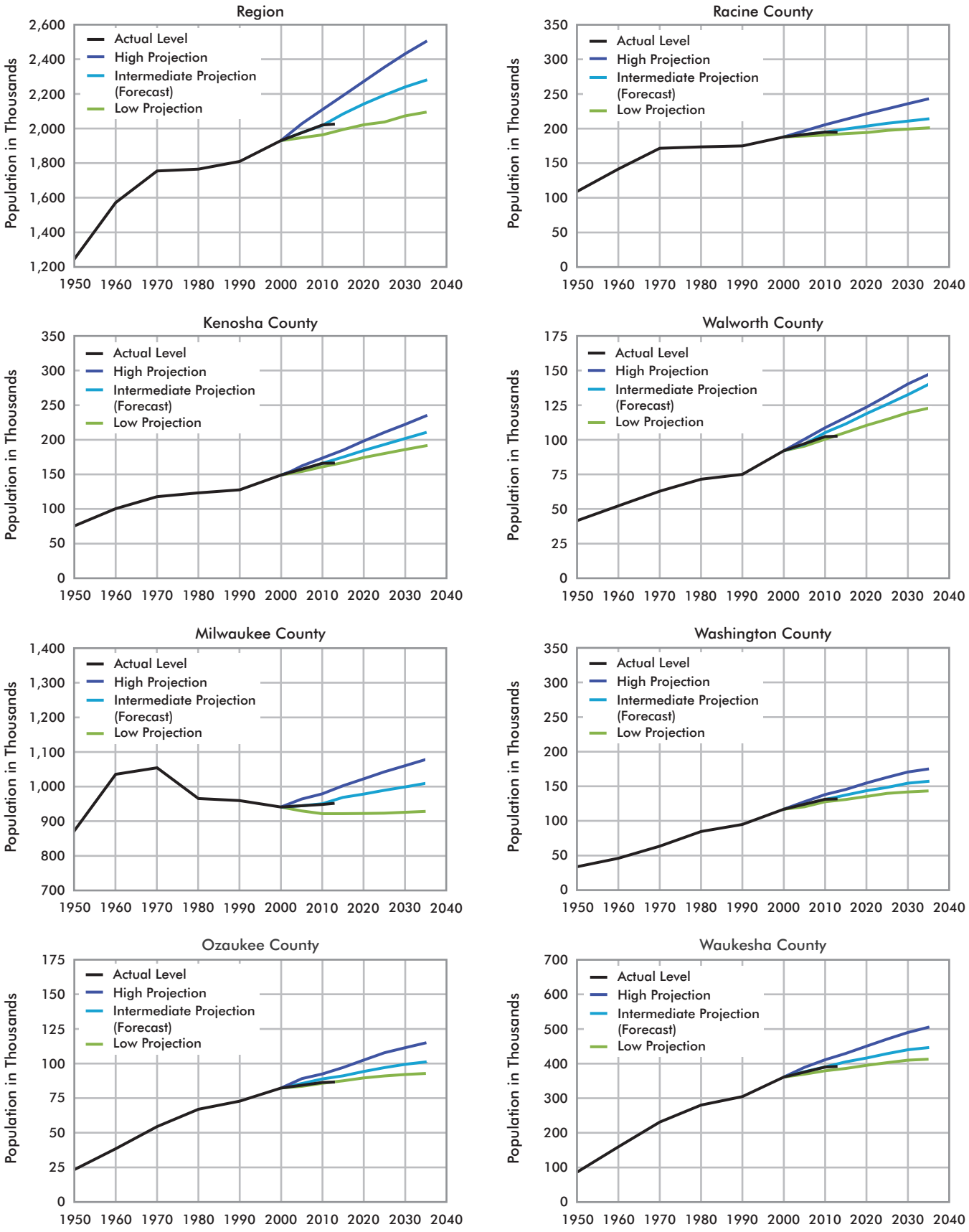
[a] *U.S. Bureau of Economic Analysis.*

[b] *Estimate based upon U.S. Bureau of Economic Analysis and Quarterly Census of Employment and Wages data.*

[c] *SEWRPC intermediate-growth scenario.*

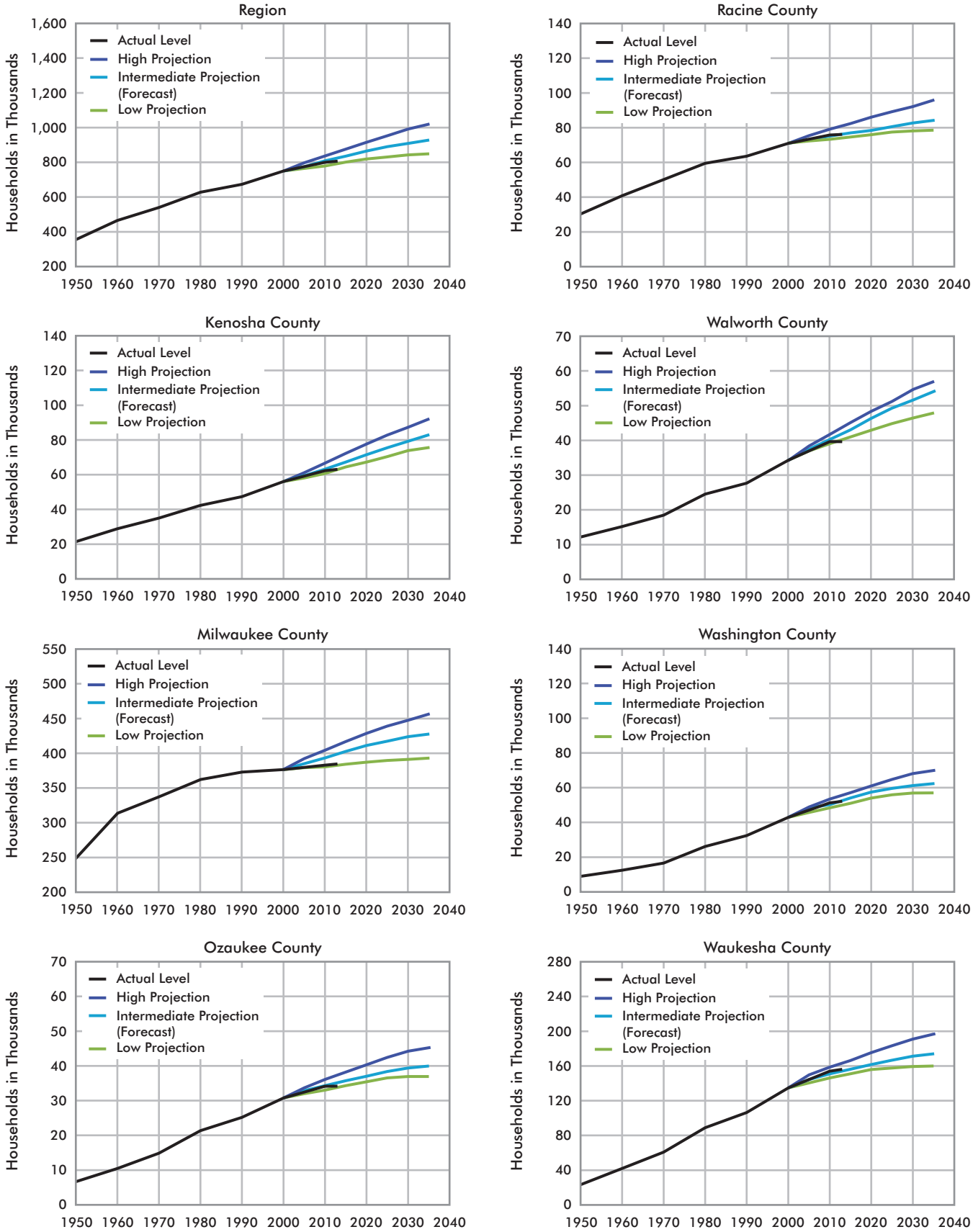
Source: U.S. Bureau of Economic Analysis, Quarterly Census of Employment and Wages; and SEWRPC

Figure 3.1
Actual and Projected Regional and County Population Levels: 1950-2035



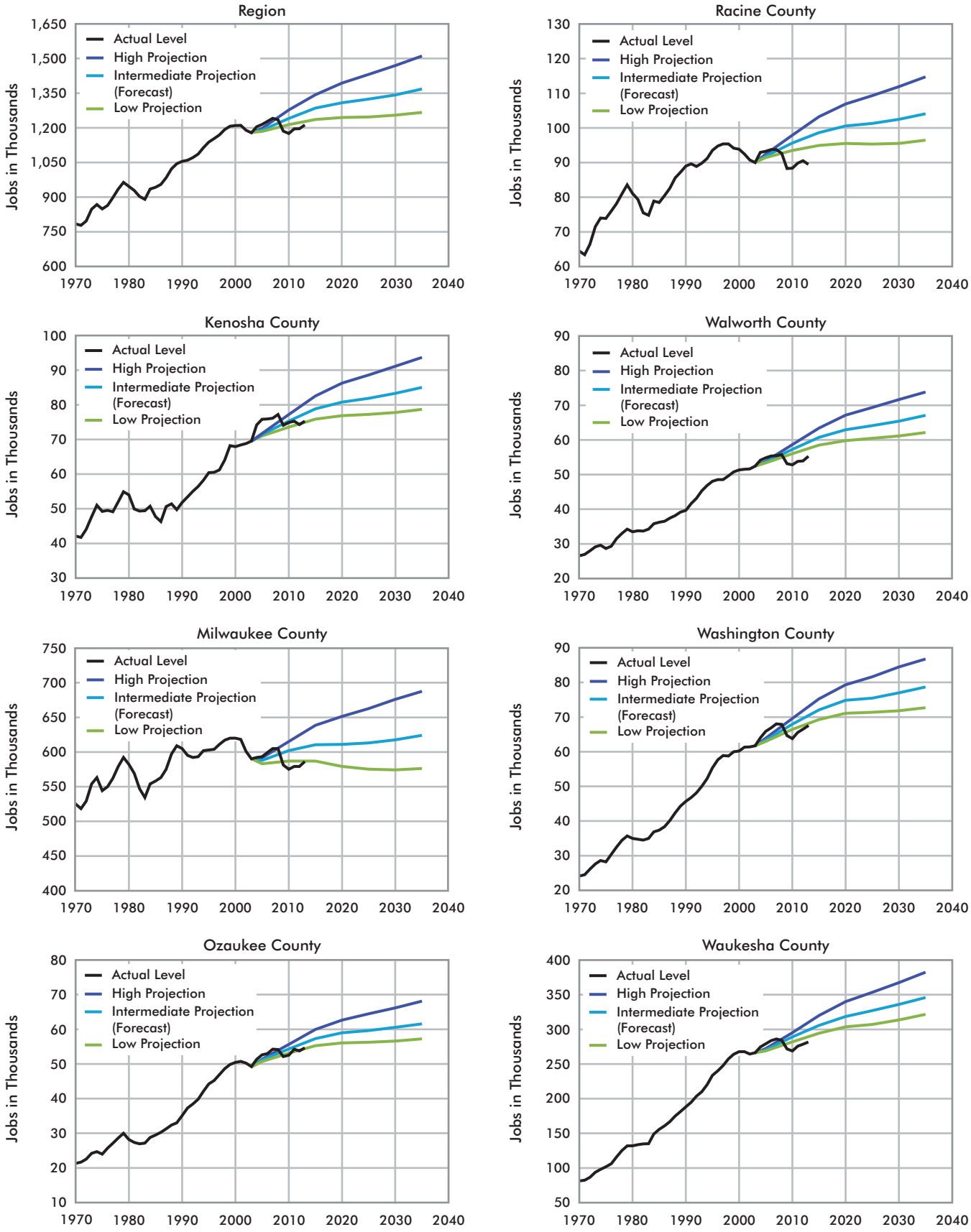
Source: U.S. Bureau of the Census and SEWRPC

Figure 3.2
Actual and Projected Regional and County Household Levels: 1950-2035



Source: U.S. Bureau of the Census and SEWRPC

Figure 3.3
Actual and Projected Regional and County Employment Levels: 1970-2035



Source: U.S. Bureau of Economic Analysis and SEWRPC

- The Commission employment forecast for the Region for the year 2013 was higher by approximately 5 percent than the actual level in 2013, based upon the most recent available employment estimates.

The Commission population and household forecasts conform to actual trends somewhat better than the employment forecasts. It is important to recognize that, in comparison to population and household trends, employment levels are more subject to relatively short-term fluctuations related to business cycles. In reviewing the Commission employment forecasts, it is important to note that in 2013 employment in the Region was still recovering from the low levels associated with the major recession of the late 2000s, during which the Region experienced a loss of over 60,000 jobs.

Employment forecasts are intended to show a long-term trend, and do not reflect short-term fluctuations in job levels such as the major recession of the late 2000s.

3.3 PART II: REVIEW OF THE 2035 REGIONAL LAND USE PLAN

The year 2035 regional land use plan is a fifth-generation plan, the Commission having previously prepared and adopted land use plans with plan design years of 1990, 2000, 2010, and 2020. Prior regional land use planning efforts evaluated a wide range of spatial design alternatives for the Region. Three plan design alternatives and an unplanned alternative were evaluated in the first regional planning study carried out in the 1960s. The three alternatives included a "controlled existing trend" plan, a "corridor" plan, and a "satellite city" plan. The controlled existing trend plan was adopted based on public and technical evaluation.[2] The plan recommended that most urban development occur in existing urban centers and in rings along the periphery of existing urban centers. The second regional planning effort considered a "controlled centralization" alternative and a "controlled decentralization" alternative. The controlled centralization plan was adopted, again based on extensive public and technical evaluation.[3] Like the initial design year 1990 plan, the year 2000 controlled centralization plan recommended a relatively compact pattern of development, with new urban development recommended to occur in planned neighborhoods that provide a full range of urban services and facilities. The first and second generation regional land use plans also recommended the preservation of environmentally significant lands, with an emphasis on the preservation of primary environmental corridors, and the preservation of prime farmland.

Four alternative plans were evaluated in the first regional planning study during the 1960s.

The succeeding regional land use plans, including the year 2035 plan, incorporated many of the basic concepts of the initial plans, refining and extending the plan recommendations as appropriate. Each plan considered growth and change that occurred in the Region since the preparation of the previous plan and new projections of population, households, and employment. The basic concepts and recommendations of the year 2035 regional land use plan are summarized in the following section.

The year 2035 plan includes many basic concepts of the initial regional plan.

Summary Description of the Year 2035 Regional Land Use Plan

The regional land use plan, summarized graphically on Map 3.1, serves as a generalized long-range guide to future urban development, rural development, and open space preservation in Southeastern Wisconsin. The plan was designed to accommodate anticipated future population, household, and employment levels in the Region through the year 2035 in a

[2] *See SEWRPC Planning Report No. 7,* Regional Land Use-Transportation Study*, Volume Two,* Forecasts and Alternative Plans: 1990*, June 1966*.

[3] *See SEWRPC Planning Report No. 25,* A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000*, Volume Two,* Alternative and Recommended Plans*, May 1978*.

Map 3.1
Adopted Regional Land Use Plan: 2035

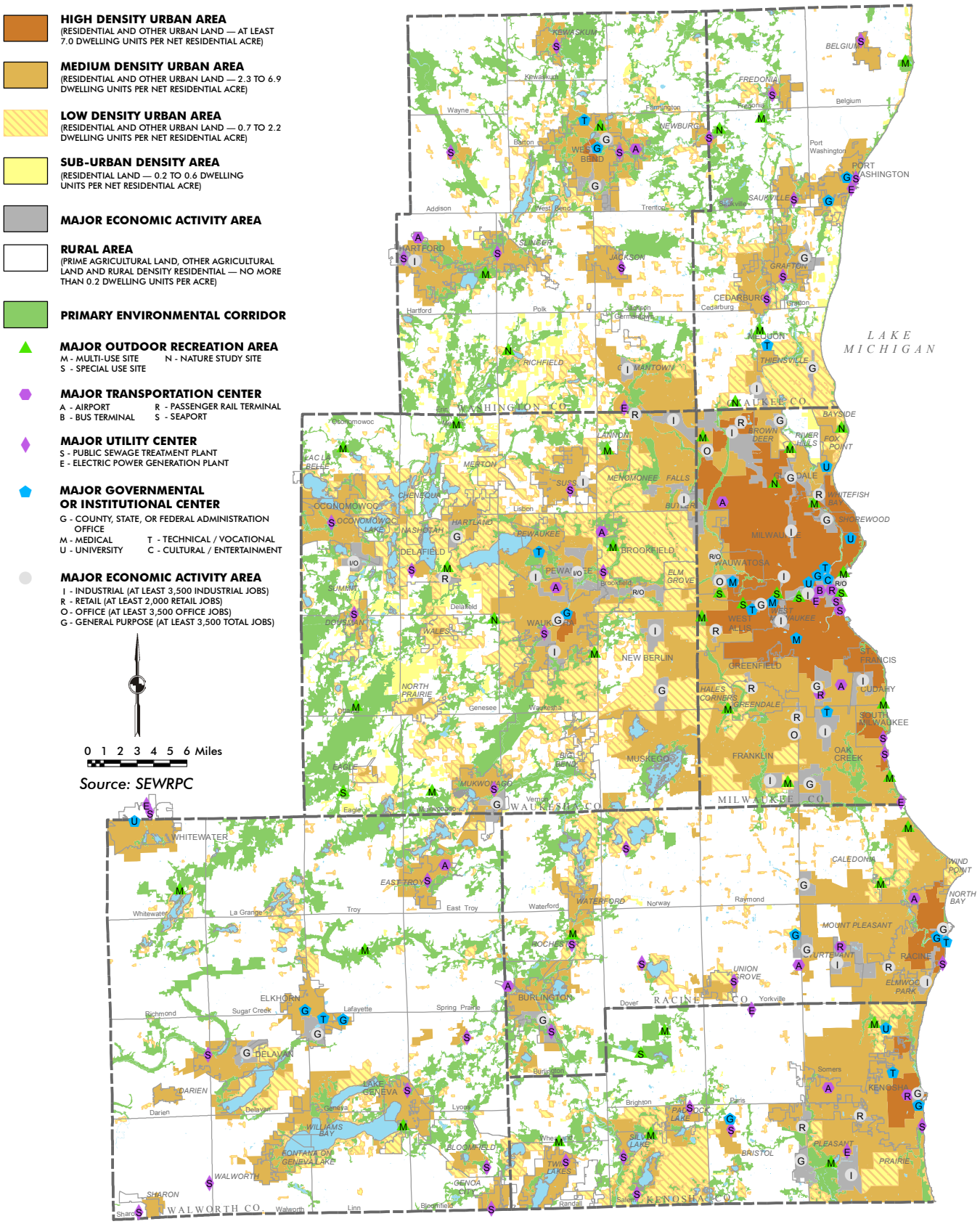


Table 3.4
Land Use Development Objectives of the 2035 Regional Land Use Plan

Objective Number	Land Use Development Objectives
1	A balanced allocation of space to the various land use categories which meets the social, physical, and economic needs of the regional population.
2	A spatial distribution of the various land uses which will result in a convenient and compatible arrangement of land uses.
3	A spatial distribution of the various land uses which maintains biodiversity and which will result in the preservation and wise use of the natural resources of the Region.
4	A spatial distribution of the various land uses which is properly related to the supporting transportation, utility, and public facility systems in order to assure the economical provision of transportation, utility, and public facility services.
5	The development and preservation of residential areas within a physical environment that is healthy, safe, convenient, and attractive.
6	The preservation, development, and redevelopment of a variety of suitable industrial and commercial sites both in terms of physical characteristics and location.
7	The conservation, renewal, and full use of existing urban areas of the Region.
8	The preservation of productive agricultural land.
9	The preservation and provision of open space to enhance the total quality of the regional environment, maximize essential natural resource availability, give form and structure to urban development, and provide opportunities for a full range of outdoor recreational activities.

Source: SEWRPC

manner consistent with the land use objectives adopted as part of the plan (see Table 3.4).

Like the previous generations of the regional land use plan, the year 2035 plan places heavy emphasis on the continued operation of the urban land market in determining the location, intensity, and character of future development, while seeking to influence the operation of the market in several important ways to achieve a more healthy, attractive, and efficient settlement pattern. The plan includes recommendations pertaining to future urban development, environmentally significant lands, and agricultural and other open lands. Key recommendations for future urban development in the Region are summarized below:

The regional land use plan seeks to achieve a more healthy, attractive, and efficient settlement pattern through recommendations for future urban development, environmentally significant lands, and agricultural and other open lands.

- Urban development—including urban residential, commercial, and governmental and institutional land—should occur primarily within existing urban centers as infill development and redevelopment, as well as within defined urban growth areas adjoining these centers.

- New urban development should occur in areas that are covered by soils suitable for urban use and that are not subject to flooding and erosion.

- New urban development should occur in areas that can readily be served by basic municipal facilities, including public sanitary sewers and other urban facilities and services as appropriate.

- Most new housing should be developed at urban residential densities, with the majority occurring at a medium density, generally characterized by a combination of single-family development averaging about four housing units per acre and multifamily development averaging about

10 housing units per acre.[4] Urban density residential development should occur in planned neighborhoods and mixed-use areas served by public sanitary sewerage and water supply facilities, and to the extent practicable, by a local park, school, and shopping area.

- New sub-urban density residential development, characterized by single-family homes on lots of two to three acres, should be limited to development that is already committed in subdivision plats and certified surveys. Sub-urban residential development is neither truly urban nor rural in character and would not generally occur in planned neighborhood units; would not be provided with public sanitary sewerage and water supply facilities; and would receive only minimal public services, such as public safety services.

- Regional-scale commercial and industrial centers should be maintained and developed consistent with the needs of the regional population and economy. The regional plan envisions 60 major economic activity centers in the Region in 2035. These include 45 centers that met the major economic activity center threshold in 2000 and 15 additional areas that were envisioned to reach major center status by 2035.

- Regional parks—large parks of at least 250 acres that accommodate a variety of outdoor recreational activities—should be maintained and developed to meet the recreational needs of the regional population. The regional plan envisions 32 major parks in the Region in the year 2035. The plan also identifies seven major special-use outdoor recreation sites and recommends seven existing or proposed nature study sites.

Key recommendations for environmentally significant lands in the Region include the following:

- Primary environmental corridors—large elongated areas in the landscape containing concentrations of the most important remaining elements of the natural resource base—should be preserved in essentially natural, open use. They are located along major stream valleys, around major lakes, and along the Kettle Moraine and encompass almost all the best remaining woodlands, wetlands, and wildlife habitat areas in the Region (see Map 3.1). The plan recommends limiting development within the primary environmental corridor to essential transportation and utility facilities, compatible outdoor recreation facilities, and rural density residential development (a maximum of one housing unit per five acres) in upland corridor areas, with building sites avoiding steep slopes.

- Secondary environmental corridors and isolated natural resource areas should also be considered for preservation. Secondary environmental corridors are smaller than primary environmental corridors. They contain a variety of resource elements, often remnant from primary environmental corridors that have been partially developed for

[4] As defined in the 2035 regional land use plan, urban residential densities are as follows: low-density—0.7 to 2.2 housing units per net residential acre; medium-density—2.3 to 6.9 housing units per net residential acre; and high-density—at least 7.0 housing units per net residential acre. These density ranges as shown on the regional plan map (Map 3.1) are recommended overall densities that may be achieved within developing and redeveloping areas through various combinations of lot sizes and structure types over entire neighborhoods.

intensive urban or agricultural purposes. Isolated natural resource areas consist of smaller pockets of wetlands, woodlands, surface water, and wildlife habitat that are isolated from the environmental corridors by urban development or agricultural use. Existing secondary environmental corridors and isolated natural resource areas are shown on Map 2.22 in Chapter 2 this volume.

Key recommendations for agricultural and other rural lands in the Region include the following:

- The most productive soils for agricultural purposes—agricultural capability Class I and Class II soils as classified by the U.S. Natural Resources Conservation Service—should be preserved for agricultural use insofar as practicable. Existing agricultural lands covered by Class I and II soils in the Region are shown on Map 2.23 in Chapter 2. The regional plan recommends that counties in the Region update and extend their farmland preservation plans, incorporating as appropriate the generalized farmland preservation recommendations of the regional plan.

- Other areas located beyond planned urban service areas should be retained in rural use. The plan encourages continued agricultural activity in such areas. Development in such areas should be limited to rural density residential development, with a maximum of one housing unit per five acres. The use of conservation subdivision designs to accommodate rural density residential development is encouraged.

Implementation Status of the Plan

This section describes the implementation status of the year 2035 regional land use plan, focusing on the key plan recommendations described above.

Land Development Activity

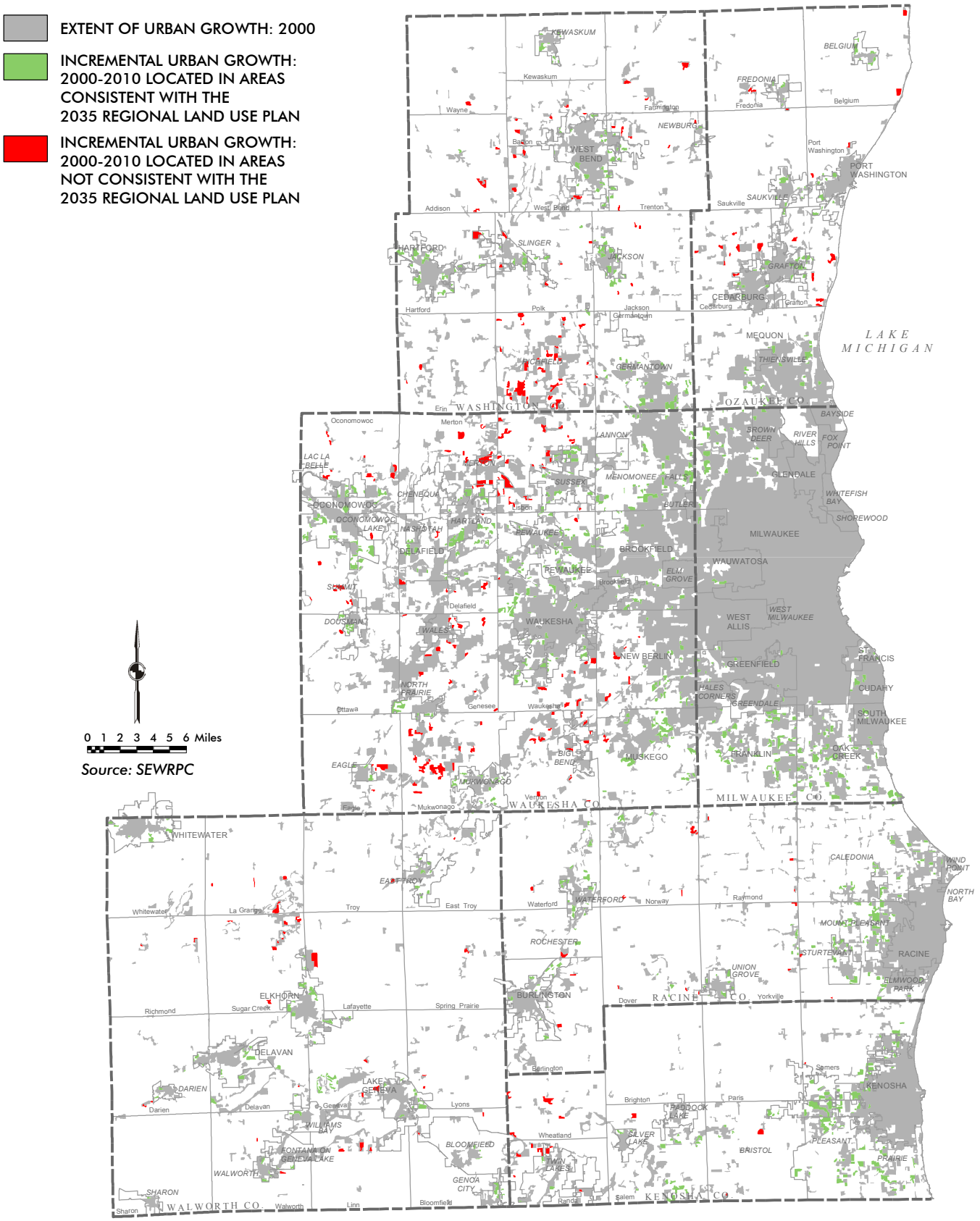
Location of New Urban Development

The regional plan recommends that urban development primarily occur in existing urban centers as infill development and redevelopment and within defined urban growth areas adjoining these centers. In order to help assess how well this recommendation has been implemented, an analysis was made of the incremental urban development that took place in the Region between 2000 and 2010, as indicated by the Commission urban growth inventory described in Chapter 2 of this volume. The urban areas that developed between 2000 and 2010, shown on Map 2.11 in Chapter 2, were reviewed and classified as to whether they are in a location that is consistent with the regional plan. The results are shown on Map 3.2. Urban growth in accordance with the regional plan is shown in green on Map 3.2. Urban growth not in accordance is shown in red.

Between 2000 and 2010, 74% of new urban development was in accordance with the regional plan, while the remaining 26% was lower density growth outside planned urban service areas.

The analysis indicated that 40 of the 54 square miles of incremental urban development that took place between 2000 and 2010, or 74 percent, were located in accordance with the regional plan. Most of these areas are located within planned sewer service areas, where urban development is recommended to occur under the regional plan. The balance—14 square miles, or 26 percent of the incremental urban growth—consists for the most part of sub-urban and low-density residential development located beyond planned urban service areas.

Map 3.2
Incremental Urban Growth in the Region: 2000-2010



In reviewing Map 3.2, it should be noted that rural density residential development (no more than one housing unit per five acres) is not included in the delineated urban growth areas. It should also be noted that the identified urban growth areas consist of areas converted from agricultural and other open space uses to intensive urban use. They do not reflect redevelopment efforts that have taken place in the older urban centers of the Region.

Residential Development

The regional land use plan identifies three urban residential categories: high-density—at least 7.0 housing units per net acre; medium-density—2.3 to 6.9 housing units per net acre; and low-density—0.7 to 2.2 housing units per net acre. These are overall densities that may be achieved within developing and redeveloping areas through various combinations of lot sizes and structure types over entire neighborhoods. A medium-density neighborhood could, for example, be achieved through a combination of single-family lots averaging a quarter of an acre, along with multifamily residential development averaging about 10 housing units per acre. It should be noted that the regional plan density ranges were broadly defined to provide flexibility to local units of government so they can prepare comprehensive plans and administer land use regulations within the framework of the regional plan. The community can determine at which point in the recommended density range development should occur.

The regional plan recommends additional urban residential development and redevelopment in the Region commensurate with the anticipated increase in population and households through the year 2035. The plan recommends that much of the needed urban residential land be developed at the medium-density range. Development at a medium—or higher—residential density facilitates the economical and efficient provision of urban services and facilities; facilitates the development of neighborhoods with schools, parks, and other neighborhood facilities; and serves to moderate the amount of land needed to be converted to urban use in order to accommodate growth in population and households.

Table 3.5 compares the actual increase in residential land use by density category during the 2000s with the increase anticipated under the regional plan. About 23 square miles of land were planned to be converted to urban residential use during the 2000s. Commission land use inventories show the actual increase was about 26 square miles. Less new medium-density residential development and more new low-density residential development occurred than recommended in the plan. The plan envisioned an increase of 18 square miles in medium-density residential land and the actual increase was about 10 square miles. The plan envisioned an increase of about four square miles of low-density residential land and the actual increase was about 13 square miles.

While less medium-density residential development occurred than envisioned in the plan during the 2000s, it should be noted that more high-density residential development occurred than envisioned in the plan. The plan envisioned an increase of about one square mile in high-density residential land; the actual increase was just under three square miles. It should also be noted that pockets of residential redevelopment activity have occurred in older urban areas of the Region during the 2000s that is not reflected in the increases in urban residential land. These residential redevelopment efforts likely occurred at medium or high densities.

While less medium-density development occurred in the 2000s than envisioned, more high-density development occurred than envisioned.

Table 3.5
Actual and Planned Residential Land Use in the Region: 2000-2010

Density Category[a]	Actual Residential Land				Planned Residential Land		
	2000 (square miles)	2010 (square miles)	Change: 2000-2010		2010 (square miles)	Change: 2000-2010	
			Square Miles	Percent		Square Miles	Percent
Urban							
High Density	47.6	50.3	2.7	5.7	48.9	1.3	2.7
Medium Density	93.6	103.3	9.7	10.4	111.6	18.0	19.2
Low Density	156.3	169.5	13.2	8.4	160.4	4.1	2.6
Sub Total	297.5	323.1	25.6	8.6	320.9	23.4	7.9
Sub-urban	19.1	25.5	6.4	33.5	22.2	3.1	16.2
Rural	45.0	52.2	7.2	16.0	47.0	2.0	4.4
Total	361.6	400.8	39.2	10.8	390.1	28.5	7.9

[a] *Density categories are as follows:*
High Density—at least 7.0 housing units per net acre;
Medium Density—2.3 to 6.9 housing units per net acre;
Low Density—0.7 to 2.2 housing units per net acre;
Sub-urban Density—0.2 to 0.6 housing housing units per net acre;
Rural—fewer than 0.2 housing units per net acre.

Source: SEWRPC

As previously noted, the plan recognized commitments to sub-urban density residential development (defined as 0.2 to 0.6 housing units per net acre, and characterized by two to three acre lots). About three square miles of undeveloped land were committed to sub-urban density residential development when the plan was prepared. The land use inventory shows that over six square miles were converted to sub-urban density residential development during the 2000s.

The regional plan also anticipates a continued demand for homes in an open space setting. The plan accommodates this demand on a limited basis through rural residential development at a density of no more than one housing unit per five acres, outside prime agricultural lands. The plan recommends clustering homes at these densities using conservation subdivision design principles. The regional plan envisioned an increase of two square miles of rural density residential land; the actual increase was about seven square miles.

Commercial and Industrial Development

The regional plan envisions a range of commercial areas, including neighborhood, community, and regional commercial centers. These include mixed-use areas with a residential component and areas devoted more exclusively to commercial uses. Likewise, the plan envisions both community and regional level industrial centers and a continuation of the trend toward mixing industrial and commercial activities in the same area.

There were 30.3 square miles of commercial land in the Region in the plan base year of 2000 and 32.9 square miles of industrial land. The plan envisioned an increase of 12.8 square miles of commercial land by 2035 and an increase of 5.3 square miles of industrial land. This increase is based on the 2035 employment projections for the Region, including the projected continuing shift from a manufacturing-based to a service-based economy and anticipated reductions in employment densities for industrial and retail activities. The plan also considered recommendations of community land use plans that were in effect when the regional plan was prepared.

The 2010 land use inventory indicates that 5.4 square miles of land were converted to commercial uses during the 2000s, which is about 42 percent of the increment envisioned by the plan between 2000 and 2035. The 2010 land use inventory also indicates that 2.3 square miles of land were converted to industrial uses during the 2000s, which is about 43 percent of the increment envisioned by the plan through the year 2035.

About 42% of commercial development and 43% of industrial development envisioned for the Region between 2000 and 2035 occurred by 2010.

The largest commercial and industrial areas anticipated under the plan are identified as major economic activity centers. The regional land use plan envisions a total of 60 major economic activity centers in the Region in the year 2035. To qualify as a major economic activity center as defined in the plan, a site must accommodate at least 3,500 total jobs or 2,000 retail jobs.[5]

There were 45 major economic activity centers in the Region in 2000. The regional land use plan envisioned that all 45 sites would be retained as major centers through the year 2035. The plan envisioned 15 additional major economic activity centers in the Region in 2035. All of the proposed economic activity centers, except for a proposed site in the Village of Caledonia, were under some stage of development when the regional plan was adopted in 2006.

The Region gained six additional major employment centers between 2000 and 2010, and lost one (Northridge).

The current status of the 60 major economic activity centers recommended in the year 2035 regional land use plan is summarized on Map 3.3.

- Of the 15 additional economic activity centers proposed in the plan, six sites—Park Place, Oconomowoc, New Berlin South, Grafton, Delafield, and CTH Q/STH 175—met the major economic activity center employment level criteria in 2010.

- Of the 45 major centers that existed in 2000, 44 retained their major center status in 2010. However, many of these sites lost employment between 2000 and 2010, owing in part to the recession of the late 2000s.

- One of the major centers that existed in 2000 did not meet the major center employment criteria in 2010—the area identified as the 76th/Brown Deer center (formerly known as Northridge). The 76th and Brown Deer area was accorded regional major center status as of 2000, since retail employment at the Northridge shopping center, combined with retail employment in nearby stores on the adjacent arterial streets, met the major retail center employment standard at that time. However, all four of the "anchor" stores once located within the Northridge shopping center closed between 2000 and 2003, and total employment in the area dropped below the major center threshold. Demolition of part of the shopping center began in 2004, creating space for construction of a large grocery store and home improvement store. Alternative uses for the remainder of the former shopping center are under consideration.

[5] Under the year 2035 plan, major economic activity centers were further classified as industrial, office, retail, and general purpose sites based upon standards for various jobs categories. This evaluation of the status of major economic activity centers in 2010 considers only the most basic of standards—at least 3,500 total jobs and/or 2,000 retail jobs.

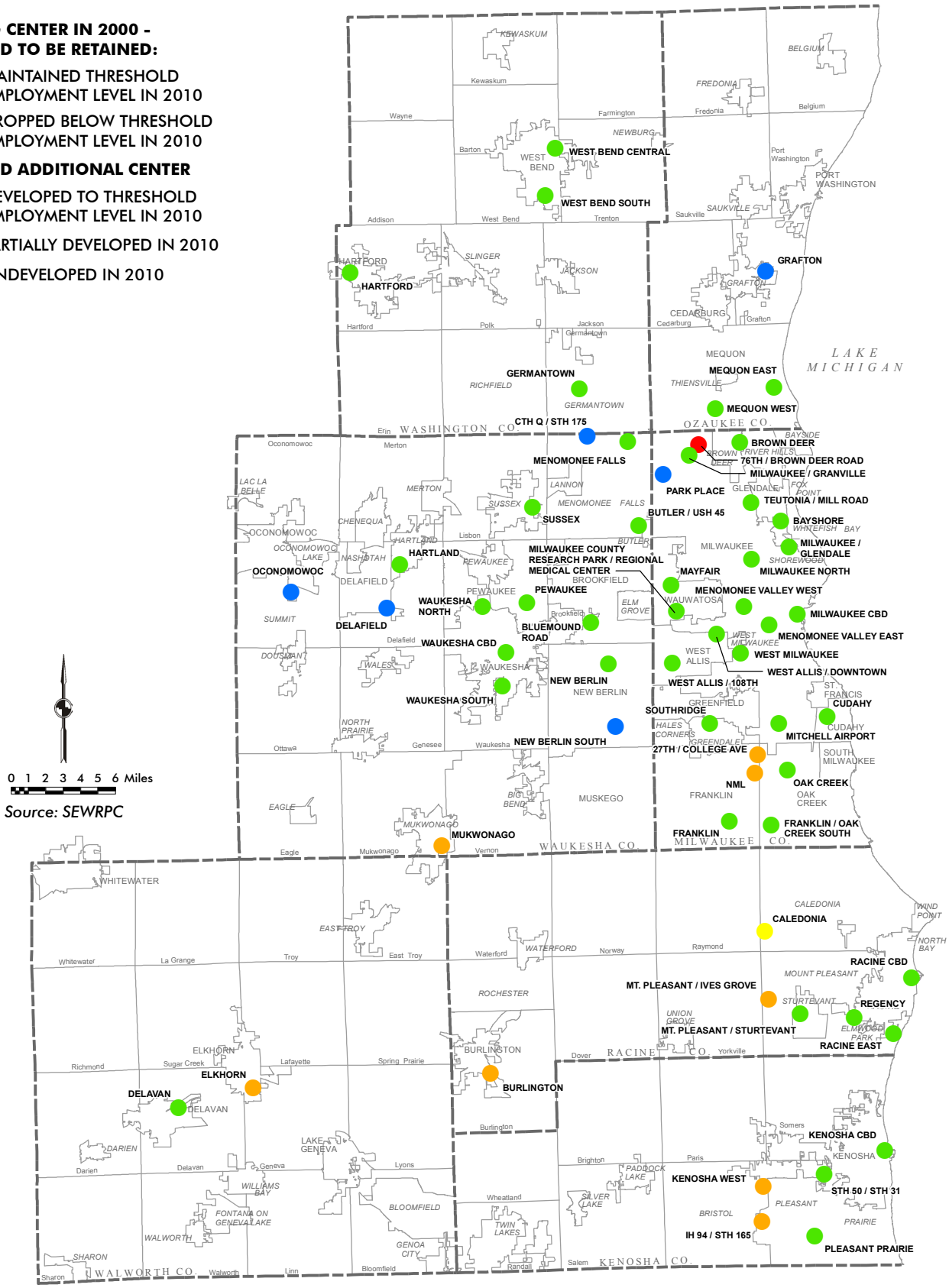
Map 3.3
Status of Major Economic Activity Centers Recommended Under the 2035 Regional Land Use Plan

EXISTING CENTER IN 2000 - PROPOSED TO BE RETAINED:

- MAINTAINED THRESHOLD EMPLOYMENT LEVEL IN 2010
- DROPPED BELOW THRESHOLD EMPLOYMENT LEVEL IN 2010

PROPOSED ADDITIONAL CENTER

- DEVELOPED TO THRESHOLD EMPLOYMENT LEVEL IN 2010
- PARTIALLY DEVELOPED IN 2010
- UNDEVELOPED IN 2010



Source: SEWRPC

Provision of Sanitary Sewer and Water Supply Services

The regional land use plan recommends that most new urban development occur in areas that can be served by essential municipal facilities, including public sanitary sewer and water supply services. Data regarding the area and population served by public sanitary sewer and water systems was obtained as part of the Commission's regional public utility inventory, which is described in Chapter 2 of this volume. There was a significant increase in the area and population served by public sanitary sewerage systems between 2000 and 2010. The area served by public sewer increased by 48 square miles, or 10 percent. The population served increased by 90,000 people, or 5 percent. The percent of the regional population served remained steady at about 90 percent in 2000 and 2010.

About 90% of the Region's population is served by public sewer systems.

There was also a significant increase in the area and population served by public water supply utilities between 2000 and 2010. The area served by public water utilities increased by 54 square miles, or about 14 percent. The population served increased by 100,000 people, or about 6 percent. The percent of the regional population served increased slightly between 2000 and 2010 from 82 to 83 percent.

About 83% of the Region's population is served by a public water utility.

In addition to the public utility inventories described in Chapter 2, the Commission collected information regarding the number of sanitary permits issued for the installation of private onsite wastewater treatment systems (POWTS) in the Region during the 2000s. Information was obtained from each of the six counties in the Region responsible for the regulation of POWTS. Information was also obtained from the Cities of Franklin and Oak Creek, which account for most of the permits issued for POWTS in Milwaukee County. About 12,000 permits were issued for POWTS in support of new residential development in the Region during the 2000s. This excludes permits issued for replacement systems. The issuance of a permit does not mean that a system was actually installed, but it is believed that a high percentage of permits were acted upon and the number of permits is a good estimate of the number of POWTS installed.

Some of the POWTS permits issued during the 2000s were for housing developed at a rural density in accordance with the regional land use plan. In addition, some of the permits were issued for housing developed in accordance with the regional plan in the Village of Eagle and certain other areas that have public water supply service but no sanitary sewer service. However, the majority of POWTS permits issued were intended to serve residential development at low and sub-urban densities in areas not recommended for such development in the regional plan.

An estimated 84,100 new housing units were built in the Region during the 2000s.[6] It can be concluded that about 12,000 of these units were served by POWTS, with the balance of 72,100 units served by public sanitary sewerage systems.[7] Thus the vast majority of housing built during the 2000s, about 86 percent, was provided with public sanitary sewer service in accordance with the regional plan.

The vast majority (86%) of housing built in the 2000s was provided with public sanitary sewer service in accordance with the regional plan.

[6] The estimated number of housing units built in the Region between 2000 and 2010 was developed by adding the number of estimated housing unit demolitions during the 2000s (about 8,000) to the net increase of 76,100 housing units in the Region between 2000 and 2010 reported by the U.S. Bureau of the Census.

[7] This assumes that each permit issued resulted in a private onsite wastewater treatment system serving one housing unit.

Major Outdoor Recreation Centers

The year 2035 regional land use plan envisions a total of 32 major parks of regional size and significance to serve the needs of the Region through the year 2035. By definition, such parks have an area of at least 250 acres and provide opportunities for a variety of resource-oriented outdoor recreational activities.

The plan recommends expanding from 24 to 32 major parks. The eight additional parks all experienced at least some development during the 2000s.

Of the 32 major parks identified in the plan, 24 sites had been substantially acquired and developed for park purposes by 2000, the base year of the plan, and were recommended to be retained. The plan envisioned further development of six sites that had been substantially acquired for park purposes by 2000 but that were undeveloped or only partially developed at that time. These include Prairie Spring Park in Kenosha County, Bender Park in Milwaukee County, Case Eagle Park in Racine County, Price Conservancy in Walworth County, and Fox Brook Park and Monches Park in Waukesha County. The plan also reflected the acquisition and proposed development of two entirely new sites, located in western Kenosha County and northwestern Waukesha County.

The current status of the 32 major parks recommended in the regional land use plan is summarized on Map 3.4. As shown on that map, each of the afore-mentioned sites that were recommended for additional facility development under the plan experienced at least some development during the 2000s in accordance with the plan. In addition, significant portions of the recommended new sites—KD Park in western Kenosha County and Ashippun River Park in northwestern Waukesha County—were acquired for park purposes in the 2000s.

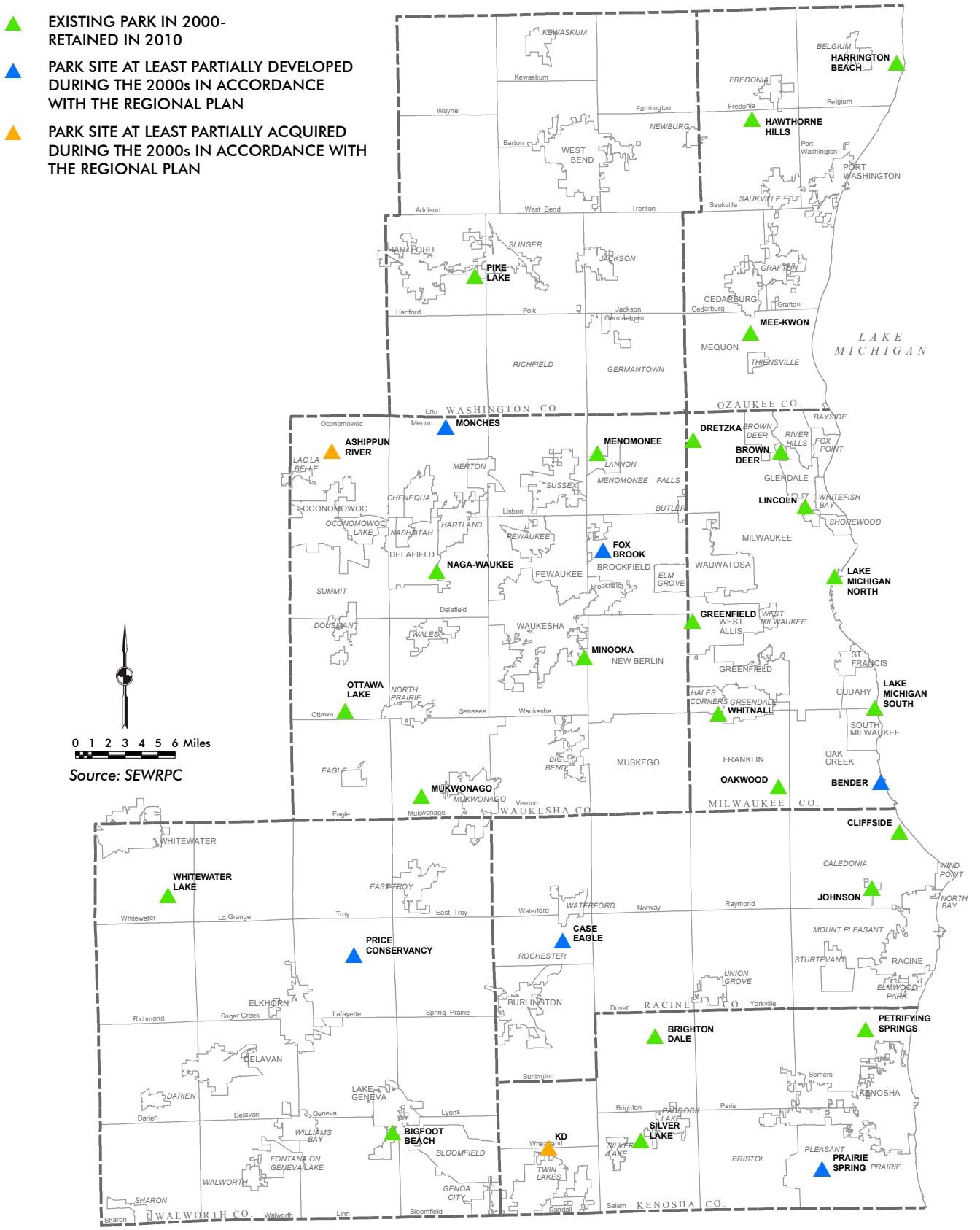
In addition to the major park sites described above, a number of major special-use recreation sites and major nature study sites continue to serve the Region, as anticipated in the regional plan. The major special use sites include the Bong Recreation Area in Kenosha County; Old World Wisconsin in Waukesha County; and Maier Festival Park, Miller Park, the Mitchell Park Horticultural Conservatory, the Milwaukee County Zoo, and Wisconsin State Fair Park in Milwaukee County. The major nature study sites include Havenwoods State Forest and the Schlitz Audubon Center in Milwaukee County; the Mequon Nature Preserve and Riveredge Nature Center in Ozaukee County; Glacier Hills Park and Lac Lawrann Conservancy in Washington County; and the Retzer Nature Center in Waukesha County.[8]

Primary Environmental Corridors

The year 2035 regional land use plan recommends the preservation of the Region's primary environmental corridors in essentially natural, open use, forming an integrated system of open space lands in the Region. Located along major stream valleys, around major lakes, and along the Kettle Moraine, these corridors encompass almost all of the best remaining woodlands, wetlands, and wildlife habitat areas in the Region. These corridors were identified in generalized fashion in the initial year 1990 regional land use plan, and they have been refined and updated in each subsequent plan, including the year 2035 plan (see Map 3.1). The regional plan recommends that development within the primary environmental corridors be limited to essential transportation and utility facilities, compatible outdoor recreation facilities, and rural-density residential development (a maximum of one housing unit per five acres) in upland corridor areas not encompassing steep slopes.

[8] Major nature study sites are public or private sites, other than sites identified as regional park sites, that are at least 100 acres in size and that have, or are proposed to have, an indoor interpretive nature center.

Map 3.4
Status of Major Parks Recommended Under the 2035 Regional Land Use Plan



About 94% of primary environmental corridors are substantially protected, but urban encroachment could destroy the remaining unprotected corridors.

A number of important measures that help to ensure the preservation of environmentally significant areas had already been put in place by 2000 and remain in effect today. Existing measures that help ensure the preservation of primary environmental corridors in the Region include: public ownership; other public interest ownership, including lands owned by conservancy organizations and other privately held lands that are in compatible outdoor recreational use; joint state-local floodplain and shoreland-wetland zoning; State administrative rules governing sanitary sewer extensions within planned sanitary sewer service areas; and local land use regulations. The latter includes protection through local conservancy zoning[9] and, in the case of Waukesha County, through its review of proposed land divisions.[10] Commission analyses indicate that about 456 square miles (including surface water), representing 94 percent of the primary environmental corridors in the Region, were substantially protected from incompatible urban development through one or more of these measures in 2010 (see Map 3.5).

Primary environmental corridor lands that were not protected from urban development encompassed about 31 square miles, or about 6 percent of the remaining primary environmental corridors in the Region, in 2010. These unprotected corridors consist largely of upland areas comprised of woodlands, significant wildlife habitat, and steeply sloped areas. Destruction of these areas may occur as a result of urban residential development projects supported by private onsite sewage disposal systems and other urban encroachment not served by sanitary sewers.

Agricultural Land

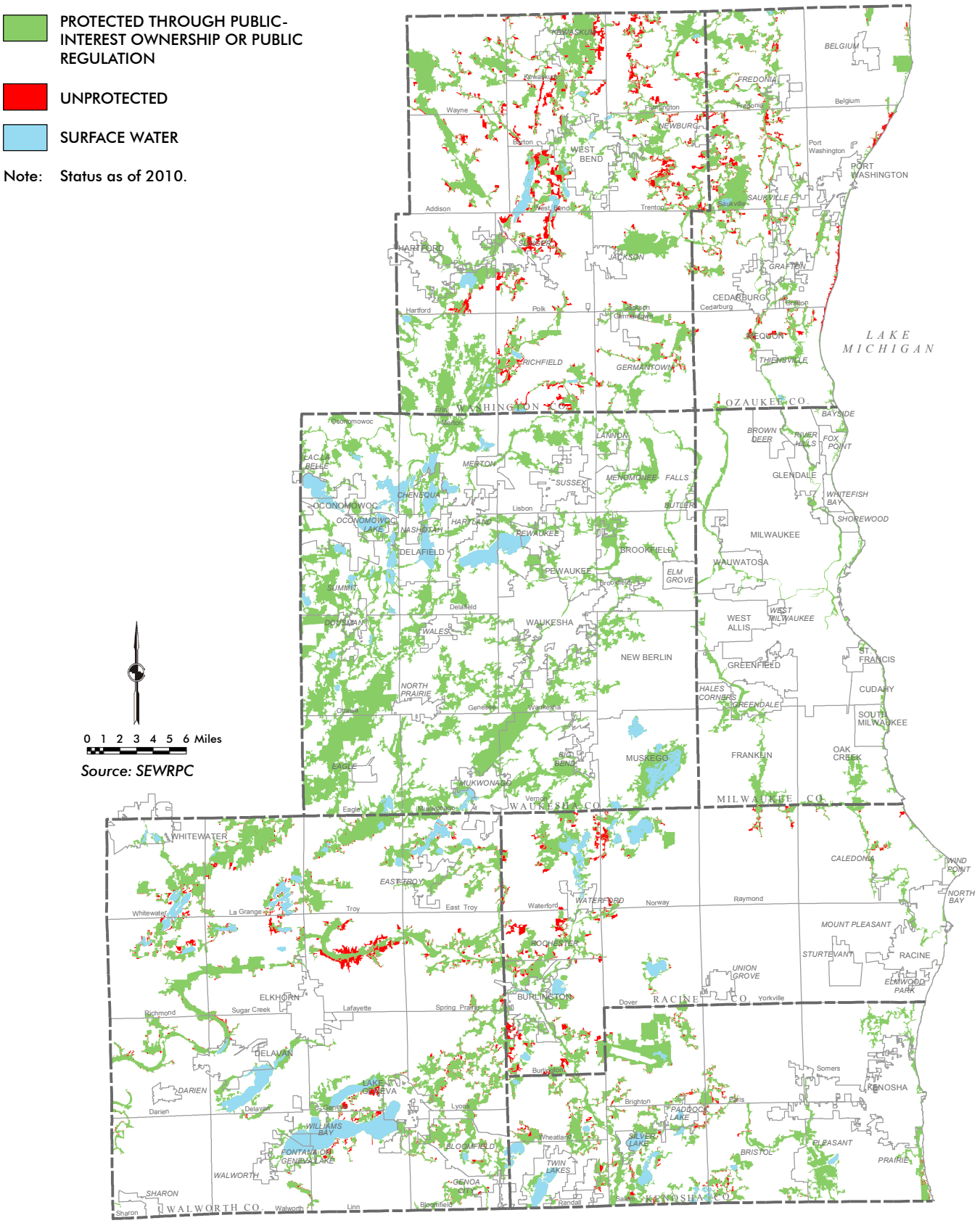
One of the basic objectives of the adopted regional land use plan is the preservation of productive agricultural land. The plan recommends that the most productive soils for agricultural purposes—agricultural capability Class I and Class II soils as classified by the U.S. Natural Resources Conservation Service—be preserved for agricultural use insofar as practicable. Under the plan, the conversion of Class I and Class II agricultural land to urban use would be limited to lands within planned urban service areas, as well as to lands located beyond planned urban service areas that had been committed to urban development in approved residential subdivision plats.

Map 3.6 identifies Class I and Class II agricultural lands that were converted to urban use between 2000 and 2010 as indicated by the Commission's urban growth inventory. The urban growth inventory identifies concentrations of new urban development that occurred between 2000 and 2010 (see description of the urban growth inventory in Chapter 2). Map 3.6 distinguishes between Class I/Class II agricultural land conversions in locations that are consistent with the regional plan from those in locations that are inconsistent with the plan. The analysis indicates that, during the 2000s, about 15.5 square miles of Class I and Class II agricultural lands were converted to urban use in locations consistent with the plan, with most of this occurring within planned urban service areas. The analysis further indicates that about five square

[9] The portion of the Milwaukee River encompassed by primary environmental corridor in the City of Milwaukee between North Avenue and Hampton Avenue is covered by the Milwaukee River Greenway Overlay Zone. This overlay zone allows protection of the primary environmental corridor and sustainable development that is compatible with the City's comprehensive plan.

[10] Waukesha County utilizes its land division approval-objection authority to help ensure the preservation of environmental corridors in accordance with the Waukesha County development plan. Waukesha County reviews all proposed subdivision plats and some, but not all, proposed certified survey maps in Waukesha County.

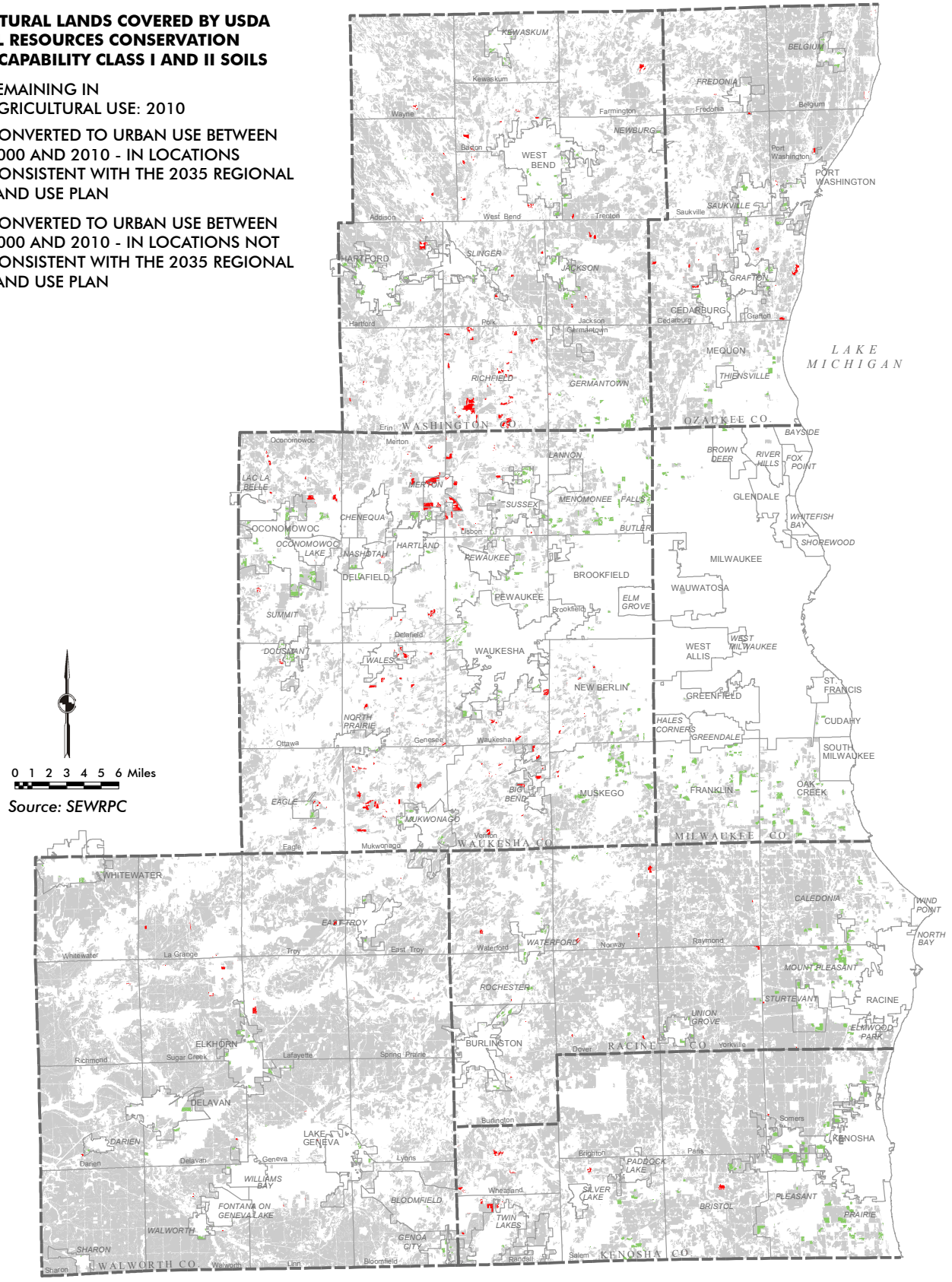
Map 3.5
Protection of Primary Environmental Corridors in the Region



Map 3.6
Agricultural Lands Covered by Highly Productive Soils Converted to Urban Use in the Region: 2000-2010

AGRICULTURAL LANDS COVERED BY USDA NATURAL RESOURCES CONSERVATION SERVICE CAPABILITY CLASS I AND II SOILS

- REMAINING IN AGRICULTURAL USE: 2010
- CONVERTED TO URBAN USE BETWEEN 2000 AND 2010 - IN LOCATIONS CONSISTENT WITH THE 2035 REGIONAL LAND USE PLAN
- CONVERTED TO URBAN USE BETWEEN 2000 AND 2010 - IN LOCATIONS NOT CONSISTENT WITH THE 2035 REGIONAL LAND USE PLAN



Source: SEWRPC

miles of Class I and Class II agricultural land were converted to urban use in locations not consistent with the plan.

The regional plan recognizes that, under the Wisconsin Farmland Preservation law (Chapter 91 of the *Wisconsin Statutes*), counties in the State are responsible for the preparation of farmland preservation plans. The six counties with substantial amounts of agricultural land—Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha—initially prepared farmland preservation plans in the late 1970s and early 1980s. The year 2035 regional land use plan recommended that those counties, in cooperation with the concerned communities, update and extend those plans. The regional plan recommended that such planning place an emphasis on the preservation of Class I and Class II soils. The regional plan recognized that counties may also consider other agricultural soil classes as well as other factors—such as the size of farm units, the overall size of the farming area, the availability of farm implement dealers, and conflicts between farming operations and urban activities—in identifying farmland preservation areas.

Subsequent changes to the Wisconsin Farmland Preservation law, enacted by the State Legislature in 2009, effectively required that counties update their farmland preservation plans as one of the conditions for continued landowner participation in the Farmland Preservation tax credit program. By the end of 2013, Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties had prepared and adopted new farmland preservation plans. Each plan has been certified by the Wisconsin Department of Agriculture, Trade, and Consumer Protection as meeting the farmland preservation planning standards set forth in Chapter 91.

The farmland preservation areas identified in the updated county farmland preservation plans are shown on Map 3.7.[11] These areas are intended to be reserved for agriculture and agricultural-related uses. The specific soil standards and other criteria used to identify farmland preservation areas vary from county to county. Local government support for the identification of farmland preservation areas was a key consideration in the county plans, as discussed below. As shown on Map 3.7, the largest concentration of farmland identified for preservation in county farmland preservation plans is located in the southwest and south-central areas of the Region—including Walworth County, Kenosha County west of IH 94, and the far westerly portion of Racine County. A relatively large farmland preservation area has also been identified in northern Ozaukee County. Other, smaller farmland preservation areas have been identified in Washington and Waukesha Counties.

Farmland preservation areas cover large blocks of Class I and II agricultural land, but many such blocks are excluded and may not be preserved.

A comparison of Map 3.7 and Map 2.23 in Chapter 2 indicates that, while large blocks of Class I and Class II agricultural land have been included in the farmland preservation areas identified in county farmland preservation plans, many farming areas with concentrations of Class I and Class II soils have been excluded. Some Class I and Class II areas were excluded from the farmland preservation area on the basis of non-soil factors, such as minimum farm "block" size. However, the exclusion of much Class I and Class II farmland is attributable to local government reluctance to specifically identify exclusive-use farming areas. In general, the county farmland preservation plans identify farmland preservation areas only where local government support has been demonstrated.

[11] *In the mapping of farmland preservation areas, some of the county farmland preservation plans included entire parcels, including the portions comprised of environmental corridors and isolated natural resource areas, while others did not. For consistency in presentation, Map 3.7 shows existing (2010) environmental corridors and isolated natural resource areas throughout the Region.*

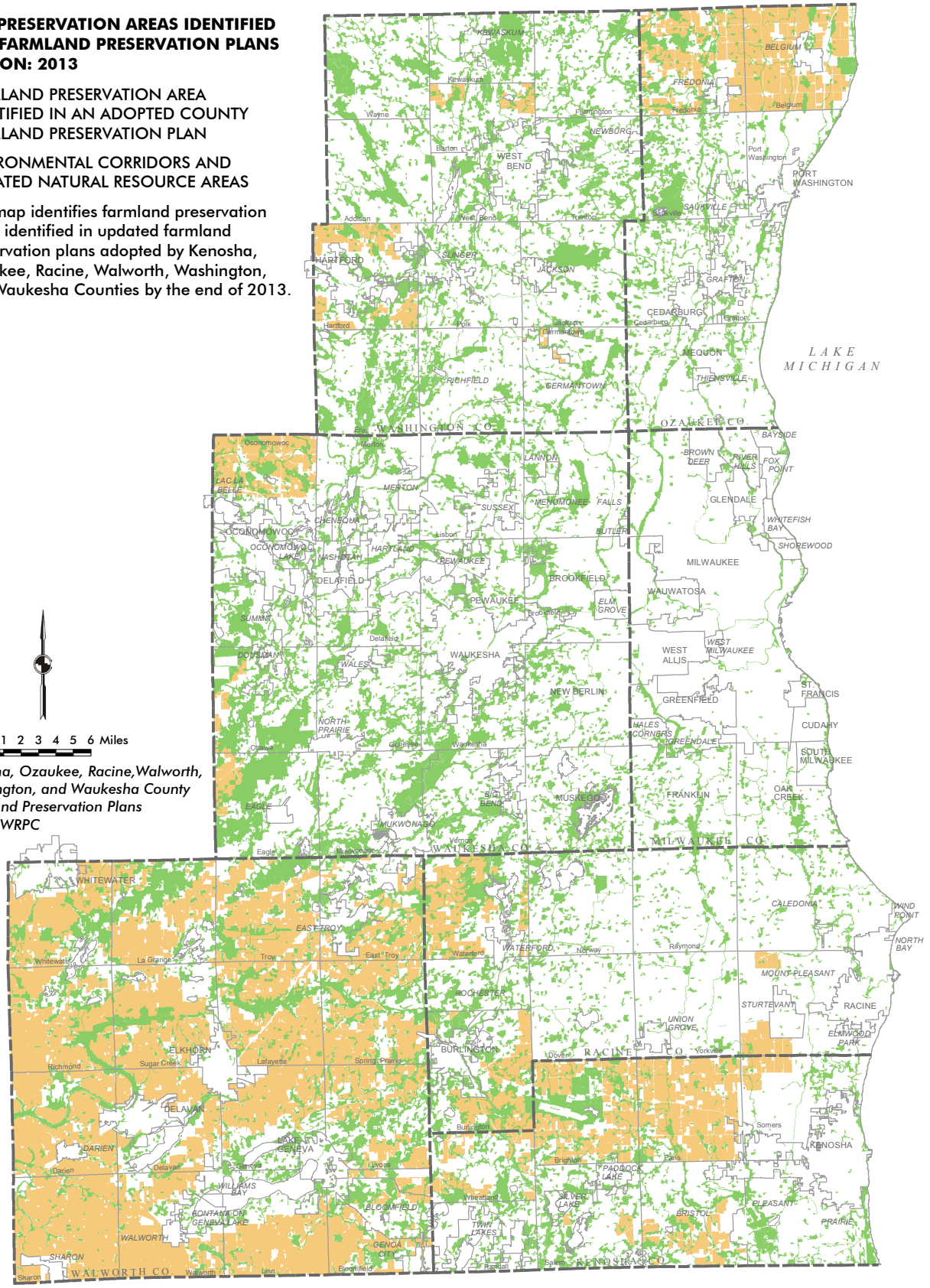
Map 3.7
Farmland Preservation Areas Identified in County Farmland Preservation Plans in the Region: 2013

FARMLAND PRESERVATION AREAS IDENTIFIED IN COUNTY FARMLAND PRESERVATION PLANS IN THE REGION: 2013

FARMLAND PRESERVATION AREA IDENTIFIED IN AN ADOPTED COUNTY FARMLAND PRESERVATION PLAN

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS

Note: This map identifies farmland preservation areas identified in updated farmland preservation plans adopted by Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties by the end of 2013.



Source: Kenosha, Ozaukee, Racine,Walworth, Washington, and Waukesha County Farmland Preservation Plans and SEWRPC

In their local comprehensive plans, many communities have opted for less restrictive agricultural planning districts, often relying on agricultural-rural residential districts, which accommodate more residential development than would be allowed in an exclusive farmland preservation area. While such planning districts serve to maintain rural densities and rural character, they are not as effective as exclusive farmland preservation districts in preserving farmland.

Summary and Conclusions for Part II

Part II of this chapter has provided an overview of the year 2035 regional land use plan and assessment of how well that plan has been implemented, focusing on the key plan recommendations. That assessment indicated the following:

Substantially Implemented Recommendations

- The regional plan recommends that urban development primarily occur in existing urban centers as infill development and redevelopment and within defined urban growth areas adjoining these centers. About 74 percent, or 40 square miles, of the 54 square miles of urban incremental development that occurred in the Region between 2000 and 2010 was consistent with regional plan recommendations.

- The vast majority of housing units constructed in the Region between 2000 and 2010—an estimated 72,100 housing units, or about 86 percent of the estimated total of 84,100 housing units built in the Region during the 2000s—was provided with public sanitary sewer service consistent with regional plan recommendations.

- The regional plan envisions a total of 60 major economic activity centers in the Region in the year 2035. By definition, these sites accommodate at least 3,500 total jobs or 2,000 retail jobs. Forty-five such sites existed in the Region in 2000. The regional plan recommended that these sites continue to serve as major centers and recommended an additional 15 major centers, all but one of which were at some stage of development when the regional plan was adopted. Of the 45 existing major centers in 2000, 44 retained their major center status in 2010.

- The regional plan recommends 32 major parks to serve the Region. Such parks have an area of at least 250 acres and provide opportunities for a variety of resource-oriented outdoor recreation activities. Of the 32 major parks identified in the plan, 24 sites had been substantially acquired and developed for park purposes by 2000. Six other sites experienced significant additional facility development in accordance with the plan during the 2000s, and land was acquired for two new sites recommended in the plan.

- The regional plan recommends the preservation in essentially natural, open use of the Region's primary environmental corridors. About 456 square miles, representing 94 percent of the total of 487 square miles of primary environmental corridors in the Region, were substantially protected from incompatible urban development in 2010.

Partially Implemented Recommendations

- The regional land use plan recommends an increase in residential land consistent with the forecast growth in the Region's population and households. Under the plan, about 23 square miles of land were anticipated to be converted to urban (high-, medium-, and low-density) residential use during the 2000s. The actual increase was about 26 square miles. Less new medium-density residential development and more new low-density residential development occurred than recommended in the plan. The plan envisioned an increase of 18 square miles in medium-density residential land during the 2000s; the actual increase was about 10 square miles. The plan envisioned an increase of about four square miles of low-density residential land; the actual increase was about 13 square miles. The plan also envisioned an increase of about one square mile of high-density residential land; the actual increase was just under three square miles.

- The regional plan would accommodate additional residential development in rural areas on a limited basis, recommending that such development occur at a density of no more than one housing unit per five acres, and be located outside prime agricultural lands. The plan recommends clustering homes at these densities using conservation subdivision design principles. An increase of two square miles of rural density residential land was envisioned during the 2000s; the actual increase was about seven square miles.

- The regional plan recommends that the most productive soils for agricultural purposes—agricultural capability Class I and Class II soil as classified by the U.S. Natural Resources Conservation Service—be preserved for agricultural use insofar as practicable. Under the plan, the conversion of Class I and Class II agricultural land to urban use would be confined, for the most part, to locations within planned urban service areas. Monitoring data indicate that about 15.5 square miles of Class I and Class II agricultural land were converted to urban use during the 2000s in locations consistent with the regional plan, with most of this occurring within planned urban service areas. The data further indicate that about five square miles of Class I and Class II agricultural land were converted to urban use in locations not consistent with the plan.

- Recently, the six counties in the Region that have substantial amounts of agricultural land (Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties) updated and extended their farmland preservation plans, identifying farmland preservation areas that are intended to be reserved for agriculture and agricultural-related uses. While large blocks of Class I and Class II agricultural land have been included in these farmland preservation areas, many farming areas with concentrations of Class I and Class II soils have been excluded. In general, the county farmland preservation plans identify farmland preservation areas only where local government support for preservation has been demonstrated. In their local comprehensive plans, many communities have opted for less restrictive agricultural planning districts, often relying on agricultural-rural residential districts, which accommodate more residential development than would be allowed in an exclusive farmland preservation area. While such planning districts serve to maintain rural densities and rural character, they are not as effective as exclusive farmland preservation districts in preserving farmland.

Unimplemented Recommendation

- The regional plan recommends that new sub-urban density residential development, characterized by single-family homes on lots of two to three acres, should be limited to development that is already committed in subdivision plats and certified surveys. About three square miles of undeveloped land were committed to sub-urban density residential development when the plan was prepared. Over six square miles were converted to sub-urban density residential development during the 2000s.

Conclusions

Implementation of the year 2035 regional land use plan would benefit the Region in several ways. Development would occur in a compact and efficient pattern that is readily served by basic urban services and facilities and maximizes the use of existing urban service and facility systems. Mixed-use development would be accommodated in urban areas to provide for convenience and efficiency in day-to-day activities, including ease and efficiency in travel. The land development needs of the Region would be met while preserving the best remaining elements of the natural resource base and preserving productive farmland.

Several of the key regional plan recommendations were substantially implemented between 2000 and 2010. Almost all of the Region's primary environmental corridors, which contain most of the best remaining woodlands, wetlands, and wildlife habitat areas in the Region, were substantially protected from incompatible urban development in 2010. In addition, most of the new housing units built in the Region between 2000 and 2010 were provided with public sanitary sewer service in accordance with the regional plan and major economic activity centers and regional parks experienced continued development.

Other key recommendations were only partially implemented or not implemented. Much of the new urban development that occurred in the Region between 2000 and 2010 was located in accordance with regional plan recommendations; however, more residential development occurred at lower densities than recommended. New urban development in areas not in accordance with the regional plan was typically low-density and sub-urban density residential development. Over-development of lower density housing has several negative consequences, including:

- Urban development that cannot be efficiently served by urban services such as public sanitary sewer, water supply, and transit services

- Sub-urban residential density development that is neither truly urban nor rural in character that would not generally occur in planned neighborhood units; would not be provided with public sanitary sewerage and water supply facilities; and would receive only minimal public services, such as public safety services

- Higher conversion of agricultural and open land to urban development

- Housing that may not be affordable to area workers because multifamily housing, two-family housing, and smaller single-family homes on smaller lots tend to be more affordable to a wide range of households than larger single-family homes on larger lots

3.4 PART III: REVIEW OF THE 2035 REGIONAL TRANSPORTATION SYSTEM PLAN

This section provides a description of the recommendations of the year 2035 regional transportation plan, an assessment of how well it has been implemented, and a review of the plan's transportation forecasts in comparison to actual trends to date.

The year 2035 regional transportation plan for the seven-county Southeastern Wisconsin Region was completed and adopted by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) in June 2006. The plan was developed under the guidance of the Advisory Committee on Regional Transportation Planning, which unanimously approved the plan in May 2006. The Advisory Committee was established on a population-proportional basis, and included representatives of the seven counties and 147 municipalities of the Region and from the Wisconsin Departments of Transportation and Natural Resources. In addition, representatives from the U.S. Department of Transportation and the U.S. Environmental Protection Agency served on the Committee as non-voting members. The Advisory Committee was responsible for proposing to the Commission, after careful study and evaluation, a recommended regional transportation system plan. The Advisory Committee structure was intended to promote intergovernmental and inter-agency coordination, and to serve as direct liaisons between the Commission planning effort and the local and State governments that will be responsible for implementing the recommended plans. Since its adoption in 2006, the year 2035 regional transportation plan was amended on six occasions:

- In June 2007, the plan was amended at the request of the Southeastern Wisconsin Regional Transit Authority and an Intergovernmental Partnership of the Cities and Counties of Kenosha, Milwaukee, and Racine, the Wisconsin Department of Transportation (WisDOT), and the Commission to add the Kenosha-Racine-Milwaukee commuter rail line following the completion of a transit alternative analysis corridor study/draft environmental impact statement.

- In June 2010, the Commission completed an interim review, update, and reaffirmation of the year 2035 regional transportation system plan, as documented in SEWRPC Memorandum Report No. 197, *Review, Update, and Reaffirmation of the Year 2035 Regional Transportation Plan*, which included amendments to the regional transportation plan. These amendments included the addition to the plan of the Milwaukee downtown streetcar line, the high-speed rail line, and amendments attendant to completed Washington and Walworth County jurisdictional highway system plans. This interim review, update, and reaffirmation also included an assessment of the implementation to date of the regional transportation plan, a review of the forecasts underlying the plan, and a monitoring of transportation system performance. The review also examined whether it remains reasonable for the recommendations in the year 2035 plan to be accomplished over the following 25 years, given implementation of the plan to date and available and anticipated funding.

- In September 2011, the plan was amended at the request of WisDOT to incorporate the improvement from six to eight traffic lanes of STH 100 (North 108th Street/North Mayfair Road) between IH 94 and Watertown Plank Road based on the conclusions of the preliminary engineering and environmental impact analysis for the reconstruction of the Zoo Interchange.

- In September 2012, two amendments to the plan were approved by the Commission. The first amendment involved adding the widening of STH 50 from two to four traffic lanes between CTH F (south) and STH 67, as requested by WisDOT and the Town of Delavan based on conclusions of the preliminary engineering and environmental impact analysis for the reconstruction of STH 50 between IH 43 and STH 67. The second amendment involved the addition of Mound Road between STH 11 and STH 67 to the planned Walworth County arterial street and highway system.

- In December 2012, two amendments to the plan were approved by the Commission. The first amendment involved the addition of an extension of the Lake Parkway (STH 794) as a four-lane surface arterial facility from its current terminus at Edgerton Avenue to STH 100 in Milwaukee County. This amendment was requested by the Milwaukee County Board of Supervisors and Executive based on the results of the Lake Parkway extension study conducted by the Commission staff. This study was guided by an Advisory Committee composed primarily of elected officials that was responsible for making final study recommendations. The second amendment involved the addition of the widening of USH 45/STH 100 from four to six traffic lanes between Drexel Avenue and Rawson Avenue in Milwaukee County, as requested by WisDOT, based on conclusions of the preliminary engineering and environmental impact analysis for the reconstruction of USH 45/STH 100 between St. Martins Road and College Avenue.

- In June 2014, the Commission completed a second interim review, update, and reaffirmation of the year 2035 regional transportation system plan, as documented in SEWRPC Memorandum Report No. 215, *Review and Update of the Year 2035 Regional Transportation Plan*. Only one amendment to the regional transportation plan was made as part of the plan review. This amendment involved the addition to the plan of the conversion of the County Line Road interchange on IH 43 from a half to a full interchange, which was a result of the preliminary engineering completed for the reconstruction of IH 43 between Silver Spring Drive and STH 60. This interim review, update, and reaffirmation also included an assessment of the implementation to date of the regional transportation plan, a review of the forecasts underlying the plan, and a monitoring of transportation system performance. The review as well examined whether it remains reasonable for the recommendations in the year 2035 plan to be accomplished over the next 20 years, given implementation of the plan to date and available and anticipated funding. In 2014, existing funding, and the outlook for future funding, was far more constrained than it was in 2005 during development of the year 2035 regional transportation plan and in 2010 during its first update. As a result, it was no longer possible to conclude that the plan could be implemented by the year 2035 in light of existing and reasonably expected future revenues. Specifically, it was concluded that 164 miles of freeway reconstruction and the Lake Parkway extension between Edgerton Avenue and STH 100 in

Milwaukee County could not be expected to be implemented by the year 2035. With respect to transit, it was concluded that the constraints of existing and reasonably expected available revenues would result in a lack of implementation of any of the improvement and expansion of transit proposed in the plan.

Summary Description of the Year 2035 Regional Transportation System Plan

The development of the year 2035 regional transportation system plan for Southeastern Wisconsin was guided by the following vision for the transportation system of Southeastern Wisconsin:

> *A multimodal transportation system with high quality public transit, bicycle and pedestrian, and arterial street and highway elements which add to the quality of life of Region residents and support and promote expansion of the Region's economy, by providing for convenient, efficient, and safe travel by each mode, while protecting the quality of the Region's natural environment, minimizing disruption of both the natural and manmade environment, and serving to support implementation of the regional land use plan, while minimizing the capital and annual operating costs of the transportation system.*

The development of each plan element of the recommended regional transportation system plan for the year 2035—public transit, bicycle and pedestrian, travel demand management, transportation system management, and arterial streets and highways—built upon the previous regional transportation plan, which had a design year of 2020, recognizing the successful implementation of approximately 15 to 20 percent of each element of the year 2020 plan since the adoption of that plan in 1997.

The 2035 regional transportation plan was designed to serve, and to be consistent with, the 2035 regional land use plan.

The recommended year 2035 regional transportation system plan was designed to serve, and to be consistent with, the year 2035 regional land use plan. Future needs for public transit, street and highway, and other transportation improvements considered in the regional transportation planning process were derived from the projected travel based upon the regional land use plan. In addition, the consistency of the regional transportation and land use plans was evaluated by comparing the accessibility provided under the recommended transportation plan and the location of improvements proposed under the recommended transportation plan to the location of land use development and redevelopment proposed under the land use plan.

The process for the development of the recommended year 2035 regional transportation plan began with consideration and development of the travel demand management, transportation systems management, bicycle and pedestrian, and public transit elements of the plan. Arterial street and highway improvement and expansion was then considered only to address the residual highway traffic volumes and attendant traffic congestion which could not be expected to be alleviated by travel demand management, transportation systems management, bicycle and pedestrian facilities, and public transit.

Discussed in the remainder of this section are the public transit, bicycle and pedestrian facilities, transportation systems management, travel demand management, and arterial street and highway elements of the year 2035

Table 3.6
Public Transit Element of the 2035 Regional Transportation Plan

Average Weekday Transit Service Characteristics	Existing 2005[a]	Recommended Plan 2035	Planned Increment	
			Number	Percent Change
Revenue Vehicle-Miles				
Commuter				
Bus	7,900[b]	21,100	13,200	167.1
Rail	- -	2,200	2,200	- -
Subtotal	7,900[b]	23,300	15,400	194.9
Express	- -	17,000	17,000	- -
Local	61,100	97,000	35,900	58.8
Total	69,000	137,300	68,300	99.0
Revenue Vehicle-Hours				
Commuter				
Bus	350[b]	1,000	650	177.8
Rail	- -	100	100	- -
Subtotal	350[b]	1,100	750	214.3
Express	- -	1,100	1,100	- -
Local	4,750	8,900	4,150	87.4
Total	5,100	11,100	6,000	117.6

[a] *Estimated.*

[b] *Includes the existing commuter bus route operated in the Kenosha-Milwaukee-Racine corridor. While portions of this route operate with express stop spacing, the long trips served by, and average operating speeds of, this route are typical of those for rapid service.*

Source: SEWRPC

regional transportation plan as amended. In addition, safety and security elements were created in 2011, under the guidance of the Advisory Committee on Regional Transportation System Planning, as refinements to the year 2035 regional transportation plan.

Public Transit Element

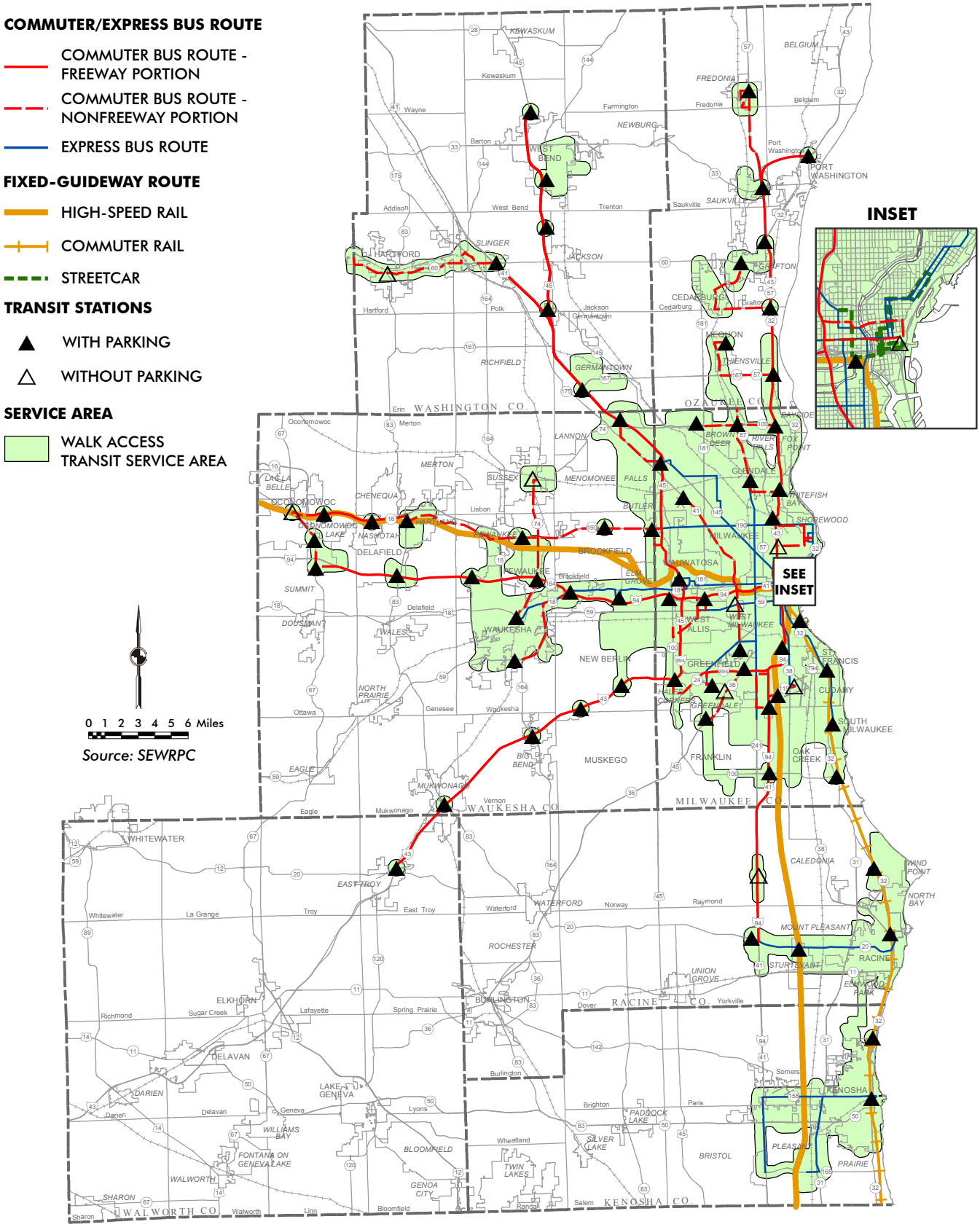
The public transit element of the year 2035 regional transportation system plan envisioned significant improvement and expansion of public transit in Southeastern Wisconsin, including development within the Region of a high-speed rail line, commuter transit and express transit system, improvement of existing local bus service, and the integration of local bus service with the recommended commuter and express transit services. Altogether, service on the regional transit system would be nearly doubled from service levels existing in 2005 measured in terms of revenue transit vehicle-miles of service provided—specifically, from about 69,000 vehicle-miles of service on an average weekday in the year 2005 to 137,300 vehicle-miles of service in the year 2035 (see Table 3.6). The transit recommendations are shown in graphic summary form on Map 3.8 and discussed below by service type.

The public transit element of the 2035 plan envisioned significant improvement and expansion—a near doubling of transit service over 2005 levels.

High-Speed Rail Service

The planned high-speed rail line between Chicago, Milwaukee, and Madison would be developed and overseen by WisDOT, which received Federal funding for the project in January 2010. The planned high-speed rail line is intended to be part of an initial phase in the development of a Midwest high-speed rail network, developed in partnership with other Midwest states and Amtrak. Implementation of the planned Chicago-Milwaukee-Madison high-speed rail service would include improvements to Amtrak's existing Hiawatha Service operating between Chicago and Milwaukee and infrastructure improvements to allow service to continue to Madison, with trains reaching maximum speeds of 110 miles per hour between Milwaukee and Madison.

Map 3.8
Public Transit Element of the 2035 Regional Transportation Plan



Commuter Transit Service

The recommended commuter transit service (formerly referred to as "rapid" transit service) principally consisted of buses operating over freeways connecting the Milwaukee central business district, the urbanized areas of the Region, and the urban centers and outlying counties of the Region. Commuter transit bus service would be provided south to Racine, southwest to Mukwonago and East Troy, west to Waukesha and Oconomowoc, northwest to West Bend and Hartford, and north to Cedarburg, Grafton, Saukville, and Port Washington. The proposed commuter transit system would have the following characteristics:

The 2035 plan recommended developing an integrated transit system that would include high-speed rail, a system of commuter and express routes, and significantly improved local bus service.

- The commuter transit service would be provided by buses with commuter seating and amenities. It would operate in both directions during all time periods of the day and evening, providing both traditional commuter and reverse-commute service.

- The commuter transit service would operate with some intermediate stops spaced about three to five miles apart to increase accessibility to employment centers and to increase accessibility for reverse-commute travel from residential areas within central Milwaukee County. The stops would provide connections with express transit service, local transit service, or shuttle bus or van service to nearby employment centers.

- The service would operate throughout the day. The frequency of service provided would be every 10 to 30 minutes in weekday peak travel periods, and every 30 to 60 minutes in weekday off-peak periods and on weekends.

The recommended commuter transit service also included a commuter rail line connecting Milwaukee, Racine, and Kenosha, as well as the Chicago area through existing Chicago-Kenosha Metra commuter rail. The commuter rail would operate similar to the commuter bus service, providing service at convenient frequencies in both directions throughout the day and evening with stops spaced about three to five miles apart.

An approximate tripling in commuter transit service was recommended as measured by daily vehicle-miles of bus service from the 7,900 vehicle-miles of such service provided on an average weekday in the year 2005 to 23,300 vehicle-miles in the plan design year 2035 (Table 3.6).

Express Transit

The recommended express transit service consisted of a grid of limited-stop, higher-speed routes located largely within Milwaukee County connecting major employment centers and shopping areas, other major activity centers such as General Mitchell International Airport, tourist attractions and entertainment centers, and residential areas. The express routes would replace existing major local bus routes. Stops would typically be spaced about one-quarter mile to one-half mile apart. It was envisioned that this system of limited-stop express service routes would initially consist of buses operating over arterial streets in mixed traffic, and would be upgraded over time to buses operating on reserved street lanes with priority treatment at traffic signals. The planned express routes are shown in blue on Map 3.8.

As envisioned under the plan:

- The express service would operate in both directions during all periods of the day and evening, providing both traditional and reverse-commute service.

- The service would generally operate with a stop spacing of about one-quarter mile to one-half mile.

- The frequency of service provided would be about every 10 minutes during weekday peak periods, and about every 20 to 30 minutes during weekday off-peak periods and on weekends.

- The overall travel speed provided would be about 16 to 18 miles per hour, a significant improvement over the average 12 miles per hour speed provided by the existing local bus transit service.

- No express transit service existed in the Region in 2005. As proposed, about 17,000 vehicle-miles of express transit service would be provided on an average weekday in the Region in the year 2035 (Table 3.6).

- The recommended express service also includes the City of Milwaukee downtown streetcar line.

Local Transit Service
The improvement and expansion of local bus transit service over arterial and collector streets, with frequent stops throughout the Kenosha, Milwaukee, and Racine urbanized areas, was also recommended. Service would be provided on weekdays, and during weekday evenings, Saturdays, and Sundays. An approximately 60 percent increase in local bus service was recommended from about 61,100 vehicle-miles of local bus service provided in 2005 on an average weekday to 97,000 vehicle-miles in the plan design year 2035 (Table 3.6). The recommendations included expansion of service area and hours, and significant improvements in the frequency of local transit service provided, particularly on major local routes.

Paratransit Service
Paratransit service was recommended to be provided consistent with the Federal Americans with Disabilities Act (ADA) of 1990. Under the provisions of this Act, all transit vehicles that provide conventional fixed-route transit service must be accessible to people with disabilities, including those using wheelchairs. All public entities operating fixed-route transit systems must also continue to provide paratransit service to people with disabilities within local transit service areas who are unable to use fixed-route transit services consistent with federally specified eligibility and service requirements. The complementary paratransit services must serve any person with a permanent or temporary disability who is unable independently to board, ride, or disembark from an accessible vehicle used to provide fixed-route transit service; who is capable of using an accessible vehicle, but one is not available for the desired trip; or who is unable to travel to or from the boarding or disembarking location of the fixed-route transit service. The planned paratransit service must be available during the same hours and on the same days as the fixed-route transit service, be provided to eligible persons on a "next-day" trip-reservations basis, not limit service to eligible persons based on restrictions or priorities to trip purpose, and not be operated under capacity constraints which might limit the ability of eligible persons to receive service for a particular trip. The paratransit service fares

must be no more than twice the applicable public transit fare per one-way trip for curb-to-curb service.

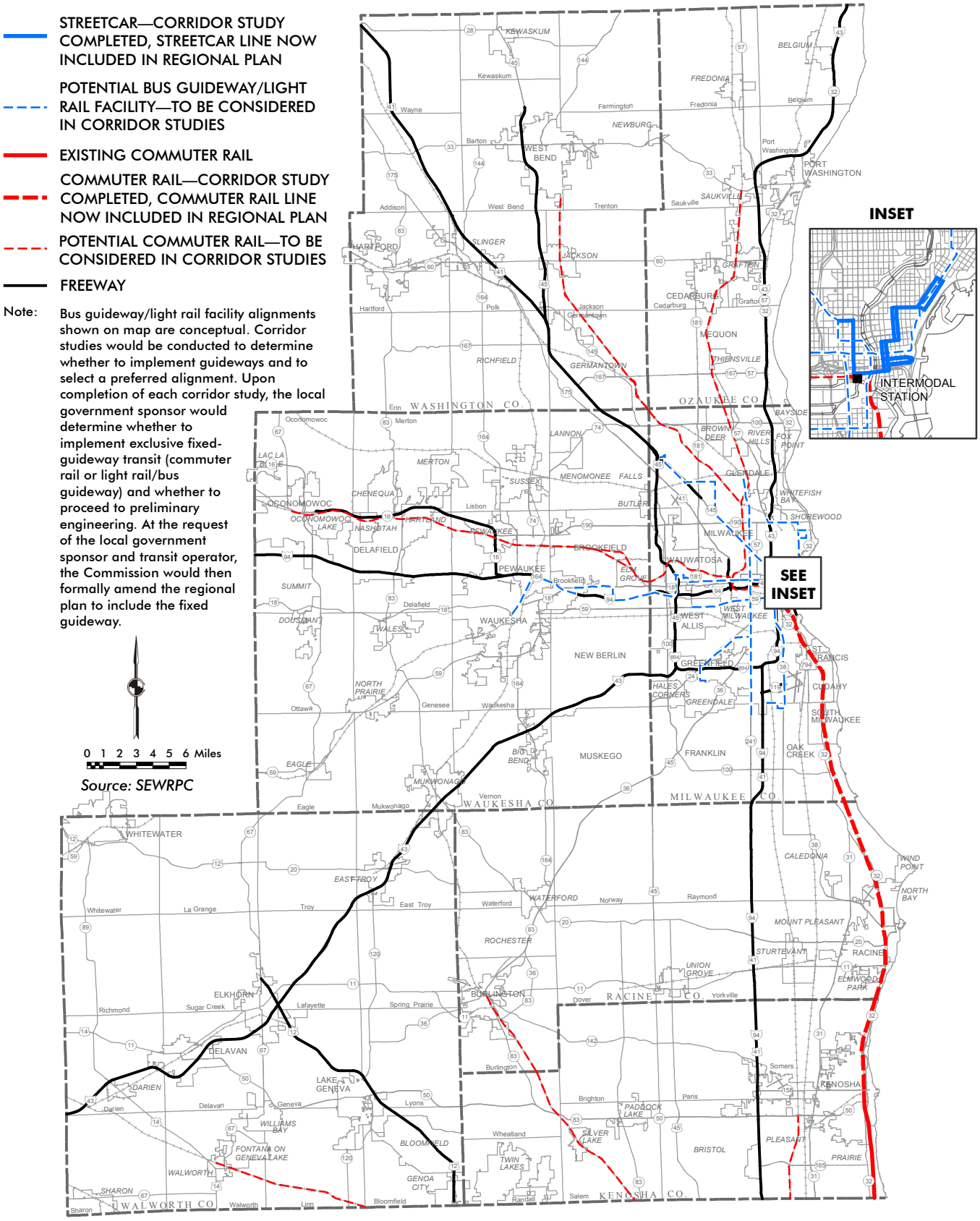
Upgrading to Rail Transit or Bus Guideways
Commuter and express transit service was recommended to initially be provided with buses. This bus service would ultimately be upgraded to commuter rail in six corridors for commuter transit service and to bus guideway or light rail in six corridors for express transit service, as shown on Map 3.9. Public transit cannot offer convenient accessibility or provide an attractive alternative to the automobile in heavily traveled corridors and dense urban activity centers if it is caught in traffic congestion and its travel times are not comparable to those of automobile travel. Upgrading to exclusive guideway transit may also be expected to promote higher density land development and redevelopment at and around the stations of the exclusive guideway transit facilities, promoting implementation of the regional land use plan. The plan recommends that corridor studies be conducted for each potential commuter and express transit guideway corridor. The corridor studies would be conducted by the transit operator concerned, or jointly by the multiple transit operators concerned, to determine whether to implement a fixed-guideway transit alternative in each corridor, and to refine the conceptual guideway alignments shown in the regional plan. At the conclusion of each corridor study, the transit operator would determine whether to implement fixed-guideway transit, and identify the preferred alignment within the corridor that should proceed into preliminary engineering. The Commission would then, at the request of the transit operator(s), revise and amend the regional plan to include the fixed-guideway.

Two studies consider upgrading transit to fixed-guideway transit were underway in Southeastern Wisconsin at the time of regional plan adoption. Milwaukee County, the City of Milwaukee, and the Wisconsin Center District were conducting the Milwaukee downtown connector study, which was evaluating a streetcar line in the central portion of the City of Milwaukee and an express bus transit line in Milwaukee County. Also being studied was a commuter rail line connecting the Kenosha, Racine, and Milwaukee areas. These corridor-level studies for the streetcar and commuter rail line were completed, and the regional plan was amended to include the streetcar line and the commuter rail line.

Bicycle and Pedestrian Element
The bicycle and pedestrian facilities element of the plan was designed to provide for safe accommodation of bicycle and pedestrian travel, encourage bicycle and pedestrian travel, and to provide modal choice. The plan included improvements on, or adjacent to, arterial streets, and off-street networks of bicycle and pedestrian facilities. The plan recommended that as the surface arterial street system of about 3,300 miles is resurfaced and reconstructed segment-by-segment, bicycle accommodation should be considered and implemented, if feasible, through bicycle lanes, widened outside travel lanes, widened shoulders, and separate bicycle paths. The surface arterial street system of the Region provides a network of direct travel routes serving virtually all travel origins and destinations within Southeastern Wisconsin. Arterial streets and highways—particularly those with high-speed traffic or heavy volumes of truck or transit vehicle traffic—require improvements such as extra-wide outside travel lanes, paved shoulders, bicycle lanes, or a separate bicycle path, in order to safely accommodate bicycle travel. Land access and collector streets, because of low traffic volumes and speeds, are capable of accommodating bicycle travel with no special accommodation for bicycle travel.

The plan recommended accommodating bicycles as arterials are resurfaced and reconstructed, and providing a system of off-street paths connecting the Region's cities and villages.

Map 3.9
Potential Commuter Rail and Express Transit Bus Guideway/ Light Rail Lines Under the 2035 Regional Transportation Plan



The level and unit of government responsible for constructing and maintaining the surface arterial street or highway should have responsibility for constructing, maintaining, and funding the associated bicycle facility. A detailed evaluation of the alternatives for accommodation of bicycles on surface arterial streets or highways should necessarily be conducted by the responsible level and unit of government as part of the engineering for the resurfacing, reconstruction, and new construction of each segment of surface arterial.

The plan also recommends that a system of off-street bicycle paths be provided between the Kenosha, Milwaukee, and Racine urbanized areas and the cities and villages within the Region with a population of 5,000 or more located outside these three urbanized areas. This system of off-street bicycle paths was initially also proposed in the adopted park and open space plans prepared by the Commission for each of the seven counties of the Region. These off-street bicycle paths would be located in natural resource and utility corridors and are intended to provide reasonably direct connections between the Region's urbanized and small urban areas on safe and aesthetically attractive routes with separation from motor vehicle traffic. Some on-street bicycle connections would be required to connect segments of this system of off-street paths. These connections if provided over surface arterials would include some type of bicycle accommodation—paved shoulders, extra-wide outside travel lanes, bicycle lanes, or separate parallel bicycle paths—or if provided over a nonarterial collector or land access street would require no special accommodation. The proposed system of on- and off-street bicycle facilities is shown on Map 3.10, and includes 548 miles of off-street bicycle and pedestrian paths intended for seasonal use, along with 168 miles of surface arterial and 89 miles of nonarterial connections. Approximately 203 miles of the planned 548 miles of off-street bicycle paths were in existence in 2005 during preparation of the plan. Also shown on Map 3.10 is the surface arterial street and highway system within the Region proposed to be provided with bicycle accommodation.

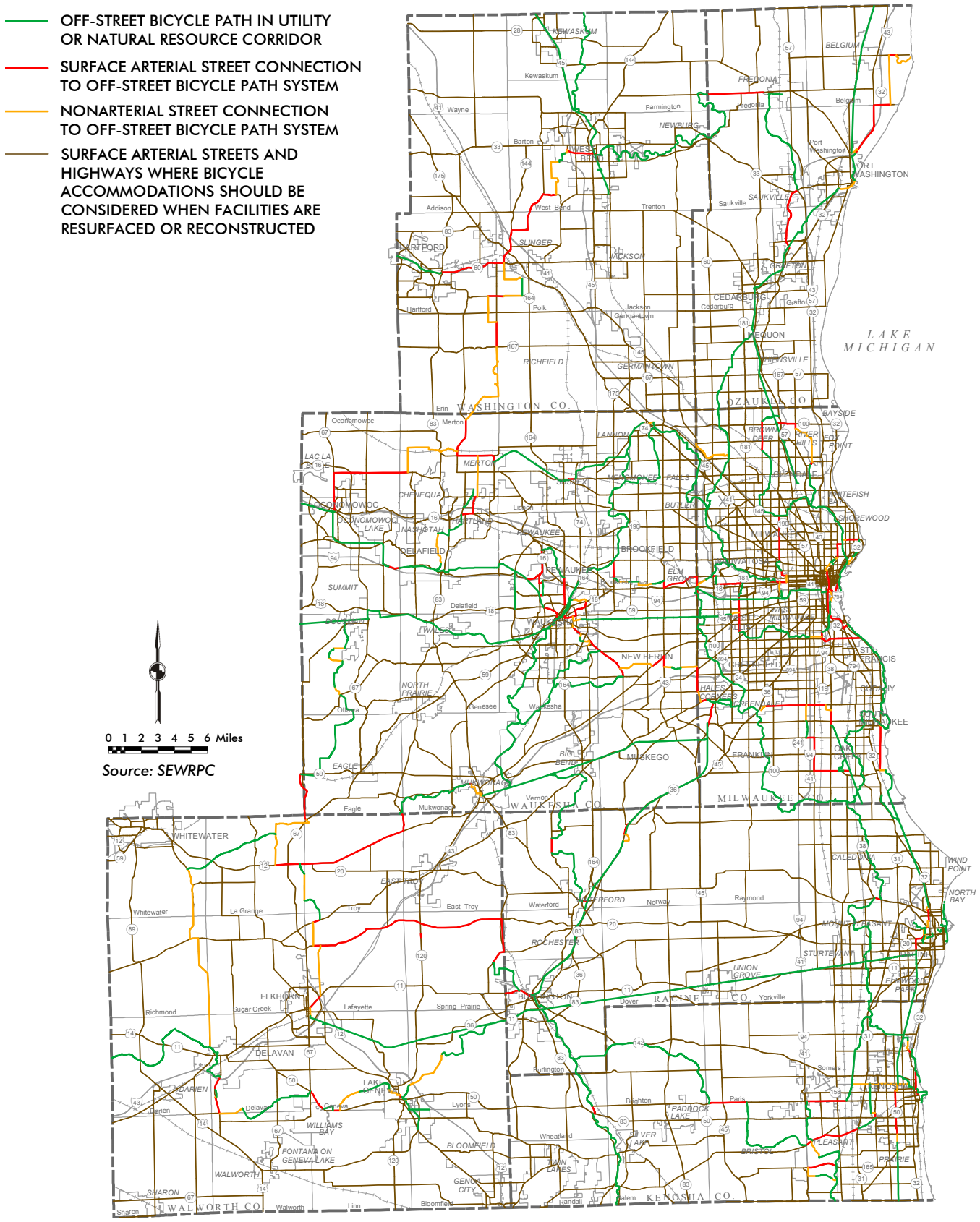
Pedestrian Facilities

The pedestrian facilities portion of the recommended bicycle and pedestrian facilities plan element is a policy plan, rather than a system plan. It recommends that the various units and agencies of government responsible for the construction and maintenance of pedestrian facilities in Southeastern Wisconsin adopt and follow a series of recommended standards and guidelines with regard to the development of those facilities, particularly within planned neighborhood units. These standards include the provision of sidewalks in the urban portions of the Region.

Community Bicycle and Pedestrian Plans

The plan also recommends that local units of government prepare community bicycle and pedestrian plans to supplement the regional plan. The local plans should provide for facilities to accommodate bicycle and pedestrian travel within neighborhoods, providing for convenient travel between residential areas and shopping centers, schools, parks, and transit stops within or adjacent to the neighborhood. It also recommends that local units of government consider the preparation and implementation of land use plans that encourage more compact and dense development patterns, in order to facilitate pedestrian and bicycle travel.

Map 3.10
Off-Street Bicycle Paths and Surface Arterial Street and Highway System Bicycle Accommodation Under the 2035 Regional Transportation Plan



Source: SEWRPC

Transportation Systems Management Element

The transportation systems management (TSM) element of the plan included measures intended to manage and operate existing transportation facilities to their maximum carrying capacity and travel efficiency, including: freeway traffic management, surface arterial street and highway traffic management, major activity center parking management and guidance, and the preparation of a regional transportation operations plan.

Transportation systems management measures were recommended to maximize the transportation system's carrying capacity and travel efficiency.

Freeway Traffic Management

Recommended measures to improve the operation and management of the regional freeway system included operational control, advisory information, and incident management measures, as well as a traffic operations center supporting these measures. Essential to achieving freeway operational control, advisory information, and incident management is the WisDOT traffic operations center (TOC) in the City of Milwaukee. At the TOC all freeway segments in the Milwaukee area are monitored, freeway operational control and advisory information is determined, and incident management detection and confirmation is conducted. The TOC is important to the safe and efficient operation of the regional freeway system and is in operation 365 days a year, 24 hours a day.

Operational Control

Measures to improve freeway operation—both during average weekday peak traffic periods and during minor and major incidents—through monitoring of freeway operating conditions and control of entering freeway traffic were envisioned to include traffic detectors, freeway on-ramp-meters, and ramp-meter control strategy. Traffic detectors measure the speed, volume, and density of freeway traffic, and are used for operational control, advisory information, and incident management. Existing freeway system traffic detectors in 2006 consisted of detectors embedded in the pavement at one-half mile intervals on the freeways in Milwaukee County and on IH 94 in Waukesha County, and at about one- to two-mile intervals on IH 94 in Kenosha and Racine Counties. The data collected from these traffic detectors were monitored by WisDOT at the TOC for the purposes of detecting freeway system travel speed and time, traffic congestion, traffic flow breakdowns, and incidents. Freeway ramp meter traffic entry rates could be modified based upon the traffic volume and congestion indicated by the traffic detectors. Travel information on traffic congestion and delays were provided to freeway system users through the WisDOT website and on variable message signs. Traffic speeds and congestion indicated by traffic detectors could instantaneously identify the presence of a freeway incident. It was recommended that existing freeway system traffic detectors be maintained, and that traffic detectors be installed on the freeway system throughout the Region at one-half mile intervals as the freeway system was reconstructed. The only exceptions for installing detectors on freeway segments were identified as those segments with current and expected future traffic volumes which would be substantially less than freeway traffic carrying design capacity, including IH 43 north of STH 57 in Ozaukee County, USH 45 north of the Richfield Interchange, USH 41 north of STH 60 in Washington County, and IH 43 and USH 12 in Walworth County.

Ramp-meters are traffic signals located on freeway entrance ramps or, in some cases, freeway-to-freeway entrance ramps, and are used to control the rate of entry of vehicles onto a freeway segment to achieve more efficient operation of the adjacent freeway segment and the downstream freeway system. To encourage ridesharing and transit use, preferential access for high-occupancy vehicles is provided at ramp-meter locations to allow the

high-occupancy vehicles to bypass traffic waiting at a ramp-metering signal. In 2006, there were 120 freeway on-ramps in the Milwaukee area equipped with ramp-meters. Buses and high-occupancy vehicles received preferential access at 62 of the 120 on-ramp-meter locations. It was recommended that as the freeway system is reconstructed, ramp-meters be installed on all freeway on-ramps within the Region, with high-occupancy vehicle preferential access provided at these metered ramps, particularly those that would be used by existing and planned public transit. The only exception for ramp-meter installation would be those freeway segments identified above which would be expected to carry current and future traffic volumes below their design capacity.

Another element of freeway operational control was the strategy used in the operational control of ramp-meters. The existing ramp-meters on the Southeastern Wisconsin freeway system were controlled in two ways. Some were controlled in a "pre-timed" mode, operating during specified peak traffic hours of the weekday at specified release rates of vehicles. Others were controlled as well during specified peak traffic hours of the weekday, but the vehicle release rates were based upon adjacent freeway system traffic volume and congestion. It was recommended that the strategy of controlling ramp-meters through consideration of adjacent congestion be expanded throughout the freeway system and that an operational control strategy that would consider downstream freeway traffic congestion and seek to minimize total travel delay on the freeway system while providing for equitable average and maximum delays at each ramp-meter and avoiding the extension of vehicle queues onto surface streets. It was also recommended that the need for expanded vehicle storage on freeway on-ramps be considered, and addressed, during the reconstruction of the regional freeway system.

Advisory Information Measures

Providing advisory information to motorists was envisioned as an integral part of providing an efficient street and highway system. By providing information on current travel conditions, motorists could choose travel routes that were more efficient for their travel, resulting in a more efficient transportation system. Advisory information measures included permanent variable message signs (VMS), the WisDOT website, and provision of information to the media. WisDOT used the permanent VMS to provide real-time information to travelers about downstream freeway traffic conditions, such as current travel times to selected areas, information about lane and ramp closures, and where travel delays begin and end. In 2006, there were 23 permanent VMS located on the freeway system, primarily in the Milwaukee area, and 13 on surface arterials that connected with the freeway system primarily located in western Milwaukee County. It was recommended that variable message signs be provided on the entire freeway system as the freeway system is reconstructed, and on surface arterials leading to the most heavily used freeway system on-ramps.

WisDOT also provided substantial information about current freeway system traffic conditions on a website using data collected from freeway system traffic detectors. The information included maps depicting the current level of freeway traffic congestion and the locations of confirmed incidents, views of freeway system traffic available from the freeway system closed-circuit television camera network, and current travel times and delays on the major freeway segments in the Milwaukee area. The data on the website were also available to the media and used in daily radio and television broadcasts. It was recommended that WisDOT continue to enhance and expand the information provided on its website and to the media, and consider

deployment of a regional 511 traveler information system, which would allow the public to dial "511" and receive automated messages about current travel conditions along their desired route through a series of predetermined automated menus.

Incident Management Measures

Incident management measures have as their objective the timely detection, confirmation, and removal of freeway incidents. As noted earlier, the WisDOT freeway system TOC and freeway system traffic volume detectors were identified as essential to incident management, as well as freeway operational control and advisory information. Other incident management measures recommended were closed-circuit television, enhanced freeway location reference markers, freeway service patrols, crash investigation sites, the Traffic Incident Management Enhancement Program, ramp closure devices, and alternate route designations.

Closed-circuit television (CCTV) cameras provide live video images to WisDOT and the Milwaukee County Sheriff's Department, allowing for the rapid confirmation of congested areas and the presence of an incident, and immediate determination of the appropriate response to the incident and direction of the proper equipment to be deployed in response to the incident. In 2006 there were 83 closed-circuit television cameras on the Southeastern Wisconsin freeway system covering Milwaukee County freeways, IH 94 and USH 41/45 in eastern Waukesha County, and IH 94 in Kenosha and Racine Counties. It was recommended that the CCTV camera network be provided on the entire regional freeway system as the freeway system is reconstructed, with the possible exception of the freeway segments identified earlier that carry existing and future traffic volumes well below their design capacity.

Enhanced reference markers assist motorists in identifying specific locations along a freeway segment when reporting incidents. These markers typically are small signs provided at one-tenth mile intervals along the freeway system that display the highway shield and mile marker. Enhanced reference markers were provided in 2006 in Milwaukee County in the freeway median at each one-tenth mile on USH 45 from the Zoo Interchange to the Milwaukee-Waukesha County line, and on IH 94 from the Mitchell Interchange to the Illinois-Wisconsin State line, including the freeway segments of IH 94 in Kenosha and Racine Counties. It was recommended that enhanced reference markers be provided on the entire regional freeway system as the freeway system is reconstructed.

Freeway service patrols provide for rapid removal of disabled vehicles and initial response to clearing incidents. Freeway service patrols consist of specially equipped vehicles designed to assist disabled motorists and assist in clearance of incidents. Freeway service patrol vehicles may be equipped to provide limited towing assistance, as well as minor services such as fuel, oil, water, and minor mechanical repairs. In 2006, freeway service patrols operated in a limited role on the Milwaukee County freeway system and on IH 94 in Kenosha, Racine, and Waukesha Counties. In each of these four counties, service patrols operated during weekday peak traffic periods. In Milwaukee County, service patrols also operated all day during weekdays, and in Kenosha and Racine Counties, service patrols also operated all day during weekends. In Kenosha, Racine, and Waukesha Counties, one service patrol vehicle served 12 to 15 miles of freeways, and in Milwaukee County, one service patrol vehicle served 70 miles of freeways. Expansion of the freeway service patrol was recommended to serve the entire regional freeway system, and to provide greater coverage including all day weekday

and weekend service, evening service, and increased vehicle coverage of one vehicle per 12 to 15 miles of freeway.

Crash investigation sites are designated safe zones for distressed motorists to relocate to if they are involved in a crash or an incident on the freeway. In 2006, there were 35 crash investigation sites on the southeastern Wisconsin freeway system, with the largest concentration—24 of the 35, or about 69 percent—located on the system in Milwaukee County. It was recommended that as the freeway system is reconstructed, WisDOT evaluate the extent of use and attendant benefits of existing crash investigation sites, and consider expansion as needed to serve the entire regional freeway system.

The Traffic Incident Management Enhancement (TIME) Program, sponsored by WisDOT, has served to bring together and coordinate the transportation engineering, law enforcement, media, emergency responders, transit, tow and recovery, and other freeway system operational interests at monthly meetings. The goals of the TIME program are to improve and enhance freeway incident management, improve freeway safety, and enhance the quality and efficiency of freeway travel. It was recommended that the TIME program continue to be operated and sponsored by WisDOT.

Ramp closure devices were deployed in 2006 on IH 94 in Kenosha, Racine, and Waukesha Counties. The ramp closure devices were either Type III barricades or swing arm gates. These ramp closure devices allow for the closure of freeway on-ramps during planned and unplanned major incidents, such as special events and severe inclement weather. It was recommended that WisDOT evaluate the use and attendant benefits of existing ramp closure devices, and consider their application throughout the Region.

Alternate routes are designated, clearly marked, and signed surface arterial street and highway routes which generally parallel freeway segments. These routes would be intended to be used by motorists during major freeway incidents and ramp closures and during particularly extreme congestion. Motorists would be directed through advisory information to these routes during major incidents and periods of particularly extreme congestion. It was recommended that WisDOT and the Regional Planning Commission, together with the concerned and affected local governments, examine the potential for the designation of alternative routes, and consider implementation of a pilot effort in a designated corridor.

Surface Arterial Street and Highway Traffic Management
This group of recommended transportation system management measures would attempt to improve the operation and management of the regional surface arterial street and highway network, and include improved traffic signal coordination, intersection traffic engineering improvements, curb lane parking restrictions, access management, and advisory information.

Coordinated traffic signal systems provide for the efficient progression of traffic along arterial streets and highways, allowing motorists to travel through multiple signalized intersections along an arterial route at the speed limit and minimizing or eliminating the number of stops at signalized intersections. In the Region, coordinated traffic signal systems generally ranged from systems comprising two traffic signals to systems comprising about 100 traffic signals. Approximately 1,100 of the 1,700 traffic signals in the Region, or about 65 percent, were part of a coordinated signal system in

2006. It was recommended that Commission staff work with State and local government to document existing and planned arterial street and highway system traffic signals and traffic signal systems, and develop recommendations for improvement and expansion of coordinated signal systems.

It was also recommended that State and local governments aggressively consider and implement needed individual arterial street and highway intersection improvements, such as adding right- and/or left-turn lanes; improvements in the type of traffic control deployed at the intersection, including two- or four-way stop control, roundabouts, or signalization; or improvements in signal timing at individual signalized intersections. This measure proposed that State, county, and municipal governments each prepare a prioritized short-range (two- to six-year) program of arterial street and highway intersection improvements under their jurisdiction, pursue aggressive implementation of the programs, and review and update the programs every two to five years.

It was also recommended that local governments consider implementation of curb-lane parking restrictions during peak traffic periods in the peak traffic direction as traffic volumes and congestion increase. These parking restrictions would be implemented instead of widening arterial streets with additional lanes or constructing of new arterial streets.

Access management was also recommended to improve transportation systems operations and provide for full use of roadway capacity. Access management involves applying standards for the location, spacing, and operation of driveways, median openings, and street connections. It was proposed that State, county, and municipal governmental units with arterial streets and highways under their jurisdiction adopt access management standards, consider and implement these standards as development takes place along arterials under their jurisdiction, and prepare and implement access management plans along arterials that currently are developed and have access that violates these standards.

Advisory information should also be provided to motorists concerning the surface arterial street and highway network in the Region. It was recommended that WisDOT improve and expand the data provided on its website (travel times, congestion maps, and camera images) concerning freeway travel to include surface arterial street and highway travel, beginning with the pilot route designated as an alternative route to a segment of the freeway system.

Major Activity Center Parking Management and Guidance

Another recommended transportation system management measure would attempt to improve traffic operation conditions by reducing the traffic circulation of motorists seeking parking in major activity centers. The City of Milwaukee in 2006 had an initiative to construct a SummerFest shuttle bus parking management and guidance system. This initiative would provide static and dynamic signing indicating the location of parking structures and the availability of parking in those structures for a number of parking structures in the central business district (CBD) that are near SummerFest shuttle bus routes. This recommended measure supported the City of Milwaukee initiative and proposed expansion of parking management and guidance systems to incorporate all of the Milwaukee CBD at all times of the year.

Regional Transportation Operations Plan
The regional transportation plan also recommended the preparation of a regional transportation operation plan (RTOP). The RTOP would program high priority short-range (three- to five-year) operational improvement projects for implementation, in part based upon the TSM recommendations in the regional transportation plan.

Travel Demand Management
The travel demand management (TDM) measures included in the recommended year 2035 regional transportation plan were intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. These measures were in addition to the public transit and pedestrian and bicycle plan elements previously described.

Travel demand management measures were recommended to make efficient use of the existing capacity of the transportation system by reducing personal and vehicular travel or shifting it to alternative times and routes.

Seven categories of TDM measures were recommended in the year 2035 plan: high-occupancy vehicle preferential treatment, park-ride lots, transit pricing, personal vehicle pricing, TDM promotion, transit information and marketing, and detailed site-specific neighborhood and major activity center land use plans.

High-Occupancy Vehicle Preferential Treatment
This group of recommended TDM measures would attempt to provide preferential treatment for transit vehicles, vanpools, and carpools on the existing arterial street and highway system. The recommended preferential treatment category consisted of four specific TDM measures: the provision of high-occupancy vehicle (HOV) queue bypass lanes at metered freeway on-ramps; reserved bus lanes along congested surface arterial streets and highways; transit priority signal systems; and preferential carpool and vanpool parking.

The provision of HOV queue bypass lanes at metered freeway on-ramps existed at 62 of the 120 metered freeway on-ramp locations within the Milwaukee area. The TDM measure recommended that consideration be given during freeway system reconstruction to providing HOV bypass lanes at all metered freeway on-ramps within the Region, dependent upon right-of-ways and on-ramp geometric design constraints. For this measure to be truly effective, strict enforcement of HOV bypass lanes would be required.

Reserved bus lanes similar to those along Blue Mound Road in Waukesha County allow transit vehicles to bypass vehicle queues attendant to traffic signals on congested arterial streets and highways. These reserved lanes may be expected to reduce transit travel times and improve transit travel time reliability during peak travel periods. This recommended TDM measure would expand the use of reserved bus lanes throughout the Region on the congested surface arterial streets and highways that currently accommodate, or may be expected to accommodate, express and major local transit routes, and on the surface arterial portion of commuter transit routes.

The third recommended TDM measure within the high-occupancy vehicle preferential treatment category was transit priority signal systems. This recommended measure would allow transit vehicles to extend the end of the green phase of traffic signals as they approach a signalized intersection. This recommended measure would include transit priority signal systems along all express and major local transit routes, and the surface arterial portion of commuter transit routes within the Region.

The fourth recommended TDM measure within the high-occupancy vehicle preferential treatment category was preferential carpool and vanpool parking. This recommended measure was voluntary and proposed that employers providing free/subsidized parking for their employees consider providing and enforcing preferential parking for those employees who carpool or vanpool to the employment site. This recommended measure may reduce vehicle trips by encouraging ridesharing.

Park-Ride Lots
To promote carpooling and the resultant more efficient use of the Region's transportation system, a network of park-ride lots was recommended to facilitate carpooling. Map 3.11 shows the recommended system of park-ride lots, including existing park-ride lots and those recommended to be served by transit. Park-ride lots were recommended along all major routes at their major intersections and interchanges where sufficient demand may be expected to warrant provision of an off-street parking facility.

Transit Pricing
This group of recommended TDM measures would build upon existing transit pricing programs conducted by the transit operators in the Region. The recommended transit pricing category consisted of three TDM measures: annual transit pass programs, monthly or weekly pass programs, and vanpool programs.

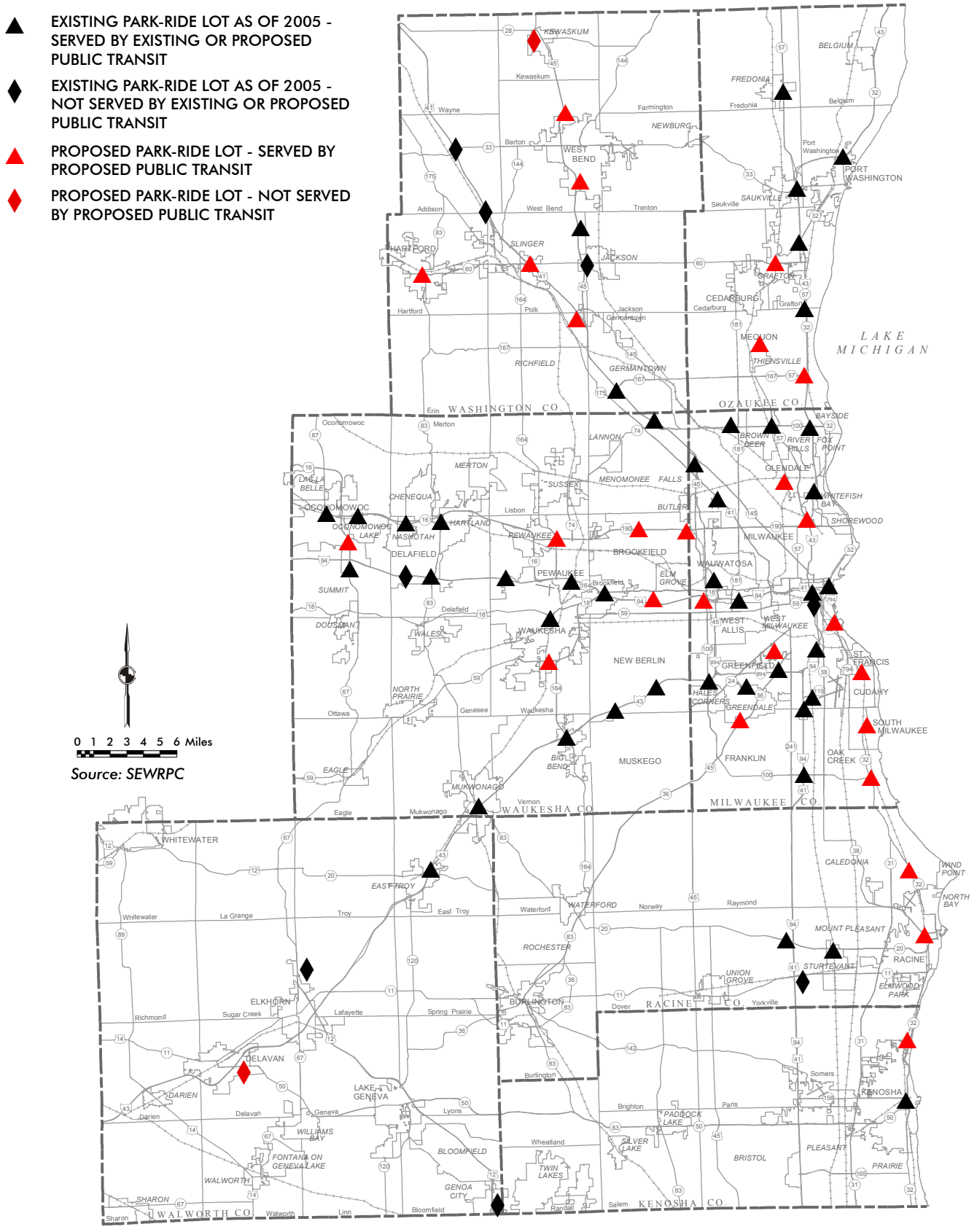
The Milwaukee County Transit System (MCTS) had implemented a pass system at four colleges and universities that provided for free transit use with a reduced fee included in student tuition and fees. This annual transit pass program was envisioned to be expanded to include the other local public transit operators in the Region and additional colleges and universities in the Region. This annual pass program would also be expanded to employers, with the Region's transit operators negotiating an annual fee with individual employers, which would allow those employers to provide each employee with an annual transit pass.

Monthly or weekly discount pass programs existed for three of the Region's public transit operators—MCTS, the Racine Belle Urban System, and the Waukesha Metro Transit System. This recommended monthly or weekly pass program allowed employers to offer their employees discounted monthly or weekly passes, where the employer and the transit operator have negotiated an agreement to each subsidize a portion of the monthly or weekly pass.

The third proposed TDM measure within the transit pricing category was expansion of vanpool programs, in which a group of employees who live in the same general area split the operation, maintenance, and a portion of the capital costs of a van. MCTS operated a vanpool program with about 20 vanpools, with vanpool users paying 20 percent of the capital costs of a van. The MCTS vanpool program required one end of the work trip to be in Kenosha, Milwaukee, Ozaukee, Racine, Washington, or Waukesha Counties, and that one end of the work trip was outside the regular MCTS service area.

Personal Vehicle Pricing
The recommended personal vehicle pricing group of TDM measures proposed to allocate a larger percentage of the full costs of construction, maintenance, and operation of street and highway facilities and services directly on the users of the system. The proposed personal vehicle pricing category consisted of two specific TDM measures—cash-out of employer-paid parking, and auto pricing.

Map 3.11
Recommended Park-Ride Lots Under the 2035 Regional Transportation Plan



Cash-out of employer-paid parking would recommend that employers currently providing free/subsidized parking to employees would voluntarily begin charging their employees the market value of parking. Employers could offset the additional cost of parking through cash payment or salary increases to employees. This recommended measure would potentially reduce vehicle-trips and vehicle-miles of travel through the increased use of transit, ridesharing, walking, and bicycling, as some employees may "pocket" the cash payment and use other modes of travel.

The second recommended TDM measure within the personal vehicle pricing category encouraged the continued and expanded use of user fees to pay the costs of construction, maintenance, and operation of street and highway facilities and services. Currently, user fees primarily include the Federal and State motor fuel tax and vehicle registration fees. These user fees funded about 100 percent of the costs associated with State highways and about 20 to 25 percent of the costs associated with county and municipal streets and highways. There is substantial and growing opposition to increases in motor fuel taxes. In addition, there is the potential in the future for technological advances, such as increased fuel efficiency and alternative fuels, to render the current motor fuel tax obsolete. However, there is merit in having the users of the transportation system pay the actual costs of constructing, maintaining, and operating the transportation system. Travel behavior is affected by the cost of travel, and user fees can encourage more efficient travel.

Travel Demand Management Promotion
A regionwide program to aggressively promote transit use, bicycle use, ridesharing, pedestrian travel, telecommuting, and work-time rescheduling, including compressed work weeks, was recommended to encourage alternatives to drive-alone personal vehicle travel. The program would include education, marketing, and promotion elements.

Transit Information and Marketing
Recommended transit information and marketing measures would include the continuation and expansion of the joint marketing efforts of the transit operators within Southeastern Wisconsin. It was also recommended that a single website be developed in which transit users could access all necessary information for each transit system in Southeastern Wisconsin. This recommended website would allow a potential transit user to enter such information as beginning and ending addresses of a desired trip within the Region, and then would display the most feasible transit routing of the desired trip including all fares, transfers, and schedules.

The third recommended transit information and marketing measure was real-time travel information. This recommended measure would utilize global positioning system (GPS) data to provide real-time transit information to transit riders at transit centers and transit stops, including transit vehicle arrival times and real-time maps showing where on the route a transit vehicle is currently located.

Detailed Site-Specific Neighborhood and
Major Activity Center Land Use Plans
The preparation and implementation by local governmental units of detailed, site-specific neighborhood and major activity center plans to facilitate travel by transit, bicycle, and pedestrian movement and reduce dependence on automobile travel was recommended, and was also recommended in the 2035 regional land use plan.

Highway improvements were recommended only to address residual traffic congestion not addressed by other measures, with 10% of the arterial system including additional lanes and 2% made up of new facilities.

Arterial Street and Highway System

The arterial street and highway element of the recommended year 2035 regional transportation plan as amended totaled 3,662 route-miles. Approximately 88 percent, or 3,209 of these route-miles, were recommended to be resurfaced and reconstructed to their same capacity. Approximately 360 route-miles, or 10 percent of the total recommended year 2035 arterial street and highway system, were recommended for widening upon reconstruction to provide additional through traffic lanes, including 127 miles of freeways. The remaining 93 route-miles, or about 2 percent of the total arterial street mileage, were proposed new arterial facilities. Thus, the plan recommendations envisioned over the next 30 years (following adoption of the plan) capacity expansion of 12 percent of the total arterial system, and viewed in terms of added lane-miles of arterials about a 10 percent expansion over that 30-year period.

Table 3.7 and Maps 3.12 through 3.18 display the recommended year 2035 regional transportation plan arterial street preservation, improvement, and expansion by county. Highway improvements were recommended to address the residual congestion that may not be expected to be alleviated by recommended land use, TSM, TDM, bicycle and pedestrian facilities, and public transit measures in the recommended plan. Each recommended arterial street and highway improvement, expansion, and preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies would consider alternatives and impacts, and final decisions as to whether and how a planned project will proceed to implementation would be made by the responsible State, county, or municipal government at the conclusion of preliminary engineering.

The 127 miles of freeway widening proposed in the plan, and, in particular, the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette Interchanges and IH 43 between the Mitchell and Silver Spring Interchanges), would undergo preliminary engineering and environmental impact statement by WisDOT. During preliminary engineering, alternatives would be considered, including rebuild-as-is, various options of rebuilding to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of the preliminary engineering would a determination be made as to how the freeway would be reconstructed.

Safety and Security Elements

In 2011, two additional elements of the plan were created under the guidance of the Advisory Committee on Regional Transportation System Planning to specifically address transportation safety and security. These elements provide a refinement of the adopted plan, along with specific recommendations to enhance the safety and security of the Region's transportation system.

Safety

The safety element contained a review of the transportation safety objectives, principles, and standards documented in the year 2035 regional transportation plan adopted in 2006, along with presenting a proposed expanded set of transportation safety objectives, principles, and standards. The safety element also included listing and discussion of the year 2035 regional transportation plan recommends that advance transportation safety. In addition, the element included recommendations for improved traffic crash and safety data, and recommendations for further study and improvements on those roadway segments with the most severe safety problems.

Table 3.7
Arterial Street and Highway System Preservation, Improvement, and Expansion by Arterial Facility Type by County: 2035 Regional Transportation Plan as Amended

County	System Preservation (miles)	System Improvement (miles)	System Expansion (miles)	Total Miles
Kenosha				
Freeway	0.0	12.0	0.0	12.0
Standard Arterial	312.3	33.7	3.3	349.3
Subtotal	312.3	45.7	3.3	361.3
Milwaukee				
Freeway	11.6	54.8	0.0	66.4
Standard Arterial	700.6	32.3	8.0	740.9
Subtotal	712.2	87.1	8.0	807.3
Ozaukee				
Freeway	12.1	15.3	0.0	27.4
Standard Arterial	260.1	20.8	3.0	283.9
Subtotal	272.2	36.1	3.0	311.3
Racine				
Freeway	0.0	12.0	0.0	12.0
Standard Arterial	392.2	19.5	21.6	433.3
Subtotal	392.2	31.5	21.6	445.3
Walworth				
Freeway	50.4	4.5[a]	12.7	67.6[a]
Standard Arterial	404.0	5.5	12.0	421.5
Subtotal	454.4	10.0	24.7	489.1
Washington				
Freeway	36.2	6.5	0.0	42.7
Standard Arterial	378.8	17.0	22.1	417.9
Subtotal	415.0	23.5	22.1	460.6
Waukesha				
Freeway	32.2	26.5	0.0	58.7
Standard Arterial	618.6	99.6	10.4	728.6
Subtotal	650.8	126.1	10.4	787.3
Region				
Freeway	142.5	131.6	12.7	286.8[b]
Standard Arterial	3,066.6	228.4	80.4	3,375.4
Total	3,209.1	360.0	93.1	3,662.2

[a] *Includes the planned conversion of approximately 4.5 miles of the USH 12 Whitewater bypass, currently a two traffic lane surface arterial to a four traffic lane freeway.*

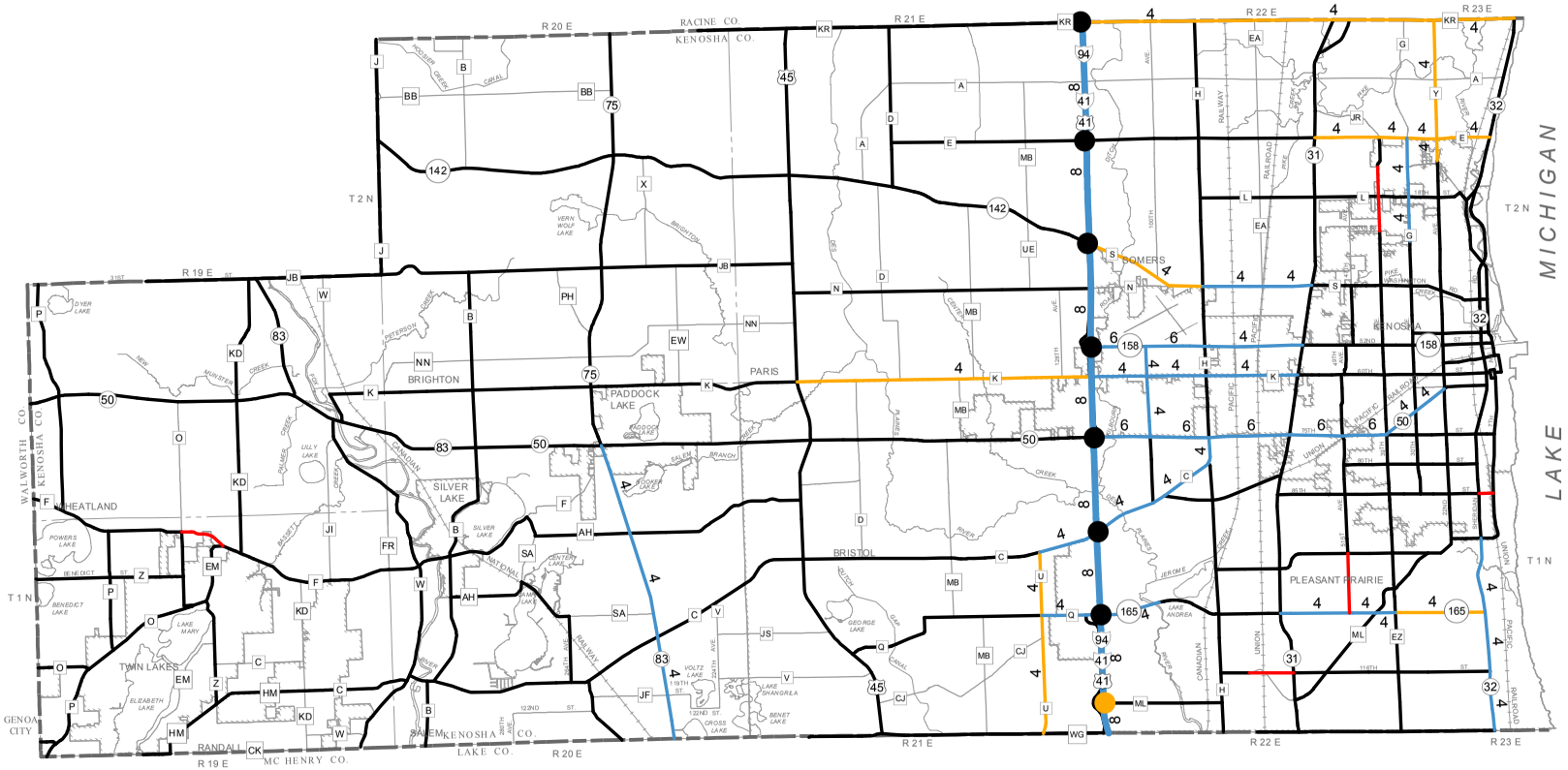
[b] *Includes the planned widening of approximately 127.0 miles of the existing 2005 regional freeway system, and the planned conversion of about 4.5 miles of the USH 12 Whitewater bypass, currently a two traffic lane surface arterial to a four traffic lane freeway.*

Source: SEWRPC

Security

The security element provided an overview of transportation security and considered ongoing security-related issues and efforts to protect transportation networks and facilities at the Federal, State, and regional levels. The element specifically addressed security, which is distinguished from safety by being concerned with protecting against intentional attacks against people, facilities, modes of travel, and important transportation infrastructure. The element detailed the efforts being undertaken by various Federal, State, regional, and local agencies to enhance the security of the Region's transportation system. No specific projects were included, but the element provided affirmation of the Commission's role in regional coordination of transportation security-related projects, along with the incorporation of security considerations into future transportation system preservation, improvement, or expansion projects.

Map 3.12
Functional Improvements to the Arterial Street and Highway System in Kenosha County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- EXISTING
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (POTENTIAL NEW INTERCHANGE)

0 1 2 3 Miles

Source: SEWRPC

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

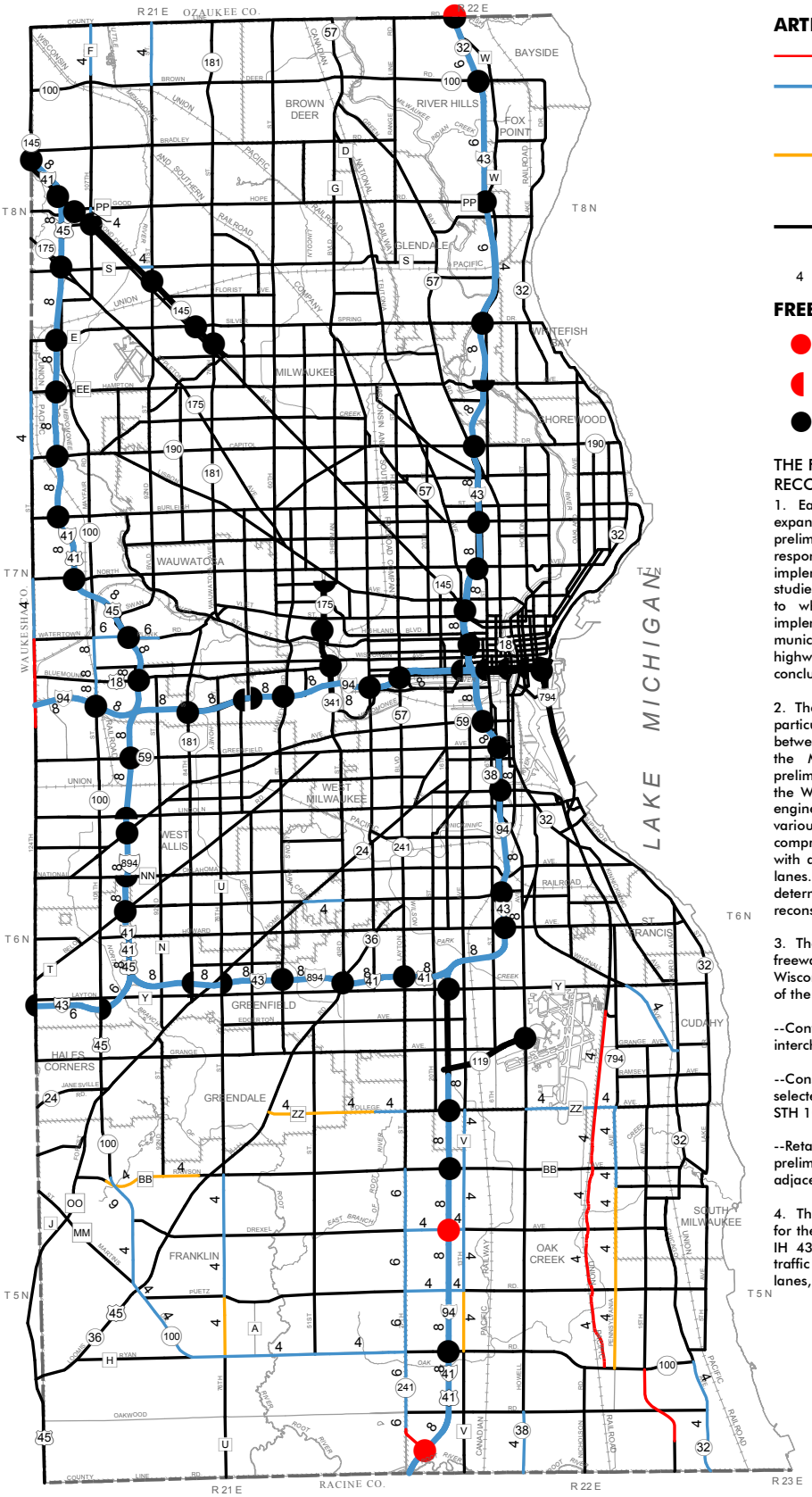
2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

3. The plan recommends that the Wisconsin Department of Transportation during its preliminary engineering for IH 94 consider the provision of an interchange with CTH K in Kenosha County, including the alternative of collector-distributor roadways connecting CTH K, STH 50, and STH 158, and an additional potential new future freeway interchange at CTH ML with IH 94. Should the preliminary engineering study conclude with a recommendation to construct one or both of the interchanges, the Regional Planning Commission, upon request of the concerned local governments and the Wisconsin Department of Transportation, would take action to amend the regional plan to recommend the construction of the interchange.

4. Sufficient right-of-way should be reserved along STH 158 from CTH H to STH 31 to accommodate its ultimate improvement to six travel lanes.

5. Sufficient right-of-way should be reserved along CTH K from IH 94 to STH 31 to accommodate its ultimate improvement to six travel lanes.

Map 3.13
Functional Improvements to the Arterial Street and Highway System in Milwaukee County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF LANES (2 WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- NEW
- HALF NEW
- EXISTING

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

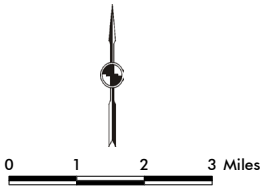
3. The plan also provides further recommendations with respect to freeway half-interchanges. The plan recommends that the Wisconsin Department of Transportation, during the reconstruction of the freeway system:

--Convert the S. 27th Street with IH 94 interchange to a full interchange;

--Consider as an alternative (where conditions permit) combining selected half-interchanges into one full interchange (for example, STH 100 and S. 124th Street with IH 43); and

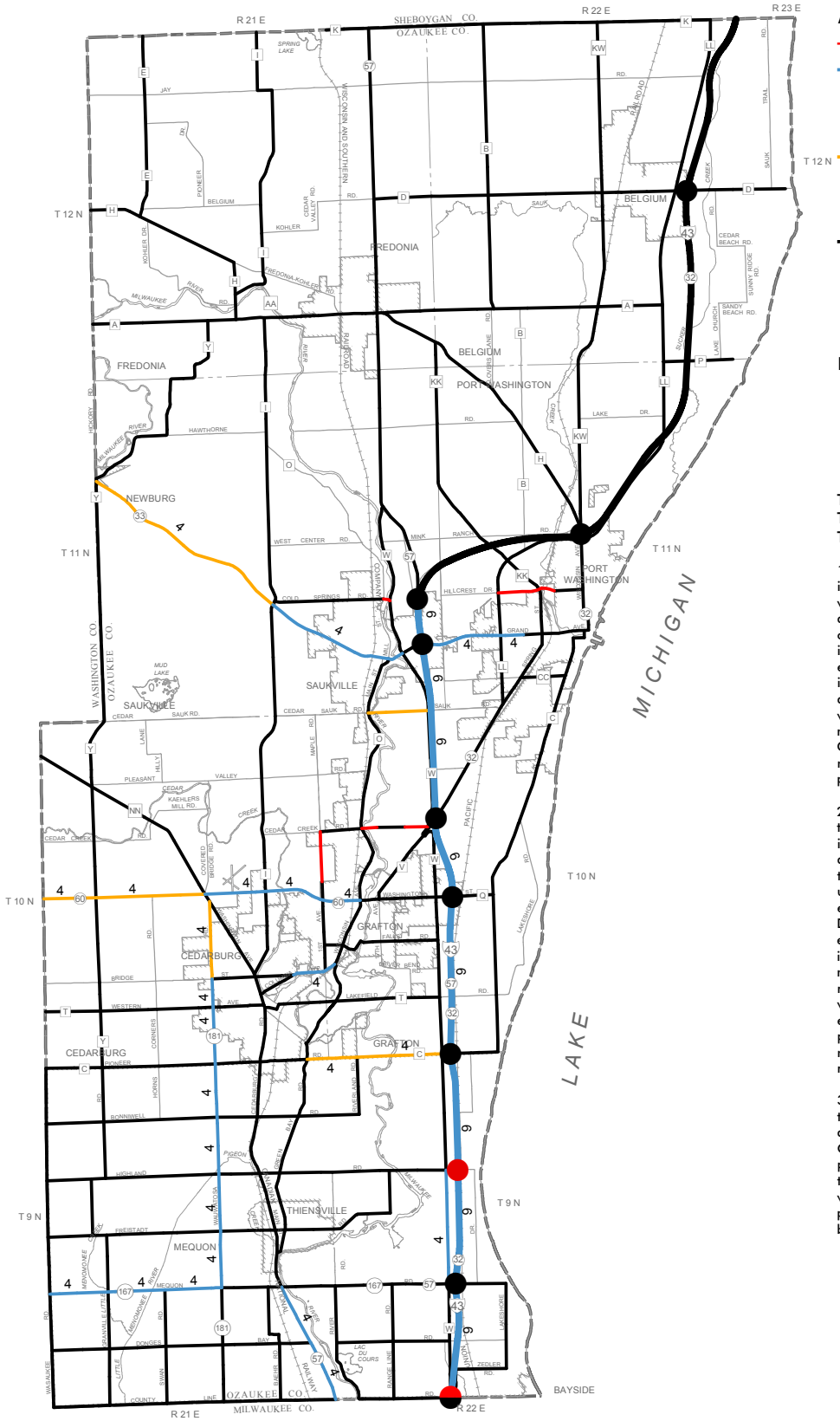
--Retain all other existing half-interchanges and examine during preliminary engineering the improvement of connection between adjacent interchanges.

4. The plan also recommends that during preliminary engineering for the reconstruction of STH 100 from W. Forest Home Avenue to IH 43, consideration be given to alternatives without additional traffic lanes, alternatives with additional traffic lanes or auxiliary lanes, and alternatives with frontage roads.



Source: SEWRPC

Map 3.14
Functional Improvements to the Arterial Street and Highway System in Ozaukee County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF LANES (2 WHERE UNNUMBERED)

FREEWAY INTERCHANGE

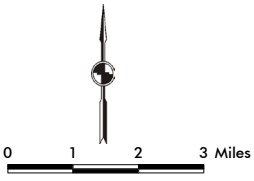
- NEW
- HALF NEW
- EXISTING

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

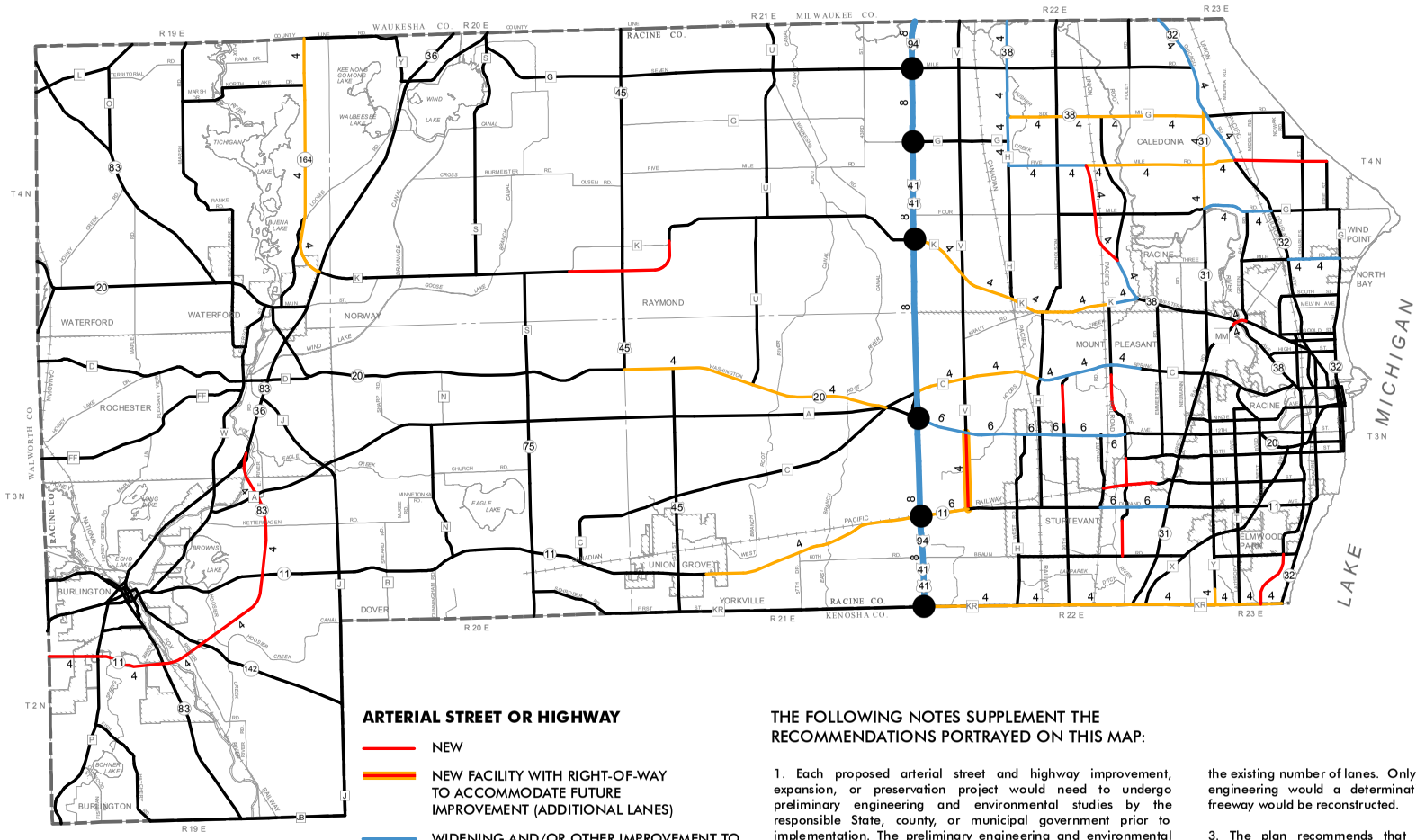
2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

3. Subsequent to the completion of the regional transportation plan update and reevaluation, more detailed analyses will be conducted with the Ozaukee County jurisdictional highway system planning advisory committee addressing STH 33 in the Village of Saukville and potentially considering various alternatives including do-nothing, restrict parking, widen with additional lanes, construct bypass, and improve/construct parallel arterials.



Source: SEWRPC

Map 3.15
Functional Improvements to the Arterial Street and Highway System in Racine County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- NEW FACILITY WITH RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES)
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF TRAFFIC LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- EXISTING

0 1 2 3 Miles

Source: SEWRPC

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

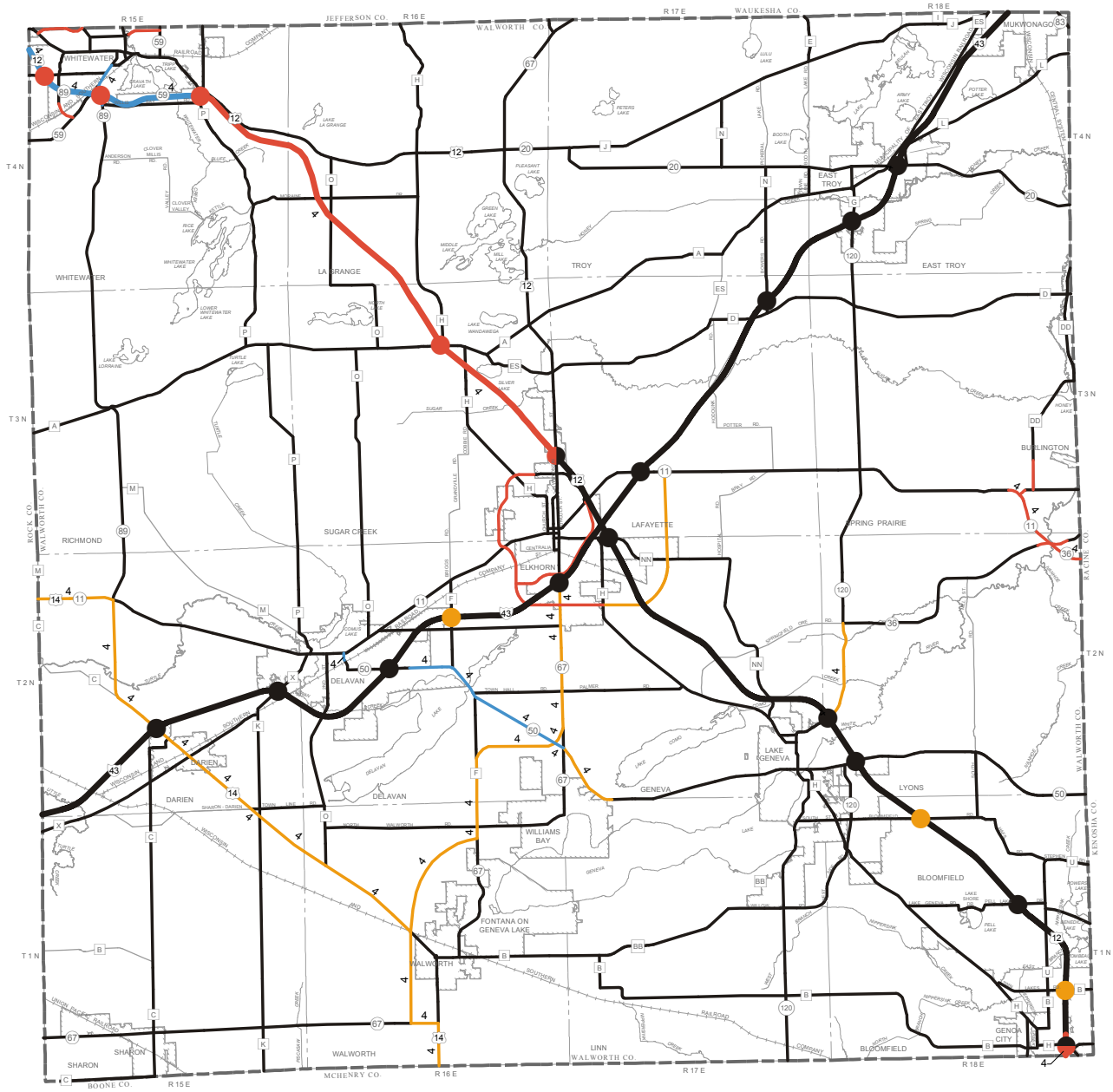
1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

3. The plan recommends that the Wisconsin Department of Transportation during its preliminary engineering for IH 94 consider the provision of an interchange with CTH C in Racine County, including an alternative of collector-distributor roadways connecting CTH C and STH 20.

4. Subsequent to the completion of the regional transportation plan update and reevaluation, more detailed analyses will be conducted with the Racine County jurisdictional highway system planning advisory committee addressing STH 20/83 in the Village of Waterford and CTH K in Franksville and potentially considering various alternatives, including do-nothing, restrict parking, widen with additional lanes, construct bypass, and improve/construct

Map 3.16
Functional Improvements to the Arterial Street and Highway System in Walworth County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- NEW
- NEW HALF
- EXISTING
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (POTENTIAL NEW INTERCHANGE)

0 1 2 3 Miles

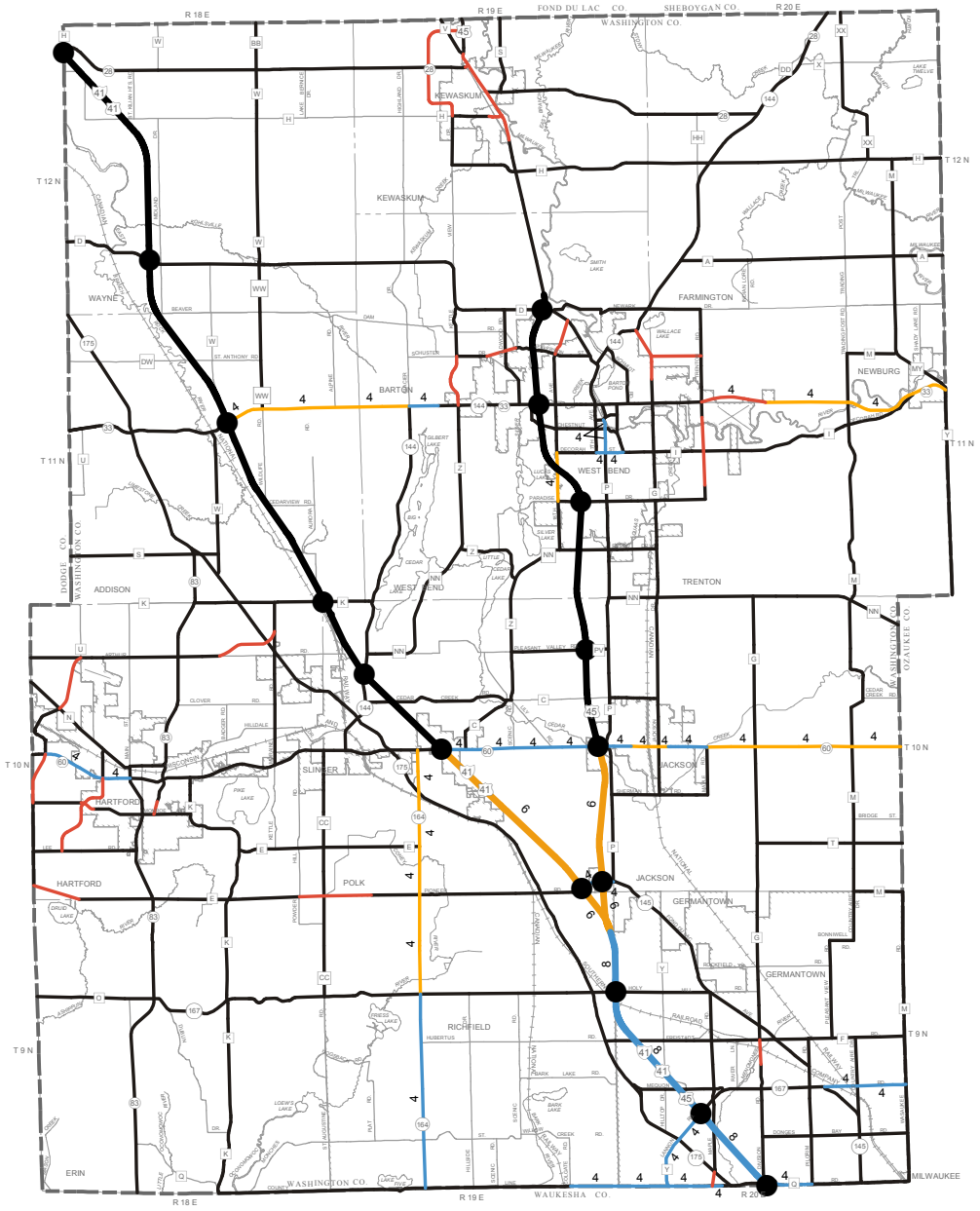
Source: SEWRPC

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

Map 3.17
Functional Improvements to the Arterial Street and Highway System in Washington County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF LANES (2 WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- EXISTING

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

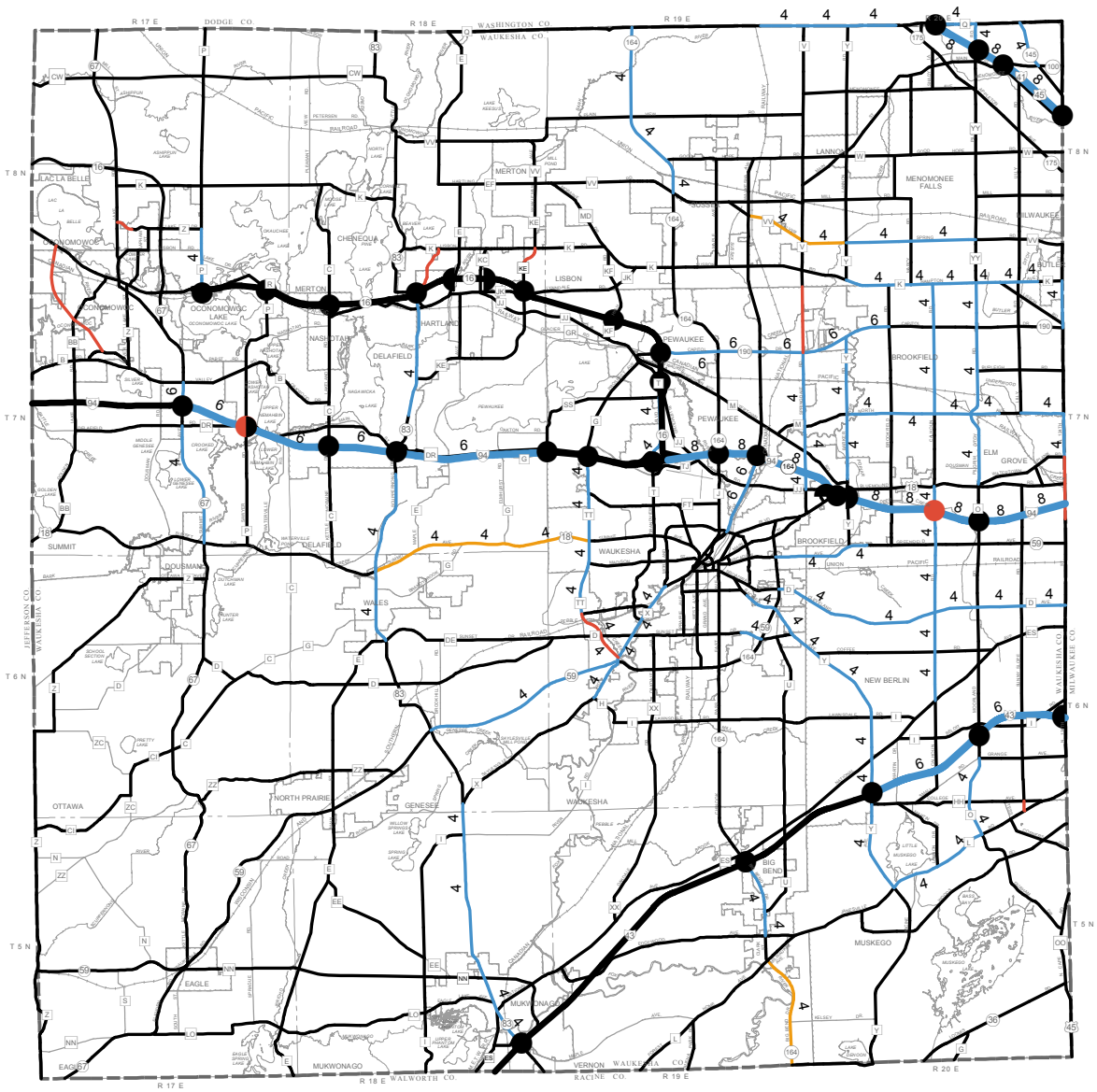
1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

0 1 2 3 Miles

Source: SEWRPC

Map 3.18
Functional Improvements to the Arterial Street and Highway System in Waukesha County: 2035 Recommended Regional Transportation Plan as Amended



ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF LANES FOR NEW OR WIDENED AND/OR IMPROVED FACILITY (2 WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- NEW
- NEW HALF
- EXISTING

0 1 2 3 Miles

Source: SEWRPC

THE FOLLOWING NOTES SUPPLEMENT THE RECOMMENDATIONS PORTRAYED ON THIS MAP:

1. Each proposed arterial street and highway improvement, expansion, or preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and environmental studies will consider alternatives and impacts, and final decisions as to whether and how a plan and project will proceed to implementation will be made by the responsible State, county, or municipal government (State for state highways, County for county highways, and municipal for municipal arterial streets) at the conclusion of preliminary engineering.

2. The 127 miles of freeway widening proposed in the plan, and in particular the 19 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), will undergo preliminary engineering and environmental impact statement by the Wisconsin Department of Transportation. During preliminary engineering, alternatives will be considered, including rebuild as-is, various options of rebuild to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

3. The plan also provides further recommendations with respect to freeway half-interchanges. The plan recommends that the Wisconsin Department of Transportation during the reconstruction of the freeway system:

--Convert the CTH P with IH 94 interchange to a full interchange;

--Consider as an alternative (where conditions permit) the combination of selected half-interchanges into one full interchange; and

--Retain all other existing half-interchanges and examine during preliminary engineering the improvement of connection between adjacent interchanges.

4. Subsequent to the completion of the regional transportation plan update and reevaluation, more detailed analysis will be conducted with the Waukesha County jurisdictional highway system planning advisory committee addressing STH 164 in the Village of Big Bend and potentially considering various alternatives, including do-nothing, restrict parking, widen with additional lanes, construct bypass, and improve/construct parallel arterials.

Implementation Status of the Year 2035 Regional Transportation System Plan

The purpose of this section is to assess the extent of regional transportation system plan implementation over approximately the last decade, and specifically, since the adoption of the year 2035 regional transportation plan in 2006.

Public Transit

The regional plan proposed the significant expansion of public transit, a near doubling of transit service by the year 2035. The plan recognized that this expansion would require State legislation to create local dedicated transit funding and a renewal of adequate annual State financial assistance to transit, and would be significantly aided by the creation of a regional transit authority (RTA). As such action typically only occurs as part of a State biennial budget, the plan assumed no expansion would occur until 2008 upon passage of the State 2007-2009 biennial budget in mid-2007, the first budget following plan adoption.

In November 2008, an advisory referendum passed in Milwaukee County approving a one percent sales tax, including a half-percent sales tax for public transit. In the 2009-2011 State budget, then-Governor Doyle proposed an RTA with a half-percent sales tax local dedicated funding, but the State Legislature rejected his proposal, and it was not included in the adopted budget. The State Legislature did include a half-percent sales tax dedicated funding for the Milwaukee County Transit System, but then-Governor Doyle vetoed this dedicated funding. The adopted budget did create, however, a Kenosha-Racine-Milwaukee (KRM) commuter rail authority with vehicle rental fee dedicated funding. Another attempt was made to pass RTA legislation in April of 2010 during the regular session of the State Legislature. The legislation came very close to passing, but was not adopted into State law.

Between 2005 and 2011, State transit operating funding to Southeastern Wisconsin increased by about 4 percent annually; however, Federal transit operating funding—which has historically represented about 20 percent of total annual transit public operating funding—increased by less than 1 percent annually and local transit operating funding—which has also represented about 20 percent of total annual public operating funding—slightly decreased over the same period. The 2011-2013 State biennial budget eliminated the transit authority established to implement the KRM commuter rail line, and reduced State transit operating funding for the year 2012 by about 10 percent. Without legislation for dedicated local transit funding or more substantial increases in State funding, the expansion of public transit service recommended in the regional plan may not be expected to be implemented, and transit service is likely to continue to decline.

As shown in Table 3.8, the amount of transit service in Southeastern Wisconsin has declined from the time of plan adoption in 2006 to 2012, including a decrease of almost 7 percent in fixed-route bus service. However, demand-responsive service has increased over the period by 17 percent. Overall, the amount of transit service in Southeastern Wisconsin decreased by 4 percent over this time period. The amount of transit service increase envisioned by 2012 in the recommended plan was about 12 percent.

Rather than plan-recommended improvement and expansion of public transit, service levels actually decreased by 4% overall from 2006 to 2012 and fares increased faster than inflation due to inadequate funding.

The regional plan also recommended that public transit fare increases not exceed the rate of general price inflation. Table 3.9 shows the fares for the Region's transit systems for the years 2001 through 2012. Fare increases from 2006 to 2012 ranged from 15 to 60 percent, exceeding the general price inflation experienced over this period of about 16 percent.

Table 3.8
Public Transit Vehicle-Miles of Service in the Region: 2006-2012

Service Type	Annual Revenue Vehicle Miles[a] 2006	2012
Fixed-Route (Bus)	21.07 million	19.62 million
Demand-Response (Shared-Ride Taxi)	2.41 million	2.82 million
Total	23.48 million	22.44 million

[a] *Service for the general public.*

Source: SEWRPC

Implementation of WisDOT's planned Chicago-Milwaukee-Madison high-speed rail line was indefinitely postponed following withdrawal of the majority of the Federal funding awarded to the project by the U.S. Department of Transportation (USDOT) in December 2010. This withdrawal of funding was a result of the newly elected Governor's opposition to using the funding for a high-speed rail line. Despite its postponement, this proposed service remains a part of WisDOT's long-range State rail plan completed in March 2014. WisDOT is also continuing efforts to increase service and improve travel times of Amtrak's existing Hiawatha Service operating between Chicago and Milwaukee.

Some progress has been made in implementing fixed-guideway transit. The Milwaukee downtown connector study was completed. The study evaluated a wide range of alternative routes and technologies including express buses, guided electric powered buses, and streetcars. The City of Milwaukee has now completed planning and preliminary engineering for a downtown streetcar line. In a March 2009 split of $91.5 million in Interstate Cost Estimate (ICE) funding, $54.9 million was provided to implement the streetcar line. The City of Milwaukee is now conducting final engineering and design for the streetcar line.

Bicycle and Pedestrian Facilities

Accommodation of Bicycles on the Arterial Street and Highway System

Bicycle facilities increased significantly, with the Region adding 249 miles of on-street accommodations and 52 miles of off-street paths.

The regional plan envisioned that as each segment of the surface arterial street system of about 3,300 miles in the Region was constructed, resurfaced, and reconstructed, the provision of accommodation for bicycle travel would be considered and implemented as feasible through bicycle lanes, widened outside travel lanes, widened shoulders, or separate bicycle paths. Wisconsin State Statutes and Federal policy now require that bicycle accommodations be provided in all new highway construction and reconstruction projects funded with State or Federal funds, unless it is demonstrated that such accommodation is prohibitive.

On arterial streets and highways with a rural cross-section, bicycles may be accommodated with a four-foot paved shoulder and six-foot gravel shoulder on a two-traffic-lane facility, and with an eight-foot paved shoulder on a four-traffic-lane facility. On arterial streets with an urban cross section, bicycles may be accommodated with bicycle lanes five to six feet in width, or with a widened outside lane of 14 feet. Accommodations may also be provided on urban and rural arterials with parallel, physically separate paths of eight to 12 feet in width (five to six feet for one-way paths) and 10 feet of separation from the travel lanes. In addition, although not identified as an accommodation in the 2035 regional transportation plan because none existed in the Region when the plan was developed, enhanced bicycle facilities—such as protected bicycle lanes, buffered bicycle lanes, and green

Table 3.9
Fares Charged on the Public Bus Systems in the Region: 2001-2012

Fare Category	Year					
	2001	2002	2003	2004	2005	2006
City of Kenosha Area Transit System						
Base Adult Cash Fare	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
Monthly Pass	$22.00	$22.00	$22.00	$28.00	$28.00	$28.00
Western Kenosha County Transit						
Base Adult Cash Fare	- -	- -	- -	- -	- -	- -
11-Ride Punch Card Monthly Pass	- -	- -	- -	- -	- -	- -
Kenosha-Racine-Milwaukee Commuter Bus						
Base Adult Cash Fare	$1.00-$4.00	$1.00-$4.00	$1.00-$4.00	$1.00-$4.00	$1.00-$4.00	$1.00-$4.00
Book of 10 Tickets	$9.00-$36.00	$9.00-$36.00	$9.00-$36.00	$9.00-$36.00	$9.00-$36.00	$9.00-$36.00
Milwaukee County Transit System						
Base Adult Cash Fare	$1.50	$1.50	$1.50	$1.75	$1.75	$1.75
Freeway Flyer Cash Fare	$1.80	$1.80	$1.80	$2.05	$2.05	$2.25
Weekly Pass	$11.00	$12.00	$12.00	$13.00	$13.00	$14.00
Upass	$33.00	$35.00	$35.00	$38.00	$38.00	$38.00
MCTS Commuter Value Pass (employee portion)	$16.00	$17.00	$17.00	$19.00	$19.00	$25.67
Ozaukee County Express Bus						
Base Adult Cash Fare	$2.00	$2.00	$2.25	$2.25	$2.25	$2.25
City of Racine Belle Urban System						
Base Adult Cash Fare	$1.00	$1.00	$1.25	$1.25	$1.25	$1.25
Monthly Pass	$30.00	$30.00	$40.00	$40.00	$40.00	$40.00
Washington County Commuter Express						
Base Adult Cash Fare	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Book of 10 Tickets	$21.25	$21.25	$21.25	$21.25	$21.25	$21.25
City of Waukesha Metro Transit System						
Base Adult Cash Fare	$1.00	$1.25	$1.25	$1.25	$1.50	$1.50
Monthly Pass	$24.00	$38.00	$38.00	$38.00	$38.00	$38.00
Waukesha County Transit System						
Base Adult Cash Fare	$1.00-2.50	$1.00-2.50	$2.25-2.75	$2.25-2.75	$2.50-3.00	$2.50-3.00
Book of 10 Tickets	$9.00-$22.50	$9.00-$22.50	$20.25-24.75	$20.25-24.75	$22.50-27.00	$22.50-27.00

Table continued on next page.

Table 3.9 (Continued)

Fare Category	Year					
	2007	2008	2009	2010	2011	2012
City of Kenosha Area Transit System						
Base Adult Cash Fare	$1.00	$1.00	$1.25	$1.25	$1.50	$1.50
Monthly Pass	$28.00	$28.00	$34.00	$34.00	$40.00	$40.00
Western Kenosha County Transit						
Base Adult Cash Fare	$2.00-$3.00	$2.00-$3.00	$2.00-$3.00	$2.00-$3.00	$2.00-$3.00	$2.00-$3.00
11-Ride Punch Card	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00
Monthly Pass	$10.00	$10.00	$10.00	$10.00	$20.00	$20.00
Kenosha-Racine-Milwaukee Commuter Bus						
Base Adult Cash Fare	$1.00-$4.00	$1.25-$4.25	$1.25-$4.25	$1.25-$4.25	$1.25-$4.25	$1.25-$4.25
Book of 10 Tickets	$9.00-$36.00	$11.25-38.25	$11.25-38.25	$11.25-38.25	$11.25-38.25	$11.25-$38.25
Milwaukee County Transit System						
Base Adult Cash Fare	$1.75	$2.00	$2.00	$2.25	$2.25	$2.25
Freeway Flyer Cash Fare	$2.25	$2.75	$3.00	$3.25	$3.25	$3.25
Weekly Pass	$16.00	$16.00	$16.50	$17.50	$17.50	$17.50
Upass	$41.00	$41.00	$42.00	$45.00	$45.00	$45.00
MCTS Commuter Value Pass (employee portion)	$29.50	$29.50	$30.50	$32.50	$32.50	$32.50
Ozaukee County Express Bus						
Base Adult Cash Fare	$2.25	$3.00	$3.00	$3.25	$3.25	$3.25
City of Racine Belle Urban System						
Base Adult Cash Fare	$1.50	$1.50	$1.50	$1.50	$1.50	$2.00
Monthly Pass	$50.00	$50.00	$50.00	$50.00	$50.00	$65.00
Washington County Commuter Express						
Base Adult Cash Fare	$3.25	$3.25	$3.25	$3.25	$3.25	$3.75
Book of 10 Tickets	$27.50	$27.50	$27.50	$27.50	$27.50	$32.50
City of Waukesha Metro Transit System						
Base Adult Cash Fare	$1.75	$1.75	$2.00	$2.00	$2.00	$2.00
Monthly Pass	$40.00	$40.00	$44.00	$44.00	$44.00	$44.00
Waukesha County Transit System						
Base Adult Cash Fare	$2.50-3.00	$2.75-$3.25	$3.25-$4.00	$3.25-$4.00	$3.25-$4.00	$3.25-$4.00
Book of 10 Tickets	$22.50-$27.00	$24.75-$29.25	$29.25-$36.00	$29.25-$36.00	$29.25-36.00	$29.25-$36.00

Source: SEWRPC

lanes—represent a newer type of bicycle accommodation. The mileage of arterial streets and highways that provided bicycle accommodations through paved shoulders, bicycle lanes, enhanced bicycle facilities, or separate paths increased from about 633 miles in 2004 to about 882 miles in 2014, or about a 39 percent increase. Data are not available to identify those urban arterials with outside lanes of 14 feet in width which also accommodate bicycles.

Off-Street Bicycle Path System

The plan also recommended that a system of off-street bicycle paths be provided between the Kenosha, Milwaukee, and Racine urbanized areas, and between all the cities and villages within the Region with a population of 5,000 or more. Some on-street bicycle connections would be required to connect segments of this system of off-street paths. Map 3.19 shows the proposed system of off-street bicycle facilities, which includes 548 miles of

off-street bicycle paths. Approximately 203 miles of the planned 548 miles of off-street bicycle paths existed in 2006, and another 52 miles of the planned paths have since been constructed as of 2014.

A number of local and county plans have been completed or are in development that will help to implement the recommendations of the regional plan's bicycle and pedestrian element. Examples include the Kenosha County Comprehensive Bike Plan completed in July 2013 and a bicycle plan for the City of Milwaukee that recommends a broad range of measures to improve conditions for bicycling in Milwaukee.

Transportation Systems Management
Recommended TSM measures include freeway traffic management, surface arterial management, and major activity center parking guidance.

Freeway Traffic Management
Expansion of freeway traffic management was envisioned as being implemented as the freeway system was reconstructed segment-by-segment. The following measures have been implemented since the regional transportation plan was adopted:

- Maintenance of Traffic Operations Center in operation on a 365 days a year, 24 hours per day basis.

- Expansion of ramp-meters from 120 locations in 2004 to 121 locations in 2013.

- Expansion of freeway variable message signs from 21 locations in 2004 to 31 locations in 2013.

- Implementation of 511 regional travel information system.

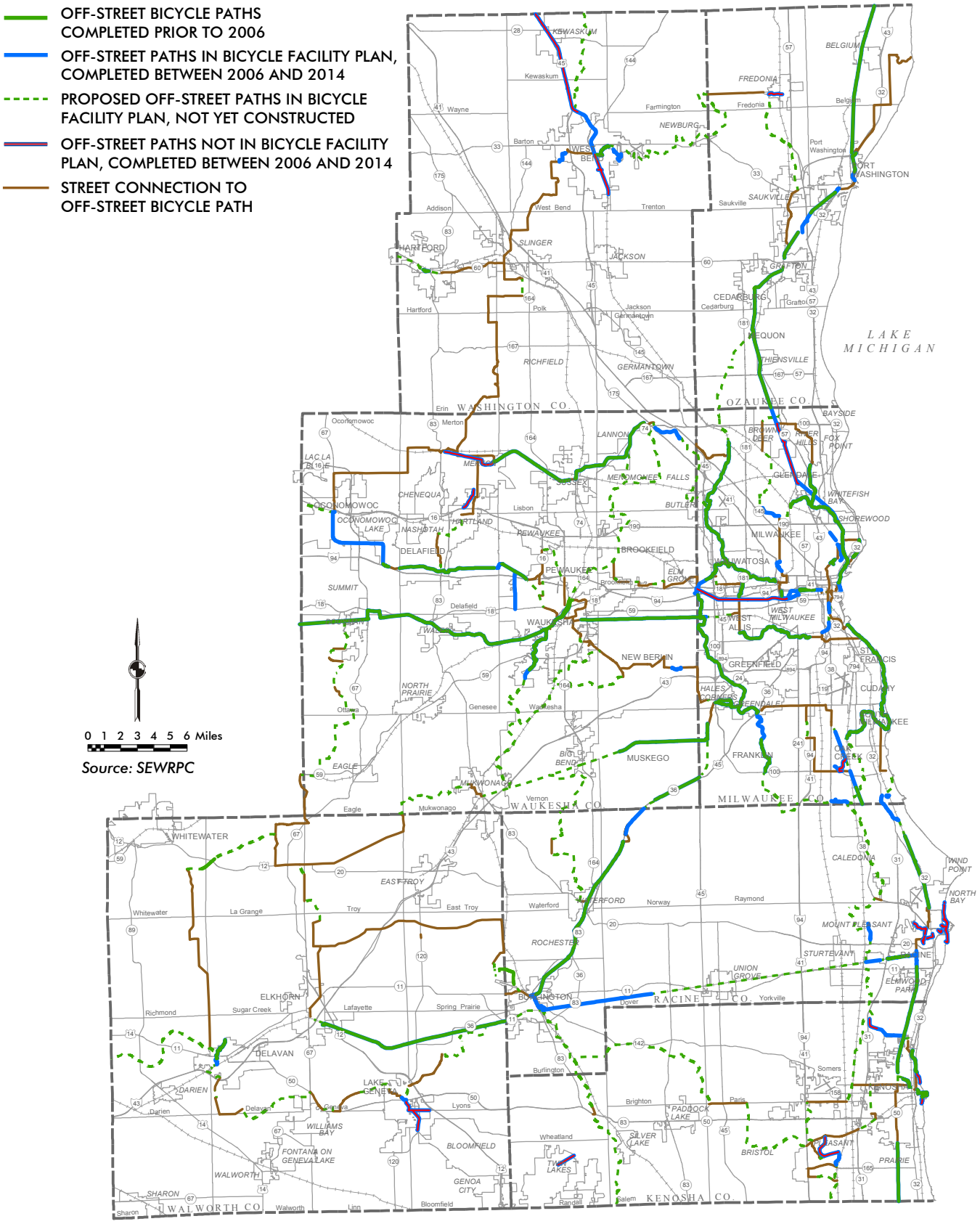
- Expansion of freeway closed-circuit television cameras from 83 locations in 2004 to 159 locations in 2013.

- Continuation of Traffic Incident Management Enhancement Program (TIME).

- Expansion of deployment of ramp closure devices to Ozaukee, Walworth, Washington, and Waukesha Counties. In addition, ramp closure devices will be installed along IH 94 within Kenosha and Racine Counties as part of the project to reconstruct IH 94 between the Mitchell Interchange and the Wisconsin State line that is expected to be completed in 2021.

- Expansion of freeway service patrols in Milwaukee County to weekday evenings. However, the freeway service patrols are no longer provided in Kenosha, Racine, and Waukesha Counties due to budgetary reasons. Temporary service patrols were operated in 2013 in addition to the Milwaukee County patrol services along segments of freeway that were under construction at that time. Examples include the Hoan Bridge, portions of IH 94 in Kenosha County, and segments of IH 94 and USH 45 as part of the Zoo Interchange project.

Map 3.19
Existing and Planned Off-Street Bicycle Facilities in the Region: 2014



Surface Arterial Street and Highway Traffic Management
Implementation includes the following:

- Expansion of variable message signs from 13 locations in 2004 to 19 locations in 2013.

- Expansion of closed-circuit television cameras from 13 locations in 2004 to 22 locations in 2013.

- Expansion of signal coordination and interconnection, as well as improvement through signal optimization, through 12 funded Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality Improvement Program (CMAQ) projects.

Major Activity Center Parking Management and Guidance
The City of Milwaukee is about to enter the implementation and installation phase of the envisioned central business district parking structure guidance system. The system will provide motorists with real-time information about available parking in the downtown area through signs located throughout the central business district, freeway dynamic message signs, a website, and a telephone line. A data source will also be available to allow real-time parking information applications to be created for mobile devices or websites.

Regional Transportation Operations Plan
The regional transportation system plan also recommended that a regional transportation operation plan (RTOP) be prepared to program high priority short-range—three to five years—operational improvement projects for implementation, principally drawing these projects from the TSM recommendations in the regional transportation system plan. The RTOP was completed in 2012 identifying candidate corridor and intersection TSM projects prioritized for implementation and funding, particularly with respect to FHWA CMAQ funding.

In addition to expansion of TSM measures, a regional transportation operations plan (RTOP) was completed, identifying and prioritizing TSM projects.

Travel Demand Management
Implementation to date includes the following:

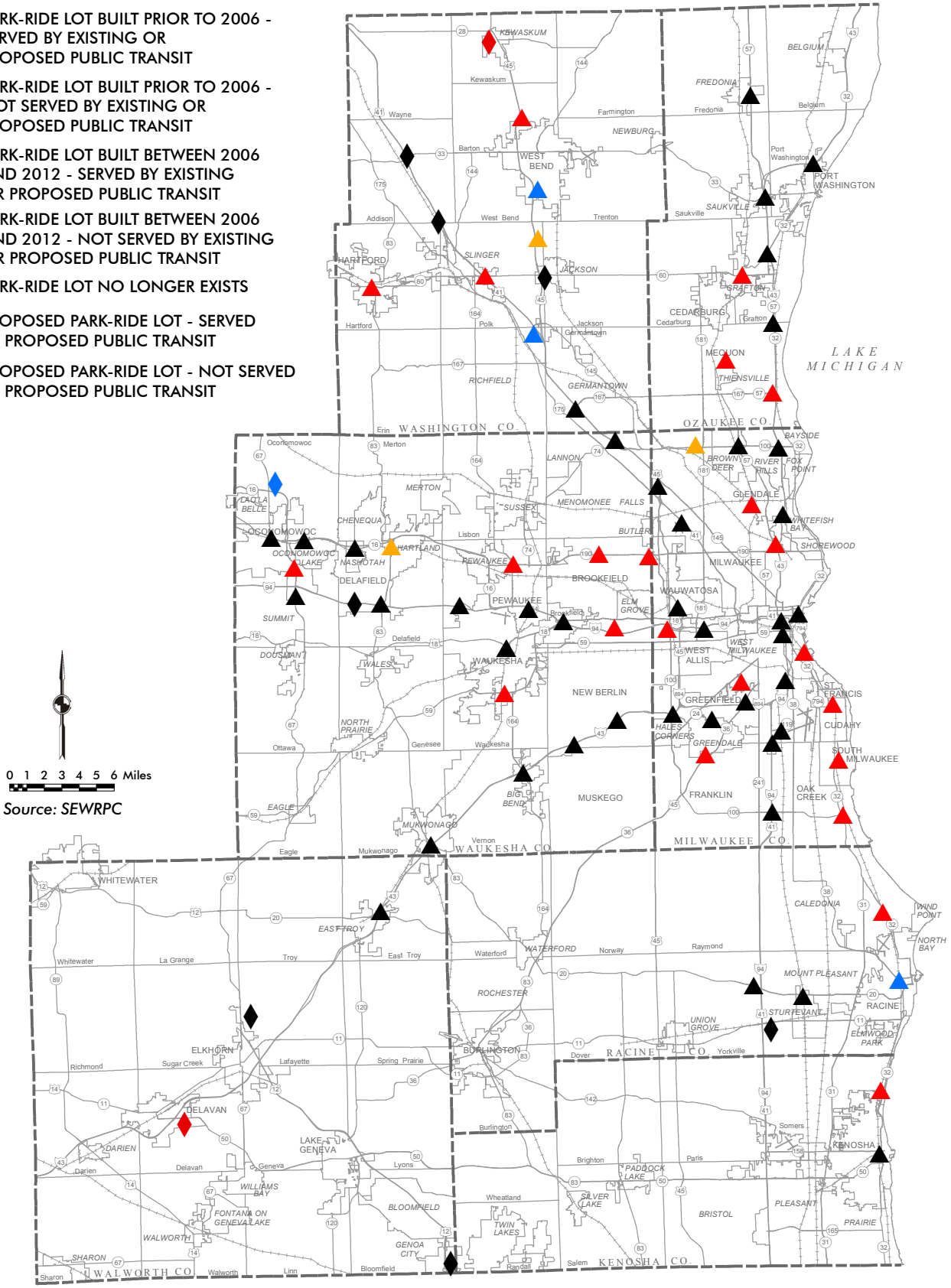
- Three park-ride lots of the 26 additional park-ride lots proposed under the 2035 plan have been provided to encourage transit use and carpooling, and a fourth park-ride lot has been constructed that was not in the 2035 plan as adopted in 2006 (see Map 3.20). However, three park-ride lots that were built prior to 2006 have since been removed. Of the 9,220 spaces in park-ride lots served by transit planned for 2035, 6,635 have been provided as of 2012, an increase of 1,040 from the previous plan baseline of 2004.

- Internet trip planners are now provided by the Milwaukee County, Ozaukee County, Waukesha County, City of Kenosha, and City of Waukesha transit systems.

- Automatic vehicle location systems are now used by the Milwaukee County, City of Waukesha, City of Racine, Ozaukee County, Washington County, and Western Kenosha County transit systems. Milwaukee County Transit System completed implementation of real-time information technology in 2014, which allows passengers to know the arrival time of the next bus.

Map 3.20
Existing and Proposed Park-Ride Lots and Transit Stations in the Region

- PARK-RIDE LOT BUILT PRIOR TO 2006 - SERVED BY EXISTING OR PROPOSED PUBLIC TRANSIT
- PARK-RIDE LOT BUILT PRIOR TO 2006 - NOT SERVED BY EXISTING OR PROPOSED PUBLIC TRANSIT
- PARK-RIDE LOT BUILT BETWEEN 2006 AND 2012 - SERVED BY EXISTING OR PROPOSED PUBLIC TRANSIT
- PARK-RIDE LOT BUILT BETWEEN 2006 AND 2012 - NOT SERVED BY EXISTING OR PROPOSED PUBLIC TRANSIT
- PARK-RIDE LOT NO LONGER EXISTS
- PROPOSED PARK-RIDE LOT - SERVED BY PROPOSED PUBLIC TRANSIT
- PROPOSED PARK-RIDE LOT - NOT SERVED BY PROPOSED PUBLIC TRANSIT



Source: SEWRPC

- The Milwaukee County, Ozaukee County, and City of Kenosha transit systems have equipped all of their buses with bike racks. While not a specific recommendation of the year 2035 regional transportation plan, the installation of the bike racks on buses in Milwaukee County would promote the use of transit and bicycle modes of transportation.

- Detailed site-specific neighborhood plans encouraging higher density, mixed use, transit-oriented development were prepared for the neighborhoods surrounding the nine KRM commuter rail stations. With the exception of one community, the plans have been endorsed by each community, with each community indicating that they will incorporate the plans into their comprehensive plans, should commuter rail proceed to implementation.

Arterial Streets and Highways

The arterial street and highway element of the recommended year 2035 regional transportation plan as amended totaled 3,662 route-miles. Approximately 88 percent, or 3,209 of these route-miles, were recommended to be resurfaced and reconstructed to their same capacity. Approximately 360 route-miles—about 10 percent of the total recommended year 2035 arterial street and highway system—were recommended for widening to provide additional through traffic lanes, including 127 miles of freeways. The remaining 93 route-miles—about 2 percent of the total arterial street mileage—were proposed new arterial facilities. Thus, the plan envisioned over its 30-year timeframe capacity expansion of about 12 percent of the total arterial system and about a 10 percent expansion in added lane miles of arterials.

About 17% of the total arterial facilities planned to be added or widened have been constructed and are open to traffic.

Since the completion and adoption of the regional transportation plan in 2006, approximately 16.2 miles of planned new arterial facilities, and 59.5 miles of arterial facilities planned to be widened to carry additional traffic lanes have been constructed and are open to traffic (see Map 3.21 and Table 3.10). These 75.7 miles of arterial facilities represent about 17 percent of the total planned new and widened arterial facilities under the regional plan. Currently under construction are 30 miles of reconstruction of IH 94 with additional traffic lanes between the Mitchell Interchange in Milwaukee County and the Wisconsin-Illinois State line, planned to be open to traffic in 2021. Reconstruction of the Mitchell Interchange and the portion of IH 94 from the Wisconsin-Illinois State line to STH 50 in Kenosha County was completed in 2012. With respect to the other major freeway-to-freeway interchanges in Southeastern Wisconsin, reconstruction of the largest and most complicated interchange, the Marquette Interchange, was completed in 2008. Reconstruction of the Zoo Interchange began in 2013 and is planned to be completed in 2018.

Review of Year 2035 Regional Transportation Plan Forecasts

This section provides a review of the forecasts prepared under the year 2035 regional transportation plan for their continued validity, including travel, traffic, and related forecasts such as regional vehicle-miles of travel, transit system ridership, and personal vehicle availability.

Personal-Use Vehicle and Commercial Truck Availability Forecasts

The number of personal-use vehicles—that is, automobiles, trucks, and vans used by residents of the Region for personal transportation—in 2012 totaled about 1,379,030 (see Table 3.11). Over the past 50 years, there has been a generally steady, long-term trend of continued increase in the number of personal-use vehicles available to residents of the Region. The average

Map 3.21
Arterial Street and Highway Capacity Improvement Projects Completed Since Adoption of the 2035 Regional Transportation Plan: 2014

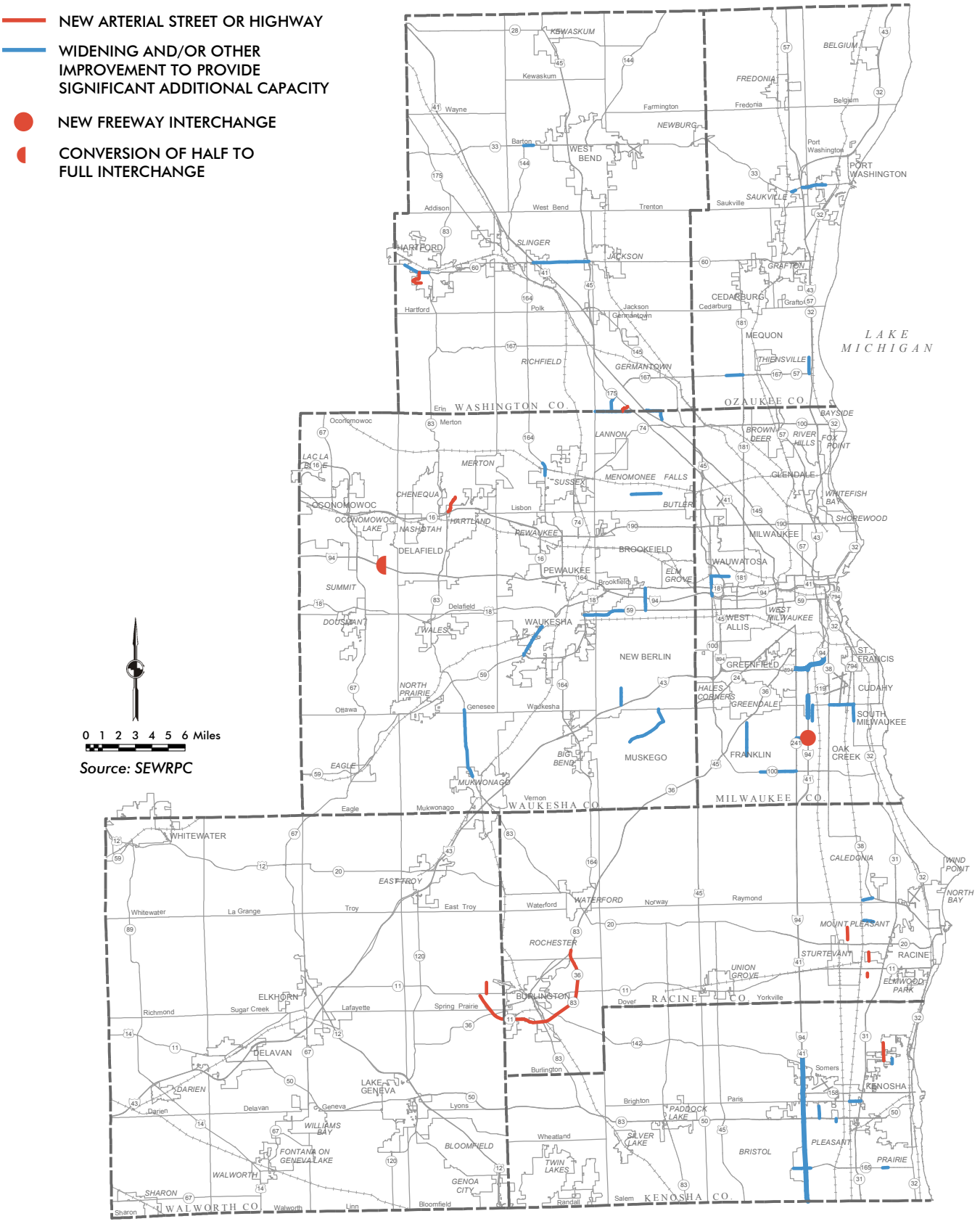


Table 3.10
Implementation Status of Functional Improvements to the Arterial Street and Highway System as Set Forth in the 2035 Regional Transportation Plan as Amended: 2014

County	Year 2035 Planned Miles		Implemented Miles by 2014	
	Year 2035 System Improvement	Year 2035 System Expansion	Year 2035 System Improvement	Year 2035 System Expansion
Kenosha	45.7	3.3	12.0	1.1
Milwaukee	87.1	8.0	14.7	- -
Ozaukee	36.1	3.0	4.0	- -
Racine	31.5	21.6	1.2	9.4
Walworth	10.0	24.7	- -	3.0
Washington	23.5	22.1	7.5	1.6
Waukesha	126.1	10.4	20.1	1.1
Region	360.0	93.1	59.5	16.2

[a] *Includes improvements and expansions implemented from 2006 to 2014 or those that were under construction in 2014.*

Source: SEWRPC

Table 3.11
Personal-Use Vehicle Availability in the Region

County	1963	1972	2001	2011	2012
Kenosha	37,240	51,100	102,210	120,050	120,110
Milwaukee	316,350	392,000	548,540	544,540	543,460
Ozaukee	16,780	28,030	60,830	70,280	70,390
Racine	52,040	73,350	131,310	146,840	147,010
Walworth	22,220	33,450	69,500	84,230	84,050
Washington	18,340	30,390	87,820	105,420	106,050
Waukesha	69,390	114,450	266,150	307,310	307,960
Region	532,360	722,770	1,266,270	1,378,670	1,379,030

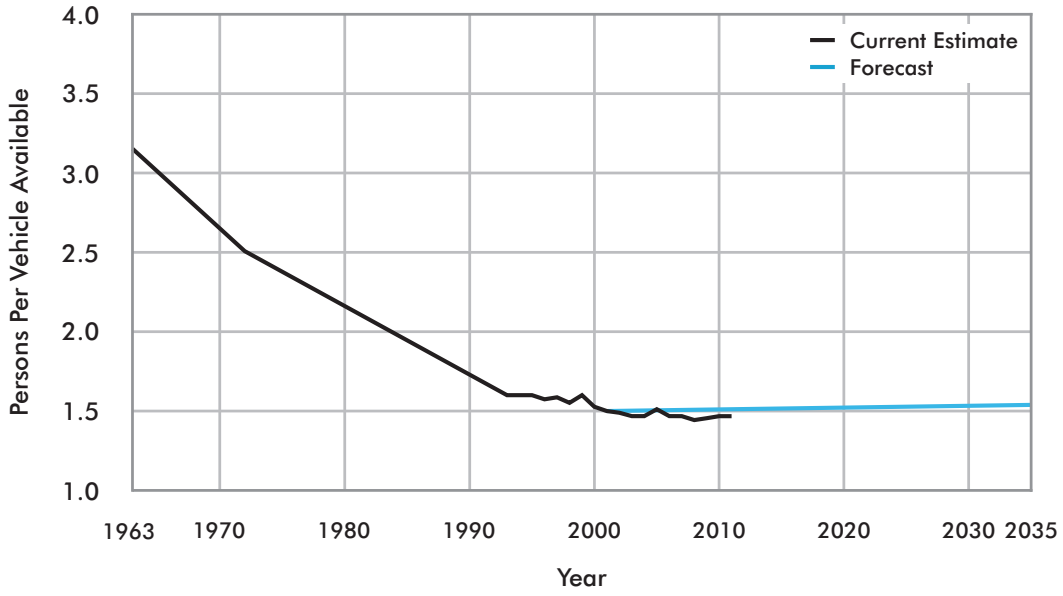
Source: SEWRPC

annual rate of growth in personal-use vehicle availability within the Region from 1963 through 2012 was 2.0 percent.

The number of persons per personal-use vehicle within the Region was estimated to be 1.47 in 2012, as shown in Figure 3.4. The number of persons per personal-use vehicle has been relatively stable for over a decade, with minor fluctuations up and down annually. The forecast under the year 2035 plan of the number of persons per personal-use vehicle expected long -term stability as well. The forecast of total personal-use vehicle availability developed under the long-range regional transportation system plan is shown in Figure 3.5, along with historic annual personal-use vehicle availability. The 2012 forecast personal-use vehicle availability level was 1,337,840 under the adopted regional transportation system plan. The estimated 2012 regional personal-use vehicle availability level of 1,379,030 was 41,190 vehicles, or about 3.0 percent, higher than the personal-use vehicle availability level envisioned under the adopted regional transportation system plan.

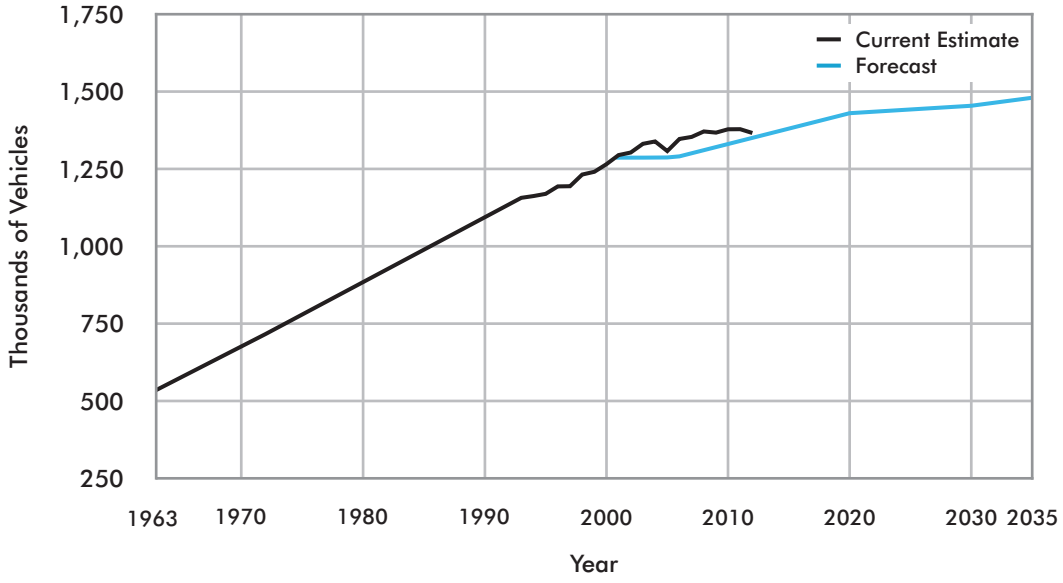
The number of commercial and municipal trucks available in the Region during 2012 totaled about 121,400, which is about 11,600, or 9.6 percent, less than the forecast level of 133,000 in 2012 envisioned under the year 2035 regional transportation plan (see Table 3.12 and Figure 3.6).

Figure 3.4
Persons Per Personal-Use Vehicle in the Region



Source: SEWRPC

Figure 3.5
Personal-Use Vehicle Availability in the Region



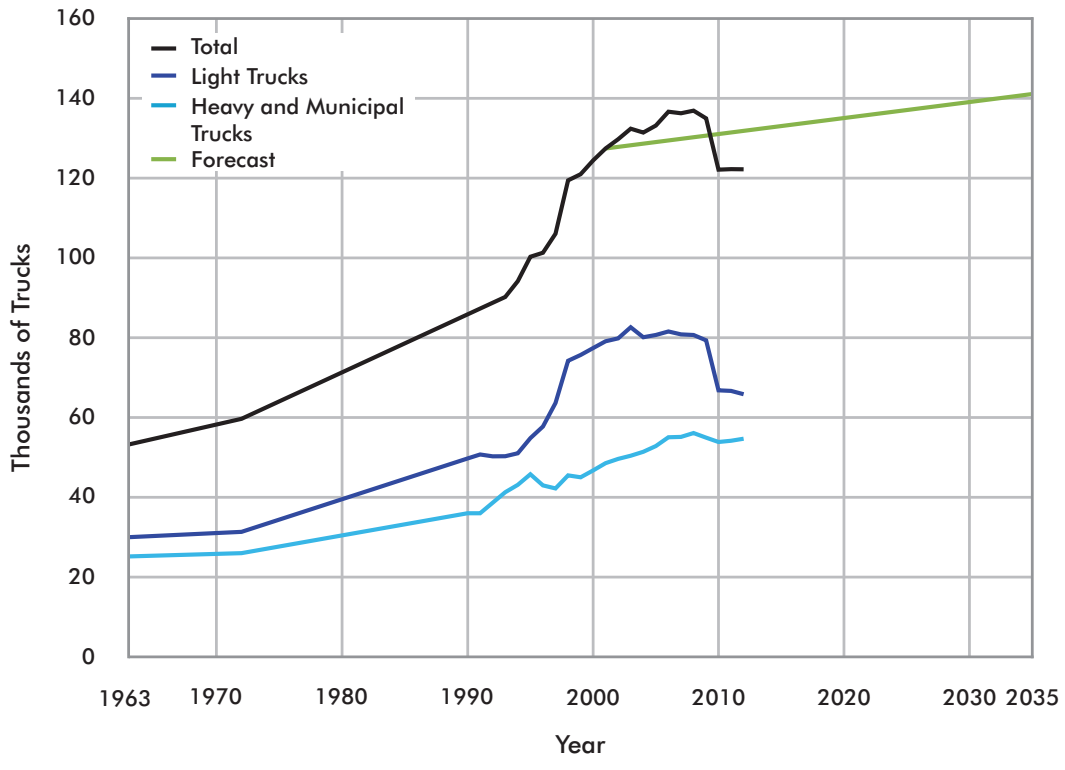
Source: SEWRPC

Table 3.12
Commercial Truck Availability in the Region

County	1963	1972	2001	2011	2012
Kenosha	4,370	4,490	10,130	10,230	10,170
Milwaukee	25,910	26,710	46,070	42,230	42,330
Ozaukee	2,270	2,550	6,020	5,750	5,720
Racine	5,670	6,460	13,510	13,710	13,700
Walworth	4,190	4,840	9,150	10,130	10,090
Washington	3,210	4,080	9,270	10,090	10,060
Waukesha	7,780	10,280	30,240	29,480	29,330
Region	53,400	59,410	124,390	121,620	121,400

Source: SEWRPC

Figure 3.6
Commercial Truck Availability in the Region



Source: SEWRPC

Table 3.13
Reported Public Transit Revenue Ridership in the Region

Transit Services	Revenue Passengers[a] 1963	1972	1991	2001	2011	2012	Percent Change 2011-2012
Fixed-Route Bus Systems							
Intracounty							
City of Kenosha	1,876,000	503,000	1,128,000	1,805,200	1,427,900	1,374,400	-3.7
Milwaukee County	88,546,000	52,141,000	53,025,000	52,333,400	38,952,200	37,944,400	-2.6
City of Racine	2,907,000	526,000	1,829,000	1,437,200	1,248,500	1,093,100	-12.4
City of Waukesha	451,000	227,000	434,000	633,900	620,300	639,900	3.2
Subtotal	93,780,000	53,397,000	56,416,000	56,209,700	42,248,900	41,051,800	-2.8
Intercounty							
Kenosha-Racine-Milwaukee Counties	230,000[b]	153,000	82,000	81,400	82,900	83,000	0.1
Ozaukee-Milwaukee Counties	127,000	64,000	- -	91,600	113,900	117,500	3.2
Washington-Milwaukee Counties	- -	- -	- -	67,500	127,600	127,500	0.1
Waukesha-Milwaukee Counties	534,000[b]	240,000	290,000	667,700	500,200	496,200	-0.8
Western Kenosha County	- -	- -	- -	- -	15,000	18,100	20.7
Subtotal	891,000	457,000	372,000	908,200	839,600	842,300	0.3
Total Bus Systems	94,671,000	53,854,000	56,788,000	57,117,900	43,088,500	41,894,100	-2.8
Shared-Ride Taxi Systems							
City of Hartford	- -	- -	8,000	20,800	21,000	20,500	-2.4
Ozaukee County	- -	- -	- -	57,300	79,900	90,800	13.6
City of Port Washington	- -	- -	- -	23,200	20,200	- - [b]	-100.0
Washington County	- -	- -	- -	52,300	99,600	92,900	-6.7
City of West Bend	- -	- -	- -	134,400	123,000	119,800	-2.6
City of Whitewater	- -	- -	38,000	19,700	32,800	31,900	-2.7
Subtotal	- -	- -	46,000	307,700	376,500	355,900	-5.5
Region	94,671,000	53,854,000	56,834,000	57,425,600	43,465,000	42,250,000	-2.8

[a] *The ridership figures shown in this table reflect transit revenue passengers as reported to the Wisconsin Department of Transportation by each transit operator. Since 1978, the annual revenue ridership figures reported to the State by the urban bus systems have included transfer trips made by passengers using a transit pass instead of a transfer slip to transfer between bus routes. The bus ridership figures shown here are somewhat higher than the estimates of linked transit passenger trips reported in other published Commission documents and reports. Linked passenger trips approximate the number of one-way trips made on the transit system between specific origins and destinations with transit passengers being counted only once for each origin and destination. Transfers between bus routes are not counted as they are a continuation of a single trip. By way of comparison with the transit revenue passengers shown in this table, the Commission estimated the total annual linked transit passenger trips in the Region at about 34.5 million in 2012 and 2011 and about 48.4 million in 1991.*

[b] *The shared-ride taxi service operated by the City of Port Washington was merged with the Ozaukee County Taxi Service at the end of 2012.*

Source: SEWRPC

Table 3.14
Average Annual Growth Rate of Average Weekday Vehicle-Miles of Travel in the Region

	Time Period	Annual Growth Rate
Historic	1960's	4.9
	1970's	2.7
	1980's	2.6
	1990's	1.9
	2001-2005	1.5
	2005-2011	-0.5
Forecast	2000-2007	1.5
	2007-2020	1.0
	2020-2035	0.6

Source: SEWRPC

Table 3.15
Arterial Vehicle-Miles of Travel on an Average Weekday in the Region

	Year	Vehicle-Miles of Travel (millions)
Estimated Historic	1963	13.1
	1972	20.1
	1991	33.1
	2001	39.7
	2005	42.2
	2011	40.9
Forecast	2011	43.5
	2035	54.0

Source: SEWRPC

Public Transit Ridership Forecasts

Public transit service was provided in the Region in 2012 through 10 intracounty systems and five intercounty systems. Table 3.13 shows the total reported revenue ridership for each public transit system in the Region. Public transit ridership fell 13 percent between 2000 and 2004 as service was reduced over this time period, and, after remaining somewhat stable between 2004 and 2008, public transit ridership declined again by about 9 percent in 2009. Ridership has remained relatively stable following 2009. Ridership in 2012 was below year 2035 regional transportation plan forecasts for 2012, with estimated 2012 ridership of 34.5 million linked passenger trips per weekday, which was 10.8 million trips, or about 23 percent, less than the 2012 forecast of 45.3 million trips.[12] This difference is a result of the lack of implementation of fixed-route bus service, and the larger than recommended transit fare increases.

[12] *The revenue passengers shown in Table 3.13 differ from the linked passenger trips referenced in the text. Revenue passengers—provided annually by transit operators to WisDOT—count each transfer by a passenger using a pass as a separate trip, while counting passengers who paid cash and received a transfer slip to make a transfer(s) as a single trip. Linked trips—estimated by the Commission's travel demand models—consider any trip with a transfer(s) as a single trip.*

Vehicle-Miles of Travel Forecasts

Table 3.14 presents the historic and forecast future (under the year 2035 plan) average annual growth rate in vehicle-miles of travel in the Southeastern Wisconsin Region. Table 3.15 presents historic and forecast future levels in vehicle-miles of travel in the Region. The average annual growth rate in vehicle-miles of travel in the Region has declined over the past 40 years, and is forecast under the year 2035 regional transportation plan to continue to decline significantly.

Forecast year 2011 vehicle-miles of travel totaled 43.5 million on an average weekday, about 6% more than the estimated 40.9 million.

The base year for the year 2035 plan forecasts of vehicle-miles of travel was 2001, the year of the regional travel and traffic inventories conducted as part of the 2035 plan. Estimates of regional vehicle-miles of travel are prepared approximately every three to five years using traffic counts conducted by WisDOT. WisDOT conducts traffic counts in about one-third of the Region's counties on an annual basis. The latest regional vehicle-miles of travel estimate is for the year 2011, using WisDOT traffic counts in the Region for the years 2010 through 2012. In 2011, it is estimated that there were 40.9 million vehicle-miles of travel on the Region's arterial street and highway system on an average weekday. Forecast year 2011 vehicle-miles of travel in the Region under the year 2035 regional transportation plan totaled 43.5 million arterial system vehicle-miles of travel on an average weekday, approximately 2.6 million vehicle-miles, or about 6.4 percent more than the estimated Region arterial vehicle-miles of travel on an average weekday in 2011.

Summary and Conclusions for Part III

Part III of this chapter has provided an overview of the Commission's year 2035 regional transportation system plan and assessment of how well that plan has been implemented, focusing on the key plan recommendations. The 2035 plan is a fifth generation plan. It was originally adopted in 2006 and amended on six occasions, including a review and reaffirmation of the plan that was completed in 2010 and again in 2014.

The following are key concepts of the 2035 regional transportation system plan as amended:

- The regional transportation system plan is designed to serve the travel demand generated by the year 2035 regional land use plan. The year 2035 regional land use plan was developed to represent a desired pattern of regional land use and not a projection of current land use development trends toward further decentralization of population, employment, and urban land uses.

- There are five elements of the year 2035 regional transportation system plan adopted in 2006: bicycle and pedestrian facilities, public transit, transportation systems management, travel demand management, and arterial streets and highways. In addition, elements relating to transportation safety and transportation security were added in 2011 as refinements to the regional transportation system plan.

- Highway capacity additions were recommended in the regional transportation system plan to address the traffic congestion that may not be expected to be alleviated by land use, TSM, TDM, bicycle and pedestrian facilities, or public transit measures. The potential of transit, bicycle and pedestrian facilities, TSM, and TDM plan elements to alleviate congestion was first explicitly identified. Highway capacity additions were then recommended to be added to the regional

transportation plan to resolve, to the extent considered practicable, the residual existing and probable future traffic congestion.

The year 2035 regional transportation system plan was based upon forecasts of personal vehicle availability, weekday person trips and vehicle trips, vehicle-miles of travel, and transit ridership. This chapter included a review of these forecasts and comparison to actual current estimates, which indicates that the forecasts underlying the plan remain valid for long-range planning.

Substantially Implemented Recommendations

- **Bicycle and pedestrian facilities:** The bicycle and pedestrian facilities element of the plan is designed to provide for safe accommodation of bicycle and pedestrian travel, encourage bicycle and pedestrian travel, and to provide modal choice. The plan element recommends that as the surface arterial street system of approximately 3,300 miles is resurfaced and reconstructed segment-by-segment, bicycle accommodation should be considered and implemented, if feasible, through bicycle lanes, widened outside travel lanes, widened shoulders, and separate bicycle paths. Additionally, the plan element also recommends development of 548 miles of off-street bicycle and pedestrian paths, along with 168 miles of surface arterial and 89 miles of non-arterial connections.

  Approximately 203 miles of the planned 548 miles of off-street paths existed in 2006, and another 52 miles of the planned paths have since been constructed as of 2014. Also, Wisconsin State Statutes and FHWA policy now require that bicycle and pedestrian accommodations be provided in all new highway construction and reconstruction projects funded with State or Federal funds, unless it is demonstrated that such accommodation is prohibitive.

- **Transportation systems management:** The TSM element of the plan included measures intended to manage and operate existing transportation facilities to their maximum carrying capacity and travel efficiency. The TSM element of the plan includes the following four measures: freeway traffic management, surface arterial street and highway traffic management, major activity center parking management and guidance, and the preparation of a regional transportation operations plan.

  Implementation has included the expansion of freeway ramp-meters, variable message signs and closed-circuit television cameras, and installation of a 511 travel information system. Other implementation has included additional traffic signal interconnection and coordination.

- **Travel demand management:** The TDM measures included in the recommended year 2035 regional transportation plan include measures intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. Seven categories of TDM measures were recommended in the year 2035 plan: high-occupancy vehicle preferential treatment, park-ride lots, transit pricing, personal vehicle pricing, TDM promotion, transit information and marketing, and detailed site-specific neighborhood and major activity center land use plans.

Implementation has included expansion of park-ride lots, transit system internet trip planners, and automatic bus location systems, and development of site specific transit-oriented development neighborhood plans for the nine potential KRM commuter rail station areas.

Partially Implemented Recommendations

- **Arterial street and highway system:** The regional transportation system plan as amended recommended three types of functional improvements to the arterial street and highway system: system preservation, consisting of the resurfacing and reconstruction necessary to properly maintain existing arterial roadways; system improvement, consisting of the widening of existing facilities to provide additional traffic lanes; and system expansion, consisting of the construction of new arterial facilities. About 3,209 miles, or 88 percent, of the total arterial street and highway system would require only preservation; about 360 miles, or about 10 percent, would require improvement; and about 93 miles, or about 2 percent, would constitute new facilities.

  About 75.7 miles, or 17 percent, of the plan-recommended 453 miles of arterial capacity expansion have been completed and are open to traffic as of 2014. Also, a 30-mile segment of IH 94 between the Mitchell Interchange in Milwaukee County and the Wisconsin-Illinois State line is currently being reconstructed with additional traffic lanes and is planned to be completed in 2021. Reconstruction of the Mitchell Interchange and the portion of IH 94 from the Wisconsin-Illinois State line to STH 50 in Kenosha County was completed in 2012. With respect to the other major freeway-to-freeway interchanges in Southeastern Wisconsin, reconstruction of the Marquette Interchange—the largest and most complicated interchange—was completed in 2008. Reconstruction of the Zoo Interchange began in 2013 and is planned to be completed in 2018.

- **Transportation safety:** The safety element contained a review of the transportation safety objectives, principles, and standards documented in the year 2035 regional transportation plan adopted in 2006, along with presenting a proposed expanded set of transportation safety objectives, principles, and standards. The safety element also included listing and discussion of the year 2035 regional transportation plan recommends that advance transportation safety. In addition, the element included recommendations for improved traffic crash and safety data, and recommendations for further study and improvements on those roadway segments with the most severe safety problems. The safety element was recently added to the plan (in 2011), so there has not been enough time to track its implementation.

- **Transportation security:** The security element provided an overview of transportation security and considered security-related issues and efforts that are ongoing to protect transportation networks and facilities at the Federal, State, and regional levels. The element also provided affirmation of the Commission's role in regional coordination of transportation security-related projects, along with the incorporation of security considerations into future transportation system preservation, improvement, or expansion projects. The security element was recently added to the plan (in 2011), so there has not been enough time to track its implementation.

Unimplemented Recommendations

- **Public transit:** The public transit element of the 2035 regional transportation system plan envisioned significant improvement and expansion of public transit in Southeastern Wisconsin, including development within the Region of a high-speed rail line, rapid transit and express transit systems, improvement of existing local bus service, and the integration of local bus service with the recommended rapid and express transit services. Altogether, service on the regional transit system would be nearly doubled from service levels existing in 2005 measured in terms of revenue transit vehicle-miles of service provided, from about 69,000 vehicle-miles of service on an average weekday in the year 2005 to 137,300 vehicle-miles of service in the year 2035.

  Despite regional transportation plan recommendations for significantly improving and expanding public transit, the amount of transit service has declined by about 4 percent since adoption of the plan in 2006 (7 percent decrease in fixed-route bus service and 17 percent increase in shared-ride taxi service) and transit fares have increased by amounts greater than general price inflation. The plan envisioned transit service increases beginning in 2008 at an annual rate of about 2 percent through the year 2035, and transit fare increases at the general rate of price inflation. It was recognized, however, that these plan recommendations may only occur upon achieving State legislation for dedicated funding and would be assisted by creation of a regional transit authority. State legislation was enacted in mid-2009 creating a commuter rail authority with dedicated local funding, and State legislation for a regional transit authority with dedicated local funding was considered but not adopted in 2009 and again in 2010. In 2011, the 2011-2013 State biennial budget eliminated the regional authority responsible for implementing the commuter rail line. In addition, implementation of the planned high-speed rail line was indefinitely postponed following withdrawal of Federal funding in December 2010, which occurred as a result of the newly elected Governor's opposition to using the funding for a high-speed rail line. Despite this project's postponement, high-speed rail remains a part of WisDOT's long-range State rail plan.

Conclusions

The year 2035 regional transportation system plan was guided by a vision for "a multimodal transportation system with high quality public transit, bicycle and pedestrian, and arterial street and highway elements." When implementation of any transportation plan element is not realized, this vision is not achieved, which can have significant negative consequences.

This chapter has indicated that several of the key regional transportation system plan recommendations have been substantially implemented. Significant progress on the bicycle and pedestrian element was made as new off-street paths were constructed and on-street accommodation on highway construction and reconstruction projects has been required. Numerous transportation systems management and travel demand management measures have been continued, implemented, or expanded in accordance with the plan. Planned improvement and expansion of the arterial street and highway system has progressed, although implementation has generally been slower than anticipated due to limited available funding. In contrast to the other transportation plan elements, the public transit element has not been implemented. Instead, transit service levels have been declining since the year 2000 due to inadequate funding.

Insufficient funding more severely affects public transit than highways because highway funding is largely capital funding for construction projects, while transit funding is largely operating funding for providing service. Lagging highway funding results in project deferral or delay, but lagging transit funding results in service elimination or passenger fare increases.

These funding-related reductions in transit service and increases in passenger fares have occurred for more than a decade in the Region, and may occur to an even greater extent in the future as Federal funding now in operating budgets may need to be used for capital projects, unused "banks" of Federal capital funding have been exhausted, and local funding through increases in property taxes is currently significantly constrained by State law. Not fully implementing the year 2035 regional transportation plan due to the limitations of current transportation revenues will have significant negative consequences for Southeastern Wisconsin:

- Traffic congestion and travel delays may be expected to increase, and travel reliability may decrease, as highway capacity improvements are deferred and delayed and public transit is not improved and expanded in the Region's most heavily traveled corridors, urban areas, and activity centers.

- Transportation-related energy consumption and air pollutant emissions may be expected to be greater as a result of increased traffic congestion and a lack of improvement and expansion of public transit.

- Costly emergency repairs and inefficient pavement maintenance may be expected to be required on the freeway system as segments of freeway and freeway bridges reach the end of their service life and funding does not permit their reconstruction.

- For the estimated 10 percent of the Region's residents who are unable to use or cannot afford an automobile, mobility and access to the Region may be limited, including with respect to jobs, health care, education, grocery shopping, and other basic travel needs.

- Costs of public infrastructure and services, and the taxes necessary to support them, may be higher as improved and expanded public transit would not be available to support and promote more efficient higher density development.

All of these consequences of not implementing the year 2035 regional transportation plan may negatively impact economic growth in Southeastern Wisconsin and the quality of life of its residents. Future projections indicate that soon the Region will no longer be able to support economic growth with internal growth of the Region's labor force. Rather, there will be a need for population and labor force to in-migrate, or choose to locate in Southeastern Wisconsin if the Region is to experience even a modest growth in jobs. More severe traffic congestion, an inability to sustain and expand public transit service, and inefficient transportation and infrastructure expenditures will be obstacles to attracting labor force and business growth to Southeastern Wisconsin.