

2016 ANNUAL REPORT



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FIFTY-SIXTH ANNUAL REPORT

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Serving the Counties of:

KENOSHA
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November 1, 2017

TO: The Wisconsin Legislature and the Legislative bodies of the
Local Governmental Units within the Southeastern Wisconsin Region

Preparing and certifying our Annual Report for the Wisconsin State Legislature, the seven counties, and the local units of government in our Region [as required by Section 66.0309(8)(b) of the Wisconsin Statutes], gives us the opportunity to review and reflect on our valuable partnerships and accomplishments of the past year. It gives county and local public officials, as well as other interested citizens, a comprehensive overview of current and proposed Commission activities, thereby encouraging active participation and ownership in the work of the Commission. The report also serves as an annual accounting to those State and Federal agencies that help fund our programs. Hence, this 56th annual report not only summarizes our work in 2016, but it also contains a certified statement of our financial position as determined by an independent auditor.

The 2016 annual Report is organized in three parts. Part One sets forth basic information about the Commission and a brief description of each of the elements that comprise the comprehensive regional plan. Part Two documents Commission work activities undertaken during 2016. Part Three documents the results of Commission monitoring efforts carried out during 2016 relative to various aspects of regional growth and change.

Please contact us if you have any questions or comments on the Commission's work. We look forward to continuing to serve our county and local governments, as well as the State and Federal agencies by providing the intergovernmental planning services required to address the areawide environmental, developmental, and infrastructure problems facing Southeastern Wisconsin and by promoting the intergovernmental cooperation needed to address those problems.

Very truly yours,

Charles L. Colman
Chairman

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PART ONE: REGIONAL PLANNING IN SOUTHEASTERN WISCONSIN

This section of the 2016 SEWRPC Annual Report includes basic information about the Commission and its approach to the process of preparing and adopting regional plan elements that together comprise a comprehensive regional plan. Also included is a brief description of each of the elements of that plan, including the regional land use and transportation plan (VISION 2050), the regional park and open space plan, the regional natural areas and critical species habitat plan, the regional housing plan, the region-

al water quality management plan, and the regional water supply plan. This section concludes with brief references to other regional plan elements that were prepared over the years.

Part Two of this Annual Report which documents Commission work activities undertaken during 2016, begins on page 41. Part Three, which documents the results of Commission monitoring efforts during the year, begins on page 91.



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ABOUT THE COMMISSION

Authority

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) was established in 1960 under Section 66.0309 of the *Wisconsin Statutes* as the official areawide planning agency for the highly urbanized southeastern region of the State. The Commission was created to provide the basic information and planning services necessary to solve problems that transcend the corporate boundaries and fiscal capabilities of the local units of government comprising the Southeastern Wisconsin Region. Those problems include traffic congestion, flooding, and water quality, among others. The Wisconsin regional planning enabling legislation can be found at www.sewrpc.org/about.

Area Served

The Commission serves the Southeastern Wisconsin Region, which consists of the seven counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha (see Map 1). These seven counties have an area of about 2,689 square miles, or about 5 percent of the total area of the State. These counties, however, have a resident population of over 2 million people, or about 35 percent of the total population of the State, and contain about 1.3 million jobs, or about 35 percent of the total employment of the State. The Region contains real property worth about \$179.1 billion, or about 35 percent of all the tangible wealth of the State as measured by equalized valuation. At the end of 2016, there were 155 general-purpose local units of government in the Region, all of which participate in the work of the Commission.

Basic Concepts

Regional, or areawide, planning is recognized as a necessary governmental function in the large metropolitan areas of the United States. This recognition stems from an awareness that problems of physical and economic development and of environmental deterioration transcend the geographic limits and fiscal capabilities of the local units of government comprising such large areas, and that sound resolution of these problems requires the cooperation of all units and agencies of government and of private interests as well.

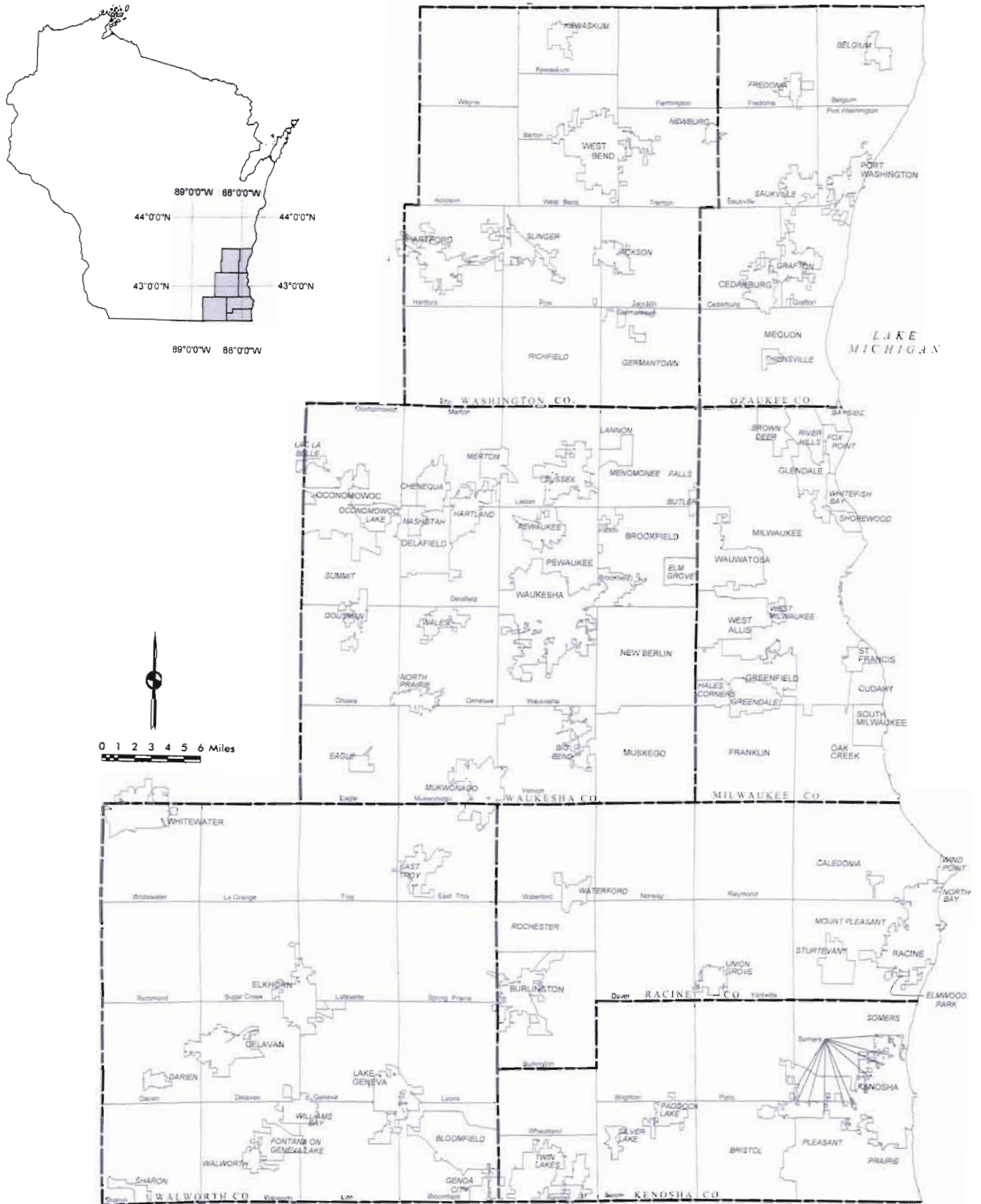
As used by the Commission, the term “region” means an area larger than a county but smaller than a state, united by economic interests, geography, and common developmental and environmental problems. A regional basis is necessary to provide a meaningful technical approach to the proper planning and design of such systems of public works as highway and transit, sewerage and water supply, and park and open space facilities. A regional basis is also essential to provide a sound approach to the resolution of such environmental problems as flooding, air and water pollution, natural resource base deterioration, and changing land use.

Private as well as public interests are vitally affected by these kinds of areawide problems and by proposed solutions to these problems. It appears neither desirable nor possible for any one level or agency of government to impose the decisions required to resolve these kinds of problems. It is better that these decisions come from consensus among the public and private interests concerned, based on a common interest in the welfare of the entire Region. Regional planning is necessary to promote this consensus and the necessary cooperation among urban and rural; local, State, and Federal; and public and private interests. In this light, regional planning is not a substitute for Federal, State, or local public planning or for private planning. Rather, regional planning is a vital supplement to such planning.

The work of the Commission is advisory in nature. Consequently, the regional planning program in Southeastern Wisconsin has emphasized the promotion of close cooperation among the various governmental agencies concerned with land use development and with the development and operation of supporting public works facilities. The Commission believes that the highest form of areawide planning combines accurate data and competent technical work with the active participation of knowledgeable and concerned public officials and private citizens in the formulation of plans that address clearly identified problems. Such planning is intended to lead to a more efficient regional development pattern and a more desirable environment in which to live and work.

Map 1

THE SOUTHEASTERN WISCONSIN REGION: 2016



Basic Functions

The Commission conceives regional planning as having the following three basic functions:

The collection, analysis, and dissemination of basic planning and engineering data on a uniform, areawide basis. The creation and use of such data can in and of itself contribute to better development decision-making in both the public and private sectors that operate in the Region.

The preparation of long-range areawide plans for the physical development of the Region. Mandated by the State planning enabling legislation, the Commission places emphasis on the preparation of plans for land use and supporting transportation, utility, and community facilities.

The provision of a center for coordinating day-to-day planning and plan implementation activities of all of the governments operating within the Region. Through this function, the Commission seeks to integrate regional and local plans and planning efforts and thereby to promote regional plan implementation.

Organization

The Commission consists of 21 members, three from each of the seven member counties. One Commissioner from each county is appointed by the County Board or, in those counties where a County Executive appoints, confirmed by the County Board and by custom is an elected County Board Supervisor. The remaining two from each county are appointed by the Governor, one from a list prepared by the county. All appointments are for six-year terms.

The full Commission is responsible for establishing overall policy, adopting the annual budget, and adopting regional plan elements. The Commission has four standing committees: Executive, Administrative, Planning and Research, and Intergovernmental and Public Relations. The Executive Committee oversees the work effort of the Commission and is empowered to act for the Commission in all matters except the adoption of the budget and the adoption of regional plan elements. The Administrative Committee oversees the financial and personnel matters of the Commission. The Planning and Research Committee reviews all of the technical work carried out by the

Commission staff and its consultants. The Intergovernmental and Public Relations Committee serves as the Commission's principal arm in communicating with the constituent county boards. Commission and committee rosters for 2016 are set forth in Appendix A.

The Commission is assisted greatly in its work by Advisory Committees. These committees include both elected and appointed public officials and interested citizens with knowledge in the Commission work program areas. The committees perform a significant function in both the formulation and the execution of those work programs. Website links to the Advisory Committee rosters are set forth in Appendix B.

Staffing

The Commission prepares an annual work program that is reviewed and approved by Federal and State funding agencies. This work program is then carried out by a core staff of full-time professional, technical, and clerical personnel, supplemented by additional temporary staff and consultants as required by the various work programs under way. At the end of 2016, the Commission staff totaled 71, including 66 full-time and five part-time employees. An organizational chart is shown on Figure 1. A list of Commission staff members for 2016 can be found in Appendix C.

Funding

Basic financial support for the Commission's work program is provided by a special property tax charge levied on local governmental units by the counties and apportioned on the basis of equalized valuation. These basic funds are supplemented by State and Federal aids. County-levied special property tax charges in 2016 totaled about \$2.3 million. The County-levied special property tax charge has either declined or been held flat with no increase since 2007. A summary of revenues and expenditures in 2016 is presented in Figure 2.

The Commission has a complete financial audit performed each year by a certified public accountant. Under the Federal Single Audit Act of 1984, the Commission's audit is subject to the review and approval of the Commission's Federal cognizant agency, the Federal Highway Administration. The 2016 audit report is set forth in Appendix D.

Figure 1

SEWRPC ORGANIZATIONAL STRUCTURE: 2016

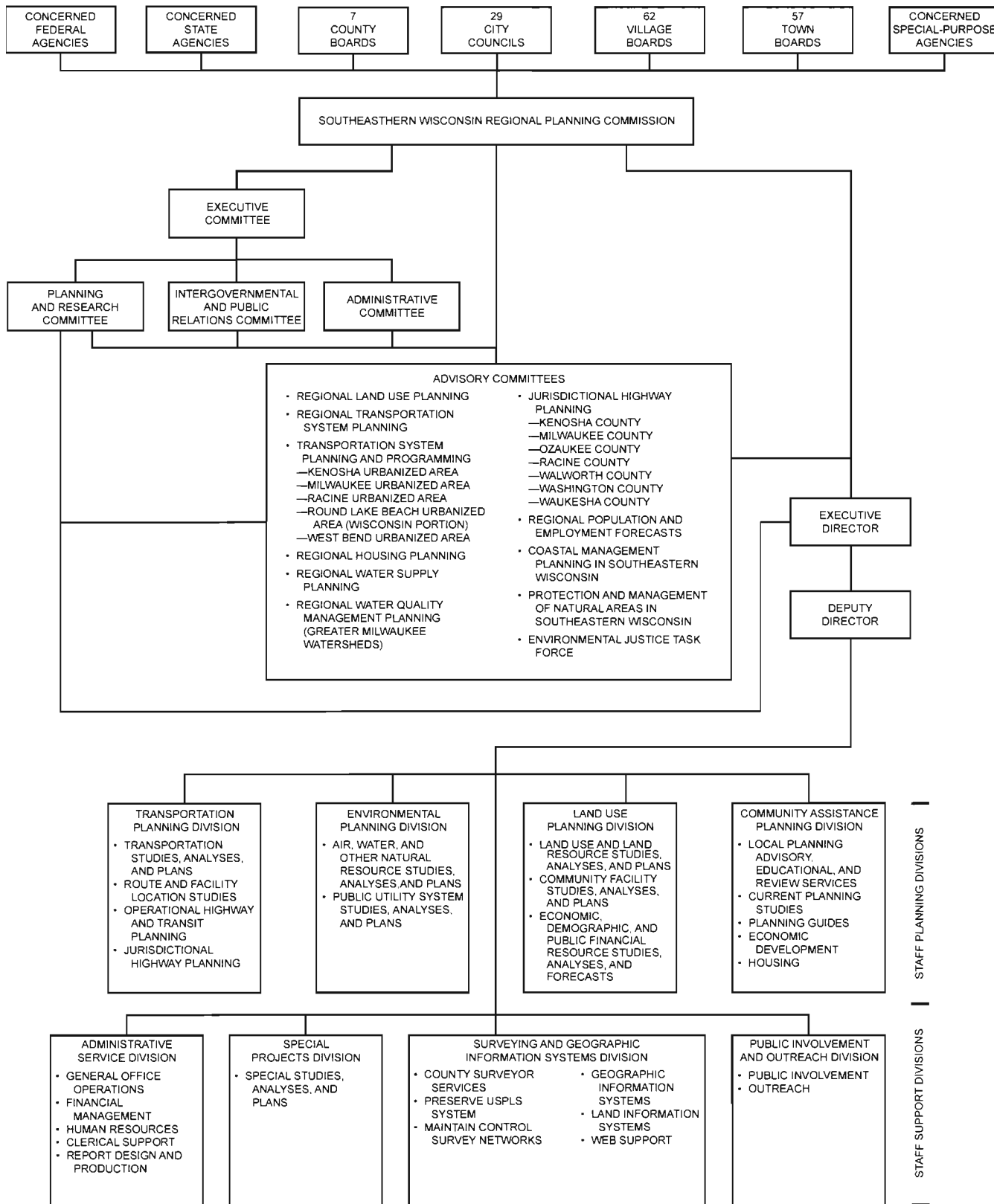
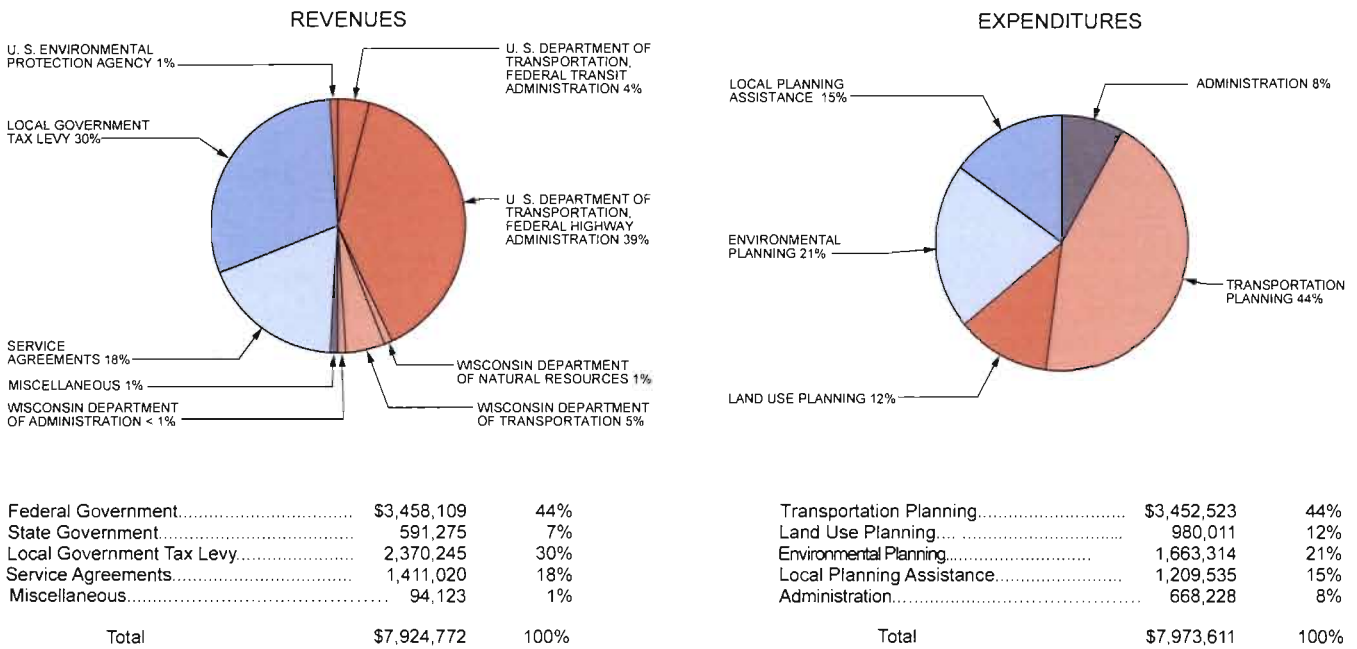


Figure 2
SEWRPC REVENUES AND EXPENDITURES: 2016



Documentation

Documentation in the form of published reports is essential to any public planning effort. Planning reports, made available in hard copy and digital form, represent the best means for disseminating inventory data that have permanent historical value and for promulgating plan recommendations. Published reports are intended to serve as important references for public officials at the Federal and State levels, as well as at the local level, when considering development decisions. Perhaps most important, however, published reports are intended to provide a focus for generating enlightened citizen interest in, and action on, plan recommendations.

The Commission has established the following series of published reports:

- Planning Reports, intended to document the adopted elements of the comprehensive plan for the physical development of the Region.
- Planning Guides, intended to constitute manuals of local planning practice.

- Technical Reports, intended to make available information assembled during the course of planning work on a work progress basis.
- Community Assistance Planning Reports, intended to document local plans prepared by the Commission at the request of one or more local governments.
- Memorandum Reports, intended to document the results of locally requested special studies.
- Planning Program Prospectuses, prepared as a matter of policy as the initial step in undertaking any major new planning program.
- Annual Reports, intended to summarize the activities of the Commission in any given year.

A list of Commission publications is set forth in Appendix E and can be found at www.sewrpc.org/publications. All publications are available from the Commission offices and through the website.

THE REGIONAL COMPREHENSIVE PLAN 2016: A BRIEF OVERVIEW

Plan Design Function

The Commission is charged by law with the function and duty of “making and adopting a master plan for the physical development of the [R]egion.” The scope and content of this plan may extend to all phases of regional development. Implicitly emphasized, however, are the preparation of alternative spatial designs for the use of land and for supporting transportation and utility facilities.

The scope and complexity of areawide development problems prohibit the making and adopting of an entire comprehensive development plan at one point in time. Accordingly, the Commission prepares individual plan elements that together can comprise the required comprehensive plan. Each element is intended to address an identified areawide developmental or environmental problem. The individual elements are coordinated by being related to an areawide land use plan. Thus, the land use plan comprises the most basic regional plan element, an element on which all other elements are based.

The Commission has placed great emphasis upon the preparation of a comprehensive plan for the physical development of the Region in the belief that such a plan is essential if land use development is to be properly coordinated with the development of supporting transportation, utility, and community facility systems; if the development of each of these individual functional systems is to be coordinated with the development of the others; if serious and costly environmental and developmental problems are to be minimized; and if a more healthful, attractive, and efficient regional settlement pattern is to be evolved. Under the Commission’s approach, the preparation, adoption, and use of the comprehensive plan are considered to be the primary objectives of the planning process; all planning and plan implementation techniques are based upon, or related to, the comprehensive plan. A record of all Commission regional plan adoption actions can be found at www.sewrpc.org/planadoptions.

The Commission believes that the comprehensive plan is essential to coping with the developmental and environmental problems generated by areawide urbanization. The comprehensive plan provides the

necessary framework for coordinating and guiding growth and development within a multijurisdictional urbanizing region having essentially a single community of interest. The comprehensive plan also provides the best conceptual basis available for the application of systems engineering skills to the problems of such a region. This is because systems engineering focuses on the design of physical systems. It seeks to achieve good design by setting viable objectives, determining the ability of alternative plans to meet those objectives through quantitative analyses, cultivating interdisciplinary team activity, and considering all of the relationships involved both within the system being designed and between the system and its environment.

The Cyclical Nature of the Planning Process

The Commission views the planning process as cyclical in nature, alternating between areawide systems planning and local project planning. Under this concept, for example, with respect to transportation planning, transportation facilities development and management proposals are initially advanced at the areawide systems level of planning and then an attempt is made to implement the proposals through local project planning. If, for whatever reasons, a particular facility construction or management proposal advanced at the areawide systems planning level cannot be implemented at the project level, that determination is taken into account in the next phase of systems planning.

In recognition of the cyclical nature of the planning process, the Commission carries out a series of continuing planning efforts designed to ensure—to the extent that fiscal resources permit—that the adopted plan elements are both kept current and extended in terms of design year. Thus, the Commission carries on a continuing regional land use planning program designed in part to update, amend, and extend the regional land use, regional park and open space, regional natural areas and critical species habitat, and regional housing plans; a continuing regional transportation planning program designed to update, amend, and extend the regional transportation plan; and a continuing regional environmental planning program designed to update, amend, and extend the regional water quality management plan and the regional water supply plan, as well as the floodplain management elements of comprehensive watershed plans.

VISION 2050: THE REGIONAL LAND USE AND TRANSPORTATION PLAN

VISION 2050, the long-range regional land use and transportation plan for Southeastern Wisconsin, was adopted by the Commission in July 2016 and is documented in SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation Plan for Southeastern Wisconsin*. VISION 2050 recommends a long-range vision for land use and transportation in the seven-county Southeastern Wisconsin Region. The plan makes recommendations to local and State government to shape and guide land use development and transportation improvement, including public transit, arterial streets and highways, freight, and bicycle and pedestrian facilities, to the year 2050. It builds on the strengths of the Region, and seeks to improve areas where the Region does not compete well with peer Regions so it can attract new residents and businesses. Map 2 provides an overview of VISION 2050, showing an integration of some of the key parts of the plan's land use and transportation components.

More information on VISION 2050, including interactive maps of the main plan elements, can be found at vision2050sewis.org.

Land Use Component

The VISION 2050 land use component presents a development pattern and recommendations that are intended to provide a guide, or overall framework, for future land use in the Region. The land use component accommodates projected growth in regional population, households, and employment in a sustainable manner through a focus on compact development. The compact development recommended under VISION 2050 ranges from high-density development such as transit-oriented development (TOD) to neighborhoods in smaller communities with housing within easy walking distance of neighborhood amenities such as parks, schools, and businesses. Figure 3 illustrates the land use categories to which population, households, and employment were allocated under VISION 2050 and Map 3 presents the recommended land use development pattern. Key land use recommendations for the Region are set forth below.

Preserve Primary Environmental Corridors

The best remaining features of the Region's natural resource base (lakes, rivers, streams, wetlands, wood-

lands, among others) occur in linear patterns in the landscape. The largest and most well-connected of these linear patterns have been identified as primary environmental corridors. Primary environmental corridors, which encompass about 18 percent of the Region, should be preserved in natural, open uses.

Preserve the Region's Most Productive Agricultural Land

Each county in the Region, except Milwaukee County, has adopted a farmland preservation plan identifying areas to preserve in agricultural use. VISION 2050 recommends preserving these areas, and additional agricultural lands in the Region that have the highest quality soils (Class I and II soils), in agricultural use.

Preserve Areas with High Groundwater Recharge Potential

Groundwater is the source of potable water for nearly 40 percent of the Region's population; water for agriculture in the Region; and baseflow for streams, lakes, and wetlands. Preserving the Region's primary environmental corridors and prime farmland will preserve substantial areas in the Region with the highest recharge potential.

Focus Urban Development in Areas that can be Efficiently Served by Essential Municipal Facilities and Services

Encourage infill, redevelopment, and new development within and around the urban centers of each county, that is, those communities of each county in the Region with public sanitary sewer and water service.

Provide a Mix of Housing Types Near Employment—Supporting Land Uses

Develop commercial land and business parks in mixed-use settings where compatible, or near a mix of housing types to avoid job-worker mismatches.

Encourage and Accommodate Economic Growth

Encourage economic growth by continuing to develop the 61 existing and developing major economic activity centers in the Region, including a focus on developing and redeveloping long-established major centers. Major centers, shown on Map 4, have a concentration of at least 2,000 retail jobs or 3,500 total jobs.

**Map 2
VISION 2050 OVERVIEW**

- MAJOR CITY CENTER
- TRADITIONAL NEIGHBORHOOD
- SUBURBAN NEIGHBORHOOD
- EXURBAN
- RURAL/OPEN
- PRIMARY ENVIRONMENTAL CORRIDOR
- SURFACE WATER
- RAPID TRANSIT LINE
- COMMUTER RAIL LINE
- NEW OR WIDENED MAJOR ROAD
- OFF-STREET BIKE PATH OR ON-STREET CONNECTION

NOTE:
It is impossible to capture all VISION 2050 recommendations on one map. This map merely provides an introduction to the overall vision. It shows the integration of some key parts of the VISION 2050 land use and transportation components. Reviewing each element and its recommendations provides a better understanding of the full vision.

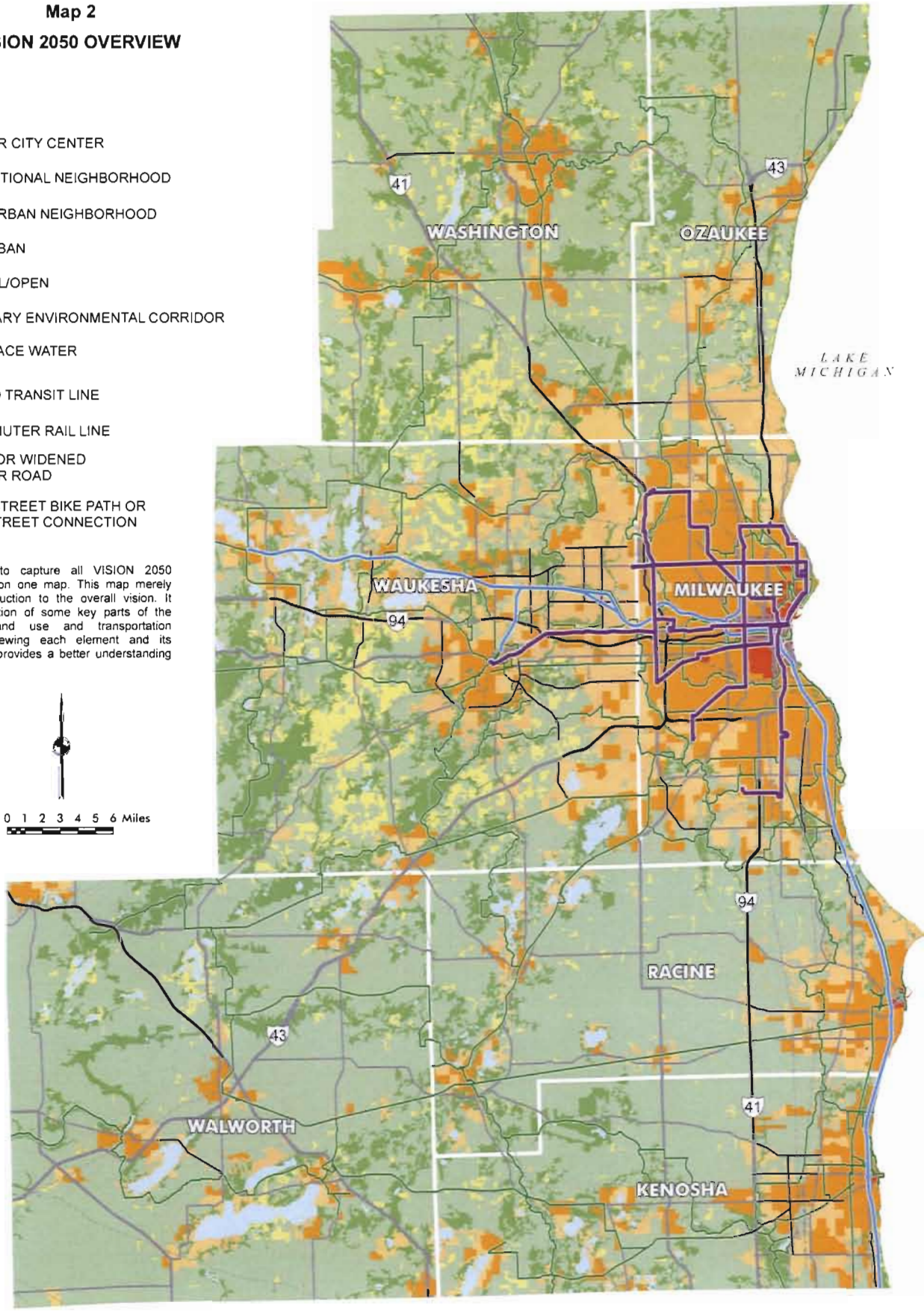
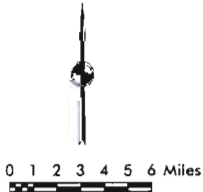


Figure 3

VISION 2050 LAND USE CATEGORIES

The recommended VISION 2050 land use pattern was developed by allocating new households and employment envisioned for the Region under the Commission's year 2050 growth projections to a series of seven land use categories that represent a variety of development densities and mixes of uses.



MIXED-USE CITY CENTER
Mix of very high-density offices, businesses, and housing found in the most densely populated areas of the Region



MEDIUM LOT NEIGHBORHOOD (showing lots of about 15,000 square feet)
Primarily single-family homes on 1/4- to 1/2-acre lots found at the edges of cities and villages



LARGE LOT NEIGHBORHOOD (showing lots of about 1/2 acre)
Primarily single-family homes on 1/2-acre to one-acre lots found at the edges of cities and villages and scattered outside cities and villages



MIXED-USE TRADITIONAL NEIGHBORHOOD
Mix of high-density housing, businesses, and offices found in densely populated areas



LARGE LOT EXURBAN (showing lots of about 1.5 acres)
Single-family homes at an overall density of one home per 1.5 to five acres scattered outside cities and villages













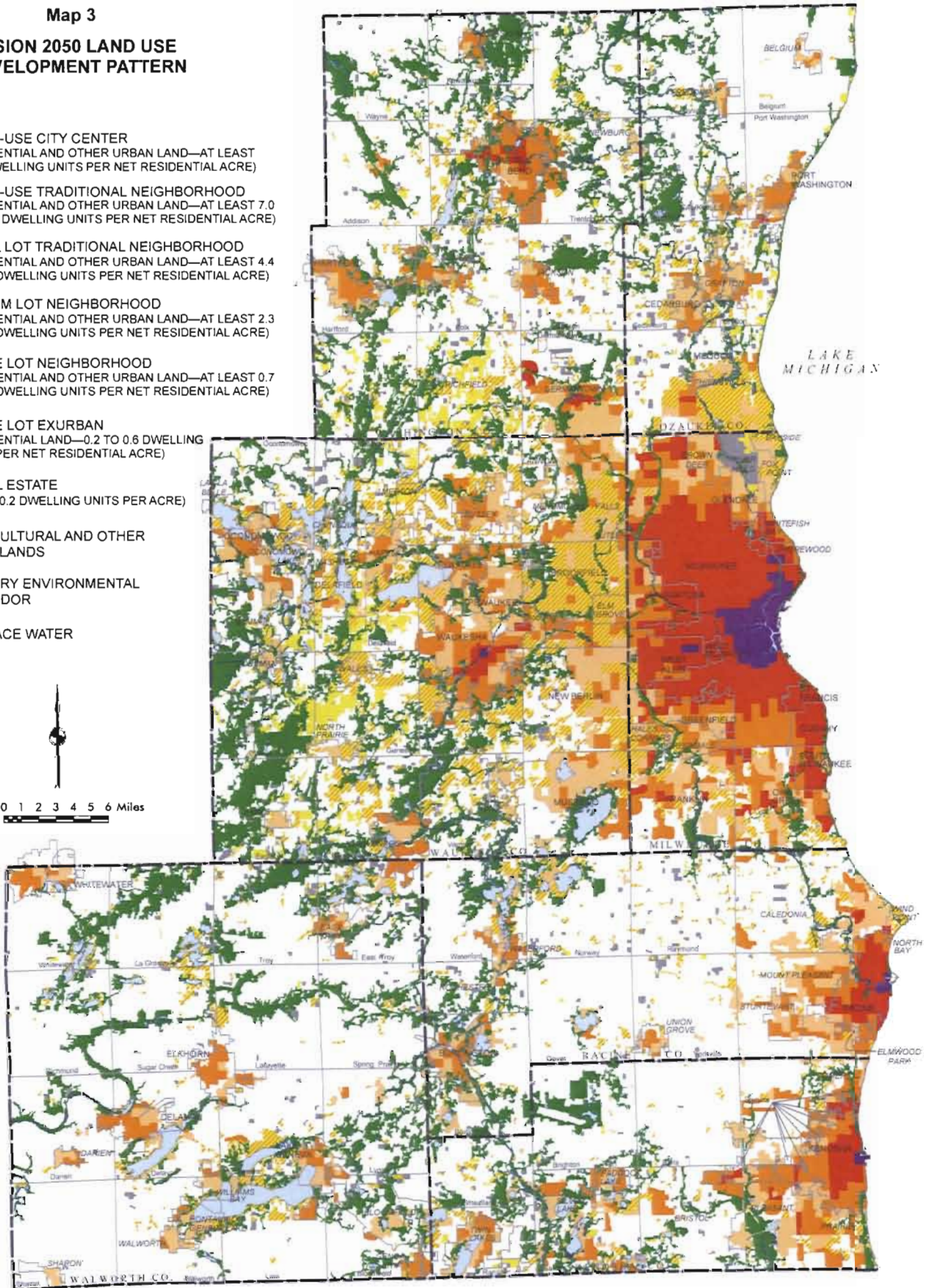
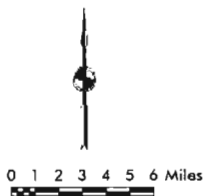
SMALL LOT TRADITIONAL NEIGHBORHOOD (showing lots of about 7,000 square feet)
Mix of housing types and businesses with single-family homes on lots of 1/4-acre or less found within and at the edges of cities and villages



RURAL ESTATE (showing a cluster subdivision with one-acre lots)
Single-family homes at an overall density of one home per five acres scattered outside cities and villages

Map 3
VISION 2050 LAND USE DEVELOPMENT PATTERN

-  **MIXED-USE CITY CENTER**
 (RESIDENTIAL AND OTHER URBAN LAND—AT LEAST 18.0 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **MIXED-USE TRADITIONAL NEIGHBORHOOD**
 (RESIDENTIAL AND OTHER URBAN LAND—AT LEAST 7.0 TO 17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **SMALL LOT TRADITIONAL NEIGHBORHOOD**
 (RESIDENTIAL AND OTHER URBAN LAND—AT LEAST 4.4 TO 6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **MEDIUM LOT NEIGHBORHOOD**
 (RESIDENTIAL AND OTHER URBAN LAND—AT LEAST 2.3 TO 4.3 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **LARGE LOT NEIGHBORHOOD**
 (RESIDENTIAL AND OTHER URBAN LAND—AT LEAST 0.7 TO 2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **LARGE LOT EXURBAN**
 (RESIDENTIAL LAND—0.2 TO 0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **RURAL ESTATE**
 (0.1 TO 0.2 DWELLING UNITS PER ACRE)
-  **AGRICULTURAL AND OTHER OPEN LANDS**
-  **PRIMARY ENVIRONMENTAL CORRIDOR**
-  **SURFACE WATER**



Map 4
VISION 2050 MAJOR ECONOMIC
ACTIVITY CENTERS

- EXISTING MAJOR ECONOMIC ACTIVITY CENTER IN 2010 TO BE RETAINED
- PROPOSED MAJOR ECONOMIC ACTIVITY CENTER: 2050

MAJOR ECONOMIC ACTIVITY CENTER TYPE

- G GENERAL PURPOSE CENTER
- I INDUSTRIAL CENTER
- R RETAIL CENTER
- O OFFICE CENTER
- I/O INDUSTRIAL/OFFICE CENTER
- R/O RETAIL/OFFICE CENTER

■ MAJOR ECONOMIC ACTIVITY AREA

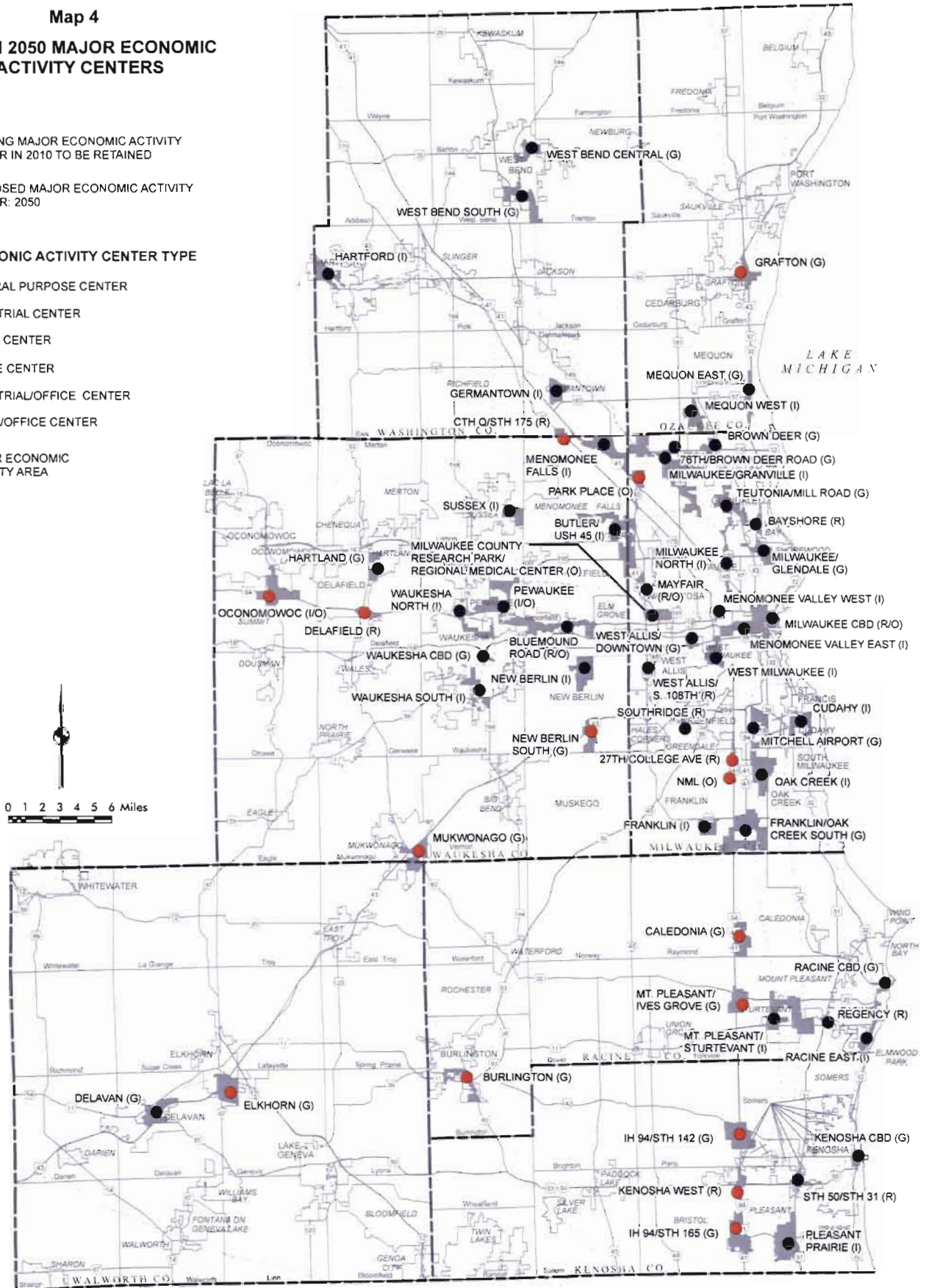


Figure 4

A TRANSIT-ORIENTED DEVELOPMENT



Develop Urban Service Areas with a Mix of Housing Types and Land Uses

Allow a mix of housing types and land uses, including multi-family housing and single-family on smaller lots (one-quarter acre or less). This type development can be provided with urban infrastructure and services at a lower public cost than single-family homes on larger lots, and tends to be more affordable to a wider range of households. It also encourages walkable neighborhoods by allowing housing near a mix of uses, such as parks, schools, and businesses. VISION 2050 recommends developing almost 90 percent of new housing under the Small Lot Traditional Neighborhood, Mixed-Use Traditional Neighborhood, and Mixed-Use City Center land use categories, each of which allow a mix of housing types and land uses.

Focus TOD Near Rapid Transit and Commuter Rail Stations

Focus TOD within one-half mile of rapid transit and commuter rail stations recommended under the VISION 2050 transportation component. Figure 4 illustrates TOD.

Consider Cluster Subdivision Design in Residential Development Outside Urban Service Areas

Accommodate the demand for homes in an open space setting outside urban service areas on a limited basis using cluster subdivision design, with no more than one acre of residential land (house and yard) for each dwelling while maintaining an overall density of one home per five acres. This will minimize impacts to natural and agricultural resources, maintain rural character, and avoid excessive demand on rural public services.

Transportation Component

As the Federally recognized metropolitan planning organization (MPO) for the Census-defined urbanized areas in Southeastern Wisconsin, the Commission prepares and maintains a multimodal regional transportation plan. VISION 2050 serves as this plan, representing the Commission's sixth generation regional land use and transportation plan. The transportation component of the regional plan is prepared and

adopted approximately every 10 years in conjunction with the update of the land use component. It is also subject to review, update, and reaffirmation every four years. The planning process carried out by the Commission addresses Federally-specified planning and programming requirements and, as such, ensures that Federal transportation funds routinely flow to the transportation agencies that provide the infrastructure essential to the day-to-day functioning of the Region. As the MPO, the Commission is also required to ensure that the Region's transportation plans conform to the State of Wisconsin air quality implementation plan. More information on the MPO function can be found at www.sewrpc.org/mpo.

The transportation component of VISION 2050, designed to serve the planned development pattern of the land use component, includes the following six elements: public transit, bicycle and pedestrian, transportation systems management, travel demand management, arterial streets and highways, and freight transportation. Each of these elements are summarized below, along with a fiscally constrained transportation plan, which, consistent with Federal regulations, represents the portion of the recommended transportation system under VISION 2050 that can be funded with existing and reasonably expected revenues.

Public Transit

The public transit element of VISION 2050 recommends a significant improvement and expansion of public transit in Southeastern Wisconsin, including four commuter rail lines, eight rapid transit lines, and significantly expanded local bus, express bus, commuter bus, and shared-ride taxi services. Map 5 displays the routes and areas served by the various components of the recommended transit element. With full implementation of the plan, service levels on the regional transit system would more than double by the year 2050. The recommended service improvements and expansion include expansion of service area and hours and significant improvements in the frequency and speed of service.

The recommended expansion of public transit would have significant costs to the Region's taxpayers, and is not recommended without due consideration of the increased public revenue that would be required to

build and operate this investment. However, the significant improvement and expansion of public transit is an essential component of a future transportation system that will serve all residents of the Region; provide better access to jobs; improve quality of life, attracting new residents to the Region and growing the Regional economy.

Key transit recommendations for the Region follow.

Develop a Rapid Transit Network







Develop eight rapid transit corridors (either bus rapid transit or light rail), with dedicated transit lanes and transit signal priority or preemption, in the Region. Envisioned stations would be spaced every one-half to one mile and would include off-board fare payment, real-time information screens, and raised platforms. Service would be provided every 15 minutes or better for nearly the entire day, with service being provided 24 hours a day in some corridors. Fares would be identical to those of local fixed-route and express bus services. The intent of the recommended rapid transit services is to provide travel times that are similar to the travel time of an automobile using parallel arterial street and highway facilities during congested peak periods. Map 5 shows the eight recommended bus rapid transit or light rail corridors.

Develop Commuter Rail Corridors and Improve and Expand Commuter Bus Services




Develop four commuter rail lines and significantly improve and expand existing commuter bus services. Both types of envisioned commuter services would provide frequent service, with service every 15 minutes in the peak in both directions and every 30 to 60 minutes in both directions at other times. Commuter bus services would be extended to serve new areas, and existing services would run in both directions throughout the day. Fares would start at the same level as local, express, and rapid services, and would increase with travel distance. Map 5 shows the recommended commuter bus services in red (with park-ride lots served by commuter bus identified by circles) and commuter rail services in orange (with station locations identified by circles). The recommended commuter services would generally have stops or stations at least two miles apart, and are intended to provide travel times that are competitive or better than cars over longer travel distances.

Map 5
VISION 2050 TRANSIT SERVICES

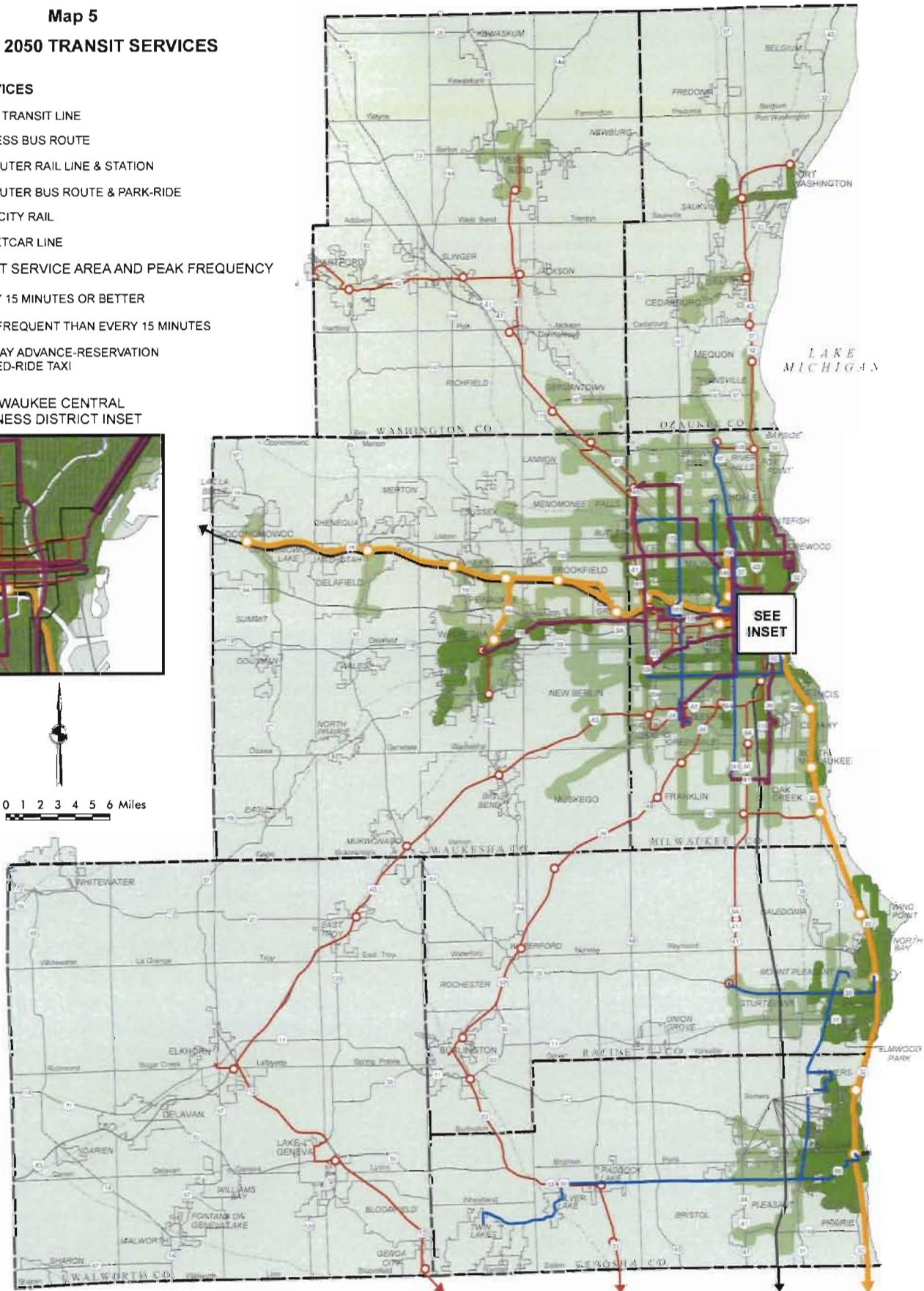
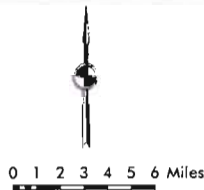
TRANSIT SERVICES

-  RAPID TRANSIT LINE
-  EXPRESS BUS ROUTE
-  COMMUTER RAIL LINE & STATION
-  COMMUTER BUS ROUTE & PARK-RIDE
-  INTERCITY RAIL
-  STREETCAR LINE

LOCAL TRANSIT SERVICE AREA AND PEAK FREQUENCY

-  EVERY 15 MINUTES OR BETTER
-  LESS FREQUENT THAN EVERY 15 MINUTES
-  ONE DAY ADVANCE-RESERVATION SHARED-RIDE TAXI

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



Improve Existing Express Bus Service and Add Service in New Corridors

Provide additional express bus services in the Region, and improve and extend existing express bus services (that would not be replaced by rapid transit lines). Envisioned stops would be spaced at least one-half mile apart, and, therefore, the services would provide better travel times than local bus routes. Express services in Milwaukee County would come at least every 15 minutes nearly the entire day, and services in Kenosha and Racine Counties would come every 15 minutes during peak periods and every 30 minutes at other times. Fares would be identical to those charged for rapid and local fixed-route services. Map 5 shows the recommended express bus routes in blue.

Increase the Frequency and Expand the Service Area of Local Transit

Improve and expand local transit service by improving the frequency and expanding the service area of local bus services, expanding streetcar service, extending shared-ride taxi service to any areas of the Region without local bus service, and continuing to provide paratransit service in areas served by local bus service. Map 5 shows the area served by local transit services of different types, with the shared-ride taxi service area shaded the lightest green, followed by areas served by less frequent local fixed-route bus service shown by the next shade darker, and then areas served by frequent local fixed-route bus service shown by the darkest shade of green. Streetcar service is shown as a dark green line. The paratransit service area is not shown, but paratransit service would be provided wherever the accessible shared-ride taxi service would not be available.

Improve Intercity Transit Services and Expand the Destinations Served

As recommended in the State's long-range transportation plan, expand the number of intercity bus and rail services and increase the speed and frequency of existing intercity rail services.

Implement "Transit-First" Designs on Urban Streets

During the reconstruction of an urban street, local governments should include transit-first features on the roadway when it carries rapid, express, or major local transit routes. Features could include transit signal priority systems, dedicated lanes for transit, and "bus bulbs" at significant transit stops.

Enhance Stops, Stations, and Park-Ride Facilities with State-of-the-Art Amenities

Improve information on bus stop signs and poles, provide shelters at more stops, construct and maintain accessible paths to and from all stops, and add real-time information screens, radiant heating, and raised platforms for boarding.

Implement Programs to Improve Access to Suburban Employment Centers

Implement vanpool programs, utilize transportation network companies such as Uber or Lyft, or utilize taxis to address the "last mile" of a transit trip. Improve access to jobs at suburban employment centers by providing an accessible sidewalk network between bus stops and businesses, and enhancing job access programs that assist low-income individuals.

Bicycle and Pedestrian Facilities

Providing high-quality infrastructure to support biking and walking is an important component of improving quality of life and achieving healthy, vibrant communities. Encouraging residents to incorporate active travel into their daily routine can improve their health and reduce their healthcare costs. Recognizing the benefits of encouraging active transportation, VISION 2050 recommends a well-connected bicycle and pedestrian network that improves access to activity centers, neighborhoods, and other destinations in the Region. Map 6 shows the recommended bicycle network.

Key bicycle and pedestrian recommendations for the Region follow.

Expand the on-Street Bicycle Network as Streets are Resurfaced and Reconstructed





Add bike lanes, paved shoulders, widened outside travel lanes, or enhanced bicycle facilities, if feasible, as the existing surface arterial street network of about 3,300 miles is resurfaced and reconstructed. Map 6 shows bicycle accommodations on arterials as blue lines and on nonarterials as orange lines.

Implement Enhanced Bicycle Facilities in Key Regional Corridors

Within the most urban parts of the Region, provide 363 miles of enhanced bicycle facilities that connect multiple communities, serve important regional destinations, and link segments of the off-street bicycle

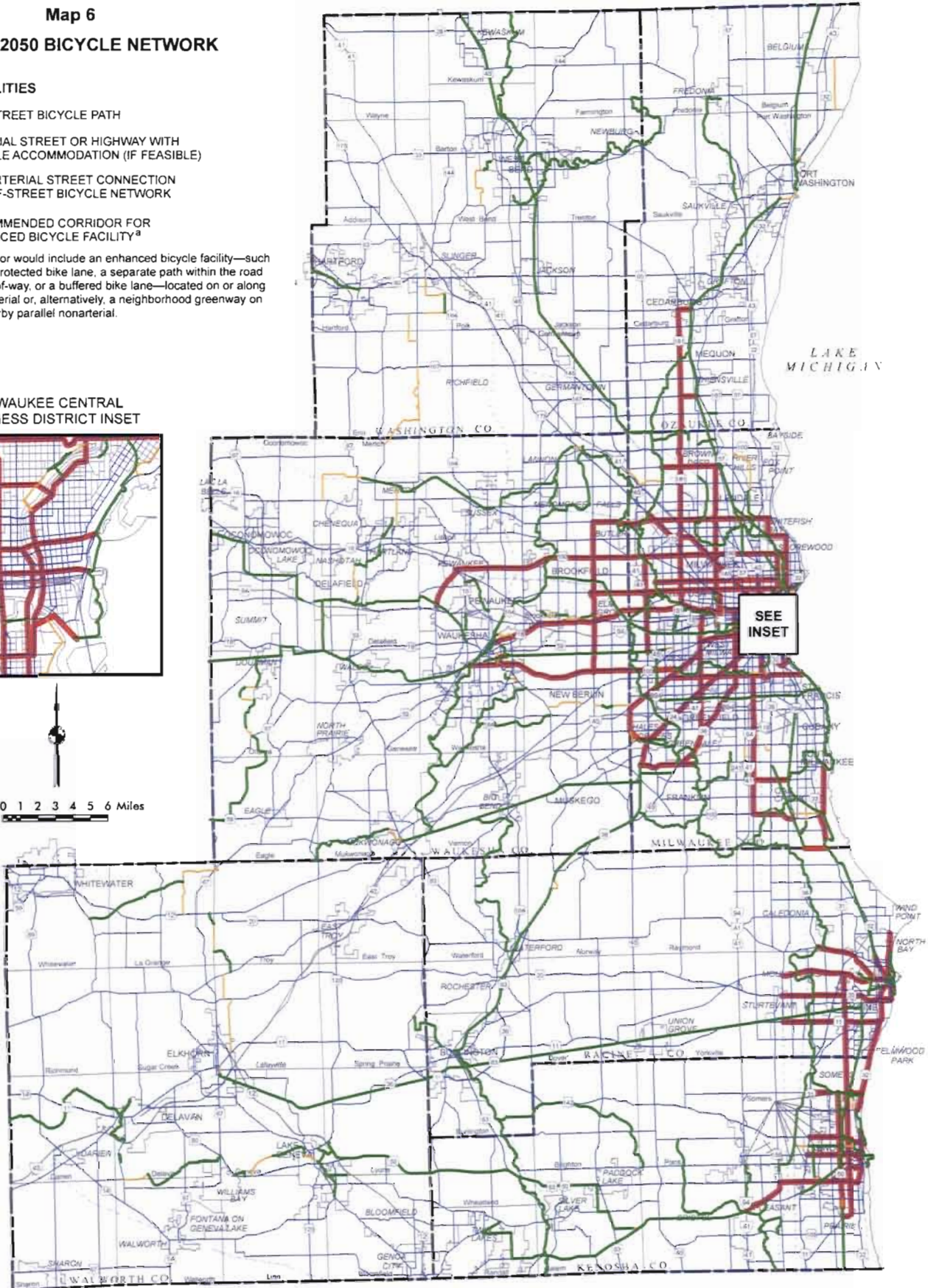
Map 6
VISION 2050 BICYCLE NETWORK

BICYCLE FACILITIES

-  OFF-STREET BICYCLE PATH
-  ARTERIAL STREET OR HIGHWAY WITH BICYCLE ACCOMMODATION (IF FEASIBLE)
-  NONARTERIAL STREET CONNECTION TO OFF-STREET BICYCLE NETWORK
-  RECOMMENDED CORRIDOR FOR ENHANCED BICYCLE FACILITY^a

^a Corridor would include an enhanced bicycle facility—such as a protected bike lane, a separate path within the road right-of-way, or a buffered bike lane—located on or along an arterial or, alternatively, a neighborhood greenway on a nearby parallel nonarterial.

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



SEE INSET

path system. Enhanced bicycle facilities—such as protected, buffered, and raised bike lanes and separate paths within a road’s right-of-way—on or along an arterial go beyond the standard bike lane to improve safety, define bicycle space on roadways, and provide clear corridors for bicycle usage. Alternatively, if an enhanced bicycle facility is not feasible on a surface arterial street, a parallel local road could be optimized for bicycle traffic (known as a neighborhood greenway or bike boulevard). Map 6 shows regional enhanced bicycle corridors as thick red lines.

Expand the Off-Street Bicycle Path System to Provide a Well-Connected Regional Network

Construct off-street bicycle paths between the cities and villages within the Region with a population of 5,000 or more. These paths would primarily be located in natural resource and utility corridors. Achieving the 709-mile off-street path system would improve bicycle connectivity in the Region by addressing gaps in the bicycle network. In some cases, on-street bicycle connections would be necessary to connect segments of the path system. Map 6 shows off-street bicycle paths as green lines.

Expand Bike Share Program Implementation

Expand bike share programs to provide residents and visitors with options to use bicycles for short trips within mixed-use urban areas. Bike share has been shown to be effective at providing a travel option for short trips and for reducing trips by automobile. It can also function as a feeder service to transit systems, encouraging increased travel using both of these modes.

Provide Pedestrian Facilities that Facilitate Safe, Efficient, and Accessible Pedestrian Travel

Construct and maintain accessible sidewalks along streets and highways in areas of existing or planned urban development. Address gaps in the pedestrian network through neighborhood connections to regional off-street bicycle paths, transit, and major destinations. Design and construct sidewalks using widths and clearances appropriate for the levels of pedestrian and vehicular traffic in a given area. Provide terraces or buffered areas, where feasible, between sidewalks and streets for enhancing the pedestrian environment. Maximize pedestrian safety at street crossings.

VISION 2050 emphasizes that all pedestrian facilities be designed and constructed in accordance with the Federal Americans with Disabilities Act (ADA) and its implementing regulations.

Transportation Systems Management

Transportation systems management (TSM) involves managing and operating existing transportation facilities to maximize their capacity, building a safer and more efficient transportation system, and reducing the need for widening roadways or building new roadways to address congestion. TSM recommendations for VISION 2050 relate to freeway traffic management, surface arterial street and highway traffic management, and major activity center parking management and guidance.

Freeway Traffic Management

VISION 2050 recommends several freeway traffic management strategies that would improve the operation control, advisory information, and incident management on the regional freeway system. Essential to implementing freeway traffic management measures is the State Traffic Operations Center (STOC) in the City of Milwaukee, from which all freeway segments in the Milwaukee area (and the rest of the State) are monitored, freeway operational control and advisory information is determined, and incident management detection and confirmation is conducted.

Surface Arterial Street and Highway Traffic Management

VISION 2050 recommends a number of strategies to improve the operation and management of the regional surface arterial street and highway network. These measures include coordinated traffic signal systems to provide for the efficient progression of traffic, intersection improvements to increase travel efficiency and improve safety, expansion of curb-lane parking restrictions to provide additional peak period traffic carrying capacity, improved access management along arterial streets, and enhanced advisory information for motorists, including adding data on surface arterials to the 511 Wisconsin website and implementing variable message signs.

Major Activity Center Parking Management and Guidance

VISION 2050 recommends strategies to improve parking around major activity centers, such as the

Milwaukee central business district, allowing motorists to find available parking quickly and reducing traffic volume and congestion and associated air pollutant emissions and fuel consumption. Measures to improve parking around major activity centers include parking management and guidance systems and demand-responsive pricing for parking.

Travel Demand Management

Travel demand management (TDM) involves using a series of strategies to encourage the use of alternative methods or times of travel, with the goal of reducing traffic congestion and vehicle emissions. VISION 2050 recommends that the State, local units of government, and private businesses pursue TDM strategies such as enhancing preferential treatment for high-occupancy vehicles; expanding the network of park-ride lots; pricing personal vehicle travel at its true cost by implementing road user fees, cash-out of employer-paid parking, and parking pricing; promoting TDM, car sharing, and live near your work programs; and facilitating transit, bicycle, and pedestrian movement in local land use plans and zoning.

Arterial Streets and Highways

Arterial streets and highways are streets and highways that primarily provide mobility, as opposed to access to adjacent homes and businesses. The process to develop VISION 2050 focused on addressing traffic congestion on arterials through solutions such as expanded public transit, bicycle and pedestrian facilities, more efficient land use, and TSM and TDM measures, prior to considering arterial capacity expansion. VISION 2050 recommends an arterial street and highway system designed to serve an expected 23 percent increase in vehicle-miles of travel in the Region by the year 2050, with an 8 percent increase in arterial system lane-miles over the next 34 years. Implementing the recommended year 2050 arterial system would essentially maintain or modestly improve overall traffic congestion, travel time delay, and average trip times compared to current levels. It would also improve overall safety and maintain the condition of the pavement and bridges along the planned arterial system.

The arterial street and highway element of VISION 2050, totals 3,670.0 route-miles. About 91 percent, or 3,326.1 of these route-miles, are to be resurfaced

and reconstructed with no additional capacity. About 7 percent, or 268.8 route-miles, are recommended for widening upon reconstruction to provide additional through traffic lanes, including 105.5 miles of freeways. About 2 percent, or 75.1 route-miles, would be new arterial facilities. Map 7 shows the recommended arterial streets and highways element.

Key recommendations for the arterial streets and highways element include keeping the system in a state of good repair; incorporating “complete streets” concepts to providing for the safe and convenient travel of all roadway users traveling by various modes; expanding capacity to address congestion not alleviated by other solutions; avoiding, minimizing, or mitigating the environmental impacts of capacity expansion; and addressing safety and security related to the system.

Freight Transportation

A multimodal freight transportation system that provides efficient and safe movement of raw materials and finished products to, from, and within Southeastern Wisconsin is essential for maintaining and growing Southeastern Wisconsin’s economy. VISION 2050 recommends improving the Region’s transportation infrastructure to accommodate truck traffic and oversize/overweight shipments on the regional highway freight network, increasing intergovernmental cooperation and other actions to preserve key transportation corridors, addressing regulatory inefficiencies, meeting trucking industry workforce needs, and increasing transportation safety and security. Additionally, the plan recommends pursuing a new truck-rail intermodal facility in or near Southeastern Wisconsin and constructing the Muskego Yard bypass through the Menomonee Valley in Milwaukee.







Fiscally Constrained Transportation Plan

Federal regulations require the Region’s transportation plan to only include projects that can be funded with existing and reasonably expected revenues, given existing and reasonably expected restrictions on the use of those revenues for specific types of projects or services. Therefore, only the portion of VISION 2050 that can be funded with these revenues is considered the “fiscally constrained” regional transportation plan by the Federal Government and is titled the Fiscally Constrained Transportation Plan (FCTP) for VISION

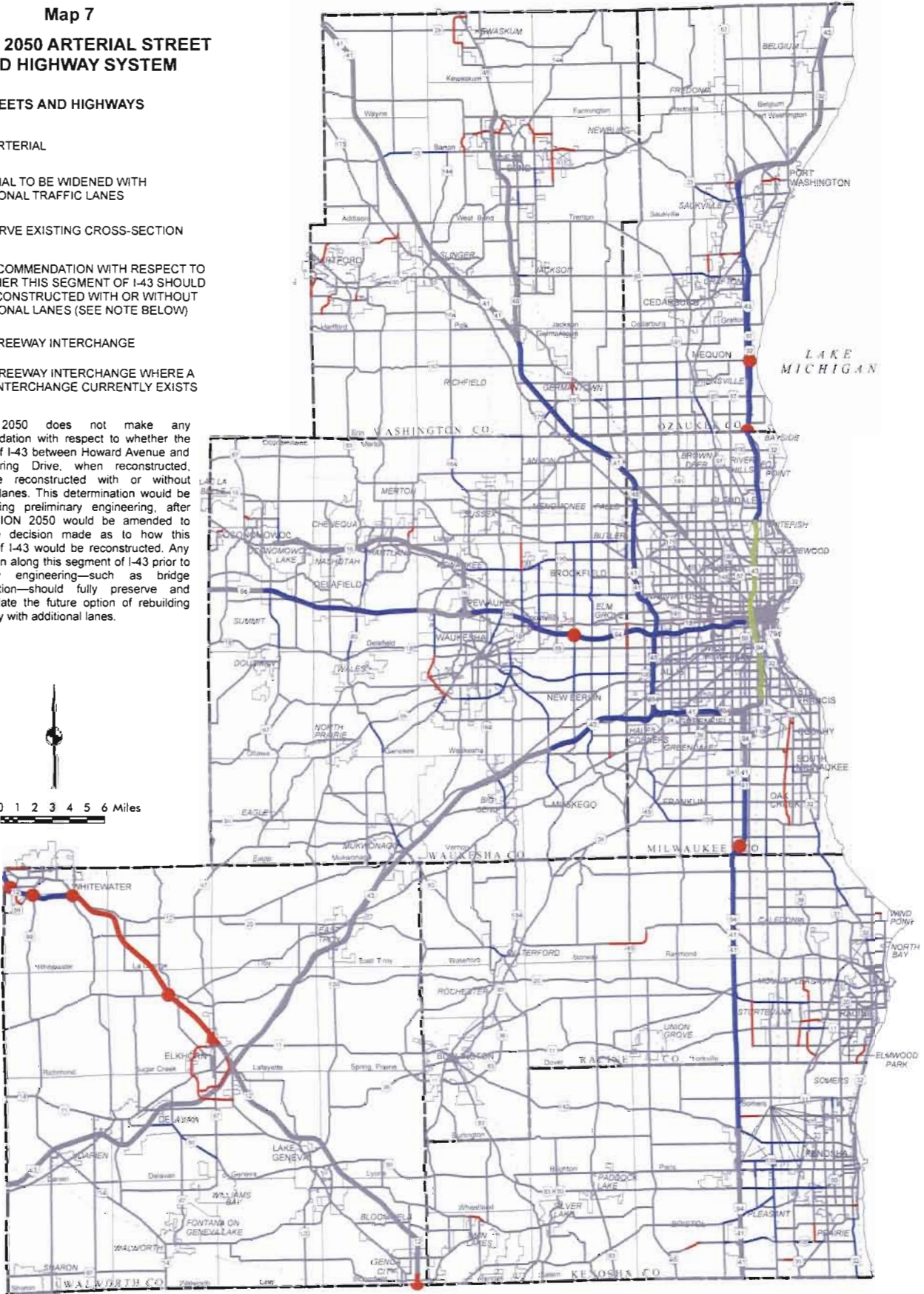
Map 7

VISION 2050 ARTERIAL STREET AND HIGHWAY SYSTEM

ARTERIAL STREETS AND HIGHWAYS

-  NEW ARTERIAL
-  ARTERIAL TO BE WIDENED WITH ADDITIONAL TRAFFIC LANES
-  PRESERVE EXISTING CROSS-SECTION
-  NO RECOMMENDATION WITH RESPECT TO WHETHER THIS SEGMENT OF I-43 SHOULD BE RECONSTRUCTED WITH OR WITHOUT ADDITIONAL LANES (SEE NOTE BELOW)
-  NEW FREEWAY INTERCHANGE
-  FULL FREEWAY INTERCHANGE WHERE A HALF INTERCHANGE CURRENTLY EXISTS

NOTE: VISION 2050 does not make any recommendation with respect to whether the segment of I-43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional lanes. This determination would be made during preliminary engineering, after which VISION 2050 would be amended to reflect the decision made as to how this segment of I-43 would be reconstructed. Any construction along this segment of I-43 prior to preliminary engineering—such as bridge reconstruction—should fully preserve and accommodate the future option of rebuilding the freeway with additional lanes.



2050. The FCTP essentially includes all of the transportation elements of VISION 2050 except for the public transit element. The major components of the VISION 2050 public transit element, which calls for more than doubling service levels compared to existing service levels, cannot be implemented within expected funds due to a gap in funding. Should funding become available for any transit improvements recommended in VISION 2050, the FCTP would be amended to include those improvements.

The conclusion of the financial analysis conducted for VISION 2050 was that there may be enough revenue to fund the recommended arterial system improvements during the plan period, and therefore the arterial streets and highways element is unchanged between VISION 2050 and the FCTP. However, it was recognized that the recommended improvements, particularly reconstructing the regional freeway system, will require maintaining State funding at levels, provided in State budgets in the decade prior to VISION 2050's adoption

Jurisdictional Responsibility Recommendation

VISION 2050 also includes recommendations attendant to the jurisdictional responsibility—State, county, or local—for each segment of the regional arterial street and highway network. Such jurisdictional plan recommendations are developed on a county-by-county basis and are intended to provide for the efficient development and management of the arterial system. This helps to ensure that public resources are effectively invested in highway transportation, and that plan implementation costs are equitably borne among the concerned levels and agencies of government. More information on the jurisdictional highway system planning process can be found at www.sewrpc.org/jhp.

REGIONAL PARK AND OPEN SPACE PLAN

The regional park and open space plan was adopted by the Commission in 1977 and is documented in SEWRPC Planning Report No. 27, *A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000*. Over time, the plan has been refined and updated on a county-by-county basis, with most of the county park plan updates prepared with the assistance of the Commission and adopted as amendments to the ini-

tial plan. The regional park and open space plan as amended is graphically summarized on Map 8. The key recommendations of the plan are:

Open Space Preservation

The plan provides recommendations for the preservation of environmentally significant open space lands throughout the Region, focusing on the environmental corridors and isolated natural resource areas identified as part of the land use component of VISION 2050, and incorporating the findings and recommendations of the regional natural areas protection and management plan. Both, the regional park and open space plan and VISION 2050 recommend the preservation of primary environmental corridors in essentially natural, open use. The plan identifies portions of the primary environmental corridors that are recommended to be preserved through public interest ownership—that is, through public acquisition or acquisition by a nonprofit conservancy organization—and identifies other portions of the primary corridor that are recommended to remain in private ownership and be preserved through public land use regulation. Similar recommendations are made with respect to the smaller secondary environmental corridors and isolated natural resource areas. The plan recognizes that conservation easements may be as effective as outright ownership as a means of permanently protecting environmentally significant areas.

Outdoor Recreation Sites and Facilities

The plan includes recommendations regarding sites and facilities that are needed to meet existing and anticipated future outdoor recreation needs within the Region. The plan focuses on sites and facilities needed for “resource-oriented” activities—activities like beach swimming, nature study, camping, picnicking, hiking, and golf—which depend upon, or are significantly enhanced by, the presence of natural resource amenities. The plan includes recommendations for large parks, areawide recreation trails, and lake and river access sites, which provide opportunities for such activities.

Major Parks

The plan recommends a system of 78 major parks within the Region. Major parks are large, publicly owned outdoor recreation sites that contain significant natural resource amenities and which provide facilities for resource-oriented activities. Major parks

Map 8
PARK AND OPEN SPACE
PLAN FOR THE SOUTHEASTERN
WISCONSIN REGION: 2035

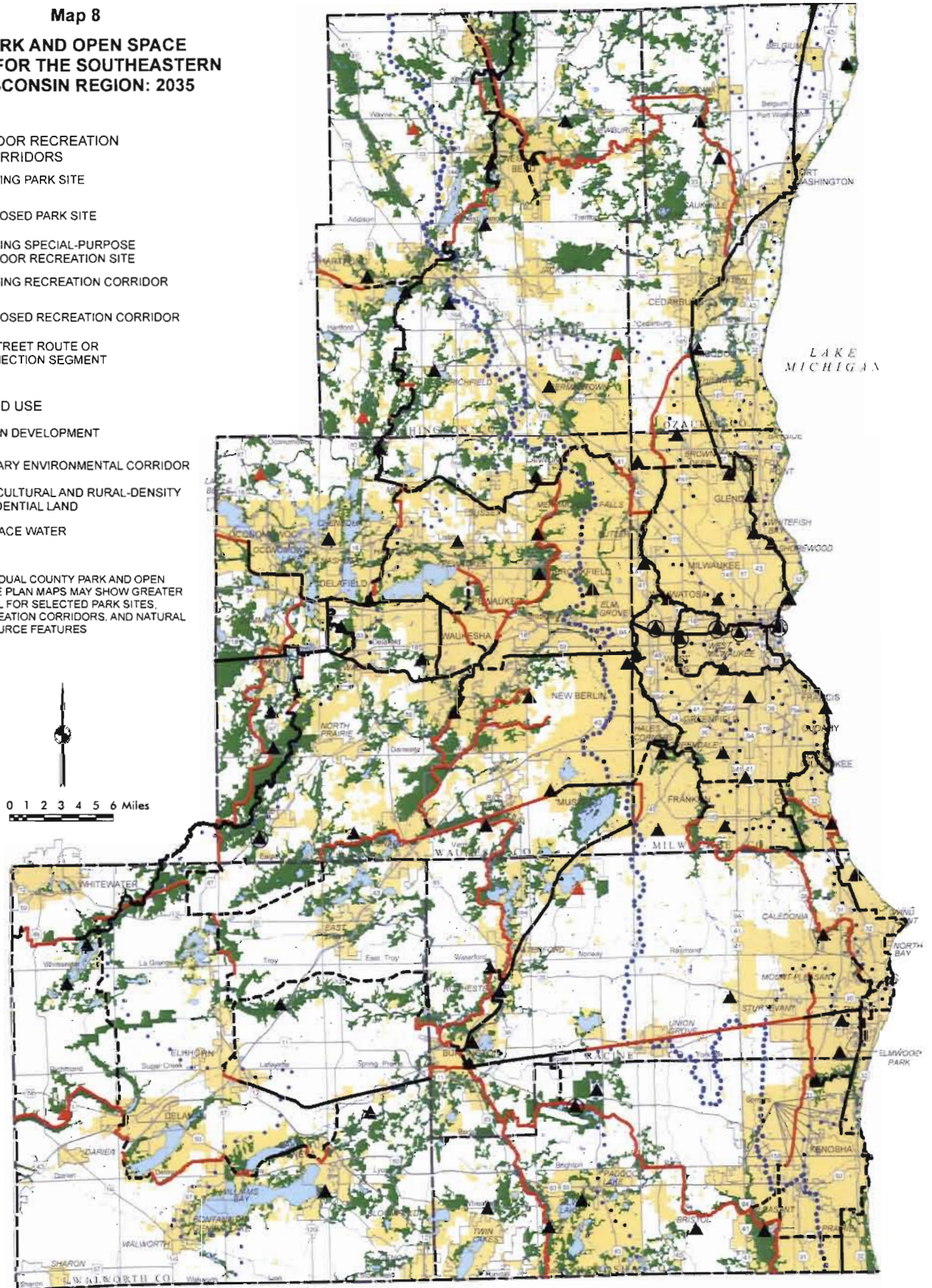
MAJOR OUTDOOR RECREATION
SITES AND CORRIDORS

- ▲ EXISTING PARK SITE
- ▲ PROPOSED PARK SITE
- ⊙ EXISTING SPECIAL-PURPOSE OUTDOOR RECREATION SITE
- EXISTING RECREATION CORRIDOR
- PROPOSED RECREATION CORRIDOR
- - - ON STREET ROUTE OR CONNECTION SEGMENT

PLANNED LAND USE

- URBAN DEVELOPMENT
- PRIMARY ENVIRONMENTAL CORRIDOR
- AGRICULTURAL AND RURAL-DENSITY RESIDENTIAL LAND
- SURFACE WATER

NOTE: INDIVIDUAL COUNTY PARK AND OPEN SPACE PLAN MAPS MAY SHOW GREATER DETAIL FOR SELECTED PARK SITES, RECREATION CORRIDORS, AND NATURAL RESOURCE FEATURES



are generally 100 acres or more in size. They may be owned and operated by county or local units of government or by the Wisconsin Department of Natural Resources (WDNR).

Areawide Recreation Trails

The plan recommends a 700-mile areawide recreation trail system within the Region to accommodate such activities as bicycling, hiking, nature study, and ski touring. The plan recommends that, to the extent possible, such trails be provided within scenic areas or areas of natural, cultural, or historic interest, including environmental corridors. The trails may be owned and maintained by county or local units of government as well as by the WDNR.

Lake and River Access

The plan recommends that major lakes—lakes with surface water area of 50 acres or more—be provided with adequate boat access facilities consistent with safe and enjoyable participation in various boating activities. Under the plan, needed boat access facilities are recommended to be provided by the WDNR. The plan also recommends the provision of canoe/kayak access sites at intervals of no more than 10 miles on major streams.

While it is primarily concerned with sites and facilities for resource-oriented activities, the regional park and open space plan also recognizes the importance of providing sites and facilities for non-resource-oriented outdoor recreation activities, such as baseball, tennis, and playground activities. In comparison to sites and facilities for resource-oriented activities, sites and facilities for non-resource-oriented activities rely less heavily on natural resource amenities; generally meet a greater need, and are more efficiently provided in urban than rural areas; and have a relatively small service area. For these reasons, responsibility for providing such sites and facilities appropriately rests, for the most part, with city, village, and town governments. Thus, the regional plan recommends the provision of a full range of community and neighborhood parks sites and facilities within urban areas throughout the Region and recommends that this be achieved through community-level planning and plan implementation. The regional plan includes related planning standards to help guide communities in these efforts.

More information about the regional park and open space plan can be found on the SEWRPC website at www.sewrpc.org/regionalparkplan.

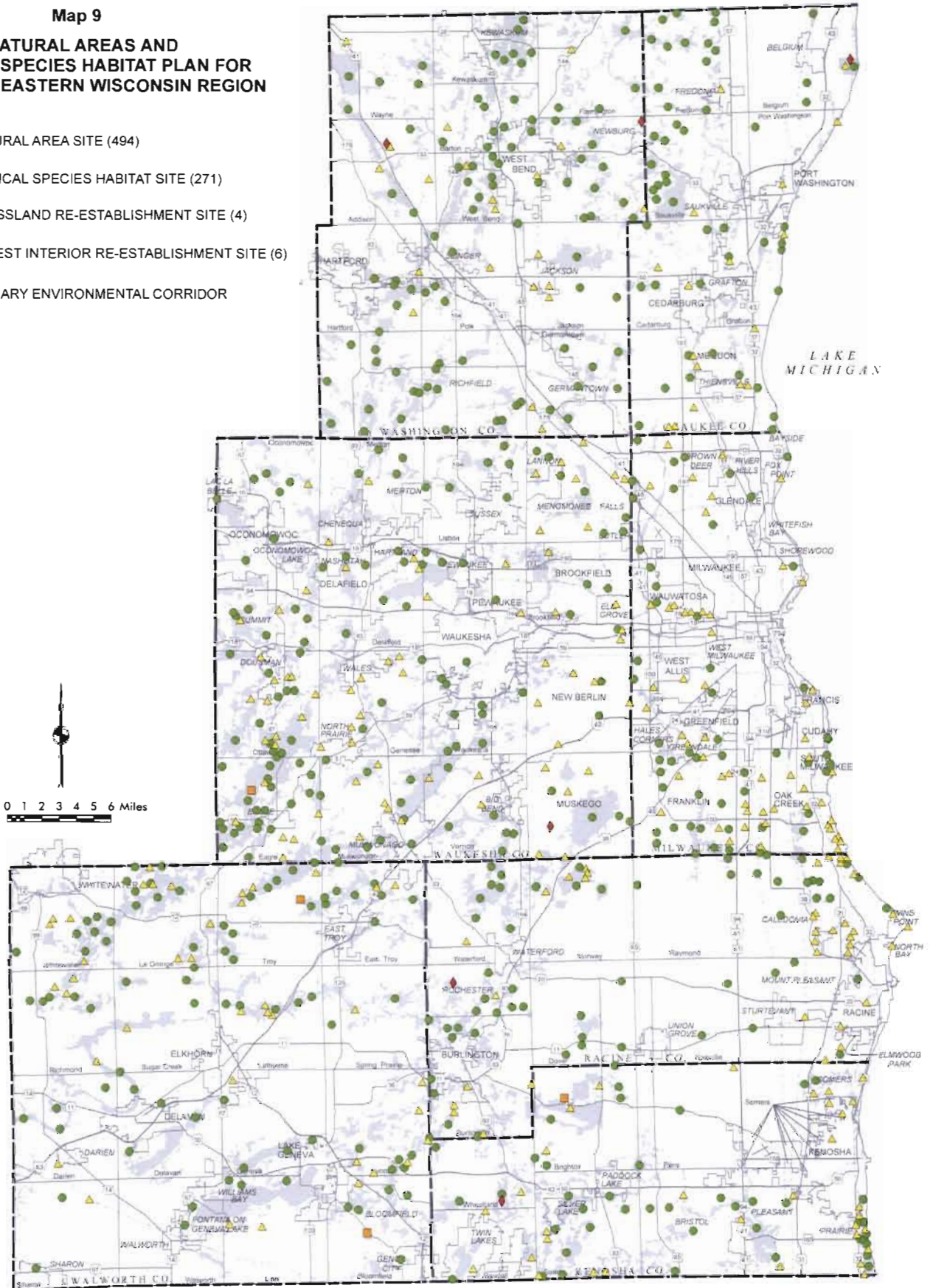
REGIONAL NATURAL AREAS AND CRITICAL SPECIES HABITAT PLAN

The regional natural areas and critical species habitat plan was adopted by the Commission in 1997 (see SEWRPC Planning Report No. 42, *A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin*, September 1997) and has been amended from time to time, most recently in December 2010. This planning effort identified the most significant remaining natural areas—essentially, remnants of the pre-European-settlement landscape—as well as other areas vital to the maintenance of endangered, threatened, and rare plant and animal species in the Region. Focused on addressing issues relating to biodiversity, the plan as amended is graphically summarized on Map 9. The plan stands as an important supplement to the open space preservation recommendations of VISION 2050 and the regional park and open space plan.

Under the plan, natural areas are defined as tracts of land or water so little modified by human activity, or which have sufficiently recovered from the effects of such activity, that they contain intact native plant and animal communities believed to be representative of the pre-European-settlement landscape. Critical species habitats are defined as additional tracts of land or water that support endangered, threatened, or rare plant or animal species. The protection and preservation of these sites to the greatest extent possible is key to efforts to retain and strengthen the natural ecosystems that, research shows, provide: 1) direct use values (e.g., developing pharmaceutical products, maintaining the genetic basis for agriculture, and providing benchmarks for restoration efforts elsewhere); 2) ecosystem services (e.g., converting sunlight to energy, moderation of climate extremes, and pollination of crops); 3) aesthetic, recreation, and cultural heritage values (e.g., hiking, bird watching, fishing); and 4) consideration of intangible factors (e.g., protection of nature, and human obligation to prevent extinction of other species). The key recommendations of the plan follow.

Map 9
NATURAL AREAS AND
CRITICAL SPECIES HABITAT PLAN FOR
THE SOUTHEASTERN WISCONSIN REGION

- NATURAL AREA SITE (494)
- ▲ CRITICAL SPECIES HABITAT SITE (271)
- GRASSLAND RE-ESTABLISHMENT SITE (4)
- ◆ FOREST INTERIOR RE-ESTABLISHMENT SITE (6)
- PRIMARY ENVIRONMENTAL CORRIDOR



REGIONAL PLAN: NATURAL AREAS

Natural Areas

A total of 494 natural areas have been identified in the seven-county Region. These sites range from one to 3,026 acres in size. Collectively, these areas total about 101 square miles, or about 4 percent of the area of the Region. About 51 percent of the collective areal extent of these areas was in either public or private protective ownership as of 2009. These natural area sites have been classified as either of statewide or greater significance (NA-1), countywide or regional significance (NA-2), or local significance (NA-3). The plan recommends that the protection of such lands in public or protective private ownership be increased over time, to about 98 percent. The plan identifies responsible agencies and organizations for carrying out these recommendations, including Federal and State agencies, county and local governments, and private organizations such as land trusts. Thus, the focus is not solely on public ownership of these sites. The focus is also on employing a range of methods to protect these sites in perpetuity, to ensure site integrity in terms of biodiversity through proper management, and, in many cases, to preserve habitat that supports the continued existence of rare, threatened, and endangered plant and animal species.

Critical Species Habitat Sites

A total of 271 critical species habitat sites lying outside of identified natural areas have been identified in the Region. These sites range from one to 5,021 acres in size. Collectively, these sites total about 31 square miles, or about 1 percent of the area of the Region. About 74 percent of the collective areal extent of these sites was in either public or private protective ownership as of 2009. The plan recommends that the protection of such sites in public or protective private ownership be increased over time, to about 95 percent. The plan identifies both public and private organizations to be responsible for carrying out these recommendations.

Grassland Re-establishment Sites

In recent decades, research has shown that grassland nesting bird populations have significantly declined throughout the North American continent. Examples of grassland nesting birds are the meadow lark, bob-o-link, short-eared owl, and Henslow's sparrow. To help stem this decline, the plan recommends that efforts be made, primarily by the WDNR, to re-establish and manage about 29 square miles of suitable

nesting habitat for such grassland nesting birds at four sites in the Region.

Forest Interior Re-establishment Sites

Decades of development throughout the Region have significantly reduced the number and size of large forest tracts that provide important migratory habitat for forest interior and other migrant birds in Southeastern Wisconsin. Examples of such birds include the scarlet tanager, wood thrush, and hooded warbler. Particularly important to these types of birds for breeding and nesting are relatively large, i.e., at least 100 acres, forest tracts that are circular or "blocky" in shape. Large forest tracts provide nesting and breeding habitat that discourages the predation that takes place along forest edges. Accordingly, the plan recommends that the WDNR, together with other entities, seek to re-establish over time forest interior bird habitat at six sites throughout the Region. Together these relatively large tracts would add about two square miles of appropriately sized and shaped forest interior bird habitat.

The regional natural areas plan also includes ancillary elements attendant to 14 archaeological and 87 geological sites. Such sites are of significance in terms of their cultural, scientific, and educational values and are recommended to be preserved and protected to the greatest extent possible.

More information about the regional natural areas plan can be found on the SEWRPC website at www.sewrpc.org/naturalareasplan.

REGIONAL HOUSING PLAN

A regional housing plan was adopted by the Commission on March 13, 2013. The plan is documented in SEWRPC Planning Report No. 54, *A Regional Housing Plan for Southeastern Wisconsin: 2035*. The plan includes additional detail to supplement the recommendations for residential development included in the land use component of VISION 2050, with a vision of providing financially sustainable housing for people of all income levels, age groups, and special needs throughout the entire Region.

The housing plan recommendations address six major topic areas: housing affordability, job/housing balance, subsidized and tax credit housing, accessible housing for people with disabilities, fair housing, and housing development practices.

Housing Affordability

Housing affordability is closely related to the type and density of housing. Multi-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 large lots. The development of housing in the Region is greatly influenced by community comprehensive plans and by zoning, subdivision, and other ordinances that regulate land uses.

A key recommendation of the housing plan is that local governments with sanitary sewer service review their comprehensive plans and zoning ordinances, and change the plans and ordinances, as may be necessary, to address the need for additional affordable housing for lower- and moderate-income households. Housing costs are considered affordable if they do not exceed 30 percent of a household's monthly income. Specifically, the plan recommends that community plans and ordinances allow for the development of modest multi-family housing at a density of at least 10 housing units (apartments) per acre, and allow two-bedroom apartments to be 800 square feet or smaller, to provide market-rate (nonsubsidized) housing for households with incomes between 50 and 80 percent of the Region median income. About 16 percent of the Region's households fall within this income category. The plan also recommends that communities with sewer service allow the development of new single- and two-family homes at densities equivalent to lots of 10,000 square feet or less, with home sizes less than 1,200 square feet, to accommodate market-rate housing affordable to households with incomes between 80 and 135 percent of the Region median income. This income category includes about 24 percent of Region households.

The plan also recommends that county and local governments consider establishing programs and ordinances to stabilize and improve established neighborhoods with the intent of maintaining the quality and quantity of existing lower- and moderate-cost housing stock. Examples of programs and ordinances include property maintenance ordinances, weatherization and lead paint abatement programs, and use of Community Development Block Grant (CDBG) and other funding to assist low- and moderate-income households in making needed home repairs. Funds should also be made available to assist landlords in making needed repairs to apartments that would be affordable to low- and moderate-income tenants.

Job/Housing Balance

An analysis was conducted as part of the housing plan to help determine the balance between job wages and housing costs. The job/housing balance analysis was based on a review of comprehensive plans adopted by communities with sanitary sewer service to determine the number and type of jobs and housing units that could be expected to be developed by the year 2035. Job wages, based on median incomes for various job categories in 2009, and housing costs, based on planned residential densities, were projected to the year 2035. The percentages of projected lower- and moderate-wage jobs were compared to the projected percentages of lower- and moderate-cost housing, respectively. Map 10 shows the results of the analysis, which was updated after the housing plan was adopted to show the projected job/housing balance for each sewered community. The analysis included in the housing plan report provided results for groups of nearby communities.

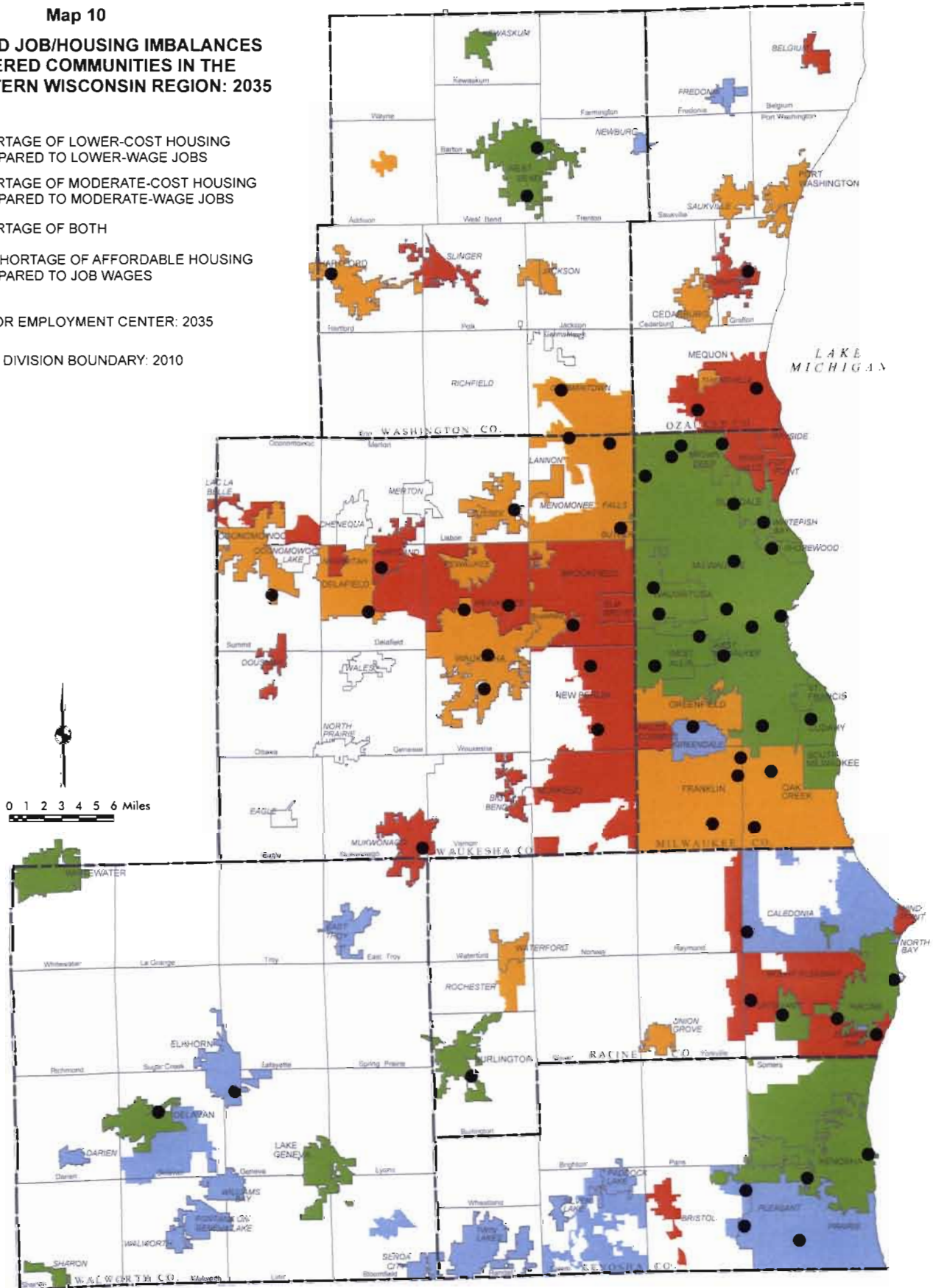
The housing plan recommends that sewered communities identified as having an imbalance between job wages and housing costs conduct a more detailed analysis based on specific conditions in their respective communities as part of their comprehensive plan updates. The local analysis could consider, for example, specific housing values based on local assessment data. If the local analysis confirms an existing or future job/housing imbalance, it is recommended that the local government consider changes to the comprehensive plan that would provide housing appropriate for people holding jobs in the community, thereby supporting the availability of a workforce for the community's businesses and industries. Additional modest multi-family housing is recommended in communities where the local analysis indicates a shortage of lower-cost housing in relation to lower-wage jobs. Additional modest single-family housing is recommended in communities where the local analysis indicates a shortage of moderate-cost housing in relation to moderate-wage jobs.

The housing plan also recommends improving transit connections between areas of existing affordable housing and job locations. The Region's central cities have substantial concentrations of unemployed and under-employed individuals and low-income households. There are significant job concentrations in many communities surrounding these central cities.

Map 10

**PROJECTED JOB/HOUSING IMBALANCES
IN SEWERED COMMUNITIES IN THE
SOUTHEASTERN WISCONSIN REGION: 2035**

- SHORTAGE OF LOWER-COST HOUSING COMPARED TO LOWER-WAGE JOBS
- SHORTAGE OF MODERATE-COST HOUSING COMPARED TO MODERATE-WAGE JOBS
- SHORTAGE OF BOTH
- NO SHORTAGE OF AFFORDABLE HOUSING COMPARED TO JOB WAGES
- MAJOR EMPLOYMENT CENTER: 2035
- CIVIL DIVISION BOUNDARY: 2010



A portion of these jobs pay moderate and lower wages, and many of these communities lack the modest single-family and multi-family housing affordable to people who earn moderate and lower wages. Many of these communities also lack public transit service, even though in many instances they are immediately adjacent to the Region's public transit systems. Expansion of public transit service to these communities, in accordance with the recommendations of VISION 2050 will assist in providing employers with the necessary workforce, and will link moderate- and lower-income individuals with jobs in communities that have limited supplies of affordable housing.

Although the Cities of Kenosha, Milwaukee, and Racine do not have job/housing imbalances, these cities have the highest percentages of households with a high housing cost burden. These areas also have high unemployment rates and low median earnings compared to other portions of the Region. Although lower- and moderate-cost housing is plentiful, the high number of extremely- and very-low-income households makes finding decent affordable housing difficult. The plan recommends that affordable housing strategies in these areas include economic and workforce development components to help reduce high housing cost burdens.

Subsidized and Tax Credit Housing

Housing subsidized by the government or housing developed by nonprofit and faith-based organizations would likely be necessary to provide decent and affordable housing for households with incomes of less than 50 percent of the Region's median income. This is particularly true of housing for families that would require two or more bedrooms. Over 187,000 households, or 24 percent of households in the Region, have incomes of 50 percent or less than the Region's median income. In 2011, there were about 46,000 subsidized housing units and housing vouchers in the Region, or about 25 percent of the potential need.

The plan recommends additional Federal funding for housing vouchers, but also recognizes that public funding for the development of subsidized and tax credit housing and for housing vouchers is limited. The plan therefore recommends that the development of new subsidized and tax credit housing and the allocation of vouchers be targeted to areas with

the greatest need. These areas include areas with high percentages of low-income households and areas with a major employment center and a shortage of lower-cost housing compared to lower-wage jobs.

The plan also recommends that a regional Housing Trust Fund for Southeastern Wisconsin be established to assist in the acquisition of land and the development of affordable housing. Housing trust funds typically provide "gap" financing, or funds to fill part or all of the gap remaining between the actual cost of producing housing and the amount raised after all other funding sources have been secured.

Accessible Housing for People with Disabilities

An adequate number of accessible housing units should be available throughout the Region to provide people with disabilities increased housing choices and access to employment opportunities. Accessible housing will become increasingly important as the number of elderly residents in the Region increases due to the aging of the baby-boom generation, because the incidence of disabilities increases as a person ages.

It is estimated that there are as many as 61,640 multi-family housing units in the Region constructed since 1991 that may be accessible to people with disabilities, due to accessibility requirements in Federal and State fair housing laws. In 2010, about 169,000 households in the Region reported a member with a disability, which shows a need for additional accessible housing. Housing affordability is also a concern to people with disabilities, whose median annual earnings are about half those of persons without disabilities.

The plan recommends the development of additional modest multi-family housing that would help people with disabilities obtain accessible and more affordable housing. Development of more multi-family housing outside the central cities of Kenosha, Racine, and Milwaukee would also increase the availability of accessible housing near job centers in outlying areas.

Fair Housing

The Region's minority residents are concentrated in the central portions of the Cities of Milwaukee, Racine, and Kenosha. Areas with concentrations of mi-

minority residents also have concentrations of low-income households. Minority households in the Region are much more likely than non-minority households to have low incomes. About 41 percent of minority households have incomes below 50 percent of the Region median income, compared to about 20 percent of non-minority households.

The plan recommends additional lower- and moderate-cost housing in sewered communities projected through various plan analyses to have an inadequate supply of affordable housing. This would increase housing opportunities for minority and low-income households near major employment centers outside central cities. It would also provide more housing opportunities for minority and low-income households in areas with better schools and safer neighborhoods. The plan also recommends a regional voucher program to make it easier for households with housing vouchers to move to less-impooverished areas, and programs to provide assistance to low-income families in moving to less impoverished areas. Such assistance could include helping people find suitable housing and jobs, and enrolling children in school.

Housing Development Practices

Multi-family housing and higher-density single-family housing, as recommended in the housing plan, can help increase the supply of affordable housing for lower- and moderate-income households and, at the same time, provide for a more compact urban development pattern. Compact development allows housing to be located closer to jobs and services, such as shopping and schools, which minimizes vehicle travel and provides increased opportunities for walking and bicycling. Compact development also minimizes the cost of providing new roads and extending public sewer and water to serve new development, and can be served more efficiently and economically by public transit. More compact urban development also helps to preserve farmland by minimizing the amount of land consumed by residential subdivisions and other urban development.

More information about the regional housing plan can be found on the Commission website at www.sewrpc.org/housing.

REGIONAL WATER QUALITY MANAGEMENT PLAN

As the gubernatorially designated water quality management planning agency for the seven-county Southeastern Wisconsin Region pursuant to the provisions of the Federal Clean Water Act, the Commission has a responsibility to prepare, adopt, and amend as necessary a regional water quality management plan. The initial such plan was adopted in 1979 and was designed, in part, to meet a congressional mandate that the waters of the United States be made “fishable and swimmable” to the extent practicable. That initial plan is set forth in SEWRPC Planning Report No. 30, “*A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000*,” Volume One, *Inventory Findings*, September 1978; Volume 2, *Alternative Plans*, February 1979; and Volume 3, *Recommended Plan*, June 1979. That plan has been amended numerous times over the years, including a comprehensive update for the greater Milwaukee area watersheds comprised of the areas tributary to the Milwaukee, Menomonee, Kinnickinnic, and Root Rivers and the Oak Creek, as well as the Milwaukee Harbor estuary and selected adjacent Lake Michigan direct drainage areas. That comprehensive update is set forth in SEWRPC Planning Report No. 50, “*A Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds*,” December 2007. The key recommendations of the water quality management plan are:

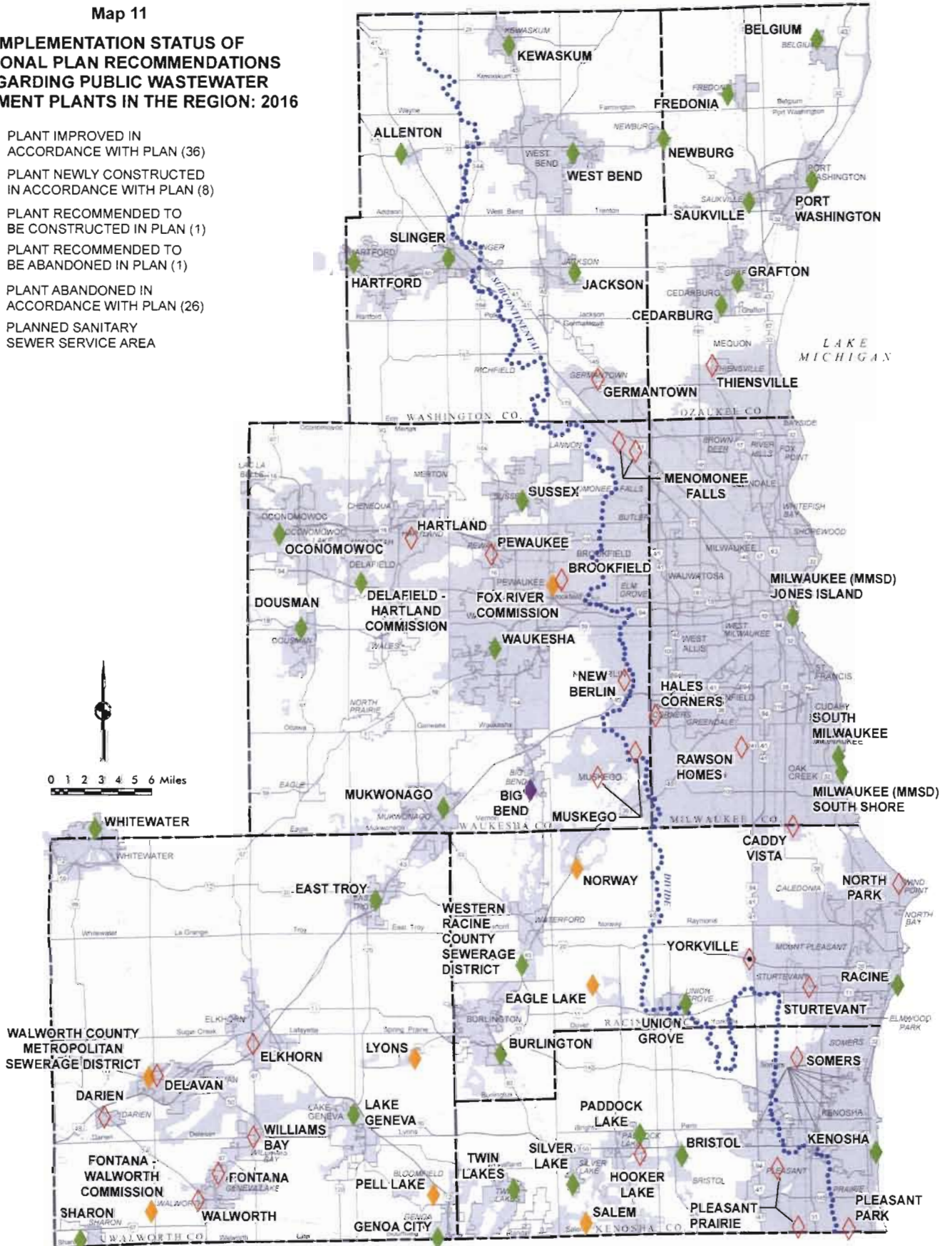
Wastewater Treatment and Conveyance Facilities

This element of the plan seeks to abate water pollution from point sources consisting of public and private wastewater treatment facilities and points of wastewater overflow discharge in sewerage systems, including the combined sanitary/storm sewer system found in relatively localized parts of the City of Milwaukee and the Village of Shorewood. Toward this end, the plan over the years made many recommendations to improve the Region’s system of wastewater treatment facilities, including upgrading and improving of selected existing facilities, constructing new facilities, and abandoning a series of relatively small and inefficient facilities. As shown on Map 11, there are 45 existing public wastewater treatment facilities in the Region, including 36 facilities that were improved and upgraded in accordance with region-

Map 11

IMPLEMENTATION STATUS OF REGIONAL PLAN RECOMMENDATIONS REGARDING PUBLIC WASTEWATER TREATMENT PLANTS IN THE REGION: 2016

- ◆ PLANT IMPROVED IN ACCORDANCE WITH PLAN (36)
- ◆ PLANT NEWLY CONSTRUCTED IN ACCORDANCE WITH PLAN (8)
- ◆ PLANT RECOMMENDED TO BE CONSTRUCTED IN PLAN (1)
- ◆ PLANT RECOMMENDED TO BE ABANDONED IN PLAN (1)
- ◆ PLANT ABANDONED IN ACCORDANCE WITH PLAN (26)
- PLANNED SANITARY SEWER SERVICE AREA



al plan recommendations, eight facilities that were newly constructed in accordance with those recommendations, and one facility that is proposed to be abandoned. In addition, Map 11 identifies 26 facilities that have been abandoned in accordance with plan recommendations. At present, the plan proposes the construction of one new wastewater treatment facility, for the Village of Big Bend in Waukesha County. Over the years, carrying out these plan recommendations has also led to the construction of numerous major recommended intercommunity sewers to convey wastewater to the appropriate treatment facility. In addition, plan recommendations with respect to the very substantial abatement of overflows from the combined sewer system have been implemented by the Milwaukee Metropolitan Sewerage District through upgrades to its conveyance system and construction of an inline storage system (deep tunnel).

Planned Sanitary Sewer Service Areas

Under State law, the Commission has a responsibility to work with local governments and wastewater treatment plant operators in identifying planned sanitary sewer service areas. Map 12 shows is a compilation of the areal extent of those areas, grouped by the named operator of the wastewater treatment plant concerned. Over the years, many areawide wastewater treatment arrangements have been put in place in the Region to implement plan recommendations, including the Fox River Water Pollution Control Commission in Waukesha County and the Walworth County Metropolitan Sewerage District. The individual documents that identify planned sanitary sewer service areas also identify the environmentally sensitive lands within those areas in which sanitary sewer service for new urban development is not permitted under State law. Detailed information relative to those sanitary sewer service areas can be found in a series of individual plan reports available at www.sewrpc.org/sewerserviceplanstatus.

Runoff Pollution Abatement

This element of the plan seeks to abate water pollution from nonpoint sources that show up in both urban and rural rainwater runoff. Toward this end, the initial regional plan identified target levels of reduction in such pollution, recommending that more detailed nonpoint source pollution abatement planning be undertaken for appropriate watersheds throughout the Region. Such planning was undertaken in many

areas and more detailed runoff pollution abatement recommendations made, including refined pollutant runoff reduction targets.

In addition to such detailed planning, over time the WDNR has put in place State regulations to address runoff to help meet the pollutant reduction goals in both rural and urban environments. These rules in rural areas relate to such control measures as reducing soil erosion from cropland, properly managing manure storage and the land application of manure, reducing barnyard runoff, and restricting livestock access to streams, among others. In rural areas, implementation of certain best management practices to abate runoff pollution is only required if cost-share funding is available to the land owner. In urban areas, such rules address the control of construction site erosion, the control of stormwater pollution, and the infiltration of stormwater runoff, among other considerations.

Municipal separate storm sewer system owners are issued stormwater discharge permits under the Wisconsin Pollutant Discharge Elimination System, and those permits impose specific requirements for control of runoff pollution. Together with supplemental plan recommendations with respect to both rural and urban areas set forth in the detailed plans, these regulatory efforts are making progress in reducing runoff pollution.

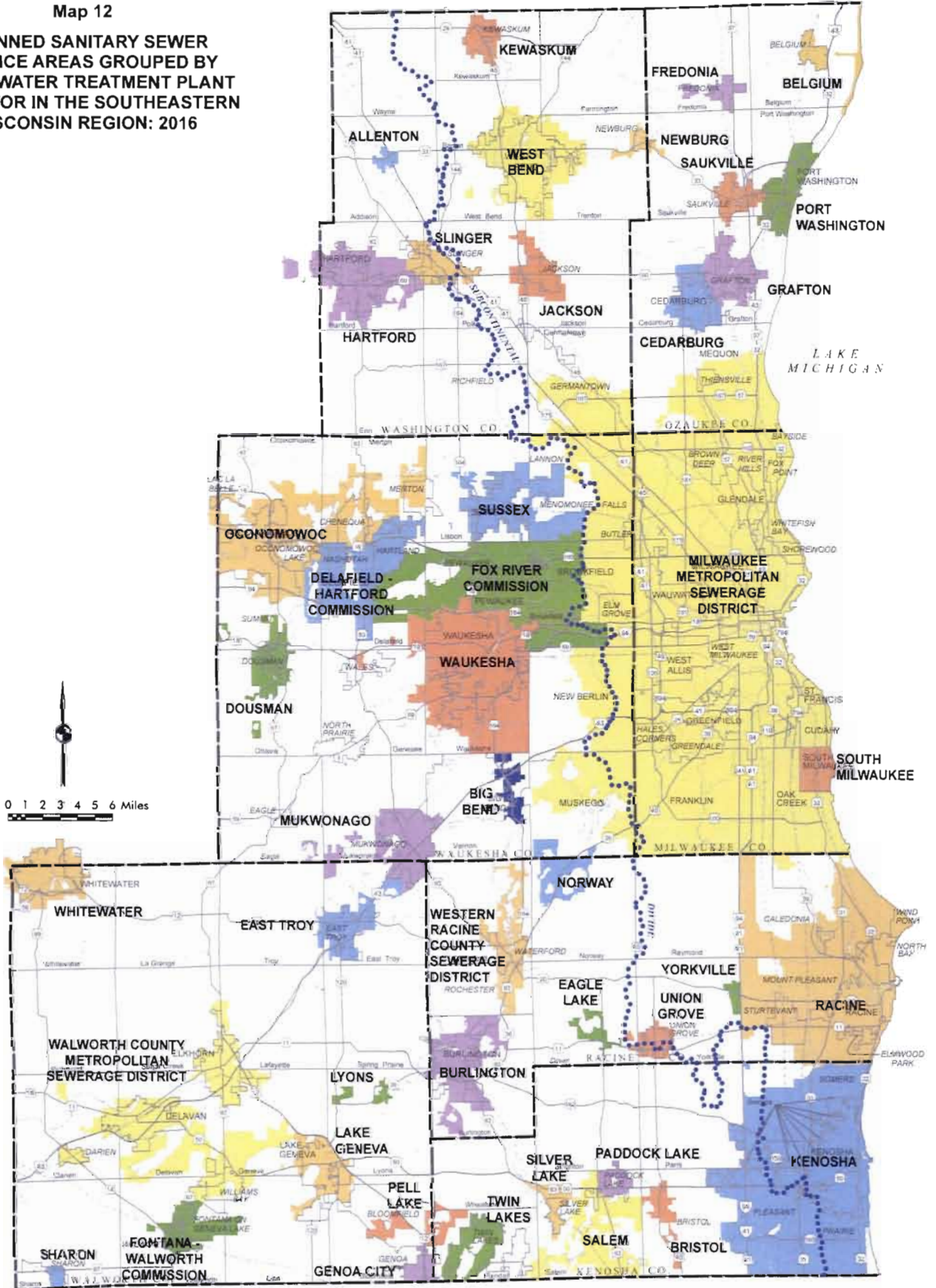
Instream Water Quality Measures

The regional plan sets forth a number of measures to enhance water quality through instream improvements in selected stream reaches. This includes rehabilitating streams where concrete lining removal can be accomplished without creating flood or erosion hazards; the establishment of riparian buffers to aid in improving water quality and terrestrial and aquatic habitat; the preparation of riverine restoration plans for dam abandonment proposals, specifically addressing sedimentation issues; the installation where feasible of constructed features to allow for the passage of aquatic organisms; and the restoration of instream habitat and enhancement of streambank stability; among other considerations.

Inland Lake Water Quality Measures

The plan recommends that detailed lake-focused planning efforts be undertaken for all inland lakes to

Map 12
PLANNED SANITARY SEWER SERVICE AREAS GROUPED BY WASTEWATER TREATMENT PLANT OPERATOR IN THE SOUTHEASTERN WISCONSIN REGION: 2016



address lake-specific reductions in both urban and rural runoff pollution. Many lake water quality plans have been prepared and updated over time in cooperation with lake management districts, lake associations, the WDNR, and the University of Wisconsin Extension. These plans include recommendations such as minimizing the use of phosphorus fertilizers on lands draining to lakes—which has now been incorporated in State law through adoption of a statute that essentially bans fertilizers containing phosphorus—and evaluating the effects on lakes of planned new development, among others.

Other Plan Recommendations

The plan also sets forth a number of auxiliary measures relating to such issues as the collection of household hazardous waste, collection programs for pharmaceutical and personal care products, water quality monitoring, and programs to reduce exotic invasive species, among others. More information about the regional water quality management plan can be found on the SEWRPC website at www.sewrpc.org/regionalwaterqualityplan.

REGIONAL WATER SUPPLY PLAN

The regional water supply plan was adopted by the Commission in 2010 and is documented in SEWRPC Planning Report No. 52, “*A Regional Water Supply Plan for Southeastern Wisconsin*.” This plan addresses a number of water supply issues in the Region and is focused on meeting water demand in the Region through the plan design year 2035. Demand estimates are derived from the development recommendations set forth in the regional land use plan. The key recommendations of the water supply plan are:

Sources of Supply

The 2,689-square-mile Southeastern Wisconsin Region is bisected by a subcontinental divide separating the Great Lakes-St. Lawrence River Basin from the Mississippi River Basin. This divide has important natural resource and legal implications for water supply—implications that have long been recognized, most recently in the international Great Lakes-St. Lawrence River Basin Water Resources Compact ratified in 2008. From a land area perspective, about 1,011 square miles, or 38 percent of the Region, lies within the Great Lakes Basin. The remaining 1,678 square miles, or 62 percent, lies within the Mississippi









River Basin. About 73 percent of the 2010 population of the Region, or nearly 1.5 million persons, resides within the Great Lakes Basin portion of the Region, most of which relies upon Lake Michigan as a source of water supply. West of the subcontinental divide, water supply is provided by tapping both shallow and deep groundwater aquifers that are divided by a layer of relatively impermeable shale. The Compact prohibits diversions of Lake Michigan water to serve areas west of the subcontinental divide, with exceptions to the prohibition only being possible for communities that straddle the divide or lie within a county that straddles the divide. Exceptions are only possible when such diversions meet stringent criteria and are approved—in the case of straddling communities by the state concerned, and in the case of non-straddling communities within a straddling county by all of the Great Lakes states concerned.

The areas proposed to be served by public water utilities in the Region by 2035, and the sources of supply recommended in each case, are shown on Map 13. The plan recommends that nine water utilities that currently utilize groundwater as a source of supply convert over time to Lake Michigan as a source of supply. This includes six utilities—Brookfield-East, Cedarburg, Germantown, Grafton, Saukville, and Yorkville—that lie entirely within the Lake Michigan drainage basin. Two more utilities—New Berlin-Central and Muskego—straddle the subcontinental divide, but are served by the Milwaukee Metropolitan Sewerage District, and, therefore, could readily return the Lake Michigan water to the Lake Michigan Basin. The ninth utility—Waukesha—lies entirely west of the subcontinental divide and would have to put in place facilities to enable Lake Michigan water to be returned to Lake Michigan.¹ One proposed new utility—Elm Grove—lies in the Lake Michigan Basin

¹ *In 2009, the city of New Berlin received WDNR approval for a Lake Michigan diversion, according to the requirements of the Great Lakes Compact. In 2016, the city of Waukesha received approval for a Lake Michigan diversion from the Compact Council, comprised of the governors of the eight Great Lakes States, according to the requirements of the Compact.*

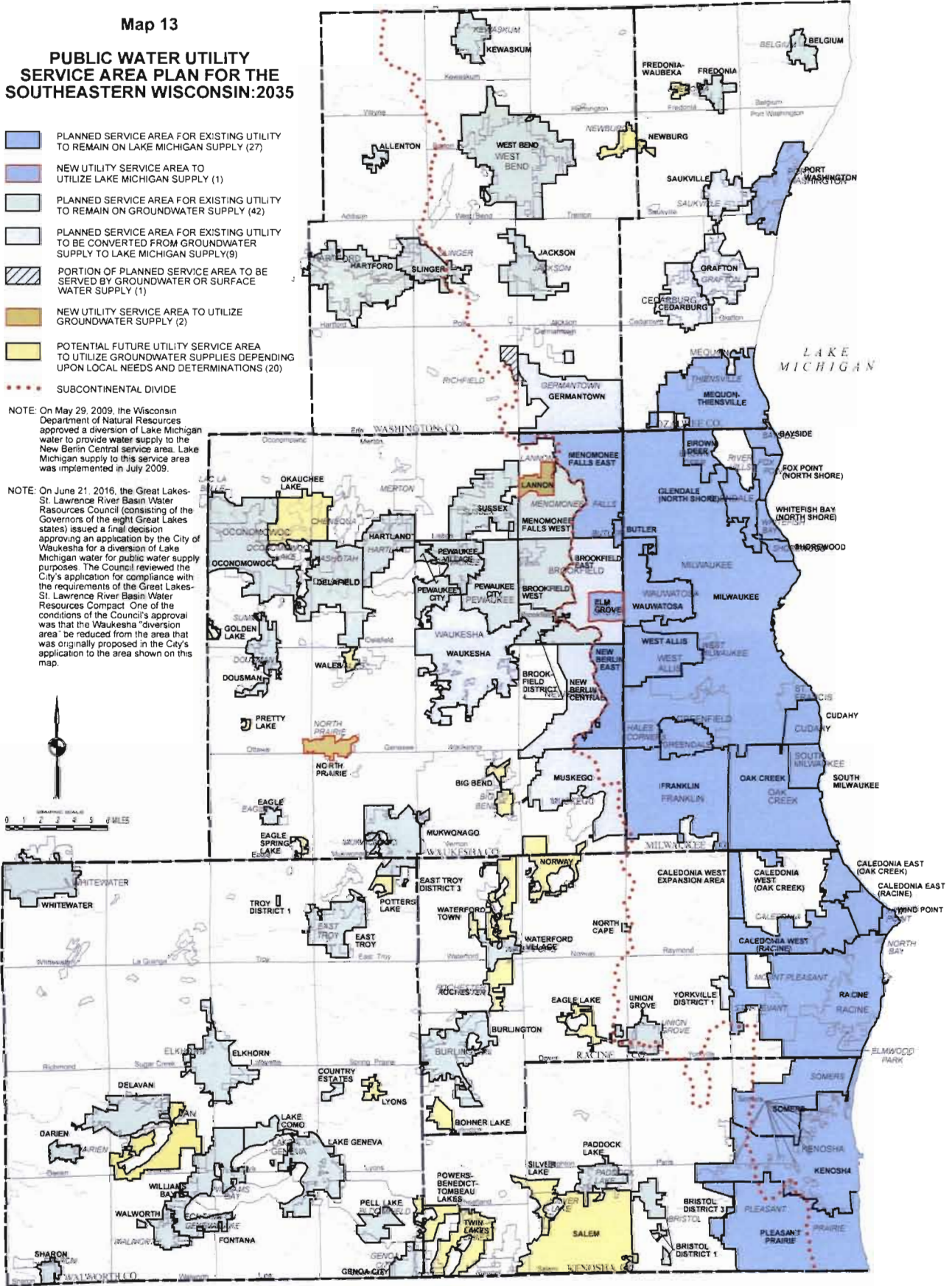
Map 13

PUBLIC WATER UTILITY SERVICE AREA PLAN FOR THE SOUTHEASTERN WISCONSIN: 2035

-  PLANNED SERVICE AREA FOR EXISTING UTILITY TO REMAIN ON LAKE MICHIGAN SUPPLY (27)
-  NEW UTILITY SERVICE AREA TO UTILIZE LAKE MICHIGAN SUPPLY (1)
-  PLANNED SERVICE AREA FOR EXISTING UTILITY TO REMAIN ON GROUNDWATER SUPPLY (42)
-  PLANNED SERVICE AREA FOR EXISTING UTILITY TO BE CONVERTED FROM GROUNDWATER SUPPLY TO LAKE MICHIGAN SUPPLY (9)
-  PORTION OF PLANNED SERVICE AREA TO BE SERVED BY GROUNDWATER OR SURFACE WATER SUPPLY (1)
-  NEW UTILITY SERVICE AREA TO UTILIZE GROUNDWATER SUPPLY (2)
-  POTENTIAL FUTURE UTILITY SERVICE AREA TO UTILIZE GROUNDWATER SUPPLIES DEPENDING UPON LOCAL NEEDS AND DETERMINATIONS (20)
-  SUBCONTINENTAL DIVIDE

NOTE: On May 29, 2009, the Wisconsin Department of Natural Resources approved a diversion of Lake Michigan water to provide water supply to the New Berlin Central service area. Lake Michigan supply to this service area was implemented in July 2009.

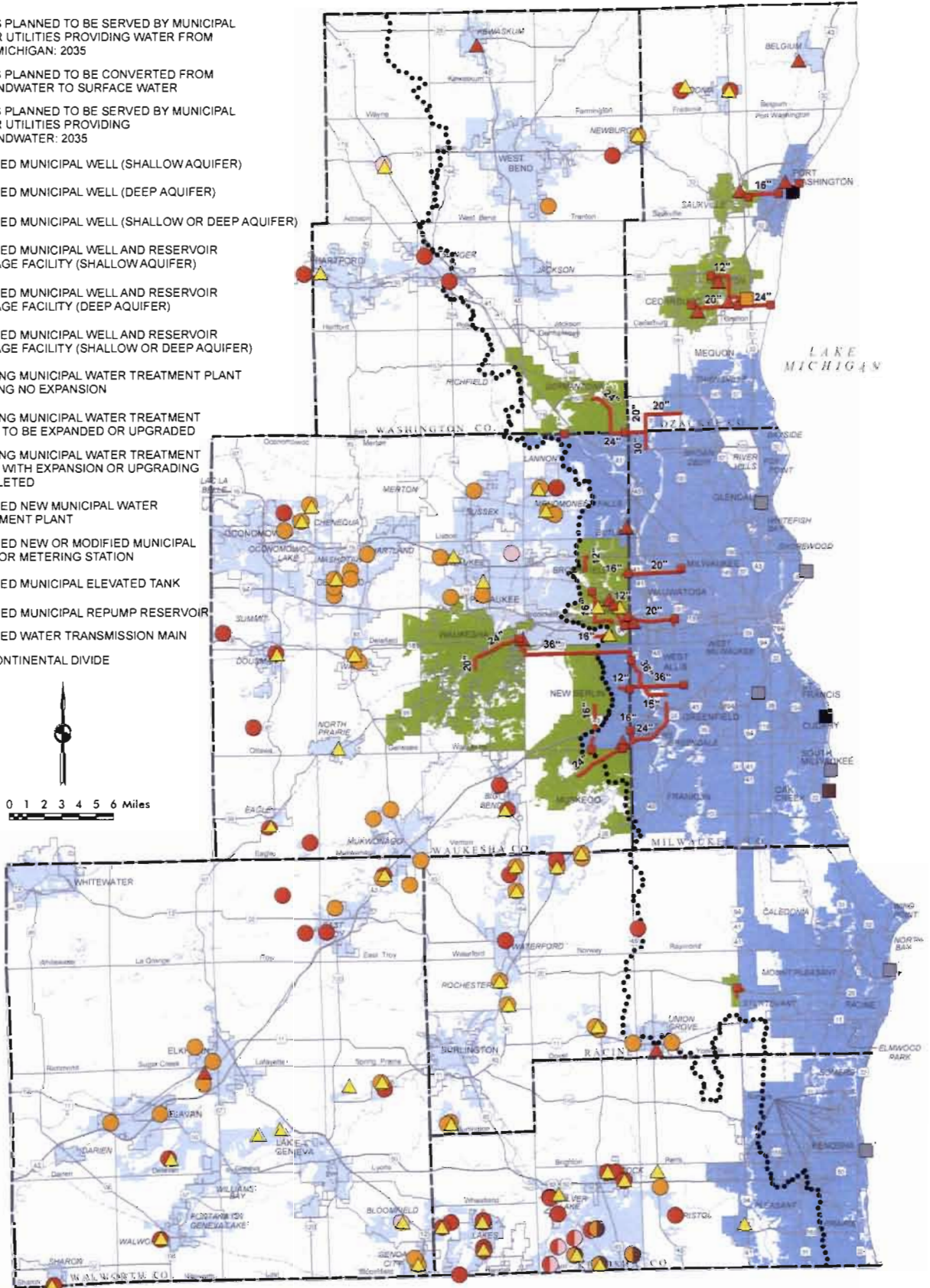
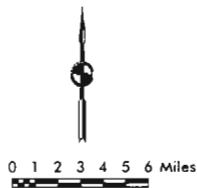
NOTE: On June 21, 2016, the Great Lakes-St. Lawrence River Basin Water Resources Council (consisting of the Governors of the eight Great Lakes states) issued a final decision approving an application by the City of Waukesha for a diversion of Lake Michigan water for public water supply purposes. The Council reviewed the City's application for compliance with the requirements of the Great Lakes-St. Lawrence River Basin Water Resources Compact. One of the conditions of the Council's approval was that the Waukesha "diversion area" be reduced from the area that was originally proposed in the City's application to the area shown on this map.



Map 14

PUBLIC WATER SUPPLY FACILITIES PLAN FOR THE SOUTHEASTERN WISCONSIN REGION: 2035




- AREAS PLANNED TO BE SERVED BY MUNICIPAL WATER UTILITIES PROVIDING WATER FROM LAKE MICHIGAN: 2035
- AREAS PLANNED TO BE CONVERTED FROM GROUNDWATER TO SURFACE WATER
- AREAS PLANNED TO BE SERVED BY MUNICIPAL WATER UTILITIES PROVIDING GROUNDWATER: 2035
- PLANNED MUNICIPAL WELL (SHALLOW AQUIFER)
- PLANNED MUNICIPAL WELL (DEEP AQUIFER)
- PLANNED MUNICIPAL WELL (SHALLOW OR DEEP AQUIFER)
- PLANNED MUNICIPAL WELL AND RESERVOIR STORAGE FACILITY (SHALLOW AQUIFER)
- PLANNED MUNICIPAL WELL AND RESERVOIR STORAGE FACILITY (DEEP AQUIFER)
- PLANNED MUNICIPAL WELL AND RESERVOIR STORAGE FACILITY (SHALLOW OR DEEP AQUIFER)
- EXISTING MUNICIPAL WATER TREATMENT PLANT NEEDING NO EXPANSION
- EXISTING MUNICIPAL WATER TREATMENT PLANT TO BE EXPANDED OR UPGRADED
- EXISTING MUNICIPAL WATER TREATMENT PLANT WITH EXPANSION OR UPGRADE COMPLETED
- PLANNED NEW MUNICIPAL WATER TREATMENT PLANT
- PLANNED NEW OR MODIFIED MUNICIPAL PUMP OR METERING STATION
- PLANNED MUNICIPAL ELEVATED TANK
- PLANNED MUNICIPAL REPUMP RESERVOIR
- PLANNED WATER TRANSMISSION MAIN
- SUBCONTINENTAL DIVIDE

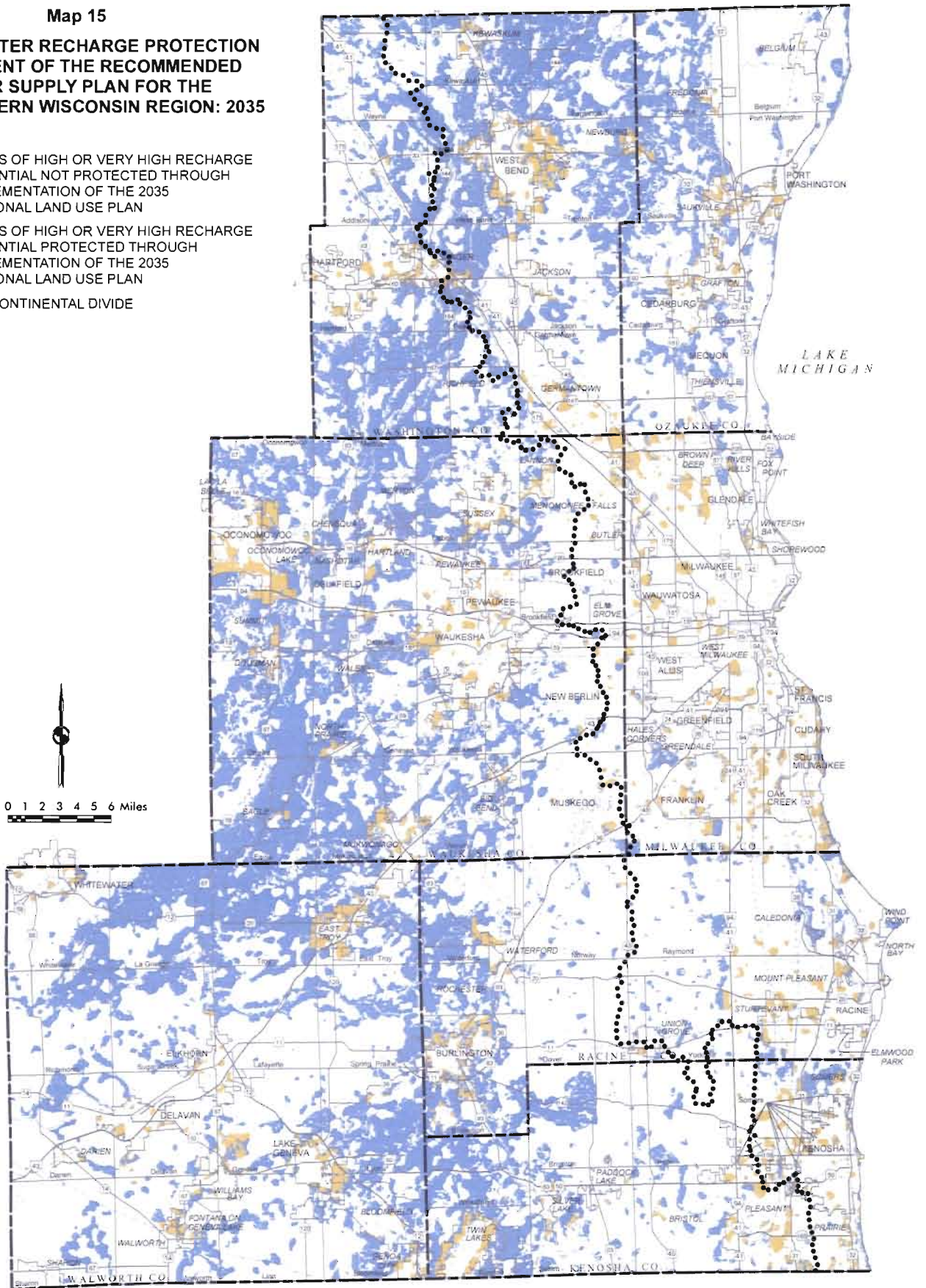


NOTES: 1) The City of Oak Creek Sewer and Water Utility completed expansion and upgrading of its water treatment plant in 2010. The City of Hartford completed the recommended new well and storage tank in 2010. This map does not indicate the return flow options of the recommended plan. 2) The green Waukesha water supply service area shown on this map is the service area originally proposed under the 2010 SEWRPC regional water supply plan. That service area was delineated consistent with the requirements of the Wisconsin Statutes, and it was the service area used to analyze water supply options for the Waukesha area under the regional water supply plan. As noted on Map 13, one of the conditions of the Great Lakes/St. Lawrence River Basin Water Resources Council's approval of an application by the City of Waukesha for a diversion of Lake Michigan water for public water supply purposes was that the Waukesha "diversion area" be reduced from the area that is shown here and that was originally proposed in the City's application.

Map 15

GROUNDWATER RECHARGE PROTECTION COMPONENT OF THE RECOMMENDED WATER SUPPLY PLAN FOR THE SOUTHEASTERN WISCONSIN REGION: 2035

-  AREAS OF HIGH OR VERY HIGH RECHARGE POTENTIAL NOT PROTECTED THROUGH IMPLEMENTATION OF THE 2035 REGIONAL LAND USE PLAN
-  AREAS OF HIGH OR VERY HIGH RECHARGE POTENTIAL PROTECTED THROUGH IMPLEMENTATION OF THE 2035 REGIONAL LAND USE PLAN
-  SUBCONTINENTAL DIVIDE



and is recommended to use Lake Michigan water for supply. It is recommended that all of the remaining water utilities continue to use their existing sources of supply.

Water Supply Facilities

The major water supply facilities needed to implement the regional water supply plan are identified on Map 14. These facilities include municipal wells, both in the deep and shallow aquifers; reservoir storage facilities; new, expanded, or upgraded municipal water treatment plants; new or modified pump or metering stations; elevated tanks; repump reservoirs; and water transmission mains.

Water Conservation Programs

The regional plan recommends implementation of comprehensive water conservation programs, identifying both supply-side efficiency measures and demand-side conservation measures. Three program levels of effort were identified in the plan: base level, intermediate level, and advanced level. These program levels were then assigned to categories of utilities taking into account criteria related to the use of groundwater or Lake Michigan as a source of supply and the extent of major infrastructure development needed to meet future demands, among others.

Groundwater Recharge Areas Protection

Another element of the regional plan consists of recommendations to protect those groundwater recharge areas that were found to have a high or very high recharge potential (see Map 15). These recommendations include the protection of environmentally significant lands and the careful site design and use of selected stormwater management practices in those cases where new urban development would take place.

Other Plan Recommendations

The plan also sets forth recommendations related to stormwater management, the siting of high-capacity wells, and the construction of rainfall infiltration facilities in selected areas. These recommendations are intended to form the basis for abating any negative impacts on surface water systems associated with high-capacity well development. Finally, the plan sets forth a number of auxiliary recommendations related to water supply issues and concerns, including better

winter management of chlorides applied for ice and snow control and the disposal of pharmaceutical and personal care products, among others. More information about the regional water supply plan can be found at www.sewrpc.org/regionalwatersupplyplan.

OTHER REGIONAL PLANS

In addition to the foregoing regional plan elements that today comprise the adopted regional comprehensive plan, a number of other regional plan elements have been prepared over the years that, in many cases, continue to provide sound recommendations, but which: 1) have been incorporated into other ongoing regional plan efforts and elements in subsequent years; 2) have not been updated or maintained in a systematic way for programmatic or budgetary reasons; or 3) have been subject only to limited plan implementation activities. Summaries of these plans follow.

Watershed Plans

Comprehensive watershed plans—plans that address land use, park and open space, flood mitigation, and surface quality water issues—were prepared and adopted for the Root, Fox, Milwaukee, Menomonee, Kinnickinnic, Pike, and Des Plaines River watersheds and for the Oak Creek watershed over the period 1966 to 2003. In addition, the three plans for the watersheds that drain to the Milwaukee harbor—Milwaukee, Menomonee, and Kinnickinnic—were supplemented by a comprehensive Milwaukee Harbor Estuary plan. Each watershed plan provided definitive information on the extent of floodplains throughout the watershed and recommendations to preserve and protect those floodplains in natural, open space use wherever possible. As appropriate, each plan also set forth recommendations to address existing flooding problems. For example, the Fox River watershed plan recommended that over time about 180 residences be removed from extreme-flood-prone areas in Kenosha County near the Wisconsin/Illinois State line. Implementation of this recommendation continues to this date. Current regional planning efforts attendant to land use, water quality, and floodplain management serve to refine and update the watershed-specific recommendations contained in these historical watershed plans.

Regional Elderly-Handicapped Transportation Plan

This plan, adopted in 1978, set forth recommendations to address the mobility problems of elderly people and people with disabilities. Many of the recommendations set forth in this plan have been implemented and the Commission continues to work with the Region's transit operators in considering necessary adjustments to the services being provided.

Transportation Systems Management Plan

This plan, adopted in 1980, set forth recommendations to properly manage the existing transportation systems in the urbanized areas of the Region. Such planning efforts continue to this date, with any necessary updating work included in the broader regional transportation plan, with the most recent update being VISION 2050.

Regional Bicycle and Pedestrian Facilities Plan

This plan, adopted in 1995 and updated and extended in 2001, includes both system and policy recommendations relative to the accommodation of bicycle and pedestrian movements throughout the Region. Such planning efforts continue to this date, with any necessary updating work included in the broader regional transportation plan, with the most recent update being VISION 2050.

Regional Wastewater Sludge Management Plan

This plan, adopted in 1978, provided recommendations addressed to the owners of the public wastewater treatment plants throughout the Region. Many of the recommendations included in this plan remain relevant today. As may be appropriate, efforts to update these plan recommendations are being accommodated in the continuing regional water quality management planning effort.

Regional Sanitary Sewerage System Plan

This plan, adopted in 1974, provided recommendations for the abatement of water pollution from public wastewater conveyance facilities and treatment plants. These recommendations were further addressed in the continuing regional water quality management planning effort.

Regional Airport System Plan

This plan, adopted in 1976, was updated and extended in 1987 and 1996. Its plan recommendations were incorporated into the State of Wisconsin Airport Plan. Many of the plan recommendations were implemented, but no continuing regional planning effort is under way to maintain or extend that plan.

Regional Telecommunications Plan

This plan, adopted in 2007, provides recommendations attendant to the provision of broadband telecommunications facilities and services for the Region. These recommendations have been addressed to both the public and private sector interests concerned. No continuing planning effort is under way to maintain or extend that plan.

Regional Air Quality Plan

This plan, adopted in 1980, comprehensively addressed the issues associated with attaining and maintaining the Federal Clean Air Act objectives identified for the Region. Commission planning efforts since that time have been limited to demonstrating that the regional transportation plan and the periodically produced regional transportation improvement programs conform to the recommendations of the ongoing State of Wisconsin air quality implementation plan.

Urban District Plans

Comprehensive plans for urban planning districts were adopted in 1972 for the Kenosha planning district and 1975 for the Racine planning district. These planning efforts involved multiple communities lying east of IH 94 in Kenosha and Racine Counties. These cooperative local planning efforts have been supplanted by State-mandated comprehensive plans.

Regional Library Facilities and Services Plan

This plan, adopted in 1974, proposed a single seven-county regional library federation. Implementation stopped short of that goal, resulting in the creation of several single-county or multi-county federated systems.

Report Availability

Reports documenting all of the plans mentioned above are available from Commission offices and on the website at www.sewrpc.org/legacyregionalplans.

PART TWO: THE YEAR IN REVIEW

This section of the 2016 SEWRPC Annual Report briefly documents the regional planning work activities undertaken during the year. The section is organized by the following regional planning work program categories: land use planning for development and preservation; transportation planning; environmental planning; housing planning; local planning assistance; surveying, mapping, and land information; and public involvement and outreach.

The section concludes with a list of SEWRPC publications during the year.

Part One of this Annual Report provides information about the Commission and includes a brief description of each of the elements of the comprehensive regional plan. That part begins on page 1. Part Three documents the results of Commission monitoring efforts during the year and begins on page 91.



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LAND USE PLANNING

In 2016, the Commission undertook a wide range of activities related to land use planning—planning intended to help guide land use development and open space preservation in the Region. These activities follow.

Growth and Change Forecasts

The regional plans that together comprise the comprehensive plan for the seven-county Southeastern Wisconsin Region are designed to accommodate anticipated future growth and change in the Region's population and economy. The Commission has made long-range projections of population, household, and employment levels and characteristics since the 1960's in order to prepare and update these plans. These projections are updated and extended every 10 years, shortly after each 10-year Federal Census. During 2013, the Commission updated and extended the regional population, household, and employment projections from the year 2035 to the year 2050, and published them in the fifth editions of SEWRPC Technical Reports No. 10, *The Economy of Southeastern Wisconsin*, and No. 11, *The Population of Southeastern Wisconsin*. Figure 5 compares the regional growth projections for both the 2035 and 2050 plan design years, showing moderate increases in population, households, and jobs under intermediate-growth projections for the years 2035 and 2050. Monitoring data relative to the new projections are set forth in Part Three of this report.

Land Use Planning

In order to update and extend the regional land use plan, the Commission undertakes a major update of a land use inventory that serves as a primary basis for preparing the new plan. This inventory identifies existing land uses throughout the entire Region using a classification system with over 60 land use categories determined in 1963. Analyses of the inventory data sets identify growth and change within the Region with respect to urban development and its impact on environmentally sensitive land and prime farmlands. In 2013, the Commission completed the process of updating the land use inventory to 2010. In 2016, these 2010 inventory data sets were used in the development of the final recommended year 2050 land use plan for the Region as part of the new "VISION 2050" regional land use and transportation plan.

Land Use Inventory

The Commission land use inventory identifies existing land uses throughout the entire Region. The land use inventory is critical not only to preparation of the regional land use plan (VISION 2050), but to virtually all of the Commission's planning work. The Commission has completed land use inventories for the Region for the years 1963, 1970, 1975, 1980, 1985, 1990, 1995, 2000, and 2010. The Commission is in the process of updating the land use inventory to 2015. Orthophotographs serve as the primary basis for identifying existing land use, augmented by available oblique aerial photographs, other online resources, and field surveys as needed. Work on the land use inventory update was initiated in 2016 and is scheduled to be completed in 2018.

Environmental Corridor Inventory

Environmental corridors are elongated areas in the landscape that contain concentrations of natural resource features such as wetlands, woodlands, surface water, and wildlife habitat. The preservation of environmental corridors is a key recommendation of VISION 2050. The Commission updates the inventory of environmental corridors in conjunction with the update of the regional land use inventory—taking into account changes in wetlands, woodlands, and surface water identified in the land use inventory update. In 2013, the Commission completed the process of updating the environmental corridor inventory to 2010. In 2016, the Commission completed the work involved in the preparation of the planned environmental corridor file for the Region. This involves the delineation of proposed changes to the environmental corridor inventory to reflect floodplain additions and other changes to the existing corridors identified in local sewer service area plans and other plans. The planned environmental corridor file constitutes an element of VISION 2050.

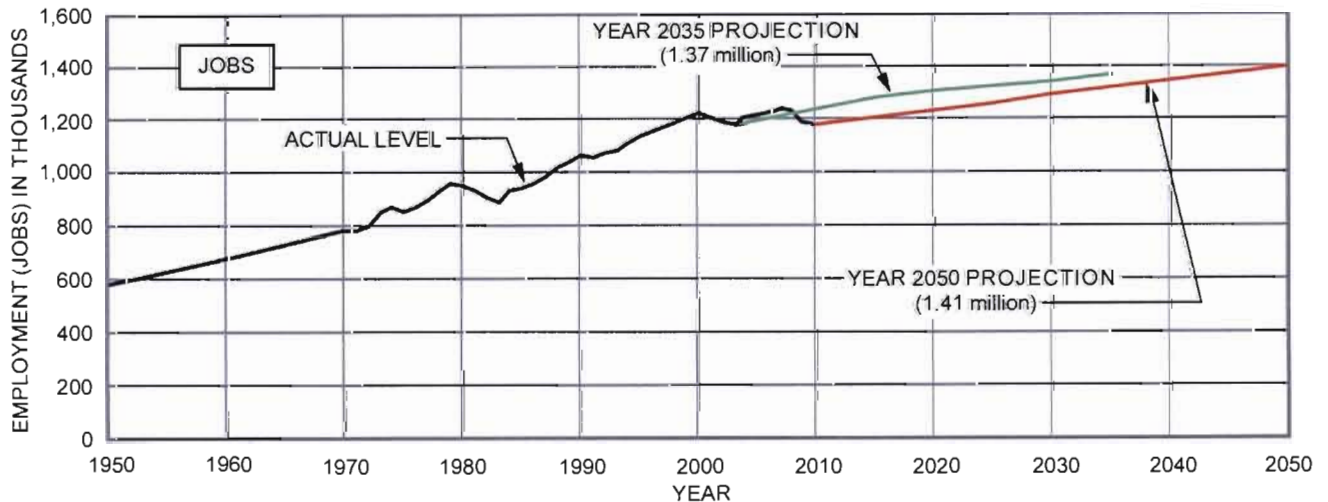
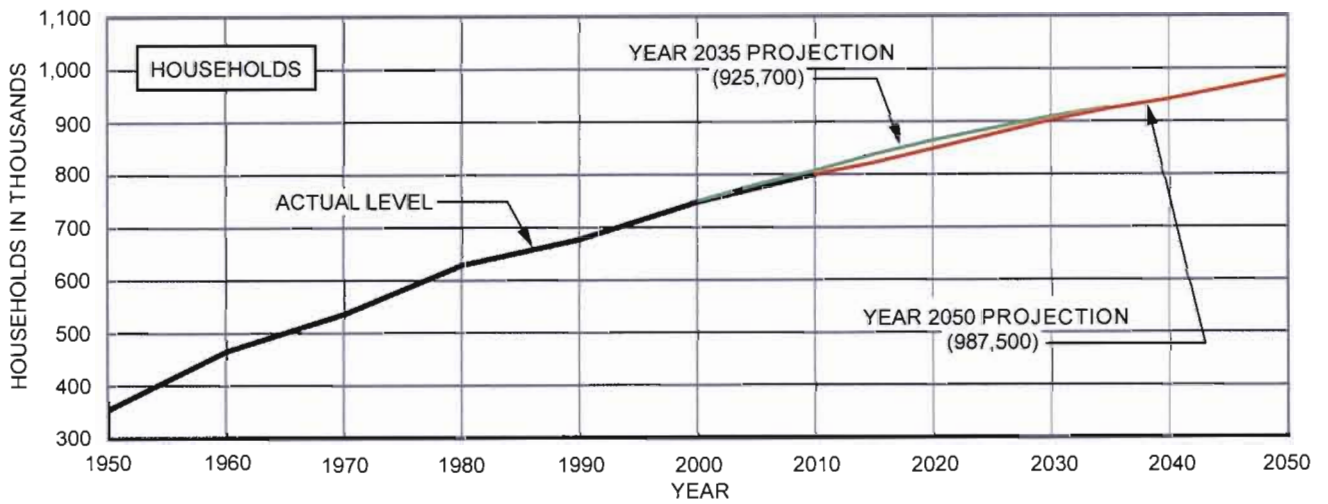
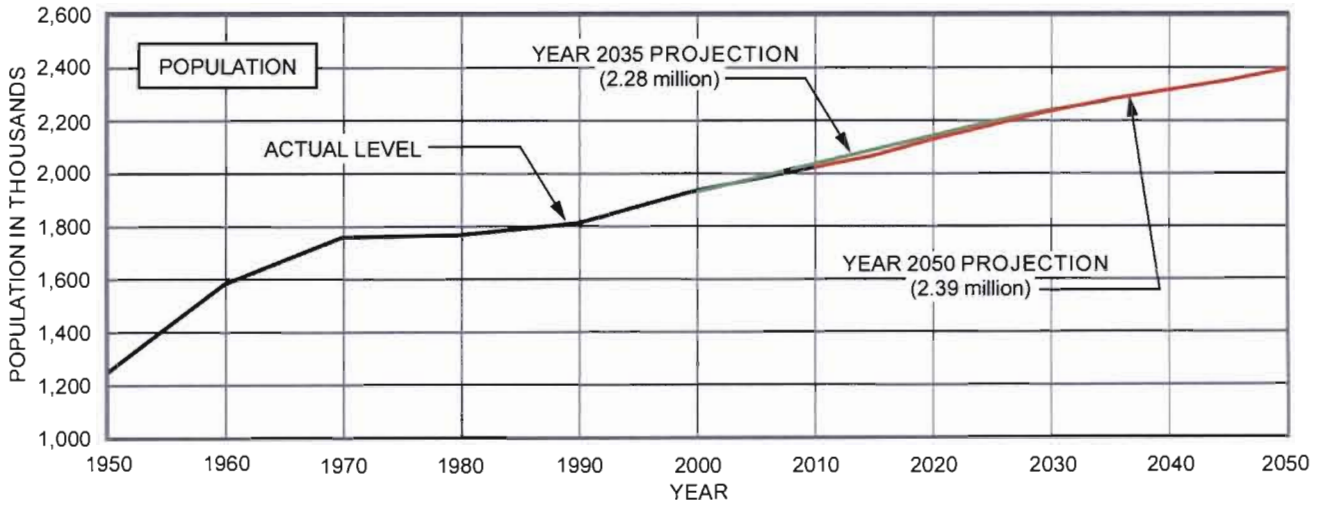
During 2016, in an effort to evaluate changes to environmental corridors over time, work was completed on the preparation of a digital file of environmental corridors in the Region for the year 1963.

VISION 2050: Land Use Component

Preparation of VISION 2050, which is documented in SEWRPC Planning Report No. 55, was guided by the Commission Advisory Committees on Regional Land Use Planning and Regional Transportation Planning

Figure 5

COMPARISON OF INTERMEDIATE GROWTH PROJECTIONS FOR THE SOUTHEASTERN WISCONSIN REGION: PLAN DESIGN YEARS 2035 AND 2050



(see the Transportation Planning section for more details). During 2016, these Committees reviewed and approved preliminary drafts of the following plan chapters and appendices:

- Volume II, Chapter 4, “Preliminary Recommended Year 2050 Regional Land Use and Transportation Plan”
- Volume III, Chapter 1, “Recommended Year 2050 Regional Land Use and Transportation Plan”
- Volume III, Chapter 2, “Fiscally Constrained Transportation Plan”
- Volume III, Chapter 3, “Plan Implementation”
- Appendix G, “Public Feedback on Detailed Alternatives”
- Appendix H, “Complete Results of the Preliminary Recommended Plan Evaluation”
- Appendix I, “Evaluation of Potential Benefits and Impacts of Reconstructing with Widening or not Widening IH 43 Between Howard Avenue and Silver Spring Drive”
- Appendix J, “Public Feedback on Preliminary Recommended Plan”
- Appendix L, “Equity Analysis of the VISION 2050 Land Use Component”
- Appendix M, “VISION 2050 Plan Recommendations for the Jefferson County Portion of the Milwaukee Urbanized Area”
- Appendix N, “Equitable Access Analysis of the Fiscally Constrained Transportation Plan”
- Appendix O, “Population in the Region by Sewer Service Area”

The Commission staff also completed work on a summary document on the VISION 2050 plan, published in December 2016, and assisted in organizing ongoing visioning activities as part of the Commission’s visioning and scenario planning process conducted for VISION 2050. The plan was reviewed and adopted by the Commission in July 2016. Work was initiated to prepare the final draft of SEWRPC Planning Report No. 55 for publication and the report.

Park and Open Space Planning

The Commission adopted a regional park and open space plan in 1977. The plan includes a recommendation for the preservation of environmentally significant open space lands and the provision of sites and facilities for major resource-oriented outdoor recreation activities throughout the Region. Over time, the plan has been amended on a county-by-county basis, with most county plan updates prepared with the assistance of the Commission staff and adopted by the Commission as amendments to the regional park and open space plan.

Natural Areas Planning

The Commission adopted a regional natural areas and critical species habitat protection and management plan in 1997 (SEWRPC Planning Report No. 42) and has amended the plan several times since, most recently in December 2010. The plan identifies and includes recommendations for the preservation of the most significant remaining natural areas—essentially, the highest quality remnants of the pre-European settlement landscape—as well as other areas vital to the maintenance of Endangered, Threatened, and rare plant and animal species in the Region.

A total of 42 designated or proposed natural areas and critical species habitats were visited in 2016, either by SEWRPC staff to inform natural areas planning or at the request of units, departments, or agencies of government or conservation non-profit organizations (Map 16).

While no formal amendments were made to the regional natural areas plan this year, three new natural areas and two new critical species habitats were proposed as a result of Commission staff field work or verified reports of critical species (Table 1).

Special Environmental Inventories, Assessments, and Evaluations

A continuing demand is placed upon the Commission to help Federal, State, and local units and agencies of government in evaluating and assessing the environmental significance and quality of specific development and preservation sites throughout the Region. Each of these evaluations involves field inspection work and requires that a report be prepared and transmitted to the requesting party. The Commission fulfilled a total of 105 requests for such information in 2016; these requests follow (see Map 17).

Map 16
LOCATIONS OF NATURAL AREA
AND CRITICAL SPECIES HABITAT
FIELD WORK: 2016

NATURAL AREA AND CRITICAL HABITAT SITE VISITS

- ▲ REQUESTED BY UNITS, DEPARTMENTS, AND AGENCIES OF GOVERNMENTS (15 SITES)
- ▲ REQUESTED BY NONPROFIT ORGANIZATIONS (6 SITES)
- ▲ VISITED FOR PLANNING PURPOSES (21 SITES)

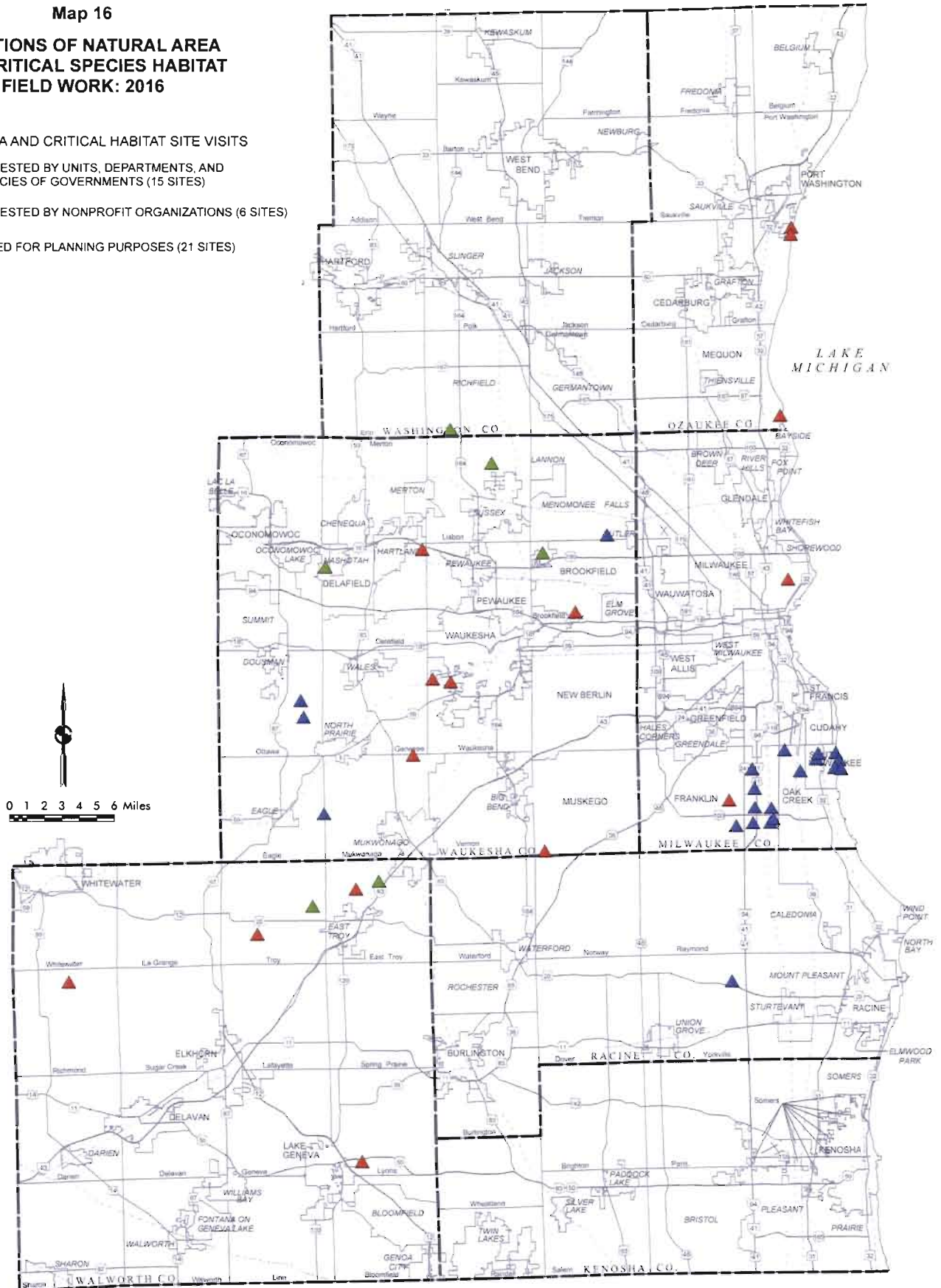


Table 1

NEW PROPOSED NATURAL AREAS AND CRITICAL SPECIES HABITATS BASED ON SEWRPC STAFF FIELD WORK

County	Civil Division	Name	Proposed Designation	Reason
Milwaukee	C/Milwaukee	Hank Aaron Trail Hoptree Site	Critical Species Habitat	Supports hoptree (<i>Ptelea trifoliata</i>), a State-designated special concern species
Walworth	T/Lyons	Radio Station Fena	Natural Area of Local Significance	Small area of calcareous fen co-dominated by twig rush (<i>Cladium mariscoides</i>) and hair beak-rush (<i>Rhynchospora capillacea</i>).
	T/Richmond	Natureland Fen	Natural Area of Local Significance	Small area of calcareous fen situated around spring heads and runs
	T/Troy	Section 28 Wetlands	Critical Species Habitat	Supports swamp agrimony (<i>Agrimonia parviflora</i>), a State-designated special concern species.
Waukesha	T/Mukwonago	Holiday Road Fen and Oak Woodland	Natural Area of Local Significance	Calcareous fen surrounded by remnant oak woodland and oak opening

^a Proposed natural area formerly designated as critical species habitat

Source: SEWRPC

Private Development Parcels

During 2016, 49 requests were fulfilled for the field identification and staking of wetland and primary environmental corridor boundaries on individual parcels to facilitate consideration by local governments of private development proposals. Each of these requests was made by a county or local planner or engineer who needed detailed field information to properly carry out local planning and land use control responsibilities. Once delineated in the field by the Commission staff, the precise boundaries of environmentally significant areas were surveyed by private land surveyors retained by the local unit of government or landowner concerned and the results of the survey were placed on land subdivision plats, certified survey maps, and plats of survey.

Large Private Development Sites

During 2016, 15 requests were fulfilled for field evaluation, identification, and delineation of wetlands and primary environmental corridors on large sites proposed for residential, commercial, and industrial development to determine whether environmentally sensitive areas of concern occur on such sites. The Commission encourages such evaluations prior to any commitment to detailed site planning. Again, each such request came from a county or local planner or engineer. Once delineated in the field by the Commission staff, the precise boundaries of the environmentally significant areas concerned were surveyed by private land surveyors retained by the local unit of government or landowner concerned and the results of the survey were placed on plats of survey.

Transportation Sites and Corridors

During 2016, 28 requests were fulfilled for the field identification and evaluation of environmentally sensitive areas, including wetlands, associated with transportation improvement projects. These requests came from the Wisconsin Department of Transportation; Kenosha, Milwaukee, Washington, and Waukesha Counties; the Cities of Burlington, Milwaukee, Waukesha, West Bend, and Whitewater; the Town of Lyons; and the Villages of Caledonia, Kewaskum, and Mount Pleasant.

Utility and Public Facility Sites

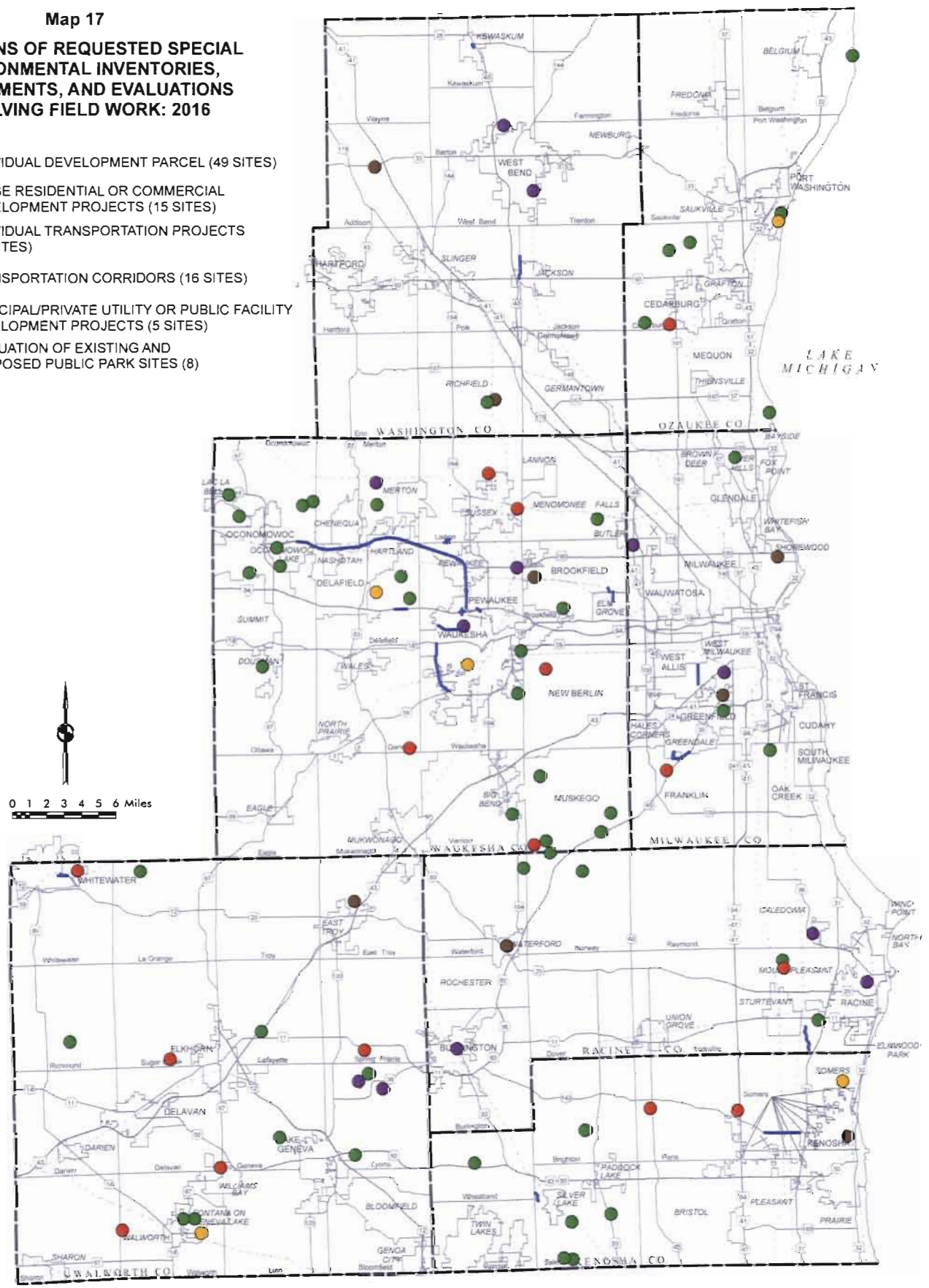
During 2016, five requests were fulfilled for the field identification and evaluation of environmentally sensitive areas, including wetlands, associated with municipal and private utility and community facility development projects. These requests came from utilities and agencies operating in the Cities of Port Washington and Waukesha; the Town of Delafield; and the Villages of Fontana and Somers.

Public Park Sites

During 2016, eight requests were fulfilled for the identification and evaluation of environmentally sensitive areas, including wetlands, on public park sites. Particular attention for these evaluations was given to the flora and fauna present on each site to assist in the development, redevelopment, or disposal of such sites. These requests came from state and local agencies for park sites located in Kenosha, Milwaukee, Racine, Walworth, Washington, and Waukesha Counties.

Map 17
LOCATIONS OF REQUESTED SPECIAL ENVIRONMENTAL INVENTORIES, ASSESSMENTS, AND EVALUATIONS INVOLVING FIELD WORK: 2016

- INDIVIDUAL DEVELOPMENT PARCEL (49 SITES)
- LARGE RESIDENTIAL OR COMMERCIAL DEVELOPMENT PROJECTS (15 SITES)
- INDIVIDUAL TRANSPORTATION PROJECTS (12 SITES)
- TRANSPORTATION CORRIDORS (16 SITES)
- MUNICIPAL/PRIVATE UTILITY OR PUBLIC FACILITY DEVELOPMENT PROJECTS (5 SITES)
- EVALUATION OF EXISTING AND PROPOSED PUBLIC PARK SITES (8)



Summary of 2016 Field Work

In the course of 2016 field work a total of 6,474 plant species records were made: 291 from Kenosha County, 1,323 from Milwaukee County, 376 from Ozaukee County, 406 from Racine County, 1129 from Walworth County, 542 from Washington County, and 2,407 from Waukesha County. Nine plant species never previously recorded as naturalized or established in the Region were observed in the course of 2016 field work. One of these species, mountain blue-eyed grass (*Sisyrinchium montanum*), is native and was observed in Ozaukee County. The other species are not native to southeastern Wisconsin. These include salad burnet (*Poterium sanguisorba*) in a Waukesha County old field, lemon balm (*Melissa officinalis*) in a disturbed Waukesha County lowland hardwoods stand, wild senna (*Senna hebecarpa*, native elsewhere in Wisconsin) naturalized and spreading in a Walworth County wetland from nearby restoration activities, bridal wreath (*Spiraea prunifolia*) naturalized along a woodland edge in Kenosha County, false motherwort (*Chaiturus marrubiastrum*) in the margins of cultivated fields in Walworth County, dense sinky-bent (*Apera interrupta*) at the beach at Grant Park in Milwaukee County, black cohosh (*Actaea racemosa*, native elsewhere in the United States) naturalized in mesic forest at Grant Park in Milwaukee County, and glory-of-the-snow (*Scilla luciliae*) invading and displacing spring ephemerals at Cudahy Woods in Milwaukee County.

A total of 33 records of State Endangered (five records), Threatened (13 records), and Special Concern (15 records) plant species were made: 16 from Milwaukee County, one from Ozaukee County, one from Racine County, 11 from Walworth County, one from Washington County, and three from Waukesha County.

Commission staff also responded to 16 various information and letter requests from local units of government, agencies of government, and conservation non-profits pertaining to natural areas, critical species habitats, ecosystem management, invasive species, and rare native species. Of these, one request pertained to natural resources in Kenosha County, four pertained to natural resources in Milwaukee County, two pertained to natural resources in Ozaukee County, four pertained to natural resources in Walworth County, and five pertained to natural resources in Waukesha County.

TRANSPORTATION PLANNING

Transportation and related personal mobility issues represent a significant component of regional planning efforts in all metropolitan areas of the nation. As the regional planning agency for the seven-county Southeastern Wisconsin Region, the Commission has been engaged in multimodal transportation planning since its inception in the early 1960s. In its efforts, the Commission works cooperatively with the U.S. Department of Transportation, Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), U.S. Environmental Protection Agency (USEPA), Wisconsin Department of Transportation (WisDOT), Wisconsin Department of Natural Resources (WDNR), transit operators, and county and local units of government in the Region. As the Region's Federally recognized Metropolitan Planning Organization (MPO), the Commission is responsible for conducting a continuing, cooperative, and comprehensive transportation planning process as prescribed in Federal laws and regulations. In 2016, the U.S. Department of Transportation (USDOT) conducted a quadrennial certification review of that process. The results of that review are scheduled to be released in 2017.

The Commission undertook a wide range of transportation planning activities in 2016. These activities are reported below in three major work program categories: short-range planning and programming, long-range planning, and data provision and technical assistance.

Short-Range Planning and Programming

In support of implementation of the long-range regional transportation plan, the Commission is involved in extensive short-range transportation planning and programming activities each year. In 2016 these activities consisted of a review and update of the four-year transportation improvement program and planning assistance to transit operators to support implementation of regional transportation plan transit recommendations.

Transportation Improvement Program

The transportation improvement program (TIP) is a listing of all arterial highway, public transit, and other transportation improvement projects proposed to be undertaken over a four-year period by county and lo-

cal governments and WisDOT within the seven-county Southeastern Wisconsin Region. Arterial highway and public transit projects proposed to be funded with USDOT FHWA (highway) and FTA (transit) funding must be listed in the TIP. The TIP is developed by the Commission working with WisDOT staff, area transit operators, and county and local units of government within the Region. The development of the TIP is guided by the Commission's Advisory Committees on Transportation System Planning and Programming for the Kenosha, Milwaukee, Racine, Round Lake Beach, and West Bend Urbanized Areas (TIP Committees). These committees are made up of local elected officials and staff, including all of the area transit operators. Each TIP must be found to conform to State of Wisconsin air quality implementation and maintenance plans for specified national ambient air quality standards, given the presence in the Region of nonattainment and maintenance areas for ozone and fine particulate matter (PM_{2.5}) (see Map 18).

The Commission adopted the 2017-2020 TIP in November 2016, as set forth in the Commission document titled *A Transportation Improvement Program for Southeastern Wisconsin: 2017-2020*. The TIP contains 399 projects within the Region for the four-year programming period of 2017 through 2020. The TIP represents a total potential investment in transportation improvements and services of \$2.64 billion. Of this total, \$980 million, or about 37.1 percent, is proposed to be provided through Federal aids; \$1.26 billion, or about 47.6 percent, through State funds; and \$404 million, or about 15.3 percent, through county and local monies.

About \$941 million is programmed in 2017, the first year of the TIP. As shown in Figure 6:

- About \$430 million, or 46 percent of all expenditures, is devoted to the preservation of existing transportation facilities and services, including both highways and transit.
- Public transit systems are programmed to receive a total of about \$281 million in 2017, or 30 percent of total expenditures, which includes the service and facility preservation, improvement, and expansion categories of projects. Public transit systems serve about 2 percent of the approximately 6.5 million person trips made in the Region on an average weekday.

- Highways are programmed to receive a total of about \$624 million in 2017, or about 66 percent of total expenditures. This total includes the service and facility preservation, improvement, and expansion categories of arterial projects. It should be noted that much of the cost of the \$352 million programmed for highway improvement projects is attendant to reconstruction of existing highway facilities. The cost of additional traffic lanes may only represent 10 to 20 percent of the total costs of a highway improvement project.
- The remaining \$37 million in expenditures, or 4 percent of the total, are programmed for highway safety, environmental enhancement, and non-arterial street and highway system projects.

The TIP document is available at the Commission offices and can be accessed at www.sewrpc.org/tip.

Two additional work activities were related to project selection and implementation activities drawn from the TIP in 2016, including:

- Congestion Mitigation and Air Quality
In 2015, Commission staff initiated work with the TIP Committees, WisDOT, and WDNR to evaluate, prioritize, and recommend projects for Federal Highway Administration Congestion Mitigation, and Air Quality Improvement Program (CMAQ) funds. Each of the staffs independently rated each candidate CMAQ project based on procedures previously developed and applied to evaluate and recommend projects for CMAQ funds. A total of 31 projects totaling \$76 million applied for approximately \$15 million of available years 2019-2020 CMAQ funds. In 2016, the Commission staff completed work with the TIP Committees, WisDOT, and WDNR to recommend nine projects with a total CMAQ funding of \$14.9 million, including five candidate CMAQ projects that were recommended for CMAQ funding but not at the level of funds requested.
- Transportation Alternatives Program (TAP)
Commission staff, working with the Milwaukee Urbanized Area TIP Committee, prioritized 15 candidate projects totaling \$10 million. The amount of TAP funding available to the urbanized area is about \$1.5 million in 2019 and 2020.

Map 18

NAAQS NONATTAINMENT AND MAINTENANCE AREAS WITHIN THE SOUTHEASTERN WISCONSIN REGION

- THREE-COUNTY 2006 24-HOUR FINE PARTICULATE (PM_{2.5}) NAAQS MAINTENANCE AREA (REDESIGNATED 4/22/2014)
- WISCONSIN PORTION OF THE CHICAGO-NAPERVILLE, IL-IN-WI MODERATE 2008 EIGHT-HOUR OZONE NAAQS NONATTAINMENT AREA (REDESIGNATED 5/4/2016)

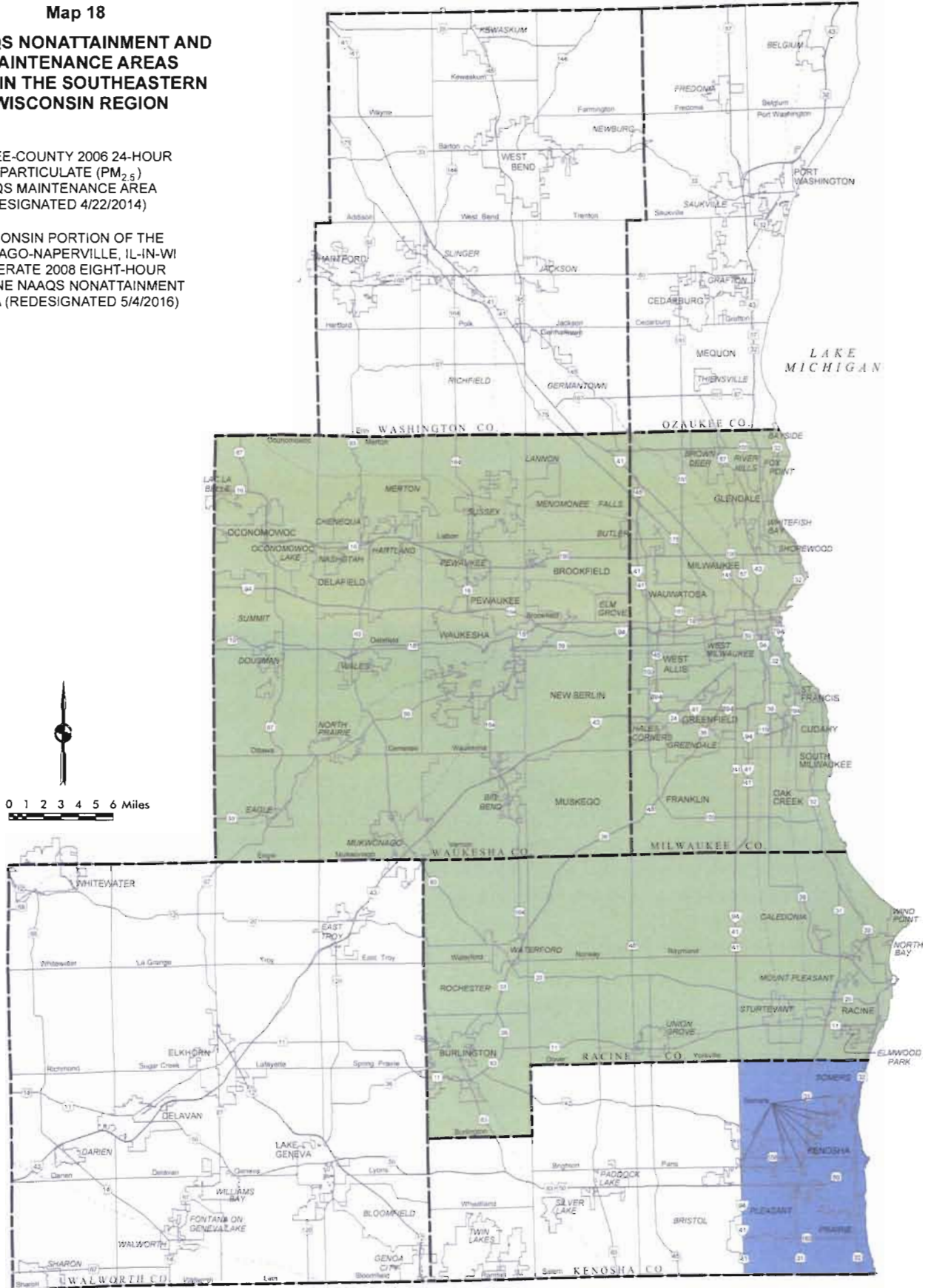
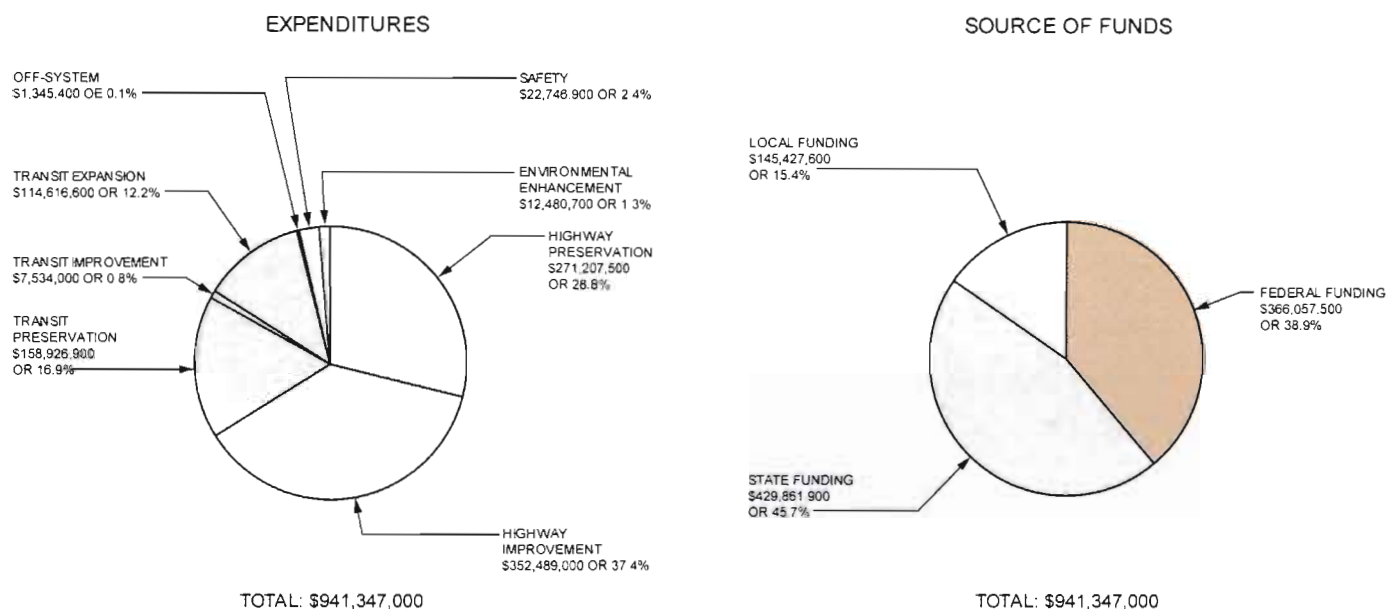


Figure 6

PROGRAMMED EXPENDITURES AND FUNDING SOURCES FOR TRANSPORTATION FACILITIES AND SERVICES IN THE SOUTHEASTERN WISCONSIN REGION: 2017



- Notes.
- 1) The transit expansion expenditures shown in the figure do not include \$45 million (\$36 million in FTA5309 Small Starts funding and \$9 million in local funds) that is illustratively shown in 2017 in the 2017-2020 TIP for Milwaukee County's bus rapid transit project. This funding would be added to the TIP by amendment should FTA approve the construction of the project with FTA 5309 Small Starts funding following the completion of preliminary engineering.
 - 2) While no expenditure is shown in 2017 for highway expansion (or construction of a new roadway), a portion of the West Milwaukee bypass project—which is identified as a highway improvement project—will be on new alignment.

One of the candidate projects—implementation of a new bicycle path connecting existing routes in Milwaukee and Racine Counties—was recommended for the available \$1.5 million in 2019-2020 Milwaukee Urbanized Area TAP funding. The remaining unfunded projects were prioritized and submitted to WisDOT for consideration for statewide TAP funds. With regard to the statewide selection of TAP funds, five additional projects were selected in Southeastern Wisconsin.

• **Obligated Project Listing**

The Commission, in accordance with Federal law, completes and makes available for public access a listing of projects each year for which the FHWA and FTA have obligated funds, drawing such projects listed in the preceding year of the TIP. The lists of obligated highway and transit projects for 2016 are available from the Commission offices and can be accessed at www.sewrpc.org/tip.

Public Transit Planning Assistance

The Commission provides staff services and data to assist transit operators in the Region in transit related planning activities, which includes developing five-year transit development plans. The following short-range transit planning activity occurred during 2016:

- Commission staff assisted the Milwaukee County Department of Transportation with a study of using bus rapid transit technology to improve connections between downtown Milwaukee and the Milwaukee Regional Medical Center.

Long-Range Transportation Planning

Sound regional planning principles, as well as Federal law, require that the Commission prepare and adopt from time to time a long-range regional transportation plan with a minimum future time frame of 20 years. Good regional planning practice and Federal regulations also require that a long-range plan be reviewed and reevaluated from time to time to ensure that the

plan remains relevant and, as well, realistic in terms of anticipated funding availability. Consequently, a major focus of the Commission's work program annually involves activities that relate to the preparation and evaluation of the long-range plan and to its implementation from year to year.

VISION 2050: A Regional Land Use and Transportation Plan

The Commission completed the long-range land use and transportation plan for Southeastern Wisconsin, VISION 2050 in 2016. The transportation component of VISION 2050 replaces the year 2035 regional transportation plan, and will serve as a guide to transportation system development to the year 2050. The periodic (every 10 years) major reevaluation of the regional transportation plan—incorporating new population, employment, and travel survey data and maintaining at least a 20-year future time frame—is essential to ensure that State, county, and local governments maintain eligibility to obtain highway and transit project funding from the USDOT.

To prepare VISION 2050, the Commission initiated a visioning and scenario planning process in 2013 and held a total of five rounds of interactive public visioning workshops, with one workshop in each county of the Region during each round. Concurrent workshops were also held by eight partner community organizations targeted at their constituents, the purpose being to reach and engage minority populations, people with disabilities, and low-income individuals. The fifth and final round of workshops was held in spring 2016 to obtain feedback on a preliminary recommended year 2050 regional land use and transportation plan. The input received on the preliminary recommended plan was considered as Commission staff prepared a final recommended year 2050 land use and transportation plan for Southeastern Wisconsin.

Preparation of VISION 2050 was guided by the Commission's Advisory Committees on Regional Land Use Planning and Regional Transportation Planning. The chapters and appendices of SEWRPC Planning Report, No. 55 that were reviewed and approved by the Committees are listed in the Land Use Planning section. In June 2016, the Committees approved VISION 2050, and the Commission subsequently adopted VISION 2050 in July 2016. Following the plan's adoption, the Commission staff began developing and

executing a strategy for communicating the plan and its recommendations across the Region.

County Jurisdictional Highway System Plans

Jurisdictional highway system plans contain specific recommendations as to which level of government—State, county, or local—should logically be responsible for each of the various facilities that make up the total arterial system. Updated year 2035 jurisdictional highway system plans were completed for Walworth and Washington Counties in 2011 and 2008, respectively. In 2016, the Commission continued working with the Ozaukee County Jurisdictional Highway Planning Committee to review and update report materials as part of the update to the jurisdictional highway system plan for Ozaukee County. Also in 2016, the Commission worked with all seven of the County Jurisdictional Highway Committees in developing VISION 2050. More information on the jurisdictional highway planning process can be found at www.se-wrpc.org/ihp.

Data Provision and Technical Assistance

The Commission spends a considerable amount of time and effort each year responding to requests for transportation data and technical assistance. Many transportation data requests involve obtaining existing or forecast traffic volumes on selected arterial facilities. Other requests are for data necessary for the support of special studies. These requests are typically made by local units of government, counties, WisDOT, and private businesses and developers. Summaries of the assistance provided in 2016 follow.

Traffic Forecasts

At the request of WisDOT or local or county governments, the Commission provides future-year traffic forecasts in support of engineering studies throughout the Region. The types of forecasting services typically requested and provided include:

- During preliminary engineering, long-range future-year traffic forecasts are developed within the context of the year 2050 regional transportation plan for alternatives being considered. These forecasts are used to assess each alternative's traffic impacts and ability to accommodate future travel demand.
- Detailed origin-destination information for input into microsimulation models used for operational analysis.

- Upon selection of a preferred design, detailed traffic diversion forecasts to identify traffic impacts associated with potential construction-related closures so that mitigation measures can be identified and implemented.
- Data for use in project-level air quality impact assessments.

During 2016, numerous forecasts were prepared or under way for WisDOT and other agencies. Some of the projects for which forecasts have been developed were:

- Zoo Interchange reconstruction;
- IH 94 east-west corridor study;
- IH 43 north-south corridor study;
- IH 94 north-south reconstruction;
- STH 175 visioning study for the City of Milwaukee;
- North Street and St. Paul Avenue two-way conversion study for the City of Waukesha;
- Milwaukee County Bus Rapid Transit project; and
- STH 60 northern reliever route study.

Technical Assistance for Transportation Projects

The Commission provides technical assistance in support of various specific transportation projects in the Region. This assistance often involves:

- Serving on technical advisory committees guiding the design of a specific project;
- Providing technical expertise, information, and materials during development of various elements of a project; and
- Reviewing study reports and other documents prepared for a project.

Some of the projects or studies that Commission staff provided technical assistance for in 2016 included:

- Milwaukee streetcar project;
- Milwaukee County Bus Rapid Transit project;
- Zoo Interchange reconstruction;

- IH 94 east-west corridor study; and
- IH 43 north-south corridor study.

Other Activities

In addition to traffic forecasts, the Commission provides other transportation data upon request during special studies being conducted by other entities in the Region.

The Commission also conducts traffic engineering studies for local governments within the Region. In 2016:

- Commission staff continued work on a traffic study for the City of Racine to improve high-quality access between IH 94 and the City. This study is expected to be completed in 2017.
- Commission staff initiated work on a traffic engineering study for the intersection of W. Drexel Avenue and S. 51st Street in the City of Franklin.
- Commission staff initiated and completed work on a study of a northern reliever route for STH 60 through the City of Hartford and Village of Slinger.






Bicycle-Pedestrian Count Program

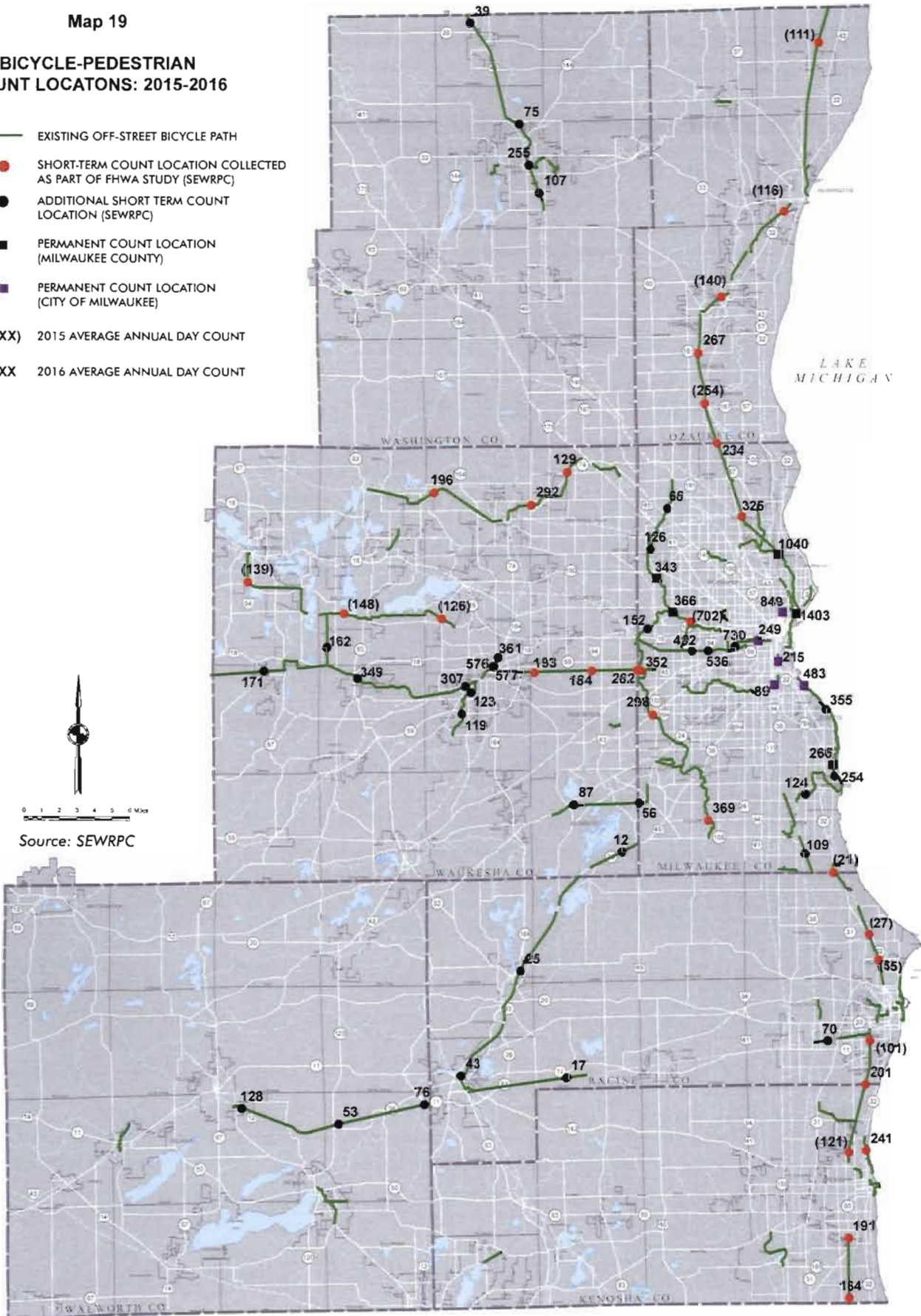
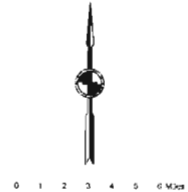
In 2015, the Commission received a grant from the Federal Highway Administration (FHWA) Bicycle-Pedestrian Count Technology Pilot Project, to initiate a non-motorized count program within Southeastern Wisconsin. From May 2015 to April 2016, Commission staff collected non-motorized counts at 29 locations along several regionally significant off-street paths in the Region. Data on daily temperatures and other weather conditions were also collected to evaluate their potential effects on count volumes. After each count session, Commission staff prepared summary reports of the volumes and trends and submitted them to the respective local government that owns and maintains the off-street path. A final report summarizing the count activities during the pilot project was provided to FHWA in May 2016. During the remainder of 2016, the non-motorized count program continued. Several of the pilot project locations were recounted and additional sites were added.

Map 19 displays all of the locations in 2016 where bicycle/pedestrian counts were collected. Also shown on Map 19 are 10 permanent urban counter locations

Map 19

**BICYCLE-PEDESTRIAN
COUNT LOCATIONS: 2015-2016**

-  EXISTING OFF-STREET BICYCLE PATH
 -  SHORT-TERM COUNT LOCATION COLLECTED AS PART OF FHWA STUDY (SEWRPC)
 -  ADDITIONAL SHORT TERM COUNT LOCATION (SEWRPC)
 -  PERMANENT COUNT LOCATION (MILWAUKEE COUNTY)
 -  PERMANENT COUNT LOCATION (CITY OF MILWAUKEE)
- (XXX) 2015 AVERAGE ANNUAL DAY COUNT
 XXX 2016 AVERAGE ANNUAL DAY COUNT

Source: SEWRPC

owned by Milwaukee County and the City of Milwaukee. Permanent continuous counts allow for the establishment of annual adjustment factors to estimate annual volumes at locations where only short-term counts are available. In 2017, the Commission will be placing four permanent counters on rural and suburban trails that will supplement the existing permanent urban counters in Milwaukee County.

Regional Transportation Consultation Activities

The following summarizes regional transportation consultation activities conducted by the Commission pursuant to its Regional Transportation Consultation Process during 2016.

Advisory Committee on Regional Transportation Planning

The Committee met on five occasions in 2016 (January 27, March 30, May 18, and June 8 and 29), where the Committee was asked, along with the Advisory Committee on Regional Land Use Planning, to guide the development of VISION 2050. This included providing guidance on preparing the VISION 2050 preliminary recommended and final recommended land use and transportation plans.

Advisory Committees on Transportation System Planning and Programming for the Kenosha, Milwaukee, Racine, Round Lake Beach, and West Bend Urbanized Areas (TIP Committees)

The five TIP Committees met twice in 2016, on April 25, and November 16. At the April meeting, the five Committees collectively reviewed and recommended projects for Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding. Also at the April meeting, the Milwaukee Urbanized Area Committee, acting alone, reviewed and recommended Milwaukee urbanized area projects for funding under the Transportation Alternatives Program (TAP). The five Committees met in November to collectively consider and adopt a program of projects for inclusion in the *Transportation Improvement Program (TIP for Southeastern Wisconsin: 2017-2020)*.

The Kenosha Urbanized Area Committee also met on October 10, to review and consider the proposed functional classification of the arterial street and highway system in the year 2010 adjusted Kenosha urbanized area. This Committee also reviewed and adopted

amendments to the 2015-2018 Transportation Improvement Program at this meeting. The Racine Urbanized Area Committee met on September 20, 2016, to review and consider the proposed functional classification of the arterial street and highway system in the year 2010 adjusted Racine urbanized area. This Committee also reviewed and adopted amendments to the 2015-2018 Transportation Improvement Program at this meeting.

Kenosha County Jurisdictional Highway Planning Committee

The Committee met once in 2016, on May 10, to review and discuss the preliminary recommended regional transportation plan for VISION 2050 including proposed functional improvements to the Kenosha County arterial system.

Milwaukee County Jurisdictional Highway Planning Committee

The Committee met twice in 2016. On January 6, the Committee reviewed and discussed the VISION 2050 detailed alternative land use and transportation plans, and also discussed potential arterial street and highway improvements for inclusion in the preliminary recommended transportation plan. On May 3, the Committee reviewed and discussed the VISION 2050 preliminary recommended transportation plan including proposed functional improvements to the Milwaukee County arterial system and an evaluation of the potential benefits and impacts of reconstructing with widening or not widening IH 43 between Howard Avenue and Silver Spring Drive.

Ozaukee County Jurisdictional Highway Planning Committee

The Committee met twice in 2016. On January 11, the Committee reviewed and discussed the VISION 2050 detailed alternative land use and transportation plans, and also discussed potential arterial street and highway improvements for inclusion in the preliminary recommended transportation plan. On April 27, the Committee reviewed and discussed the VISION 2050 preliminary recommended transportation plan including proposed functional improvements to the Ozaukee County arterial system.

Racine County Jurisdictional Highway Planning Committee

The Committee met twice in 2016. On January 11, the Committee reviewed and discussed the VISION 2050 detailed alternative land use and transportation

plans, and also discussed potential arterial street and highway improvements for inclusion in the preliminary recommended transportation plan. On May 6, the Committee reviewed and discussed the VISION 2050 preliminary recommended transportation plan including proposed functional improvements to the Racine County arterial system.

**Walworth County Jurisdictional
Highway Planning Committee**

The Committee met once in 2016, on May 9, to review and discuss the preliminary recommended regional transportation plan for VISION 2050 including proposed functional improvements to the Walworth County arterial system.

**Washington County Jurisdictional
Highway Planning Committee**

The Committee met twice in 2016. On January 12, the Committee reviewed and discussed the VISION 2050 detailed alternative land use and transportation plans, and also discussed potential arterial street and highway improvements for inclusion in the preliminary recommended transportation plan. On May 1, the Committee reviewed and discussed the VISION 2050 preliminary recommended transportation plan, including proposed functional improvements to the Washington County arterial system.

**Waukesha County Jurisdictional
Highway Planning Committee**

The Committee met once in 2016, on April 28, to review and discuss the preliminary recommended regional transportation plan for VISION 2050 including proposed functional improvements to the Waukesha County arterial system.

Environmental Justice Task Force (EJTF)

The Task force met once in 2016, on March 22. The Task force discussed the public feedback on the preliminary recommended land use and transportation plan for VISION 2050. The Task force also discussed the VISION 2050 final recommended transportation plan; an equity analysis of the VISION 2050 land use plan; the fiscally constrained transportation plan; and an equitable access analysis of the fiscally constrained transportation plan.

VISION 2050

In addition to guidance from the two Advisory Committees, a number of consultation efforts were con-

ducted during 2016 as part of developing VISION 2050. More detail on these efforts can be found in the Public Involvement and Outreach section.

- In spring 2016, the Commission staff met with several of the task forces convened to examine specific issues related to land use and transportation as part of developing VISION 2050. The meetings focused on the preliminary recommended plan and its evaluation.
- Corresponding with the VISION 2050 workshops held for the general public, the Commission completed a fifth series of workshops in the spring of 2016 with eight community partner organizations. These workshops were specifically targeted at reaching and engaging minority populations, low-income populations, and people with disabilities. This series of workshops was held to obtain input on the preliminary recommended plan and its evaluation.
- The Commission staff reached out to numerous groups representing minority populations and low-income populations during 2016, primarily through letters, phone calls, and in-person meetings. Upon request, Commission staff gave presentations on VISION 2050 and other transportation issues.

Public Outreach

Also during 2016, Commission staff conducted extensive public outreach and consultation efforts with groups, organizations, and officials representing minority populations and low-income populations, in addition to the outreach conducted for VISION 2050. More information is provided in the Public Involvement and Outreach section.

ENVIRONMENTAL PLANNING

During 2016, the Commission's environmental planning activities were focused on water quality, including lake and stream management; water supply; floodplain and stormwater management; and coastal zone management. In 2016, the SEWRPC Environmental and Natural Areas Planning Divisions taught a watershed planning class for the University of Wisconsin – Milwaukee School of Continuing Education. That class covered topics relevant to water quality, floodplains, and lakes and streams.

Regional Water Quality Management Plan

The adopted regional water quality management plan for Southeastern Wisconsin consists of five major elements related to land use, point source pollution abatement, nonpoint source pollution abatement, sludge management, and water quality monitoring. Since the initial regional water quality management plan was adopted in 1979, it has been frequently updated and amended.

Plan Implementation Activities

A wide range of planning work is undertaken annually that is focused on implementing the regional water quality management plan. The activities related to this work in 2016 follow.

Southeastern Wisconsin Watersheds Trust

Implementation of the regional water quality management plan was fostered through active participation in the Southeastern Wisconsin Watersheds Trust, Inc. (SWWT). SWWT is a collaborative public/private effort to achieve healthy water resources through implementation of the regional water quality management plan update for the greater Milwaukee watersheds (Kinnickinnic, Menomonee, Milwaukee, and Root River watersheds; Oak Creek watershed; the adjacent Lake Michigan direct drainage area; the Milwaukee Harbor estuary; and the associated nearshore Lake Michigan area). The Commission staff served on the SWWT Board of Directors as a non-voting advisor and served on the Policy and Science Committees. More information about SWWT can be found at <http://www.swwtwater.org>.

Southeast Fox River Partnership

The Southeast Fox River Partnership (SFRP), Inc. represents a wide range of Federal, State, county and local agencies, nonprofit organizations, and private sector interests. The partnership gives citizens, environmental and conservation groups, businesses, and local governments the ability to share resources while working toward common goals associated with the protection, restoration, and enhancement of the natural resources in the Fox River watershed. The Commission staff is active in this effort, and helped organize and host the 4th Annual Fox River Summit conference in 2016 in Burlington, Wisconsin. The major goals of this summit follow:

- Share new tools and practices being developed to protect the Fox River watershed among communities in Wisconsin and Illinois.

- Continue a dialogue on shared challenges concerning recreation, economics, sustainable flows, surface water/groundwater interactions, sediment retention, and ecosystem services, such as runoff pollution reduction and recreational opportunities.
- Build trust among stakeholders and identify commonalities, project successes, and future challenges.

More information about SFRP can be found at <http://www.foxriversummit.org/>.

Oak Creek Watershed Restoration Plan

Field work began in 2016 on a restoration plan for the Oak Creek watershed in partnership with the municipalities in the watershed and Milwaukee County, the Milwaukee Metropolitan Sewerage District (MMSD), Wisconsin Department of Natural Resources (WDNR), and Root-Pike Watershed Initiative Network.

The Oak Creek plan focuses on strategies to reduce pollution from urban runoff and rural runoff; recommendations for increased recreational use and access; the protection of habitat, wildlife, open spaces, and environmental corridors; and water quality monitoring. The plan also will address the USEPA's 9 Key Elements for a watershed plan, which must be met for recommended projects to be eligible for future Federal grants. The overall project description, scope, and additional information related to the planning process can be found on the Commission website at <http://www.sewrpc.org/SEWRPC/Environment/Restoration-Plan-Oak-Creek-Watershed.htm>.

Wastewater Facility Planning Activities

An important element of the regional water quality management plan relates to recommendations for wastewater treatment plants and the wastewater conveyance systems that flow to those plants. Planning activities in 2016 in this category follow.

Wastewater Treatment Plants

During 2016, the Commission continued to work with local engineering staffs and consultants in the preparation of detailed local sewerage facilities plans designed to meet the requirements of Section 201 of the Federal Clean Water Act, the requirements of the

Table 2
COMMISSION SANITARY SEWER
EXTENSION REVIEWS: 2016

County	Public Sanitary Sewer Extensions	Private Main Sewer or Building Sewer Extensions	Total
Kenosha.....	6	9	15
Milwaukee.....	5	17	22
Ozaukee.....	7	5	12
Racine.....	4	4	8
Walworth.....	4	6	10
Washington.....	6	8	14
Waukesha.....	21	17	38
Total	53	66	119

Wisconsin Clean Water Fund administered by the WDNR, and good engineering practice.

Sanitary Sewer Service Area Planning

The 1979 regional water quality management plan included preliminary recommended sanitary sewer service areas tributary to each recommended public sewage treatment plant within the Region. A total of 85 generalized sanitary sewer service areas were delineated in the adopted plan. Following adoption of the regional water quality management plan, work was undertaken to refine and detail these sewer service areas in cooperation with local units of government. Sewer service area maps have been adopted that identify the planned boundary of the sewer service area and also the location and extent of the primary environmental corridors within the service area. These corridors contain the best and most important elements of the natural resource base. Preserving the environmental corridor lands in essentially natural, open uses is considered essential to the maintenance of the overall quality of the environment and to avoiding serious and costly developmental problems. Urban development is to be excluded from the corridors identified in the sewer service area plans—an important factor to be considered in the extension of sanitary sewer service.

During 2016, the Commission did not adopt any amendments to sanitary sewer service area plans. Reports for all refined and detailed sanitary sewer ser-

vice area plans are available from the Commission offices and also can be found on the Commission website at www.serpc.org/sewerserplanstatue.

Sanitary Sewer Extension Reviews

Following the adoption of the 1979 regional water quality management plan, rules were promulgated by the WDNR requiring that the Commission review and comment on all proposed public sanitary sewer extensions. Such review and comment must relate a proposed public sewer extension to the sanitary sewer service areas identified in the adopted regional water quality management plan; and, under Section NR 110.08(4) of the *Wisconsin Administrative Code*, the WDNR may not approve any proposed public sanitary sewer extension unless such extension is found to be in conformance with the adopted areawide water quality management plan. In addition, rule changes promulgated by the then Wisconsin Department of Industry, Labor, and Human Relations (subsequently renamed the Department of Commerce and then the Department of Safety and Professional Services) during 1985 require that the Commission comment on certain proposed private sanitary sewer extensions and large onsite sewage disposal systems and holding tanks relative to the adopted areawide water quality management plan. Under Section SPS 382.20(4) of the *Wisconsin Administrative Code*, the Wisconsin Department of Safety and Professional Services may not approve any proposed private main sewer or building sewer extension unless such extension is found to be in conformance with an adopted areawide water quality management plan. A similar finding must be made for large-scale onsite sewage treatment and disposal systems and holding tanks under a cooperative agreement between the Wisconsin Departments of Safety and Professional Services and Natural Resources.

During 2016, review comments were provided on 53 proposed public sanitary sewer extensions and 66 proposed private main sewer or building sewer extensions, distributed by county as shown in Table 2.

Runoff Pollution Abatement Planning

The Commission provides assistance in planning and project review activities for a number of programs that are steps toward implementation of the runoff, or nonpoint source, pollution abatement recommendations set forth in the regional water quality manage-

ment plan. These include programs administered by the WDNR and the Wisconsin Department of Agriculture, Trade and Consumer Protection. The programs provide cost-sharing funds for individual projects or land management practices to local governments and private land owners; the stormwater discharge permit system administered by the WDNR; and local-level stormwater management and land and water resource management planning programs. Related activities undertaken in 2016 follow.

Watershed-Based Permitting Framework

During 2016, the Commission staff continued to serve as a member of the Menomonee River Watershed-based Permit Partners Groups working to meet the permit conditions.

Jackson Creek Watershed

The Commission incorporated runoff pollution abatement considerations in development of the Jackson Creek watershed protection plan draft.

Mason Creek Watershed

The Commission incorporated runoff pollution abatement considerations in development of the Mason Creek watershed protection plan draft.

Root-Pike Watershed Initiative Network

The Commission continued service on the Root-Pike Watershed Initiative Network Resource Group that approves funding for water-quality-based projects. The Commission staff continues to work with Root-Pike WIN to implement the watershed restoration plan for the Root River watershed. That plan incorporated runoff pollution abatement considerations.

Lake and Stream Management Planning

The adopted regional water quality management plan recommends that lake and stream management plans be prepared for selected watersheds throughout the Southeastern Wisconsin Region, including areas directly tributary to each of the 101 major lakes lying within Southeastern Wisconsin and certain smaller lakes and streams in the Region. The Commission and the WDNR work with local lake community organizations, including lake and stream management associations, public inland lake protection and rehabilitation districts, and land trusts, to complete the preparation of such plans. The three types of plans prepared by the Commission staff are: 1) comprehen-

sive management plans that serve as guides to making decisions concerning the use and management of specific lakes and set forth recommended actions for the protection and rehabilitation of lake and stream water quality through a combination of measures, 2) protection plans that address a case-specific range of concerns facing a given lake or stream community, and 3) specific topic plans that address single-purpose planning needs such as aquatic plant management or water quality evaluation. Lake and stream management activities conducted by the Commission during 2016 follow.

Lake Management Planning

In 2016, the Commission staff completed and published a lake protection and aquatic plant management plan for Pleasant Lake in Walworth County. The plan focused on the issues of aquatic plant growth, water quality, blue green floating algae, shoreline maintenance, recreation, public access, and wildlife, as well as recommendations to address the issues. It was documented in Community Assistance Planning Report No. 327, *A Lake Protection and Aquatic Management Plan for Pleasant Lake, Walworth County*.

SEWRPC staff also drafted lake management plans for Hooker Lake in Kenosha County, Pike Lake in Washington County, Denoon Lake in Waukesha County, and Whitewater-Rice Lakes in Walworth County. Staff continued to work on planning efforts for Silver Lake in Washington County, and Little Muskego, Nagawicka, and Pewaukee Lakes in Waukesha County.

Other Lake Planning Efforts

The Commission staff also continued work on a Kenosha County Lake and Stream Classification project designed to inform the County's shoreland management efforts.

As part of 2016 fieldwork for the City of Delafield, in July and August Commission staff conducted an aquatic plant inventory of Nagawicka Lake and a streambank/pollution source inventory of the Bark River, which is a significant source of nutrients and sediments to the Lake. The findings are being summarized and will be included in the forthcoming SEWRPC plan for Nagawicka Lake. The staff also finalized fieldwork and data summaries related to the conduct of aquatic invasive species (AIS) in-lake

meandering surveys, mapping, and species level data for 48 named lakes in Waukesha County. This AIS information was vital to the ongoing AIS management program in the County. SEWRPC staff also assisted Waukesha County in developing an application for a Chapter NR 198 WDNR Aquatic Invasive Species (AIS) Education, Prevention, & Planning grant to fund an AIS Coordinator along with Washington County and to complete a Countywide AIS Strategic Plan for the County.

Stream Management Planning

The Commission works with non-governmental organizations, local units of government, Counties, and the WDNR and Department of Transportation (WisDOT) to develop local stream system management plans and provide technical assistance for stream protection and restoration, including rehabilitation of impaired streams and re-creation of streams that have historically been subjected to ditching or channelization. The stream management planning activities conducted by the Commission during 2016 follow.

Stream Protection Planning

During 2016, the Commission continued to work towards completing a stream protection plan for Mason Creek in Washington and Waukesha Counties in cooperation with the North Lake Management District, Tall Pines Land Conservancy, Carroll University, and University of Wisconsin-Milwaukee (UWM).

This planning effort which is primarily funded through an NR 195 River Planning and Management Grant from the WDNR, is consistent with the recommendations set forth in the regional water quality management plan and the county land and water resource management plans. The plan will address the USEPA's 9 Key Elements for a watershed plan, which must be met for recommended projects to be eligible for future Federal grants. Accomplishment of the goals in this plan will result in the development of frameworks to protect and maintain the long-term health of this vital stream ecosystem and to benefit the surrounding communities through preservation of these resources.

Bridge and Culvert Replacement and Stream Relocation Projects

The Commission provides ongoing technical assistance relating to stream system management to the WDNR, WisDOT, local governments, and other or-

ganizations. The Commission conducts physical, chemical, and biological assessments and prepares preliminary stream design recommendations—including special provisions to improve fish and other aquatic organism passage and habitat—for bridges and/or culverts associated with construction projects as well as streambed/bank stability provisions for stream relocation projects. In 2016, a conceptual demonstration project to restore stream and riparian functions to a ditched and eroded agricultural parcel was developed for the Washington County Planning and Parks Department and the Ozaukee-Washington Land. This project included assessment, design, construction, and restoration technique recommendations to improve fisheries habitat/aquatic organism passage and protect streambed and streambank stability upstream and downstream of the project.

Lake and Stream Management Educational and Advisory Services

The Commission provides a wide range of educational and advisory services relative to lake and stream management planning. Such efforts in 2016 follow.

- Participated in the Mukwonago River Fisheries Committee meetings held quarterly in partnership with The Nature Conservancy, Friends of the Mukwonago River, Eagle Spring Lake Management District, University of Wisconsin-Waukesha, Wisconsin Lutheran College, and the WDNR.
- Participated in meetings of the Mukwonago River Initiative, which includes representatives from the Friends of the Mukwonago River, Eagle Spring Lake Management District, Town of East Troy, Village of Mukwonago, Kettle Moraine Land Trust, The Nature Conservancy, and the WDNR.
- Participated in the annual meetings for the Lake Management Districts for Pleasant Lake, White-water-Rice Lake, Hooker Lake, and Pike Lake, which included formal presentations by the Commission staff.
- Participated in meetings and teleconferences focused on the current extent, potential spread, and management alternatives for the most recent Aquatic Invasive Species (AIS) starry stonewort.

Lake and Stream Management Technical Advisory Services

The Commission also provides a wide range of technical services relative to lake and stream management planning. Such efforts in 2016 follow.

- Provided support to Milwaukee County, the City of Glendale, and the MMSD for the environmental assessment of the Estabrook dam on the Milwaukee River. This support included explanation of the hydraulic analyses of the existing conditions and alternatives for the dam.
- The Commission continued to serve as a technical advisor to the Southeastern Wisconsin Fox River Commission (SEWFRC). The SEWFRC was created to address water resources problems in the Illinois Fox River system, including restrictions on navigation, water uses, water quality, and flooding and drainage along the Fox River main stem and its impoundments. More information about SEWFRC can be found at www.sewfrc.org.
- Participated as a member of the Mid-Kettle Moraine Partners Group. Commission staff completed maps and graphics for an update of the Mid-Kettle Moraine Outdoor Recreation Opportunities brochure, which was published in 2016.
- Participated as a project partner in the Oconomowoc River Watershed Protection Program (OWPP) and Regional Conservation Partnership Program (RCPP) sponsored by the City of Oconomowoc.
- Continued to serve as Co-Primary Investigator along with the WDNR to provide technical assistance for the Gateway to Improved Long-term Spawning (GILS) project for Groundwork Milwaukee, Inc. The purpose of this project was to improve fish habitat within the sheet-piling-lined reaches of the Menomonee River, Kinnickinnic River, and Milwaukee River portions of the Milwaukee Harbor estuary by installing habitat underwater baskets. These devices are floating structures designed to introduce quality habitat for fish and to provide resting areas to facilitate fish passage from Lake Michigan to the upstream areas of these river systems. More information can be found on the Groundwork Milwaukee website at <http://groundworkmke.org/programs.html>.
- Provided technical assistance to MMSD for fish passage, concrete removal, and stream restoration projects in the Menomonee River near Miller Park, the Kinnickinnic River from S. 27th Street through Jackson Park, the Burnham Canal sediment remediation and wetland restoration project, and the ongoing Corridor Study Update relating to physical, chemical, and biological databases along stream corridors.
- The Commission continued to assist the WDNR and the Milwaukee Estuary Area of Concern (AOC) fish and wildlife technical team by participating in meetings and reviewing and commenting on the fish and wildlife plan being developed as part of this project.
- Assisted the Phantom Lakes Management District and the City of Oconomowoc in developing a scope of work for lake management activities for Phantom Lakes and Fowler Lake, and helped write a WDNR Lake Planning grant applications for each.
- Continued to serve on the statewide Wisconsin Wetlands Association's Land Use and Wetlands Advisory Group for development of a statewide *Conservation Wetland Ordinance*.
- SEWRPC staff continued to provide assistance as requested to the Wisconsin Lakes Partnership and in coordinating the year 2016 Wisconsin Lake Convention.
- Presented planning efforts and provided advisory services at the Walworth County Lakes Association annual meeting
- Gave formal presentations on lake and stream management related topics to four nonprofit organizations including the "Wild Ones" Kettle Moraine Chapter, the Friends of the Mukwonago River, Des Plaines River Group, and the 12th Annual Waukesha County Water Action Volunteer meeting.
- Served as an advisor on the Waukesha County Shoreland Ordinance committee.
- Advised the Ozaukee County Parks and Planning and Land and Water Management Departments on aquatic organism passage, water quality, and stream restoration issues. Attended eight

meetings and provided advice in the field on six additional occasions. These advisory efforts addressed the following issues:

- Dam removal on Mineral Springs Creek,
 - Examination of erosion and potential nick point on Mole Creek,
 - Culvert replacement on Mineral Springs Creek,
 - Examining and proposing remedies for a defective flood diversion dam on Mineral Springs Creek,
 - Evaluation of several unnamed Lake Michigan direct tributary streams to improve near-shore water quality,
 - Public access to Lake Michigan, and,
 - Grant writing assistance.
- Participated in education and research development as a member of the Schlitz Audubon Nature Center's Conservation Committee. Assisted with the design of a demonstration project focusing on protecting Lake Michigan ravines systems from continued erosion and habitat degradation.
 - Coordinated and synergized conservation-themed initiatives among a group of nearly 100 organizations as a steering committee member of the Ozaukee Treasures Network.
 - Coordinated with allied agencies and farmers at Wisconsin Farm Technology Days.
 - Assisted the City of Muskego and Quarry Lake Homeowners Association with water quality, aeration, and dredging evaluations.
 - Presented information on limnology and aquatic plants at Walworth County Lakes Association annual meeting.
 - Met with City of Port Washington and Port Washington Historical Society to provide information on new water quality and stream function exhibit.

Regional Water Supply Planning

The Commission's water supply planning program includes three elements. The first element was completed in 2002 and consists of basic groundwater

resource inventories. The second element was completed in 2004 and consists of the development of a groundwater simulation model for the Region. The third element was completed in 2010 and consists of the preparation of a regional water supply plan. The completion of these elements involved interagency partnership programs with the U.S. Geological Survey (USGS), the Wisconsin Geological and Natural History Survey (WGNHS), UWM, the WDNR, and the public water supply utilities serving the Region.

During 2016, the Commission staff: 1) incorporated in the Pleasant Lake protection and aquatic plant management plan, Walworth County, the regional water supply plan recommendations related to preservation of groundwater recharge areas; 2) coordinated with the WDNR staff on issues related to the Waukesha water supply service area; and 3) participated in the activities of the Wisconsin Water Conservation Coalition.

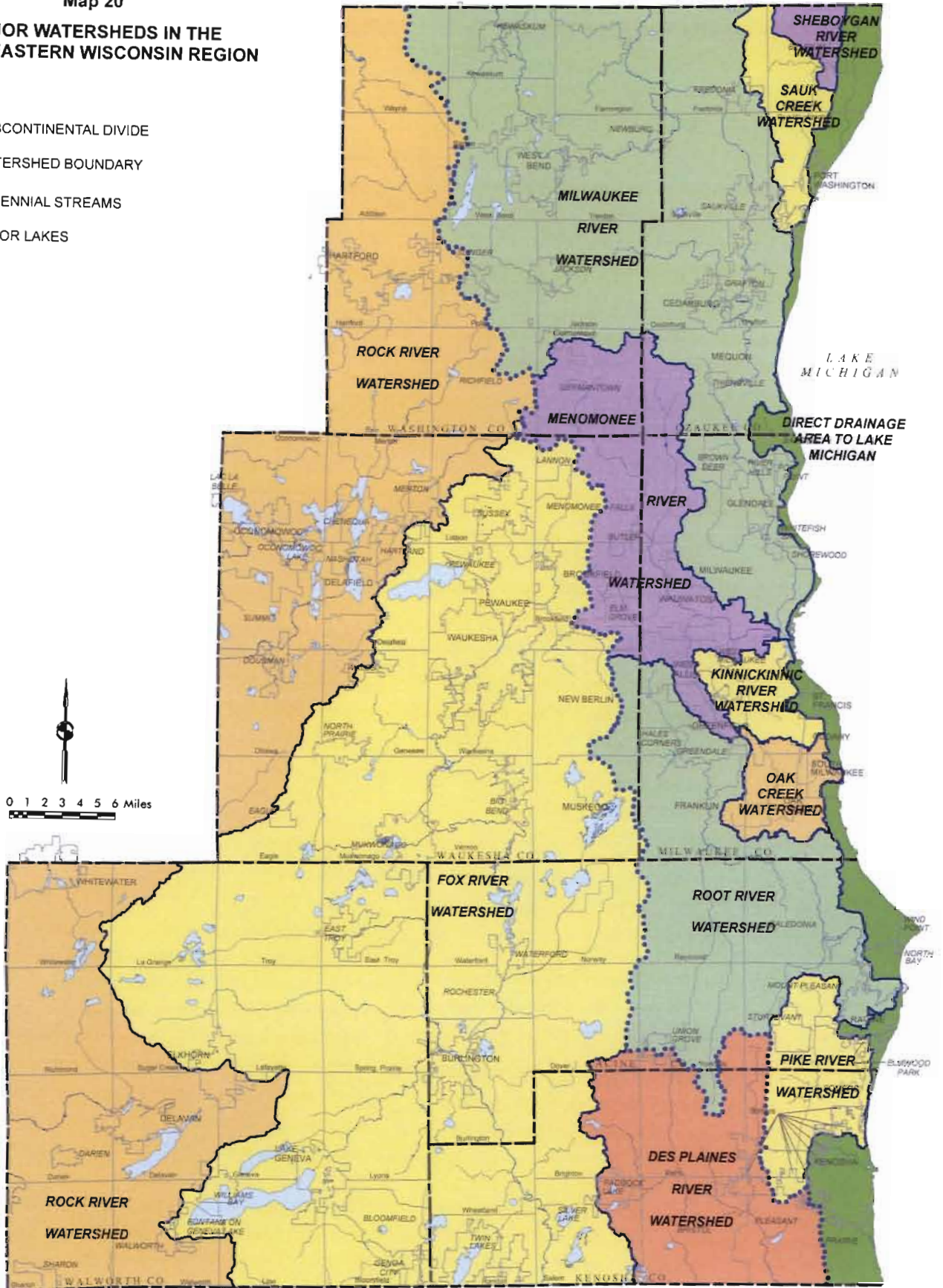
Floodplain and Stormwater Management Planning

The Commission's floodplain management program was initiated through preparation of comprehensive watershed plans beginning in 1966—long before the concepts of local floodplain zoning and Federal flood insurance had been widely adopted—and extending through 2003. The major watersheds in the Region are shown on Map 20. From 1966 through 2003, comprehensive plans were prepared for the following watersheds: Root River, Fox River, Milwaukee River, Menomonee River, Kinnickinnic River, Pike River, Oak Creek, and Des Plaines River. In addition to addressing issues attendant to land use development, park and open space development and preservation, water quality, and flooding, those plans included development of detailed flood profiles and floodplain maps along numerous streams and rivers within those watersheds. The information has been refined and updated over time, and it has been, and continues to be, the basis for local floodplain zoning and Federal flood insurance mapping throughout much of the Region.

The floodplain and stormwater management planning activities undertaken by the Commission during 2016 follow.

Map 20
MAJOR WATERSHEDS IN THE
SOUTHEASTERN WISCONSIN REGION

- SUBCONTINENTAL DIVIDE
- WATERSHED BOUNDARY
- PERENNIAL STREAMS
- MAJOR LAKES



Menomonee River Floodplain Revisions

Received approval from FEMA for a conditional letter of map revision (CLOMR) application for the floodplain along the main stem of the Menomonee River in the approximately 8.4-mile-long reach extending from W. North Avenue downstream to the River's mouth at its confluence with the Milwaukee River in the Milwaukee Harbor estuary. In 2010, the Commission staff created a hydraulic model of the River that incorporated numerous flood mitigation projects implemented over the past decade by MMSD and/or the Cities of Milwaukee and Wauwatosa, along with projects committed to be implemented in the near future. The incorporation of those projects—representing over a decade of progress in flood mitigation—in a single hydraulic model is a major achievement that will greatly assist the cities in administering floodplain zoning and MMSD in completing additional flood mitigation projects.

Milwaukee Area Floodplain Mapping Updates

The following work in 2016 was performed under the floodplain mapping program for the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee and the Metropolitan Milwaukee Sewerage District (MMSD):

- Continued work on developing the hydrologic and hydraulic models for the Root River watershed. The project involves mapping the 10-, 4-, 2-, 1-, and 0.2-percent annual-probability (10-, 25-, 50-, 100-, and 500-year recurrence interval) floodplains along 28 streams in the watershed, including the main stem of the Root River. This project involves lands in Milwaukee County parks; the Cities of Franklin, Greenfield, Milwaukee, Muskego, New Berlin, Oak Creek, and West Allis; and the Villages of Greendale and Hales Corners. Work on the hydrologic model included updating meteorological data, preparing land use data by subbasin for planned year 2035 conditions, and developing flow-routing information for all of the 28 streams, including the entire Root River main stem.
- Continued developing hydraulic models using U.S. Army Corps of Engineers HEC-GeoRAS software for Tess Corners Creek and Tributary in the Cities of Muskego, New Berlin, and Franklin; Wildcat Creek in the Cities of New Berlin and Greenfield and Ryan Creek and Tributary in the City of Franklin. Continued developing

HEC-RAS models for 20 other Root River tributaries and the Root River main stem, which flows through the Milwaukee County Root River Parkway in the Cities of Franklin, Greenfield, and West Allis, and the Village of Greendale. HEC-GeoRAS enables use of a digital elevation model, developed from 2010 Milwaukee and 2012 Waukesha County LiDAR data, to automate the process of developing stream channel and overbank cross section geometries and mapping floodplain limits.

- Completed an update of the hydraulic model and floodplain mapping for the Menomonee River main stem upstream of W. North Avenue to the confluence with Lilly Creek in the Cities of Milwaukee and Wauwatosa and the Villages of Butler and Menomonee Falls. This effort will ultimately encompass the entire Menomonee River upstream into Waukesha and Washington Counties.
- Continued developing floodplains and damages in support of the MMSD 2050 Facilities Plan. Floodplains and damages were completed for the Milwaukee River, Brown Deer Park Creek, Beaver Creek, Menomonee River, Little Menomonee River, and Fish Creek. Work was initiated on three streams in the Oak Creek watershed: 1) Oak Creek, 2) the North Branch of Oak Creek, and 3) the Mitchell Field Drainage Ditch.

FEMA RiskMAP Program

Work performed in 2016 in support of the Federal Emergency Management Agency (FEMA) Risk Mapping Assessment and Planning (RiskMAP) Program follows.

- Coordinated with FEMA, the WDNR, and the concerned counties to address issues related to the RiskMAP Program for the Milwaukee River Basin (Kinnickinnic, Menomonee, and Milwaukee River watersheds) in Milwaukee, Ozaukee, Washington, and Waukesha Counties.
- Continued coordination with the FEMA study contractor regarding the Great Lakes Coastal Flood Hazard Study being conducted under the RiskMap Program.

Stream Gaging Program

Streamflow data are essential to the sound management of the water resources of the Region. When the

Commission began its regional planning program in 1960, only two continuous-recording streamflow gages were in operation within the Region. Since that time, the Commission has been instrumental in establishing, through cooperative, voluntary, intergovernmental action, a more adequate streamflow-gaging program (see Map 21).

The USGS assists in the funding of the stream gages, operates the gages, and annually publishes the data collected under the streamflow-monitoring program. In 2016, there were 38 continuous-recording streamflow gages in operation on stream reaches entering, lying within, or originating within the Region. Of the 38 gages, 15 were financially supported by Waukesha County, the MMSD, the Kenosha Water Utility, the City of Delafield, the Upper Nemadji Lake Management District, and the City of Racine and the Racine Water and Wastewater Utilities under the Commission's cooperative program. For the other 23 gages, the cooperating agencies with the USGS are indicated on Map 21. In addition, in 2016 there were two gages at which water levels, but not streamflow, were continuously recorded. These included one at Geneva Lake in the City of Lake Geneva and one at Wind Lake in the Town of Norway.

Floodplain and Stormwater Management Technical Services

The Commission provides a wide range of educational and technical advisory services relative to floodplain and stormwater management planning. Such efforts in 2016 follow.

- Completed revising the hydraulic analyses and floodplain mapping for the updated hydrologic analysis for the Kinnickinnic River watershed that was previously developed under the MCAMLIS/MMSD floodplain mapping program. The hydrologic revision was made to address concerns raised by the WDNR as part of its review of that analysis and incorporated consideration of recent flood events that occurred over the watershed subsequent to the initial MCAMLIS/MMSD analysis. The revised hydraulic models and floodplain mapping were submitted to the WDNR and subsequently approved. A Letter of Map Revision (LOMR) request for this mapping effort will next be prepared and submitted to FEMA.
- Continued work on a Honey Creek watercourse system plan for MMSD. The plan will address flooding mitigation and stream rehabilitation in the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis.
- Continued work on a Schoonmaker Creek watercourse system plan for MMSD. This plan will address flooding and stormwater mitigation in the Cities of Wauwatosa and Milwaukee.
- Submitted a complete FEMA LOMR application to the City of Milwaukee and Village of Brown Deer for signature for the Beaver Creek floodplain mapping project.
- Performed hydraulic analyses for the Town of Addison for a proposed pedestrian bridge over the East Branch of the Rock River. Also performed a scour evaluation for the South 1st Street bridge over the Kinnickinnic River.
- Received approval from FEMA for the Unnamed Tributary No. 1 to Hooker Lake LOMR application in Kenosha County. .

Staff also responded to 28 requests for hydrologic and hydraulic data for 10 streams, rivers, and lakes throughout the Region.

Hazard Mitigation Planning

Hazard mitigation plans outline local strategies for mitigating hazards such as flooding, drought, lake-shore erosion, vehicle crashes, railway accidents, severe weather, hazardous material leaks and spills, and other hazards that primarily involve the physical environment. They provide preventative recommendations such as infrastructure improvements to reduce damages from flooding and manage stormwater flows.

Hazard mitigation plans are required by the Federal Emergency Management Agency (FEMA) for local governments to receive Federal funding for mitigation projects.

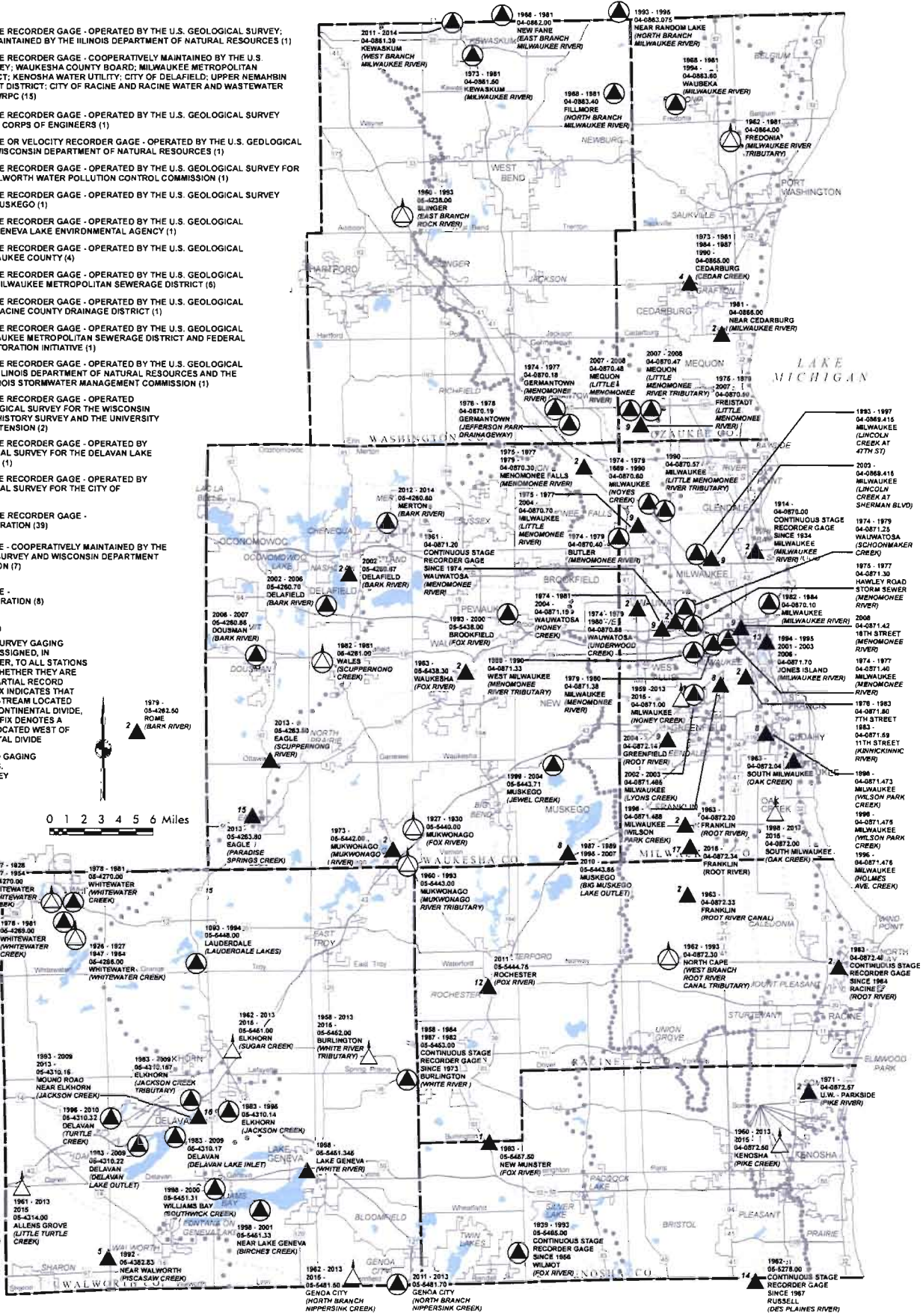
SEWRPC continued work on a new hazard mitigation plan for Washington County, an update to the 2010-2015 plan for Racine County, an update to the 2011-2015 plan for Kenosha County. In 2016, the planning efforts for the three County plans included

LOCATIONS OF U.S. GEOLOGICAL SURVEY STREAM-GAGING STATIONS: 2016






- 1 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY; COOPERATIVELY MAINTAINED BY THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES (1)
- 2 ▲ CONTINUOUS STAGE RECORDER GAGE - COOPERATIVELY MAINTAINED BY THE U.S. GEOLOGICAL SURVEY; WAUKESHA COUNTY BOARD; MILWAUKEE METROPOLITAN SEWERAGE DISTRICT; KENOSHA WATER UTILITY; CITY OF DELAFIELD; UPPER NEMAHBIN LAKE MANAGEMENT DISTRICT; CITY OF RACINE AND RACINE WATER AND WASTEWATER UTILITIES; AND SEWRPC (15)
- 3 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE U.S. ARMY CORPS OF ENGINEERS (1)
- 4 ▲ CONTINUOUS STAGE OR VELOCITY RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (1)
- 5 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE FONTANA - WALWORTH WATER POLLUTION CONTROL COMMISSION (1)
- 6 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE CITY OF MUSKOGEO (1)
- 7 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE GENEVA LAKE ENVIRONMENTAL AGENCY (1)
- 8 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR MILWAUKEE COUNTY (4)
- 9 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT (6)
- 12 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE RACINE COUNTY DRAINAGE DISTRICT (1)
- 13 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR MILWAUKEE METROPOLITAN SEWERAGE DISTRICT AND FEDERAL GREAT LAKES RESTORATION INITIATIVE (1)
- 14 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES AND THE LAKE COUNTY ILLINOIS STORMWATER MANAGEMENT COMMISSION (1)
- 15 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE WISCONSIN GEOLOGICAL AND HISTORICAL SURVEY AND THE UNIVERSITY OF WISCONSIN - EXTENSION (2)
- 16 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE DELAVAN LAKE SANITARY DISTRICT (1)
- 17 ▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE CITY OF WAUKESHA (1)
- ▲ CONTINUOUS STAGE RECORDER GAGE - NO LONGER IN OPERATION (39)
- ▲ CREST STAGE GAGE - COOPERATIVELY MAINTAINED BY THE U.S. GEOLOGICAL SURVEY AND WISCONSIN DEPARTMENT OF TRANSPORTATION (7)
- ▲ CREST STAGE GAGE - NO LONGER IN OPERATION (8)

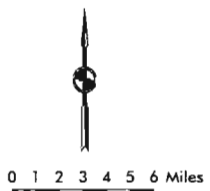
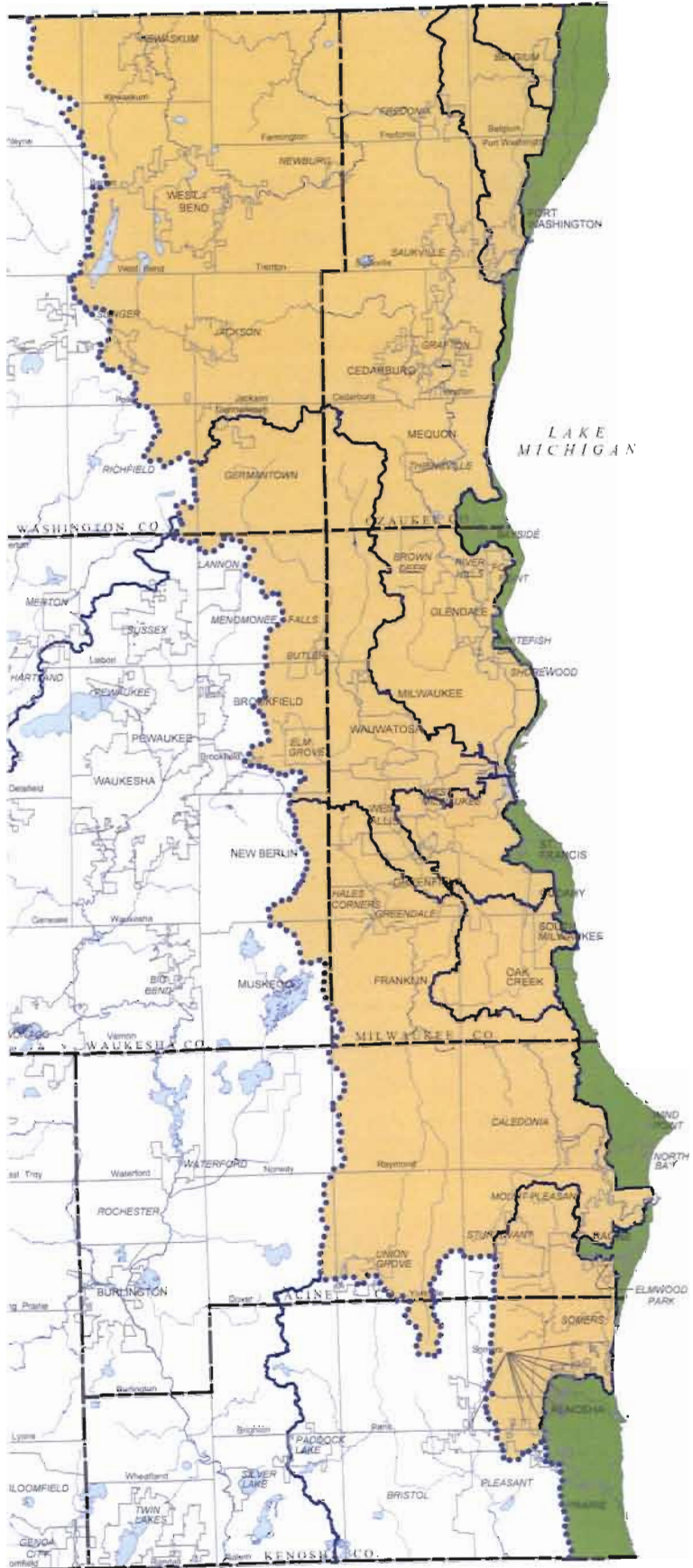
1992 PERIOD OF RECORD
05-4261 U.S. GEOLOGICAL SURVEY GAGING STATION NUMBER ASSIGNED, IN DOWNS TREAM ORDER, TO ALL STATIONS REGARDLESS OF WHETHER THEY ARE CONTINUOUS OR PARTIAL RECORD GAGES. A "4" PREFIX INDICATES THAT THE GAGE IS ON A STREAM LOCATED EAST OF THE SUBCONTINENTAL DIVIDE, WHEREAS A "3" PREFIX DENOTES A GAGING STATION LOCATED WEST OF THE SUBCONTINENTAL DIVIDE

WALES NAME ASSIGNED TO GAGING STATION BY THE U.S. GEOLOGICAL SURVEY



Map 22
DESIGNATED COASTAL
AREAS IN
SOUTHEASTERN WISCONSIN: 2016

-  EXTENT OF COASTAL SHORELINE AREAS
-  EXTENT OF COASTAL WATERSHED AREAS
-  SUBCONTINENTAL DIVIDE
-  WATERSHED BOUNDARY
-  PERENNIAL STREAMS
-  MAJOR LAKES



the development of hazard mitigation strategies and plan adoption and maintenance procedures, including identification of funding sources. In 2016, work began on an update to the 2012-2017 plan for the City of Milwaukee. The planning process for the City of Milwaukee included the development of a governmental and technical planning group, a comprehensive inventory and analysis of existing reports of incidents such as severe weather events and motor vehicle and railway-related events, and an inventory of characteristics including population and land use data. The Commission staff also conducted assessments with the planning group to obtain feedback about hazards and the level of vulnerability to each hazard provided.

Coastal Management Planning

During 2016, the Commission continued to provide assistance to the Wisconsin Department of Administration in the conduct of the Wisconsin Coastal Management Program. The Wisconsin Coastal Management Program was established in 1978 under the Federal Coastal Zone Management Act to preserve and improve Wisconsin's Great Lakes coastal resources for present and future generations. The program works to achieve the following objectives:

- Improve the implementation and enforcement of state statutes, policies, regulations and programs affecting the Great Lakes;
- Improve the coordination of activities undertaken by Federal, State, and local governments on matters affecting key coastal uses and areas;
- Strengthen the capacity of local governments to undertake effective coastal management;
- Advocate the wise and balanced use of the coastal environment; and
- Inform the public about coastal issues and increase opportunities for citizen participation in decisions affecting the Great Lakes. The Commission is committed to working in partnership with the Wisconsin Coastal Management Program to improve and enhance the ecological, economic and aesthetic assets of Lake Michigan and its coastal communities as shown in Map 22. The Commission provides various technical services in coastal-related activities within the Region to support planning and/or project implementa-

tion for local units of government that include: coordinating technical and financial assistance, undertaking technical studies to protect vital infrastructure and natural resources, assisting in public information and educational activities, and assisting in the designation of special coastal areas to ensure financial eligibility for management activities.

During 2016, Commission activities were focused on conducting field investigations attendant to wetlands and other sensitive lands in the coastal management area (see Map 22), reviewing proposed sanitary sewer extensions in the coastal management area, assisting counties, local units of government, and non-governmental organizations with programs that incrementally improve near-shore water quality and habitat value, and briefing the Wisconsin Coastal Council on Commission planning activities under the coastal zone management program.

HOUSING PLANNING

Work on a regional housing plan was completed in 2013. The plan was approved by the Regional Housing Plan Advisory Committee in January 2013 and was adopted by the Commission in March 2013. A summary of the plan recommendations is provided in Part One of this report. Monitoring activities related to the plan are included in Part Three of this report.

LOCAL PLANNING ASSISTANCE

While the Commission's core mission involves preparing and adopting advisory regional plans, the State regional planning enabling legislation authorizes regional planning commissions to work closely with their member counties and local units of government in implementing those plans and in carrying out a wide variety of local planning and related activities, including economic development activities. Toward this end, the Commission assists the county and local governments in the Region in preparing and adopting county and local plans, in preparing and adopting county and local land-use-related ordinances, in providing review comments on development proposals, in providing a wide range of data related to planning, and in carrying out economic development activities. The related activities conducted in 2016 follow.

Comprehensive Plans

Between 2004 and 2011, the Commission staff assisted county and local units of government in the Region in preparing comprehensive plans in accordance with the State comprehensive planning law (Section 66.1001 of the Wisconsin Statutes). Commission assistance included preparing multi-jurisdictional comprehensive plans for Kenosha, Ozaukee, Racine, Walworth, and Washington Counties,¹ with a total of 78 cities, villages, and towns participating in those multi-jurisdictional planning efforts. The multi-jurisdictional plans have been adopted by each of the concerned county boards. The governing bodies of the participating cities, villages, and towns have either adopted the multi-jurisdictional plan or adopted a community plan based on the multi-jurisdictional plan. The Commission also provided data and technical assistance to Waukesha County in preparing its multi-jurisdictional comprehensive plan. The Commission provided data, other assistance, and review comments to cities and villages in Milwaukee County and cities, villages, and towns in other counties upon request.

After 2011, work shifted to assistance with updating and implementing comprehensive plans. From 2012 through 2015, Commission staff continued to respond to requests from local governments for assistance with plan updates and in determining consistency between local plans and implementing ordinances. During 2015, the Commission staff organized and held a meeting with County planners from Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties to discuss the procedure and content of the 10-year plan updates required by Section 66.1001(2) (i) of the Statutes. Information to help county and local governments update comprehensive plans was developed and posted on the Commission website. In 2016, Commission staff undertook the following comprehensive planning activities:

Completed work on an update to the Town of Lyons comprehensive plan. The work included updating

¹ *Milwaukee County has not prepared a comprehensive plan because it does not administer a zoning, land division, or official mapping ordinance.*

key inventory information and plan elements, including the Land Use Element. The plan updated was adopted by the Town Board in August 2016.

- Initiated work on the 10-year update to the Multi-Jurisdictional Comprehensive Plan for Washington County. The project will result in a full update of the plan, and is scheduled to be completed in mid 2018. Drafts of the first three chapters were completed and provided to County staff for review. In conjunction with the County 10-year plan update, Commission staff contacted each of the 11 local governments that participated in original multi-jurisdictional planning process to offer assistance with updating local comprehensive plans.
- Provided information to the City of Oak Creek to assist City Staff in developing a scope of work for the update to the City's comprehensive plan.

County and Local Plans

Initiated work on park and open space plan updates for the City of Racine and the Village of Caledonia during 2016. Both plans refine and detail regional plan recommendations regarding local recreational sites and facilities and preserving environmental corridors, natural areas, and other natural resources. Both plans are expected to be completed in 2018.

Initiated work on a memorandum report relating to industrial land development trends in Waukesha County. The study analyzes the historic rate of development at industrial/business parks in the County and project the time frame within which existing industrial/business parks may be expected to be fully committed or developed for industrial/business uses. The study is intended to help the County, communities, and economic development professionals in assessing future industrial land development needs.

County and Local Ordinances

- Completed a draft of potential amendments to the Town of Polk zoning ordinance to include multifamily, mixed-use planned unit development, and community living arrangement regulations for review by the Town Plan Commission. The Commission staff also provided assistance to the Town in drafting a proposed amendment to the Town comprehensive plan to maintain consistency between the Town plan and zoning ordinance.

- Completed work on an update to the Town of Addison zoning ordinance and zoning map. Zoning ordinance changes will include provisions for lot averaging and allowing conversion of farmhouses to duplexes in the agricultural zoning district, creating a new Mixed-Use Business district, and revising the downtown district to allow certain residential uses by right; updates to reflect changes to State law and regulations with regard to nonconforming structures, wind towers, cell towers, and livestock facilities; and a Supreme Court decision in June 2015 related to sign regulations. SEWRPC staff also assisted the Town in updating the Town land division ordinance to reflect recent changes to the State platting law (Chapter 236 of the Wisconsin Statutes), including changes to fee-in-lieu of dedication requirements, transmittal of plats to objecting agencies, and timelines for review of proposed land divisions. The land division ordinance update also includes changes to Town street cross-section and street grade requirements. Updates to the zoning ordinance and map and land division ordinance were adopted by the Town Board in March 2016.
- Continued work on a comprehensive update to the Kenosha County Subdivision Control Ordinance to reflect recommendations from the adopted Kenosha County comprehensive plan and bicycle plan, design guidelines and other provisions from SEWRPC's model land division ordinance, and current State requirements for land divisions and platting. The ordinance update will be provided to affected towns for their review after approval from Kenosha County staff.
- Completed an update to the Village of Kewaskum zoning map to reflect rezonings approved by the Village Board since the map was adopted in May 2004. The boundaries of floodplain zoning districts were also updated to reflect updated floodplain mapping by the Federal Emergency Management Agency that took effect in November 2013. In addition, information on the location of shoreland-wetlands subject to the zoning requirements of NR 117 and the limits of shoreland areas annexed by the Village after May 7, 1982, and subject to the zoning requirements in Section 61.353 of the Statutes was provided. The updat-

ed zoning map was adopted by the Village Board in October 2016.

- Provided sample ordinance language to regulate development along the top of Lake Michigan bluffs to Ozaukee County for possible use in an update of the County shoreland zoning ordinance. The language was developed by Commission staff in cooperation with the University of Wisconsin, Sea Grant Institute, and the Wisconsin Coastal Management Program.

Model Planning Guides and Ordinances

The Commission's local planning assistance efforts include preparing planning guides and model ordinances. The model guides and ordinances contain examples of good planning practice and aid county and local governments in their planning efforts. Commission staff work efforts included the following during 2016:

- Continued work on updating the Commission's zoning guide. Sections of the zoning guide are posted to the website as they are completed, with a priority placed on those sections that are impacted by changes in State law or a court decision, that help to implement VISION 2050, or that help to implement the regional housing plan. The focus of this work during 2016 was updating the model sign regulations to comply with the June 2015 Supreme Court decision that sign regulations must be content-neutral. In addition, work was completed on model regulations for wind energy systems during 2016.
- Completed work on an update to the Commission's model land division ordinance, which was last updated in 2001. The update includes recent changes to the State platting law (Chapter 236 of the Wisconsin Statutes), including changes to fee-in-lieu of dedication requirements, transmittal of plats to objecting agencies, and timelines for review of proposed land divisions. Ordinance requirements related to land survey datums have also been updated to reflect the potential conversion to newer datums by county and local governments in the Region. In addition, updated State requirements related to condominiums and private onsite wastewater treatment systems

(POWTS) have been included. The updated model ordinance has been posted on the Commission's website.

Review and Advisory Services

- Provided comments on a draft Property Assessed Clean Energy ordinance for Ozaukee County for their consideration.
- Reviewed and provided extensive comments and suggested ordinance language to Ozaukee County staff on an update to the County shoreland and floodplain zoning ordinance.
- Continued to assist a Mukwonago River Initiative (MRI) Subcommittee by attending meetings and completed a draft report on voluntary measures, sample zoning regulations, and potential comprehensive plan language to help protect the water quality and quantity of the Mukwonago River. The Subcommittee and full MRI Committee approved the report. Assisted in preparing a letter for the MRI Committee and Subcommittee to include when the report is distributed to local governments along the River for their consideration of implementing the report recommendations.
- Continued work on comprehensive maps of existing and potential water trails (for canoeing and kayaking) in the Region, including an inventory of existing and planned access points, for use in county and local park and open space plans. This work included a focus on compiling data on access points and amenities along the Fox River as part of an inter-agency effort led by the Fox River Water Trail Core Development Team (FRWT CDT) to develop and designate the Fox River flowing through Wisconsin (Waukesha, Racine, and Kenosha Counties) and Illinois as a National Water Trail. The data collection in the three Wisconsin Counties is about 75 percent complete. Also continued to participate as a team member assisting and attending monthly meetings of the FRWT CDT, and provided references to the Wisconsin Department of Natural Resources on provisions from the Wisconsin Administrative Code related to water trail planning, including bridge/culvert clearance standards.
- Reviewed and provided comments on a draft "Megatrends" report regarding the impact of

transportation trends on land use and development at the request of UW-Extension staff at Stevens Point. Commission staff typically provides comments on drafts of these reports, which address a variety of land use related issues.

Data Provision

- Provided ordinance interpretation to the Town of Belgium on the use of abutting nonconforming (substandard) vacant lots under common ownership.
- Provided the Town of Belgium with information on options for regulating various types of nuisances, including weeds, junk automobiles, and piles of brush, logs, and other debris. Also provided information to the Town to help prevent professional home offices and guest quarters from becoming permanent or long-term second residential dwelling units on lots zoned for single-family residential use.
- Provided information about health impact assessment planning to Kenosha County.
- Provided information to the Village of Richfield regarding developing public participation procedures for updating Village ordinances.
- Provided information to the North Carolina Wildlife Resources Commission on the benefits of the model rural cluster development ordinance prepared by SEWRPC and the impacts on developers and communities affected by or using the ordinances.
- Provided examples of subdivision development agreements, including SEWRPC's model agreement, to UW-Extension, which is assisting the Wisconsin Town's Association in preparing a model agreement for use by towns. Also assisted UW-Extension in developing key questions to ask towns and developers regarding such agreements.
- Provided examples of parking and loading/unloading space modification provisions to Kenosha County staff to consider as the County updates their zoning ordinance.
- Provided information to the Rails-to-Trails Conservancy and Wisconsin Bike Federation on potential long-distance bicycle touring/recreation

trails or routes for Southeastern Wisconsin as the two organizations will be preparing a plan called “Routes of the Badger” that will identify similar types of statewide bicycle routes for Wisconsin.

- Provided existing and planned population levels for the Cities of Franklin and Oak Creek to the City of Oak Creek for use in ongoing water supply facility planning.
- Provided environmental corridor mapping information to the Milwaukee County Parks Department for use in ongoing park system planning related to lands in the Oak Creek Parkway.
- Provided a digital file of the comprehensive plan map for the Town of Raymond to the Town’s consultant.
- Provided 2010 land use inventory data to a private consultant for the Village of Slinger.
- Provided updated digital files of 2010 environmental corridors to the Village of Menomonee Falls and Towns of Genesee and Paris to assist in comprehensive planning and plan implementation efforts.
- In cooperation with the Mid-Kettle Moraine Partners Group, the Commission staff completed work on the preparation of maps and graphics for an update of the Mid-Kettle Moraine Outdoor Recreation Opportunities brochure. The updated brochure was published by the Mid-Kettle Partners Group in June 2016.
- Provided a series of map files related to land use and natural resources to Ozaukee County for use in ongoing work in the Milwaukee River Watershed.
- Provided the Geneva Lake Environmental Agency with a 2010 land use map and supporting data for the Geneva Lake subwatershed, as well as tabular data relating to pollutant loading for various land use categories .
- Provided GIS files of 2010 environmental corridors for the Town of Genesee to a private consultant for use in updating the Town zoning map, 2010 environmental corridors for the Town of Paris to a private consultant for use in updating the Town’s comprehensive plan, and 2010 environmental corridors for the Village of Menomonee Falls to the Village for use in updating the Village comprehensive plan
- Provided GIS files of natural areas to the Geneva Lake Conservancy to assist the organization’s efforts to prepare maps of properties targeted for protection.
- Provided an updated GIS file of private water and water service areas to Milwaukee Metropolitan Sewerage District planning staff for use in day-to-day planning efforts.
- Provided a map of the Southern Wisconsin Veterans Memorial Cemetery to the Wisconsin Department of Veterans Affairs for use in facilities maintenance.
- Provided GIS files transit service areas and arterial streets and highways to Waukesha County planners to assist in a study to determine drive times on area roadways.
- Provided GIS files of 2010 environmental corridors to planners at the Wisconsin Department of Transportation for use in a Chicago-Milwaukee Intercity Passenger Rail Corridor Environmental Assessment and Service Development Plan.
- Provided a GIS file identifying areas served by public sanitary sewer to the U.S. Geological Survey for use in a study on viruses in the Menomonee River watershed.
- Delivered GIS files containing the 2010 Wisconsin Wetland Inventory to graduate students at UW-Madison working with the U.S. Geological Survey on a study of potential restoration opportunities in the Kinnickinnic watershed.
- Delivered digital orthophotography to the Southeastern Wisconsin Invasive Species Consortium to assist in a project to reduce the impacts of invasive species in Southeastern Wisconsin.
- Provided digital orthophotography files and historical aerial photography imagery to eight requesting parties—including the American Geographical Society Library at the University of Wisconsin-Milwaukee, a civil engineering firm,

and several environmental consulting firms—for use in a variety of planning activities.

- Responded to an additional 43 requests for digital land information data sets to various municipalities, government agencies, and private consultants for use in their planning activities

Economic Development

The Commission assists county and local units of government and economic development organizations in the Region in pursuing economic development activities and promotes the coordination of local economic development plans and programs. Assistance provided during 2016 follows.

Project Planning

- In 2015, SEWRPC completed a Comprehensive Economic Development Strategy (CEDS) for Southeastern Wisconsin in collaboration with the Southeast Wisconsin Regional Economic Partnership (REP). The REP includes representatives from each county Economic Development Organization (EDO) or, in those counties without an EDO, county economic development staff; the City of Milwaukee; Wisconsin Energies; the Milwaukee 7 (M7); and SEWRPC. The REP works closely with the Wisconsin Economic Development Corporation (WEDC). The CEDS was adopted by all seven County Boards in the Region and by the Regional Planning Commission in late 2015, and was submitted to the U.S. Department of Commerce – Economic Development Administration (EDA) in 2016.
- The CEDS is intended to provide a basis for a more widespread understanding of the ongoing economic development work program in the Region and draws heavily from the “Framework for Economic Growth” report prepared in 2013 by the M7. The strategy identifies the business clusters comprising 1) energy, power, and controls; 2) water technologies; 3) food and beverage manufacturing; 4) finance and insurance services; 5) corporate headquarters and business services; and 6) medical technology and bioscience as having the best potential for economic growth, expansion, and attraction in the Region. The CEDS recommends that development efforts enhance the export capability of businesses; align workforce development with growth opportunities in the key

clusters; enhance innovation and entrepreneurship; focus on “economic place-making” in the central cities and strategic locations throughout the Region; modernize regional infrastructure; and enhance inter-jurisdictional cooperation.

- The CEDS is also intended to meet the requirements of the EDA for regional economic development strategic planning. County and local governments with census tracts that meet EDA criteria for economic distress are eligible to apply for certain EDA grants to benefit the economically distressed areas based on County Board approval of the CEDS. EDA identifies economically distressed census tracts based on unemployment rates of 1 percent or more above the national average, or per capita incomes 80 percent or less than the national average. A total of 223 census tracts, or 42 percent of census tracts in the Region met the economic distress criteria in May 2015, based on five-year American Community Survey data from 2009-2013.

Economic Development Data

- Made available the Economic Modeling Specialist International (EMSI) Analyst software to county and local governments and economic development organizations in cooperation with WEDC. EMSI Analyst is a web-based economic development tool that includes extensive industry, occupation, and workforce data. County and local economic development organizations and units of government can request Commission staff to apply the software to conduct analyses. SEWRPC staff provided 19 EMSI reports in response to 7 data requests during 2015.
- Completed inventories of existing and proposed business parks in Milwaukee, Ozaukee, Racine, and Waukesha Counties for use in Commission land use, comprehensive, and economic development planning. The inventories have been posted on the Commission’s website. Draft inventories have been completed for Kenosha and Washington Counties and are being reviewed by County economic development staff. The inventories for Kenosha, Walworth, and Washington Counties were sent to County economic development staff for review.

Federal and State Grant-In-Aid Support

- Administered for Kenosha County several Federal grant awards to acquire and remove homes located in the Fox River floodplain, and provided assistance in seeking funding opportunities for future acquisitions.

Revolving Loan Fund Support

- Provided assistance to the City of Muskego and the Villages of Menomonee Falls and Shorewood in administering existing and approving new loans from revolving loan fund programs that support business development. This activity includes meeting with individuals in the private sector who seek information about these revolving loan programs.
- The Commission has provided staff support to the Kenosha County Housing Authority since 1985 in the administration and management of the County's housing rehabilitation revolving loan fund (RLF) program. A Commission staff member serves as the Housing Authority's Program Coordinator and is responsible for providing information to county residents, outside the City of Kenosha, for the packaging and closing of new housing assistance loans and for servicing outstanding loans. During 2016, one new loan was made and 15 loans were serviced.

SEWRPC staff also coordinated the County loan program and loan applications with the Southern Housing Region established by the Wisconsin Department of Administration (DOA). The Southern Housing Region was established in 2012 to administer housing-related community development block grant funds awarded to the State by the U.S. Department of Housing and Urban Development (HUD). About \$200,000 is allocated by DOA each year for housing rehabilitation loans for low- and moderate-income households in each participating county. The DOA policy is to not release funding from that program, which is administered through the Southern Housing Region, in any county that has an outstanding, uncommitted balance in an existing RLF of more than \$10,000.

SEWRPC staff worked diligently to reduce the Kenosha County Housing Authority RLF balance from approximately \$127,000 in mid-2014 to approximately \$3,000 by the end of 2016 by making additional loans to qualified low- and moderate-income households. Because of these efforts, low- and moderate-income households in the County outside the City of Kenosha are now able to apply for loans administered by the Southern Housing Region. A similar program is administered by the City of Kenosha from community development block grant funds allocated directly to the City by HUD.

SURVEYING, MAPPING, AND LAND INFORMATION

Background

Since its inception in 1960, the Commission has recognized the need for accurate base maps to conduct a sound regional planning program and also to support sound county and local planning programs. Accurate base maps depict the shape of the surface of the land and the precise location of its physical features, both natural and manmade. More specifically, information is required on relief; on the location of such natural features as lakes, streams, watercourses, drainage divides, and marshes and wetlands; on the location and extent of such manmade features as highways, railroads, airfields, and canals and drainage ditches; and on the location and orientation of real property boundary lines. For an area as large as the seven-county Southeastern Wisconsin Region, such base maps must be constructed on map projections which recognize the curvature of the earth's surface and permit distances and areas to be accurately portrayed and measured. Adequate maps of this type were lacking for the Region and its counties in the early 1960s.

To address this void, the Commission prepared and maintains current general purpose base maps of the entire Region, and for subareas of the Region such as watersheds. In addition to such general purpose base maps, the Commission has long recommended that for more definitive planning at the county and local levels of government, maps with a higher degree of accuracy and precision than required for regional planning be prepared and maintained current. To be effective for planning and engineering purposes, such maps must permit the accurate correlation of property boundary line information with topographic data.

Any accurate mapping project requires the establishment of a basic system of survey control. This control consists of a framework of points whose horizontal and vertical positions and inter-relationships have been accurately established by field surveys. Map details are adjusted to, and mapping checked against, these known points. In addition to permitting the accurate correlation of property boundary line information with topographic data, the control network must be permanently monumented on the ground so that lines established on the map during planning and engineering may be accurately reestablished on the ground.

Toward this end, the Commission recommended in 1964 that all planning base maps be prepared by photogrammetric methods using a then-unique system of horizontal control based upon both the U.S. Public Land Survey System, a property-orientated legal system based on field monuments, and the State Plane Coordinate System, a scientific system for accurate topographic mapping and engineering surveying. This control system would require relocating and permanently monumenting all section and quarter-section corners in the Region, and the utilization of these corners in the establishment of a field survey network tied to the North American Datum of 1927 (NAD 27) through the Wisconsin State Plane Coordinate System. This control system establishes the exact lengths and true bearings of all quarter section lines, as well as the geographic position—expressed in State Plane Coordinates—of the public land survey corner monuments. This horizontal control network provides the basis for subsequent topographic and cadastral (real property boundary) mapping. A further recommendation was made to determine the vertical position of each public land survey corner monument, as well as at least one attendant stable benchmark, using the National Geodetic Vertical Datum of 1929 (NGVD 29). This system of vertical control points would ensure that surveyors and engineers would have a known point of elevation on the NGVD 29 within about one-quarter mile of any point in the Region.

The Commission has continuously worked with its county and local governments to implement the foregoing survey control and mapping recommendations. This involved:

- **Corner Monumentation**
The permanent monumentation of all U.S. Public Land Survey section and quarter section corners in the Region, totaling about 11,800 monuments.
- **Control Surveys**
The conduct of field surveys to enhance each monument as a station of known horizontal and vertical positions on both the U.S. Public Land Survey System and the State Plane Coordinate System, together with documentation of the entire survey control network.
- **Topographic Mapping**
The preparation of large-scale (one inch equals 100 feet, or one inch equals 200 feet) topographic base maps to Commission recommended standards for nearly 90 percent of the Region (see Map 23).
- **Cadastral Mapping**
The preparation of companion, correlated real property ownership maps based on Commission recommended standards for about 75 percent of the Region (see Map 24).

While the foregoing base mapping and related control survey recommendations were advanced in the age of printed mapping products, the recommended approach to surveying and mapping provided a sound basis in the subsequent digital age for the creation by county and local governments in the Region of automated parcel-based land information systems and automated public works management systems.

More information about this topic, including Commission recommendations relative to the transformation of data obtained on NAD 27 and NGVD 29 to newer Federal datums, can be found at www.sewrpc.org/surveyingandmapping.

Survey Datum Issues

A survey datum may be defined as a system for the coordinate locations of positions on the surface of the earth. Survey datums may separately provide horizontal positions and vertical heights. The defining element of a horizontal survey datum is an ellipsoid having specified major and minor axes which permits the application of solid geometry mathematics to the

accurate location of positions by coordinates, and the conduct of surveys on a curved earth. The ellipsoid is designed to closely approximate the mean sea level configuration of the earth.

The U.S. Coast and Geodetic Survey in 1927 established the first national horizontal survey datum known as the North American Datum of 1927 (NAD27). That agency also established the first national vertical datum in 1929, a datum originally known as the mean sea level datum and now known as the national geodetic vertical datum of 1929 (NGVD29).

The coordinate positions and elevations of all of the survey stations comprising the horizontal survey control network and the attendant topographic and cadastral maps that form the foundational elements of the automated, parcel-based land information and public works management systems in the Region are based upon NAD27 and NGVD29. In the 1980's the Federal government established new national horizontal and vertical datums—North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88).

These actions by the Federal government caused the county land information system managers responsible for the creation and maintenance of the land information systems within the Region, to consider the conversion of the regional survey control network to the new Federal datums. In response to requests from the county land information system managers, the Commission, in 2012 developed procedures for the conversion of the survey control system within the Region from the legacy datums to the new Federal datums. The procedures and the attendant costs were set forth in SEWRPC Memorandum Report No. 206, "Estimate of the Costs of Converting the Foundational Elements of the Land Information and Public Works Management Systems in Southeastern Wisconsin from Legacy to New Datums," October 2012. Given the high conversion cost combined with the lack of any significant attendant benefits, the Commission continued to recommend the use of the legacy datums within the Region.

Due to recent changes in survey technology, county land information system managers within the Region jointly requested the Commission to seek less costly methods for the datum conversion. In response, the

Commission in 2015 prepared an addendum to SEWRPC Memorandum Report No. 206 entitled, "Revised Estimate of the Costs of Converting the Legacy Datums within the Region to New National Datums," August 2015. The unique alternative procedure developed by the Commission staff working in cooperation with its veteran consulting geodetic survey consultant, Mr. Earl F. Burkholder, P.S., P.E., was not only significantly less costly than the procedure set forth in SEWRPC Memorandum Report No. 206, but had the additional advantage of maintaining the legacy lengths of the U.S. Public Land Survey System one-quarter section lines, and the interior angles of the one-quarter sections comprising the legacy survey control network within the Region.

Accordingly, the Commission changed its long standing recommendation that the legacy datums continue to be used within the Region, recommending that the decision to convert datums be made on a county-by-county basis by the county land information system managers and Land Information Councils. The Commission offered staff assistance with the conversion process. At the end of calendar year 2016, Kenosha, Racine, and Washington Counties had entered into contracts with the Commission for the conversion of the legacy horizontal datums to the new Federal datums.

Regional Land Information

The conduct of the Commission's regional planning program necessarily involves the creation and maintenance of a large data base of information about the Region. Increasingly, this information has become available in digital as well as printed form and is made available for use by others. Figure 7 identifies by category the data sets that are presently readily available in digital form, as well as those particular data sets that at present can be viewed on the Commission's website.

Work continued on several regional planning data sets in 2016. The 1963 Planned Environmental Corridor Inventory, a work effort to prepare an historical data set depicting environmental corridors and isolated natural resource features as they appeared over 50 years ago, was completed. Data collection continued for the 2015 Land Use and 2015 Environmental Corridor Inventory. Work also continued on an update to the county base maps to bring that data set to 2015 currency.

Figure 7

SEWRPC REGIONAL LAND INFORMATION DIGITAL DATA SETS: 2015

<p>Reference Data</p> <ul style="list-style-type: none"> • Aerial Orthophotography: 1995, 2000, 2005, 2007 (partial), 2010, 2015 • County Base Maps: 1985, 1990, 1995, 2000, 2005, 2010, 2015 • Civil Division Boundaries: 1985, 1990, 1995, 2000, 2010, 2015
<p>Environmental Resource Data</p> <ul style="list-style-type: none"> • Inventory Environmental Corridors: 1963, 1990, 1995, 2000, 2010 • Planned Environmental Corridors • Wetland Inventory: 2005, 2010 • Federal (EPA) Advanced Identification (ADID) Wetlands: 2005 • Vegetation: 1985, 1995 (partial) • Wildlife Habitat: 1985, 1995 (partial) • Pre-European-Settlement Vegetation: 1836 • Natural Areas: 1994, 2005, 2015 (distributed with permission from Wisconsin DNR) • Critical Species Habitats: 1994, 2005, 2015 (distributed with permission from Wisconsin DNR) • Grassland Sites • Plant Community Areas • Soil Mapping Units
<p>Land Planning Data</p> <ul style="list-style-type: none"> • Land Use: 1963, 1970, 1980, 1985, 1990, 1995, 2000, 2010 • Historical Urban Growth: 1995, 2000, 2010 • Regional Zoning Inventory: 2000 • Park and Open Space Sites • Sewer Service Areas
<p>General Planning Data</p> <ul style="list-style-type: none"> • Regional Land Use Plan: 2010, 2020, 2035, 2050 • Regional Transportation Plan: 2020, 2035, 2050 • Public and Private Water Supply Systems: 2000, 2010 • Archaeological Sites
<p>Geologic and Hydrologic Data</p> <ul style="list-style-type: none"> • Depth to Bedrock • Depth to Water Table • Water Table Elevation • Contaminant Attenuation Potential of Soils • Estimated Permeability of the Unsaturated Zone • Estimated Soil Percolation • Significant Hydrologic Data Points • Groundwater Contamination Potential • Groundwater Recharge Potential • Geologic Sites • Floodplain Boundaries • Watershed, Subwatershed, and Subbasin Boundaries

Note: Those data sets shown in red are available for viewing on the SEWRPC Regional Land Information website (www.sewrpc.org/regionallandinfo).

The Commission’s regional planning program includes the acquisition of aerial photography of the Region at regular intervals. Aerial photos were first acquired in 1963 as black and white hardcopy images. Current aerial photos are obtained as color imagery in digital format, and are prepared as orthophotography—aerial photography that is enhanced by the removal of horizontal displacement caused by ground relief.

The latest orthophotography project was conducted in 2015. The work program was designed to acquire six-inch pixel resolution orthophotography as a base product for the entire Region. In addition, counties had the option to obtain, at additional cost, three-inch resolution orthophotos in lieu of the six-inch base product, and also acquire LiDAR data for preparing elevation mapping products.

Aerial photography and LiDAR data for the project were acquired in the spring of 2015. The orthophotography was prepared by the project contractor and delivered to the Commission in late 2015. The Commission staff reviewed the orthophotography and delivered ortho products to the counties by the end of 2015. The LiDAR data and derived elevation products were also received from the contractor and reviewed by the Commission staff in late 2015, with final delivery of the LiDAR and accompanying elevation products to the counties in July of 2016.

These updated regional planning inventories will be used in a variety of regional and local planning activities.

The regional land information website at www.sewrpc.org/regionallandinfo represents a cooperative effort between the Commission and the Land Information Officers of the seven counties. The website provides access to the following:

• **Survey Documents**

Surveyors and engineers are able to search for two types of survey documents: control station (dossier) sheets and Control Survey Summary Diagrams (CSSDs). A dossier sheet is a record of a USPLSS control station, generally a section corner, quarter-section corner, center of section, or witness corner (see Figure 8). Each sheet contains an identification of the corner, a sketch of the location, witness monuments and ties, monument

Figure 8

RECORD OF U.S. PUBLIC LAND SURVEY CONTROL STATION

RECORD OF U. S. PUBLIC LAND SURVEY CONTROL STATION

U. S. PUBLIC LAND SURVEY CORNER 18 15 T 21 S N 21 E MILWAUKEE COUNTY WISCONSIN
21 22

HORIZONTAL CONTROL SURVEY BY: AERO-METRIC ENGINEERING, INC. YEAR: 1993
VERTICAL CONTROL SURVEY BY: AERO-METRIC ENGINEERING, INC./SEWRPC YEAR: 1993/1999

STATE PLANE COORDINATES OF SECTION CORNER
NORTH 229,865.22
EAST 7,533,367.57
ELEVATION OF STATION: 791.897

HORIZONTAL DATUM: WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE
NORTH AMERICAN DATUM OF 1927

VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 THETA ANGLE: +01-22-03

CONTROL ACCURACY:
HORIZONTAL: THIRD ORDER, CLASS I VERTICAL: SECOND ORDER, CLASS II

LOCATION SKETCH:
1.374 FEET FROM N1/2 24465
1/4" OF CONC. CONC. FOM. AT COR.
1/4" OF CONC. CONC. FOM. AT COR. OF STATION 1.2 ABE
1.571 FT. AND FROM N1/2 8707
SET OLD CORN. IN TOP OF N1/2 END OF 2ND QUART. QUARTER
SET OLD CORN. IN TOP OF 3/4" OF CONC. CONC. FOM. FOR TRAFFIC SIGNAL CENTERLINE
SET OLD AND NEW SET OLD CORN. IN TOP OF MET. MONUMENT 1.8 ABE, JULY, 1922, 211

Bearing: S 00-28-28 E
To E 1/4 Cor. Sec. 21, S-21

SURVEYOR'S AFFIDAVIT: As Milwaukee County Surveyor, I hereby certify that I set a concrete monument with SEWRPC brass cap to mark this corner; replacing a cast iron plug with cross set in the concrete pavement to mark this corner in November 1967 by Laverne F. Cook, S-398, State Highway Commission of Wisconsin Project Engineer, following highway reconstruction; replacing a cast iron plug with cross set in the then existing concrete pavement to mark this corner in 1944 by the Milwaukee County Highway Department following highway reconstruction; replacing a cast iron plug with cross set in the then existing concrete pavement to mark this corner in 1915 by the Milwaukee County Highway Department following highway reconstruction; replacing a cut limestone monument set to mark this corner in 1878 by Jonathan C. Crouse, Surveyor; replacing in turn a wood post set to mark this corner in June 1838 by Ellaha Dwellie, Deputy United States Surveyor, in the conduct of the original United States Public Land Survey; that I referenced the same as shown hereon; and that this record is correct and complete to the best of my knowledge and belief.

STATE OF WISCONSIN
MILWAUKEE COUNTY) SS
K. W. BAUER
MILWAUKEE, WIS.
REGISTERED LAND SURVEYOR
S - 157

DATE OF SURVEY 7 May 1992
REVISED: 30 September 1999
12 March 2001

FORM PREPARED BY SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION 85

coordinates and elevations, and other surveyor's information. CSSDs summarize horizontal and vertical control survey information obtained from the high-order control surveys carried out within the Southeastern Wisconsin Region (see Figure 9). Each Control Survey Summary Diagram covers six USPLSS sections and shows the location and type of corner monuments; coordinates and elevations of the located corners; and grid distances, bearings, and interior angles of all USPLSS section and quarter-section lines. As survey documents are updated, the revised dossiers and CSSDs are placed on the website to insure that the regional land information site is the best source for current survey documentation for the Region. During 2016, a total of 190 dossier sheets and 78 control survey summary diagrams were updated and placed on the website. The usefulness of this online service is demonstrated by the fact that on an average work day during 2016,

the website was accessed by 23 individuals working in the Region.

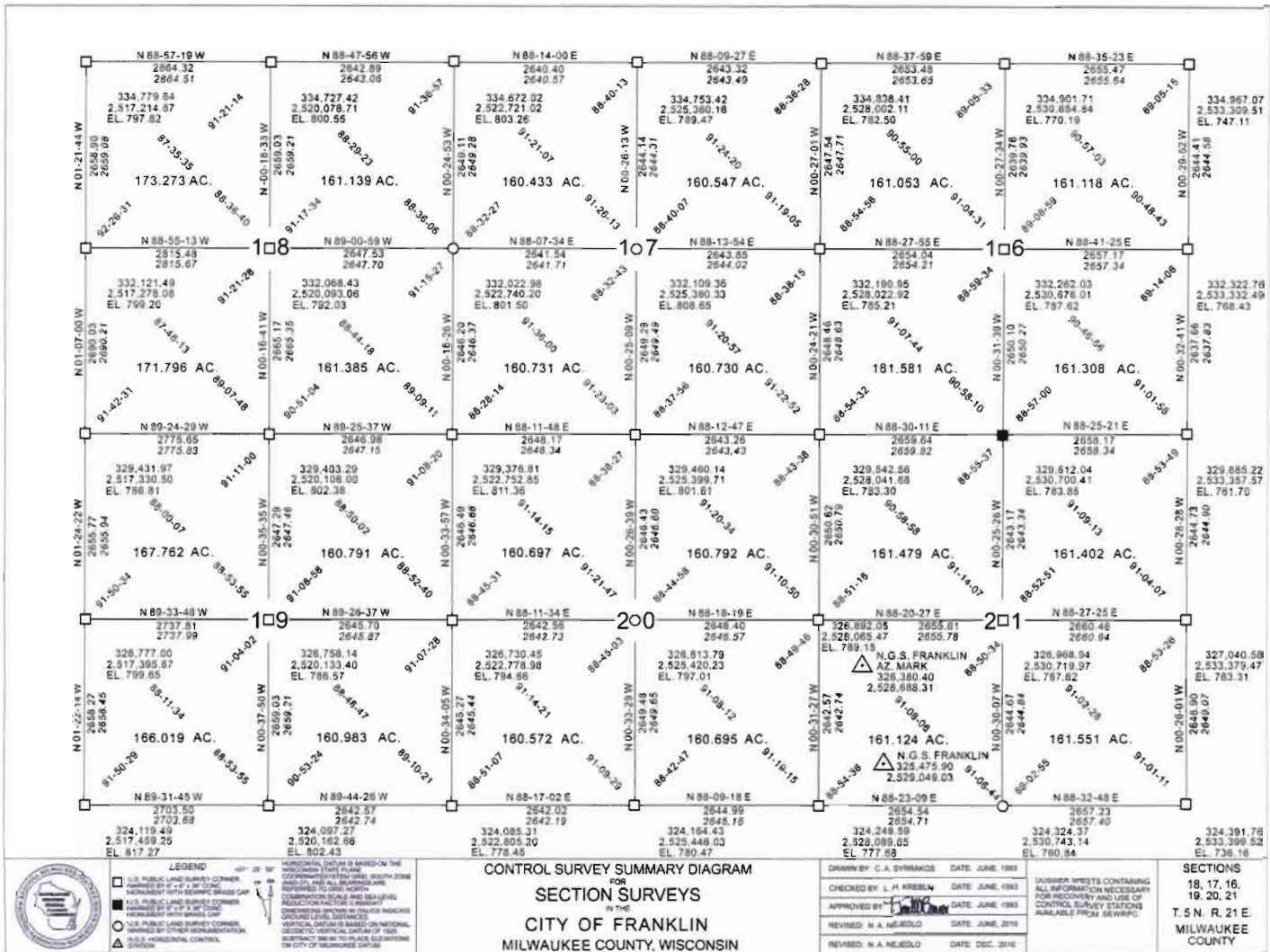
- Aerial Photography**
The aerial photography portion of the regional land information website enables users to view 2015 as well as selected older orthophotography. Users can examine images of the Region and find out how the orthophotography is organized into digital files for distribution. An order form on the website can be used to request digital orthophoto files from the Commission for a nominal fee.
- Regional Map Server**
The Regional Map Server is a mapping application providing access to selected planning and natural resource maps of the Region. This application allows users to select and view different types of planning data sets, including detailed and generalized land use maps, environmental corridor maps, soils maps obtained from the Natural Resources Conservation Service, Wisconsin Wetland Inventory Maps, U.S. EPA Wetland Advanced Identification Maps, and parcel mapping contributed by participating counties. Local government boundaries and five years of orthophotography are also accessible on the mapping application. Metadata, providing detailed information about the origin, lineage, and content of the data sets, is available for the map layers displayed on the Regional Map Server.

The Commission, with the assistance of the counties, works to continually enhance the regional land information website with the addition of new orthophotography, updated resource inventories, and additional planning-related mapping.

County-Based Land Information Systems
Historically, the Commission has worked closely with its constituent counties in their efforts to develop and deploy county-based, web-delivered land information systems. Each of the seven-county systems incorporates, as foundational elements, the survey control, topographic base mapping, and cadastral base mapping developed in cooperation with the Commission over many years. These county-based land information systems provide information developed through Commission planning efforts, e.g., land use and environmental corridors, as well as a broad array of land-based information necessary to support county and local government functions and to serve the general public.

Figure 9

TYPICAL CONTROL SURVEY SUMMARY DIAGRAM



Elevation data relative to the earth's surface, traditionally prepared as part of Commission recommended topographic mapping projects, increasingly is being made available by counties through the application of LiDAR (Light Detection and Ranging) technology. Map 25 identifies the availability of LiDAR and derived elevation data in the Region in 2016. Map 26 also identifies the availability of topographic contour line data in the Region in 2016. All such data is available through the Land Information Office in each county.






From time to time the Commission provides assistance to counties as they update their land information data bases. Activities in this respect during 2016 follow.

- **Service on County Land Information Committees**
Through its County Surveyor program, the Commission continued to provide a representative to serve on the land information committees created by counties under the Wisconsin Land Information Legislation. The Counties served included Kenosha, Milwaukee, Walworth, and Waukesha.

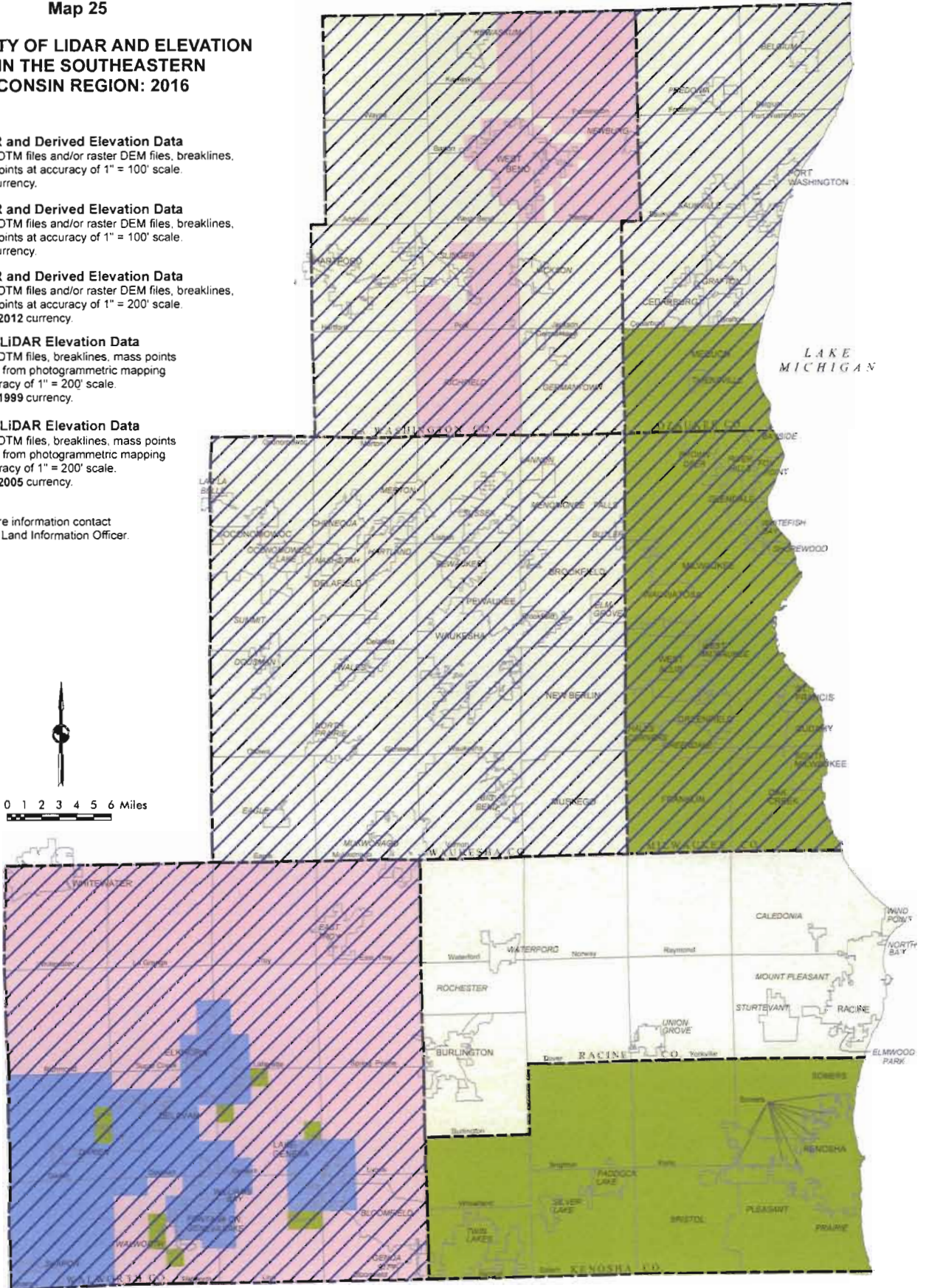
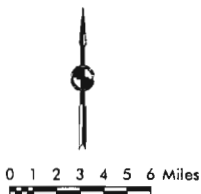
County Surveyor Activities
Since 1984, the Commission has carried out the responsibilities of the Milwaukee County Surveyor, including ensuring the perpetuation of those corners of the U.S. Public Land Survey that are destroyed, removed, or buried through construction or other activities. Given this State-mandated responsibility and

Map 25

AVAILABILITY OF LIDAR AND ELEVATION DATA IN THE SOUTHEASTERN WISCONSIN REGION: 2016







-  **LiDAR and Derived Elevation Data**
Vector DTM files and/or raster DEM files, breaklines, mass points at accuracy of 1" = 100' scale. 2015 currency.
-  **LiDAR and Derived Elevation Data**
Vector DTM files and/or raster DEM files, breaklines, mass points at accuracy of 1" = 100' scale. 2010 currency.
-  **LiDAR and Derived Elevation Data**
Vector DTM files and/or raster DEM files, breaklines, mass points at accuracy of 1" = 200' scale. 2016 - 2012 currency.
-  **Non - LiDAR Elevation Data**
Vector DTM files, breaklines, mass points derived from photogrammetric mapping at accuracy of 1" = 200' scale. 1994 - 1999 currency.
-  **Non - LiDAR Elevation Data**
Vector DTM files, breaklines, mass points derived from photogrammetric mapping at accuracy of 1" = 200' scale. 2000 - 2005 currency.

For more information contact County Land Information Officer.

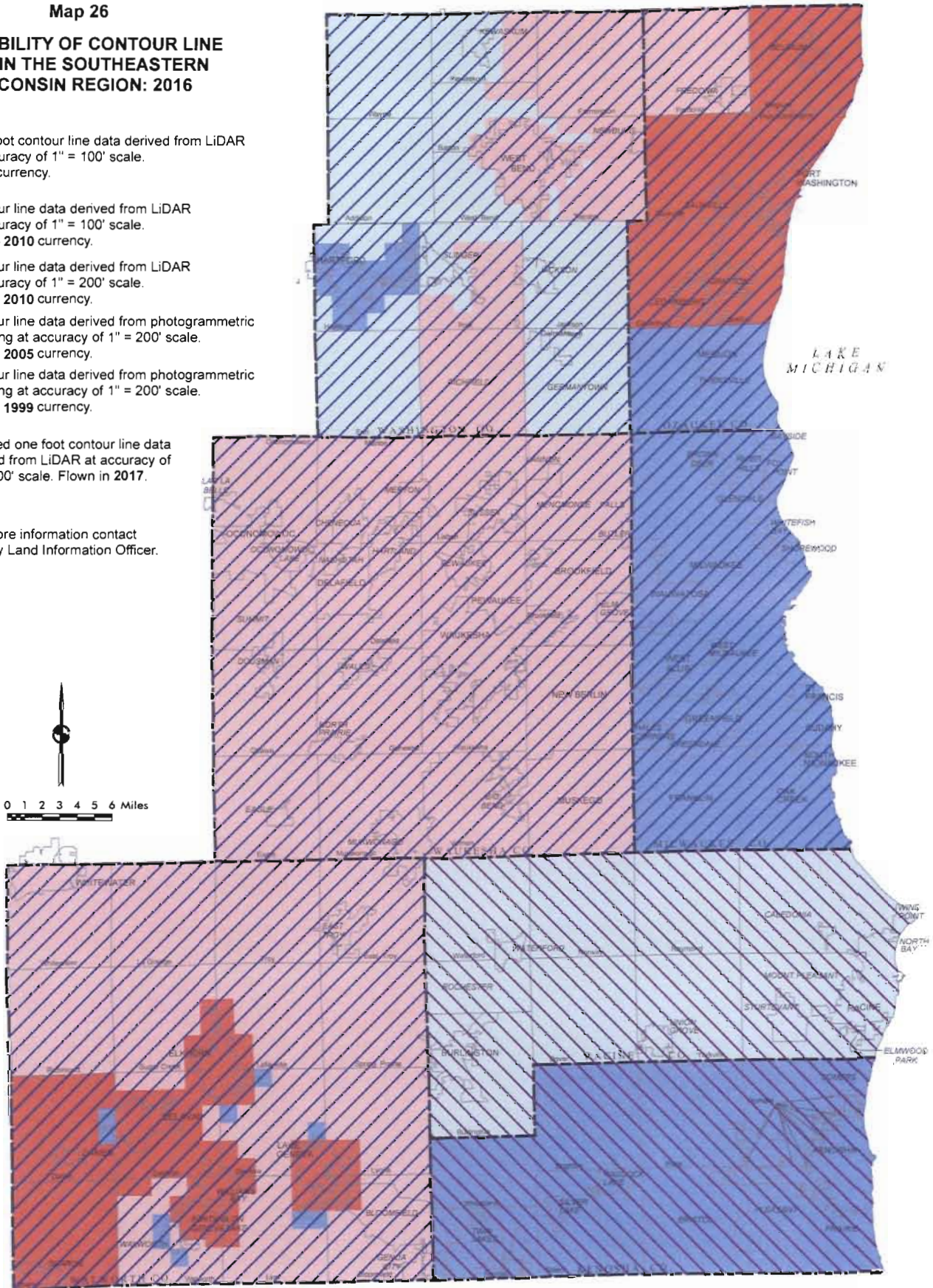
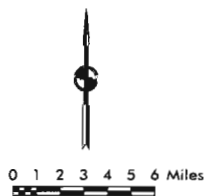


Map 26

AVAILABILITY OF CONTOUR LINE DATA IN THE SOUTHEASTERN WISCONSIN REGION: 2016

-  One foot contour line data derived from LiDAR at accuracy of 1" = 100' scale. 2015 currency.
-  Contour line data derived from LiDAR at accuracy of 1" = 100' scale. 2007 - 2010 currency.
-  Contour line data derived from LiDAR at accuracy of 1" = 200' scale. 2006 - 2010 currency.
-  Contour line data derived from photogrammetric mapping at accuracy of 1" = 200' scale. 2000 - 2005 currency.
-  Contour line data derived from photogrammetric mapping at accuracy of 1" = 200' scale. 1994 - 1999 currency.
-  Planned one foot contour line data derived from LiDAR at accuracy of 1" = 100' scale. Flown in 2017.

For more information contact County Land Information Officer.



the need to maintain a capable staff to perform the County Surveyor function, the Commission has offered to assume that function in the other six counties of the Region. Based upon that offer, the Commission during 2016 provided County Surveyor services to Kenosha, Walworth, and Waukesha Counties, as well as field support services to the Ozaukee County Surveyor. In each case, such special services are provided under contract agreements.

In performing the duties of the County Surveyor in the four counties concerned and in supporting the Ozaukee County Surveyor, the Commission during 2016 remonumented a total of 106 U.S. Public Land Survey corners that had been disturbed or destroyed through a range of activities, primarily road reconstruction activities. These activities included field work as well as substantial office work to prepare updated documentation of the corners concerned, including new corner dossier sheets and updated control survey summary diagrams.

PUBLIC INVOLVEMENT AND OUTREACH

The Commission carries out an extensive public involvement and outreach program annually. In part, these efforts are integrated with the production of regional plan elements and generally involve conveying Commission analytical findings and proposed plan recommendations to the public through a variety of avenues, including website postings and updates, newsletters, presentations to governmental and civic organizations, public informational meetings, public hearings, community fairs and other events. Other public participation efforts are directed at specific population subgroups, notably low-income populations and minority populations, people with disabilities or other particular needs, and students. All public involvement and outreach work is carried out in accordance with a structured approach set forth in the document *Public Participation Plan for Regional Planning for Southeastern Wisconsin*, which was updated in 2016. This document and a condensed summary brochure are available from the Commission office and can be accessed at www.sewrpc.org/involvement.

The following summarizes the public involvement and outreach activities carried out during 2016 in

three specific categories: 1) SEWRPC-sponsored public informational workshops, meetings, and hearings; 2) public involvement and outreach efforts directed to targeted population groups; 3) the work of the SEWRPC Environmental Justice Task Force; and publication of *Regional Planning News*, an electronic and print newsletter that summarizes the activities of the Commission.

SEWRPC-Sponsored Public Informational Workshops, Meetings, and Hearings

The ongoing technical work of the Commission includes many important public participation activities. Such activities tend to be focused on Commission findings and recommendations relative to new regional plans and updates to prior regional plans. There are standard Commission procedures for public meetings and public hearings, including widely disseminated meeting notifications and the provision of a variety of opportunities for members of the public to make their views known on the topic at hand. The Commission provides full documentation of comments from all public meetings. Moreover, all comments are considered by the Commission advisory committees as well as the Commission itself.

In 2016, such general public structured participation efforts continued to be focused largely on the major multi-year planning effort, VISION 2050, which was adopted in July 2016 and includes an update, reevaluation, and extension of the regional land use and transportation plans to the year 2050.

VISION 2050 efforts in 2016 continued with development of a preliminary recommended plan, following evaluation of and public input on detailed alternative land use and transportation system plans during the proceeding stage of VISION 2050. VISION 2050 outreach efforts were designed to expand public knowledge of the implications of future land use and transportation development decision-making for the Region and engage the public in the planning process with a view toward developing a shared vision of future land use and transportation that is widely understood and embraced by the Region's residents. These activities included the following:

- VISION 2050 task forces were convened to obtain feedback about specific issues related to land use and transportation in the Region. The specific

issues examined by the task forces are listed in the included transportation needs of business, industry, workforce development, and higher education; environment, including natural resources; freight movement; human services transportation needs; land use, including farming, builder, realtor, and environmental interests; non-motorized transportation, including bicycle and pedestrian facilities; public transit; transportation systems management; and women's land use and transportation issues. One series of task force meetings was held in spring 2016 to review the preliminary plan. In addition to the VISION 2050 task forces listed above, the SEWRPC Environmental Justice Task Force met twice to review VISION 2050 efforts and materials and other initiatives.

- Five VISION 2050 e-newsletters, one email announcement, one print brochure (in English and Spanish), and VISION 2050 articles in the SEWRPC *Regional Planning News* newsletter were distributed to the general public relative to the progress being made in the planning process. These publications, emails, and articles invited residents to attend the spring 2016 VISION 2050 interactive public workshops and included links to the VISION 2050 website (www.vision2050sewis.org). The *VISION 2050 Summary* report, presenting key recommendations from the final plan, was also completed in December 2016 and has been distributed across the Region.
- Two personalized letters were distributed to the leaders of approximately 100 community organizations representing low-income residents and minority residents of the Region. The letters provided updates about VISION 2050 and offered opportunities to meet individually with Commission staff and/or participate in the VISION 2050 process. The letters were used to distribute copies of the VISION 2050 brochures, *Regional Planning News*, and the *VISION 2050 Summary* report to these community organizations.
- Sixteen paid advertisements were published and a news release was distributed to newspapers of record to announce the public workshops.
- Twenty-three presentations relative to the VISION 2050 process were provided to a wide

range of groups and organizations, including organizations that serve minority residents and low-income residents, community and neighborhood organizations, service clubs, business associations, school groups, and environmental organizations.

- Thirty-one staffed exhibits were provided at community events, with many events serving low-income residents and minority residents. Exhibits included VISION 2050 and related Commission materials for attendees.
- The Commission held the fifth and final series of interactive public workshops to obtain public input on the preliminary recommended plan. Public feedback was considered as staff prepared a final recommended plan. A workshop was held for the general public in each of the seven counties in Southeastern Wisconsin. Additional individual VISION 2050 workshops were held upon request for any interested group, organization, or local government. In total, 16 public, partner, and requested VISION 2050 workshops were held in 2016.
- Outreach continued to eight VISION 2050 partner nonprofit community organizations, which include Common Ground, the Ethnically Diverse Business Coalition, Hmong American Friendship Association, IndependenceFirst, Milwaukee Urban League, Southside Organizing Committee, Urban Economic Development Association of Wisconsin, and the Urban League of Racine and Kenosha. About 200 Southeastern Wisconsin residents representing these community partners participated in the fifth series of VISION 2050 community partner workshops in 2016, bringing the total number of participants for all five VISION 2050 community partner workshops to 975. Evaluations from participants and leaders of the partner organizations included primarily positive comments regarding the workshops' content, process, and communication. The results from these workshops are included in the VISION 2050 public feedback.

All of the documentation developed as part of this public involvement and outreach effort is available on an archived website for the VISION 2050 process (www.vision2050sewis.com).

Public Involvement and Outreach Efforts Targeted to Selected Population Groups

Substantial work efforts are undertaken annually to engage members of specific population subgroups that, despite efforts to recruit the general public and its constituents, traditionally have had lower levels of participation than the population as a whole in regional planning activities and events. The major objectives of this targeted outreach program are set forth in Figure 10.

More than 390 direct contacts were made with community organizations and leaders in 2016—almost all of which serve low-income populations and minority populations and a small number of which serve primarily transportation and environmental interests—including almost 225 recurring contacts and more than 90 new contacts.

As discussed in the VISION 2050 public involvement and outreach activities listed above, 2016 outreach primarily focused on VISION 2050 and included specific outreach targeted at population subgroups. The outreach mentioned above includes workshops with community partner organizations, publications, letters to community organizations, presentations to community groups, and exhibits at community events.

Broad Networking Contacts

The Commission staff regularly consults and meets with central city, minority, neighborhood-based, and/or low-income groups and individuals to share information about the Commission and its work and to learn about the interests and needs of the population. These groups are approached in terms of geography and community related to Commission initiatives.

Commission contacts with these groups and individuals are intentionally long-term, so as to generate lasting working relationships and familiarity with the Commission’s work efforts. The contacts are arranged to fit the convenience of the organizations involved and often include events of importance to the organizations and their members. Commission updates and involvement opportunities regarding regional planning are designed to be useful to, and appear to be well-received by, these organizations. Outreach includes opportunities for feedback, personalized letters and e-mails, and follow-up as appropriate. Relationship building with these groups and individuals provides the Commission with a larger, more diverse population base for public participation in regional

Figure 10

MAJOR OBJECTIVES OF SEWRPC TARGETED PUBLIC INVOLVEMENT AND OUTREACH PROGRAM

<p>Outreach</p> <ul style="list-style-type: none"> • Build awareness and inform residents regarding SEWRPC purpose, activities, resources, and participation opportunities • Achieved through media, mass distributions, and large public event exhibits
<p>Public Involvement</p> <ul style="list-style-type: none"> • Target key populations and organizations • Encourage participation in SEWRPC planning efforts • Promote understanding of SEWRPC advisory plan recommendations • Collaboratively achieved through such group activities as organizations, committees, and task forces
<p>Education</p> <ul style="list-style-type: none"> • Target youth through adults • Achieved through the development of materials and events designed to convey facts and analytical findings and thereby better equip audiences to understand and act upon SEWRPC plan recommendations
<p>Environmental Justice</p> <ul style="list-style-type: none"> • Promote the consideration and integration of environmental justice principles throughout the SEWRPC planning process • Achieved through the evaluation of plan recommendations, public involvement and outreach program, and the work of the Environmental Justice Task Force

planning, and is an important strategy for reaching non-traditional groups and individuals.

Broad-based Commission public involvement and outreach efforts to minority, low-income, and/or neighborhood contacts are characterized by the following:

- Regularity of contacts;
- Variety and number of organizations participating;

- Multiple, ongoing opportunities;
- Comprehensive subject matter for feedback;
- Timely distribution of relevant materials;
- Variety of contact modes (printed materials, U.S. mail, and e-mail);
- Participation in targeted events;
- Direct contacts with person(s) or group(s);
- Convenience for contacted groups and individuals; and
- Coordination with targeted groups' meetings and special events.

These efforts have been expanded to include work with the University of Wisconsin-Extension in all seven counties, various business improvement districts, and other entities involved in business development. As part of a collaborative approach, the Commission provides information involving transportation and land use planning.

Primary Organizational Contacts

The effort outlined above has led to the establishment of a contact list containing approximately 100 organizations that serve as a formal distribution network for information about Commission planning activities. The organizations on the contact list serve low-income areas; areas predominantly consisting of communities of color and targeted ethnicities; individuals with disabilities; and/or communities or neighborhoods where issues related to employment, transportation, land use, and environmental deterioration relate directly to the Commission's planning efforts.

Within this larger group are "primary organizations" that have become a primary focus of the Commission and its targeted outreach efforts, as shown in Figure 11.

Nearly 100 direct contacts were made with the Commission's Primary Organizations in 2016 to engage in direct dialog about VISION 2050, transportation, housing, and other issues. These direct contacts represented an average of 2.4 contacts per organization. Public involvement and outreach activities with the primary organizations are included with the activities documented in the previous VISION 2050 outreach section.

Figure 11

SEWRPC PRIMARY ORGANIZATIONAL CONTACTS FOR OUTREACH AND INVOLVEMENT EFFORTS

- Association for the Rights of Citizens with Handicaps (ARCh)
- Casa Guadalupe Education Center
- Coalition for Community Health Care Inc.
- Common Ground
- Community Action, Inc.
- Congregations United to Serve Humanity (CUSH)
- Ethnically Diverse Business Coalition
- Family Sharing of Ozaukee County
- Harambee Great Neighborhood Initiative/Riverwest Neighborhood Association/Riverworks Development Corporation
- Hispanic Business and Professional Association/Hispanic Roundtable
- Hmong American Friendship Association
- HOPES Center
- IndependenceFirst
- Interfaith Older Adult Programs/Caregivers
- Kenosha Achievement Center
- Kenosha Areas Family and Aging Services (KAFASI)
- La Casa de Esperanza
- Layton Boulevard West Neighbors
- Lindsay Heights Area, City of Milwaukee
- Local Initiatives Support Corporation (LISC)
- Milwaukee Inner City Congregations Allied for Hope (MICAH)
- Milwaukee Urban League
- National Association for the Advancement of Colored People (NAACP)
- Networking Groups for Aging Population
- Ozaukee Family Services
- Racine County Family Resource Network
- Racine Interfaith Coalition (RIC)
- Racine Kenosha Community Action Agency
- Society's Assets
- SOPHIA
- Social Development Commission
- Southside Organizing Committee
- The 30th Street Industrial Corridor revitalization area
- The Salvation Army of Greater Milwaukee
- The Threshold, Inc.
- United Migrant Opportunity Services (UMOS)
- United Way Affiliated Entities Within the Southeastern Wisconsin Region
- Urban Ecology Center
- Urban Economic Development Association of Wisconsin (UEDA)
- Urban League of Racine and Kenosha
- Walworth County Literacy Council

Partnership-Building Activities

In carrying out its targeted outreach efforts, the Commission engages in extensive partnership-building activities. In addition to the targeted activities noted above, 2016 activities included the following:

- **Urban Economic Development Association**

For the seventh consecutive year, the Commission continued to work with the Urban Economic Development Association of Wisconsin (UEDA), which has its headquarters in Milwaukee's central city. Participation occurred in a number of ways, including planning the Association's 15th Annual Community Development Summit, which was attended by more than 120 community and regional leaders. In preparation for the Summit, Commission staff assistance was provided to the Association through service on the Summit Planning Committee and printing of the program booklet. SEWRPC provided a staffed exhibit table at the Summit. Finally, Commission public outreach staff participated on a number of UEDA working committees, including the UEDA Board of Directors.

- **Children and Family Health**

The Commission continued to work on a multi-year, multi-disciplinary effort to address the environmental conditions impacting children and family health by providing information about the importance of transportation and housing planning to groups engaged in the Social Determinants of Health effort. In this effort, the Commission worked with the Health and Wellness Commons Initiative, Aurora Health Care Social Responsibility Committee, Kenosha Community Health Center, Lindsay Heights Neighborhood Health Alliance, Racine County Family Resource Network, the Renew Environmental Public Health Advocates (REPHA), the SDC Poverty Summit, United Way of Milwaukee and Waukesha – Lifecourse Initiatives For Healthy Families (LIHF), United Way (in all 7 counties), UW Racine Health Investment Committee, and YWCA of Southeast Wisconsin.

- **Environmental Education and Outreach**

As with SEWRPC's housing, land use, and transportation planning work, the Commission's environmental planning work is integrated into public involvement and outreach activities. As part of

the 2016 VISION 2050 public outreach presentations and exhibits mentioned previously, SEWRPC staffed exhibit tables with VISION 2050 and environmental planning materials at the following events: Interfaith Earth Network Making Waves for Water; the Johnson Foundation; Milwaukee Sustainability Summit; the Southeastern Wisconsin Watersheds Trust, Inc. Clean Rivers, Clean Lake Conference; Midwest Water Analyst Conference, Root River Festival; Fox River Boat Launch, and Farm Technology Days.

SEWRPC partnership-building environmental education activities include Commission participation in the interagency consortium, "Testing the Waters," which has educated more than 30,000 students and teachers in the Region over many years. During 2016, about 1,150 students and educators from public and private schools benefitted from Commission instruction and/or materials related to environmental planning. These schools are located within the watersheds tributary to the Milwaukee Harbor estuary.

In fall 2016, staff again worked with the Washington County Land Conservation Department and Riveredge Nature Center in Ozaukee County to conduct two Village of Newburg area bus tours for about 90 students and educators from public and private schools within the Region. The participants were able to experience being on a working, family-owned certified-organic dairy farm that employs best practices in conservation. These annual bus tours focus on land use issues, water quality concerns, and related solutions to those issues and concerns in the rural and developing landscape. Urban, suburban, and rural students and educators have the opportunity to learn about the changing rural and small-town landscape and impacts on water resources. Tour participants from diverse backgrounds interact with each other and gain an understanding of regional planning principles as they view key environmental sites of interest and concern. Tour subject matter includes Commission work such as water quality protection, riparian management, and environmental corridor and natural area preservation. Commission publications, including the "Making Natural Connections" educational booklet series, are part of the subject matter.

- **Neighborhood and Community Economic Development**

The Commission networks with organizations and engages in activities that address neighborhood and community economic development issues. This effort includes ongoing interaction with the Local Initiatives Support Corporation (LISC-Milwaukee), the Commercial Corridors Consortium, various business improvement districts throughout the Region, and other community development organizations such as the Walworth County Economic Development Association (WCEDA), Elkhorn Economic Development Association (EEDA), Kenosha Area Business Alliance (KABA), Racine County Economic Development Corporation (RCEDC), and Racine Area Manufacturers and Commerce (RAMAC) with the goal of sharing the importance of transit, transportation, and housing planning as those matters relate to the local economy and regional economic development.

- **Workforce Development and Employment**

The Commission networks with organizations and engages in activities that address workforce development and employment issues. This effort includes the Workforce Regional Training Partnership, the African American Male Forum on Employment, the Milwaukee and Racine-Kenosha Labor Development Committees, the Southeast Wisconsin Migrant and Seasonal Workers Committee, Ways to Work, the Social Development Commission, the Workforce Development Centers within the Southeastern Wisconsin Region, and the Milwaukee Careers Cooperative.

- **Sustainable Communities and Quality of Life Enhancement**

The Commission networks with organizations and engages in activities that address efforts relative to building sustainable communities and enhancing the quality of community life. This effort involves liaison with Groundwork Milwaukee, the City of Milwaukee Green Team Sustainability Effort, Walnut Way Conservation Corporation, the Urban Ecology Center, Fondy Food Center, the Food Summit Leadership Group, the Milwaukee HomeGrown Initiative, Greening a Greater Racine, Visioning a Greater Racine, Racine Interfaith Council (RIC), Citizens United to Serve

Humanity (CUSH), Milwaukee Inner City Congregations Allied for Hope (MICAH), WISDOM, Root-Pike Watershed Initiative Network, Racine Aging and Disability Resource Center (ADRC) Board & The Commission on Aging, and Kenosha County Public/Private Partnership for Emergency Preparedness.

- **Education and Career Development for Communities of Color**

The Commission networks with organizations and engages in activities focusing on building community leadership and developing organizational capacity for communities of color. This effort includes the following entities: The Community Brainstorming Forum, the Manufacturing Diversity Institute, the African American Leadership Group, the Ethnically Diverse Business Coalition, the Community Action Agencies of Milwaukee-Racine-Kenosha, the Urban Leagues of Milwaukee and Racine-Kenosha, National Association for the Advancement of Colored People (NAACP) Chapters throughout the Region, Southeast Wisconsin Mentoring Program (in partnership with Gateway Technical College, UW-Parkside, Carthage College, Boys & Girls Club of Walworth County, Big Brothers/Big Sisters of Kenosha & Racine, Kenosha Unified School District, Kenosha County School District, United Way of Kenosha, CUSH, Kenosha County Health Department, Kenosha County Workforce Development, Gateway Technical College, Kenosha Civil War Museum, and Carthage College, Latino Enterprise Network of Southeastern Wisconsin, Inc. (LEN), National Black MBA Association (NBMBA), Migrant and Seasonal Farm Workers (MSFW)/United Migrant Opportunity Services (UMOS), and MARKETPLACE 2016 – Wisconsin Governor’s Conference on Minority Business Development. During 2016, information was provided on housing, transportation, land use, and environmental issues, as well as the VISION 2050 planning effort.

Environmental Justice Task Force

Under Federal law, SEWRPC has a responsibility to help ensure the full and fair participation throughout the regional planning process of minority populations, low-income populations, and people with disabilities. In addition to the public outreach efforts noted above,

Figure 12

PURPOSES OF THE SEWRPC ENVIRONMENTAL JUSTICE TASK FORCE

- **Involvement and Participation**
To facilitate the involvement of, and help ensure the full and fair participation of, minority populations, low-income populations, and people with disabilities at all stages in relevant areas of regional planning as determined in consultation with them.
- **Address Relevant Issues**
To make recommendations on, and help monitor, issues and analyses potentially relevant to the needs and circumstances of minority populations, low-income populations, and people with disabilities.
- **Identify Benefits and Effects**
To help identify potential benefits and adverse effects of regional planning programs and activities with respect to minority populations, low-income populations, and people with disabilities.
- **Advise and Recommend**
To advise and recommend methods to prevent the denial of, reduction in, or significant delay in the receipt of benefits, and/or to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations, low-income populations, and people with disabilities.
- **Enhance Planning Awareness**
To enhance awareness, understanding, appreciation, support, and implementation of planning recommendations and benefits, with emphasis on the needs of minority populations, low-income populations, and people with disabilities.

the Commission coordinates an Environmental Justice Task Force to help ensure that this requirement is met. This Task Force consists of 13 representatives from throughout the Region who meet regularly to gain an understanding of the Commission's technical

work program and to provide input to that program through the lens of environmental justice. The purposes of the SEWRPC Environmental Justice Task Force are summarized in Figure 12.

The Task Force met two times in 2016 and focused attention on the VISION 2050 planning process, specifically on the preliminary recommended plan and the final recommended plan.

2016 SEWRPC PUBLICATIONS

The following publications were issued by SEWRPC during the year:

Community Assistance Planning Reports

- No. 327, *A Lake Protection and Aquatic Plant Management Plan for Pleasant Lake, Walworth County, Wisconsin*, March 2016, 216 pages

Memorandum Reports

- No. 225, *A Comprehensive Plan Update for the Town of Lyons: 2035, Walworth County*, August 2016, 50 pages

Annual Report

- *2015 Annual Report*, December 2016, 228 pages

Newsletters

- Newsletters are listed on-line and may be requested by contacting the Commission office or may be accessed on the Commission website at www.sewrpc.org/SEWRPC/DataResources/E-Newsletter.htm.

Other Reports

- *VISION 2050 Summary*, December 2016, 72 pages

PART THREE: REGIONAL MONITORING ACTIVITIES

This final section of the 2016 SEWRPC Annual Report documents the results of Commission work efforts during the year relative to monitoring various aspects of regional growth and change. The topics covered include socioeconomic trends, land development activity, natural resource base preservation activity, regional transportation system performance, and implementation of the regional housing plan. Where applicable, these monitoring activities are reported in the context of Commission regional plan

recommendations. Some monitoring topics are reported on an annual basis and others as infrequently as 10-year intervals.

Part One of this Annual Report provides information about the Commission and includes a brief description of each of the elements of the comprehensive regional plan. That part begins on page 1. Part Two documents the regional planning work activities undertaken during the year. That part begins on page 41.



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Table 3

POPULATION IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2016

County	Population			2000-2010 Change		2010-2016 Change	
	2000 Census	2010 Census	2016 Estimate	Number	Percent	Number	Percent
Kenosha	149,600	166,400	167,700	16,800	11.2	1,300	0.8
Milwaukee.....	940,200	947,800	948,900	7,600	0.8	1,100	0.1
Ozaukee	82,300	86,400	87,900	4,100	5.0	1,500	1.7
Racine	188,800	195,400	195,300	6,600	3.5	-100	-0.1
Walworth.....	92,000	102,200	102,600	10,200	11.1	400	0.4
Washington.....	117,500	131,900	134,100	14,400	12.3	2,200	1.7
Waukesha.....	360,800	389,900	396,400	29,100	8.1	6,500	1.7
Region	1,931,200	2,020,000	2,032,900	88,800	4.6	12,900	0.6

SOCIOECONOMIC TRENDS

Each year the Commission gathers and analyzes available information on the Region's population and economic base. This monitoring relies primarily on annual estimates of population, housing, and employment prepared by State and Federal agencies. The employment-related estimates are subject to change and may be revised in future editions of the Commission Annual Report.

In 2013, the Commission completed two studies that resulted in new projections of population, households, and employment for the Region to the year 2050. The two studies, which were prepared under the guidance of the Commission's Advisory Committee on Regional Population and Economic Forecasts, are documented in SEWRPC Technical Report No. 10 (Fifth Edition), *The Economy of Southeastern Wisconsin*, and SEWRPC Technical Report No. 11 (Fifth Edition), *The Population of Southeastern Wisconsin*.

Because of the uncertainty surrounding any effort to predict future socioeconomic conditions, the Commission projected a range of future population, household, and employment levels—high, intermediate, and low—for the Region. The high and low projections are intended to provide an indication of the range of population, household, and employment levels that conceivably could be achieved under significantly higher and lower, but nevertheless plausible, growth scenarios for the Region. The intermediate projection is considered the most likely to be achieved for the Region overall, and, in this sense, served as the basis for the VISION 2050 regional land

use and transportation plan. In consideration of the incorporation of rapid transit and commuter rail lines in VISION 2050, and the additional development expected to occur in the station areas along these lines, the regional population, household, and employment levels were increased from the initial projections as presented in the Technical Reports.

The following overview of socioeconomic trends in the Region includes comparisons of current population, household, and employment estimates for the Region with the adjusted Commission forecast levels for 2050. Trend data on the unemployment rate of the Region are also presented.

Population

Change in Regional Population

During the 2000s, the population of the Region increased by 88,800 persons, or 4.6 percent, from 1,931,200 persons in 2000 to 2,020,000 persons in 2010. Since the 2010 Federal Census, the Region's population has increased modestly—by 12,900 persons, or 0.6 percent—to an estimated 2,032,900 persons in 2016 (see Table 3).

Comparison to Forecast

The estimated year 2016 population is slightly lower (by 2.2 percent) than the Commission's forecast population level for 2016 of 2,078,100 persons (see Table 4 and Figure 13).

Change in Regional Households

During the 2000s, the number of households in the Region increased by 51,100, or 6.8 percent, from 749,000 households in 2000 to 800,100 households

Figure 13

ACTUAL AND PROJECTED REGIONAL AND COUNTY POPULATION LEVELS: 1950-2050

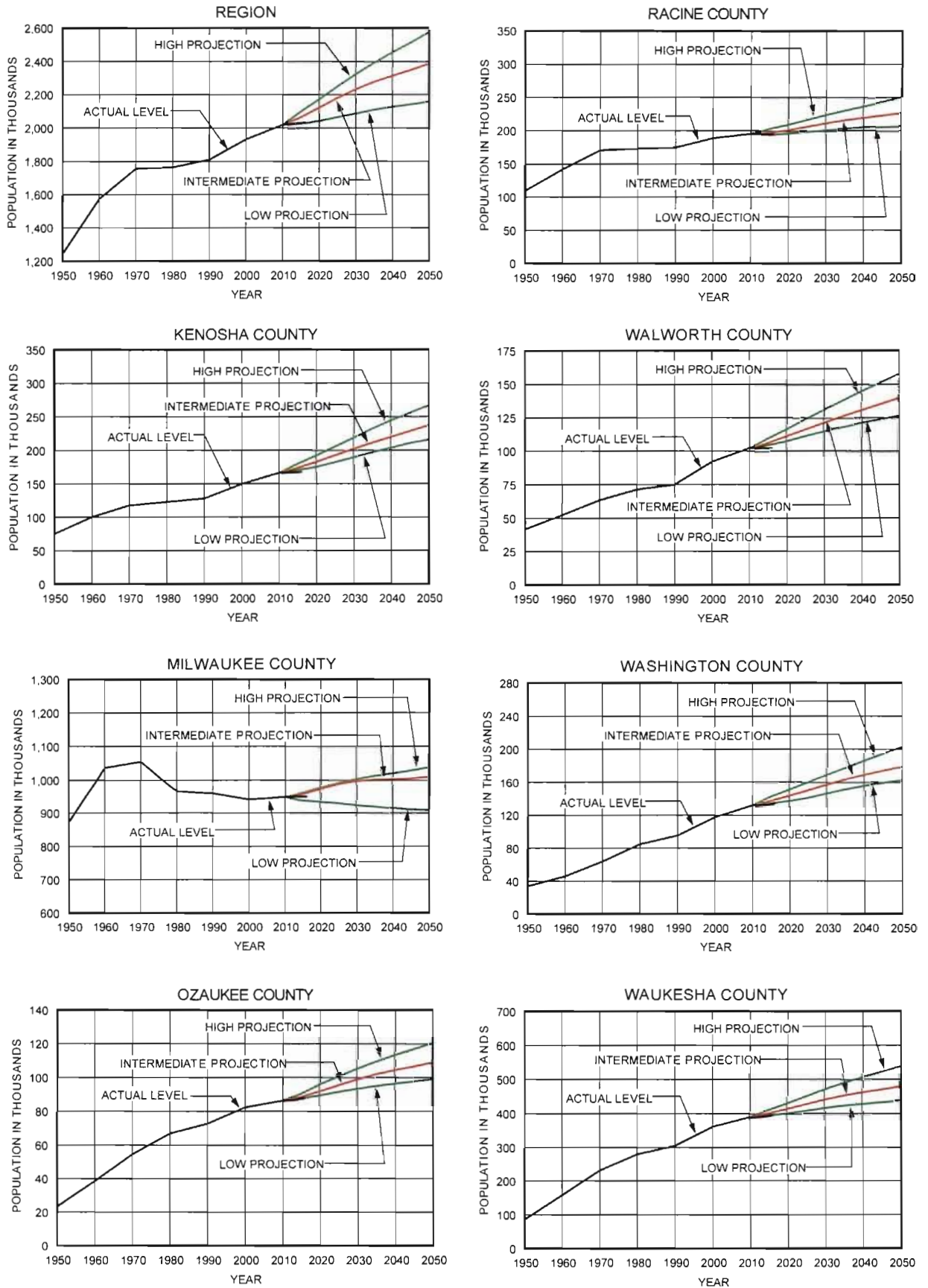


Table 4

ACTUAL AND PROJECTED POPULATION LEVELS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2016

County	2016 Population	Projected 2016 Population		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	167,700	182,600	176,500	171,700
Milwaukee	948,900	964,300	961,800	937,600
Ozaukee	87,900	91,600	89,300	88,100
Racine	195,300	205,100	198,800	195,300
Walworth	102,600	111,300	107,800	105,400
Washington	134,100	144,800	139,400	135,400
Waukesha	396,400	415,300	404,500	396,800
Region	2,032,900	2,115,000	2,078,100	2,030,300

Table 5

HOUSEHOLDS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2016

County	Households			2000-2010 Change		2010-2016 Change	
	2000 Census	2010 Census	2016 Estimate	Number	Percent	Number	Percent
Kenosha	56,100	62,600	63,700	6,500	11.6	1,100	1.8
Milwaukee	377,700	383,600	386,000	5,900	1.6	2,400	0.6
Ozaukee	30,900	34,200	35,200	3,300	10.7	1,000	2.9
Racine	70,800	75,700	76,600	4,900	6.9	900	1.2
Walworth	34,500	39,700	40,300	5,200	15.1	600	1.5
Washington	43,800	51,600	53,400	7,800	17.8	1,800	3.5
Waukesha	135,200	152,700	157,600	17,500	12.9	4,900	3.2
Region	749,000	800,100	812,800	51,100	6.8	12,700	1.6

in 2010. Since the 2010 Federal census, the number of households in the Region has increased by 12,700, or 1.6 percent, to an estimated 812,800 households in 2016 (see Table 5).

Comparison to Forecast

The estimated number of households in the Region in 2016 is slightly lower (by 1.8 percent) than the Commission’s forecast household level for 2016 of 827,500 households (see Table 6 and Figure 14).

Employment

Change in Regional Employment

Total employment, or number of jobs, in the Region stood at 1,176,600 in 2010. Employment in the Region had decreased during the early 2000s, increased to a high of 1,238,600 jobs in 2007, and then decreased to the end of the decade as a result of the economic downturn. Employment in the Region in 2010 was 33,200 jobs, or 2.7 percent, less than in 2000.

Since 2010, total employment in the Region has increased by about 104,600 jobs, or 8.9 percent, from the low of 2010, to 1,281,200 jobs in 2016. Service, retail, and manufacturing jobs accounted for much of this increase (see Tables 7 and 8).

Comparison to Forecast

The estimated total employment in the Region in 2016 of 1,281,200 jobs was above the Commission’s forecast employment level by about 5.8 percent, or 70,300 jobs (see Table 9 and Figure 15). In evaluating the Commission employment projections, it should be recognized that the projections are intended to provide an indication of the overall long-term future trend in the employment level in the Region, and do not reflect the fluctuation in the employment level that may be expected to occur as a result of periods of growth and decline in the economy typically associated with shorter business cycles.

Figure 14

ACTUAL AND PROJECTED REGIONAL AND COUNTY HOUSEHOLD LEVELS: 1950-2050

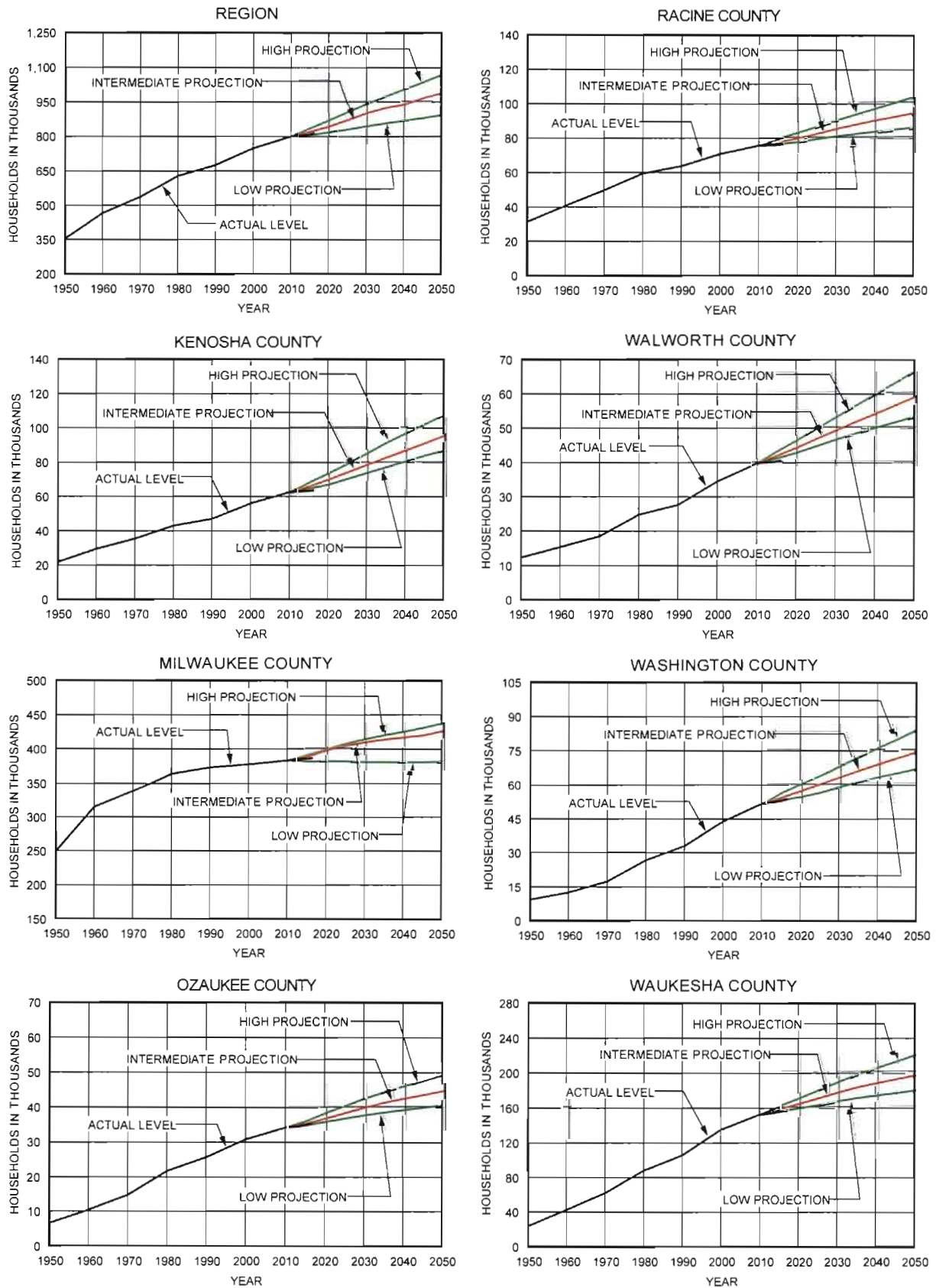


Table 6

ACTUAL AND PROJECTED HOUSEHOLD LEVELS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2016

County	2016 Households	Projected 2016 Households		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	63,700	69,400	67,100	65,300
Milwaukee.....	386,000	392,300	390,800	381,400
Ozaukee	35,200	36,400	35,500	35,000
Racine	76,600	80,100	77,600	76,300
Walworth.....	40,300	43,700	42,400	41,400
Washington.....	53,400	57,200	55,000	53,500
Waukesha.....	157,600	163,300	159,100	156,100
Region	812,800	842,400	827,500	809,000

Table 7

EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY CATEGORY: 2000, 2010, AND 2016

General Industry Group	Employment (Jobs)			2000-2010 Change		2010-2016 Change	
	2000	2010	2016 Estimate	2000-2010 Change		2010-2016 Change	
				Number	Percent	Number	Percent
Agriculture	5,900	5,200	5,000	-700	-11.9	-200	-3.8
Construction	53,000	45,900	54,100	-7,100	-13.4	8,200	17.9
Manufacturing.....	214,500	148,100	160,500	-66,400	-31.0	12,400	8.4
Wholesale Trade	53,700	48,800	54,900	-4,900	-9.1	6,100	12.5
Retail	190,800	185,800	207,200	-5,000	-2.6	21,400	11.5
Services	531,900	584,400	644,500	52,500	9.9	60,100	10.3
Government.....	116,400	117,700	115,400	1,300	1.1	-2,300	-2.0
Other.....	43,600	40,700	39,600	-2,900	-6.7	-1,100	-2.7
Total Jobs	1,209,800	1,176,600	1,281,200	-33,200	-2.7	104,600	8.9

Table 8

EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2016

County	Employment (Jobs)			2000-2010 Change		2010-2016 Change	
	2000	2010	2016 Estimate	2000-2010 Change		2010-2016 Change	
				Number	Percent	Number	Percent
Kenosha	67,900	74,900	82,800	7,000	10.3	7,900	10.5
Milwaukee.....	618,300	575,400	601,200	-42,900	-6.9	25,800	4.5
Ozaukee	50,400	52,500	60,800	2,100	4.2	8,300	15.8
Racine	93,800	88,300	96,000	-5,500	-5.9	7,700	8.7
Walworth.....	51,200	52,700	58,100	1,500	2.9	5,400	10.2
Washington.....	60,300	63,900	74,100	3,600	6.0	10,200	16.0
Waukesha.....	267,900	268,900	308,200	1,000	0.4	39,300	14.6
Region	1,209,800	1,176,600	1,281,200	-33,200	-2.7	104,600	8.9

Change in Unemployment Rate

In addition to the employment level, the unemployment rate is another important measure of economic activity in the Region. The Region’s unemployment rate (the unemployed labor force as a percent of the

total resident labor force of the Region) increased dramatically during the late 2000s, rising to 9.2 percent in 2009 and 2010 (see Figure 16). The unemployment rate decreased over the next six years, to a level of 4.5 percent in 2016.

Figure 15

ACTUAL AND PROJECTED REGIONAL AND COUNTY EMPLOYMENT LEVELS: 1970-2050

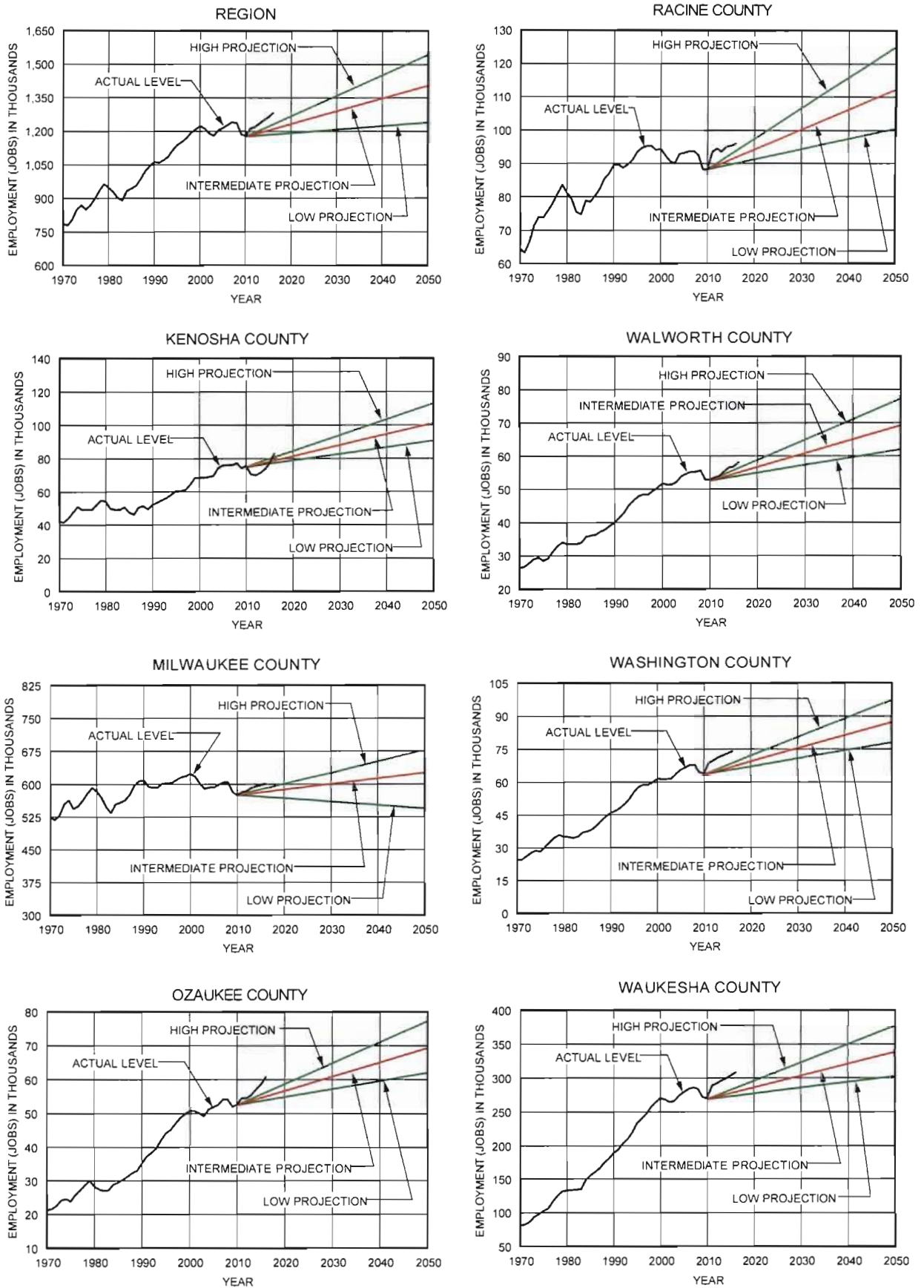


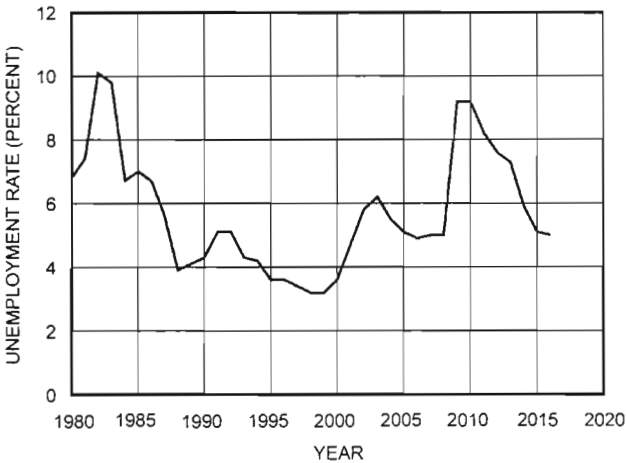
Table 9

ACTUAL AND PROJECTED EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2016

County	2016 Employment (Jobs)	Projected 2016 Employment (Jobs)		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	82,800	80,600	78,900	77,300
Milwaukee.....	601,200	590,800	583,200	570,800
Ozaukee	60,800	56,200	55,000	53,900
Racine	96,000	93,800	91,900	90,100
Walworth.....	58,100	56,400	55,200	54,100
Washington.....	74,100	68,900	67,400	66,000
Waukesha.....	308,200	285,100	279,300	274,000
Region	1,281,200	1,231,800	1,210,900	1,186,200

Figure 16

UNEMPLOYMENT RATE IN THE REGION: 1980-2016



Regional Land Use and Transportation System Plans for Southeastern Wisconsin.

Residential Subdivision Platting

New Residential Lots

Between 1990 and 2005, the number of new residential lots annually created through residential subdivision plats in the Region ranged from about 2,800 to 5,500 lots. Platting activity was significantly lower during the economic downturn of the late 2000s and has remained low since. In the Region, 843 residential lots were created by sub-division plats in 2016, the highest annual level since 2008 (see Figure 17). About 60 percent of the new lots were created in Waukesha County. The location of the residential lots created in 2016 is shown on Map 27.

All but 146 of the lots created in 2016 were intended to be served by centralized public sanitary sewer service (see Table 10).

Residential Housing Units

New Housing Construction

During the 1990s and early 2000s, the number of new housing units provided on an annual basis in the Region fluctuated between about 8,300 and 10,900 (see Figure 18). Housing construction decreased substantially—to less than 3,000 units per year—during the economic downturn of the late 2000s, but has been increasing in recent years.

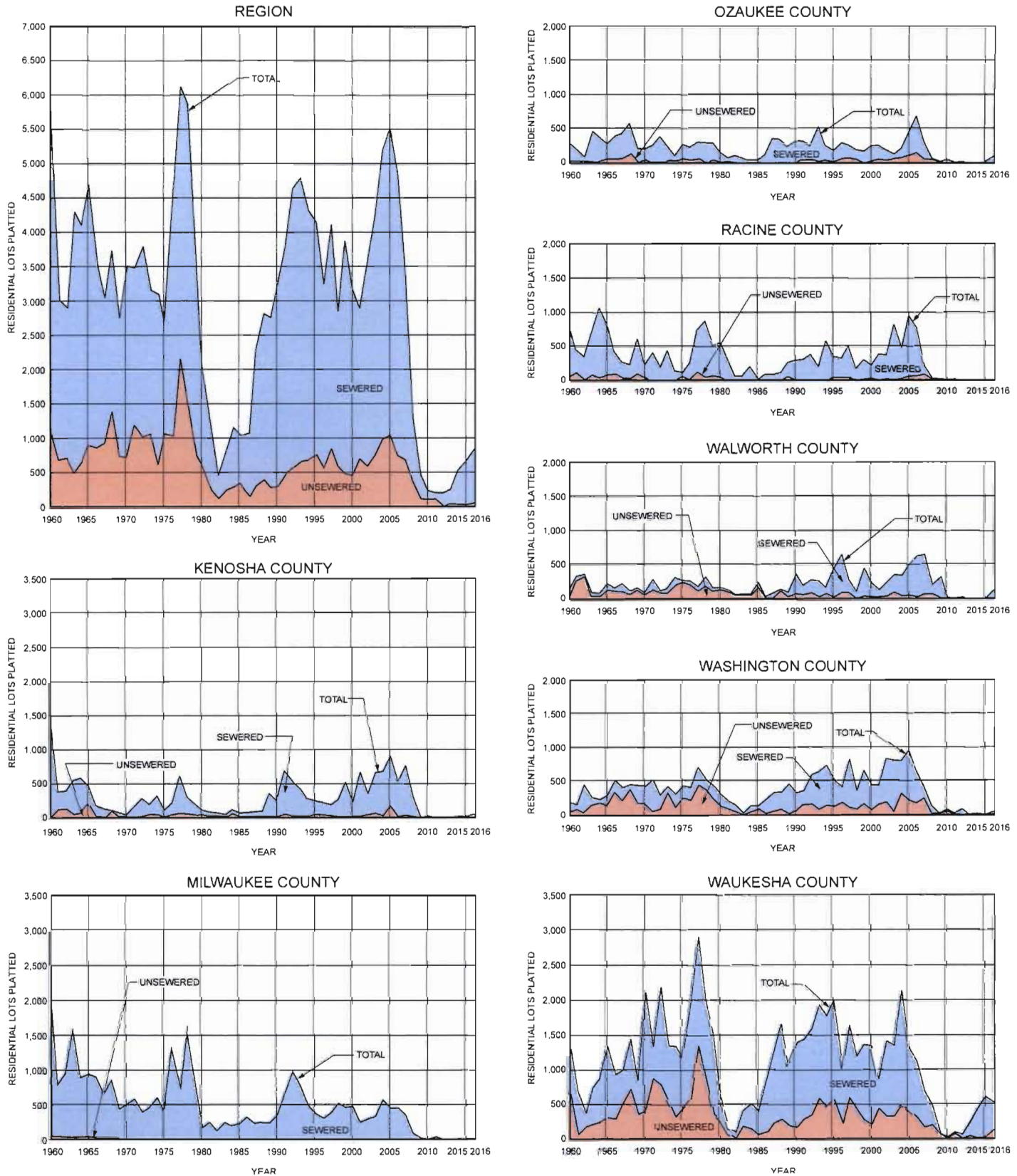
About 6,300 new housing units were added in 2016, including about 2,190 single-family units, 180 units

LAND DEVELOPMENT ACTIVITY

Each year, the Commission gathers and analyzes information on residential subdivision activity in the Region. The Commission also monitors annual changes in the Region’s housing stock, relying upon data prepared by the Wisconsin Department of Administration. In addition, once every 10 years the Commission updates the major regional inventories of land use, environmental corridors, and areas served by centralized sewer and water supply services. During 2013, the Commission completed updates of those inventories from 2000 to 2010, with a summary of the findings presented below. More detailed information relative to these inventories is set forth in SEWRPC Planning Report No. 55, *VISION 2050: A*

Figure 17

RESIDENTIAL LOTS PLATTED IN THE REGION AND ITS COUNTIES: 1960-2016



Map 27

**RESIDENTIAL PLATTING ACTIVITY
IN THE REGION: 2016**

- 10 SEWERED LOTS
- 10 UNSEWERED LOTS
- 10 UNSEWERED LOTS -
OVERALL DENSITY OF
NO MORE THAN ONE
DWELLING UNIT PER
FIVE ACRES

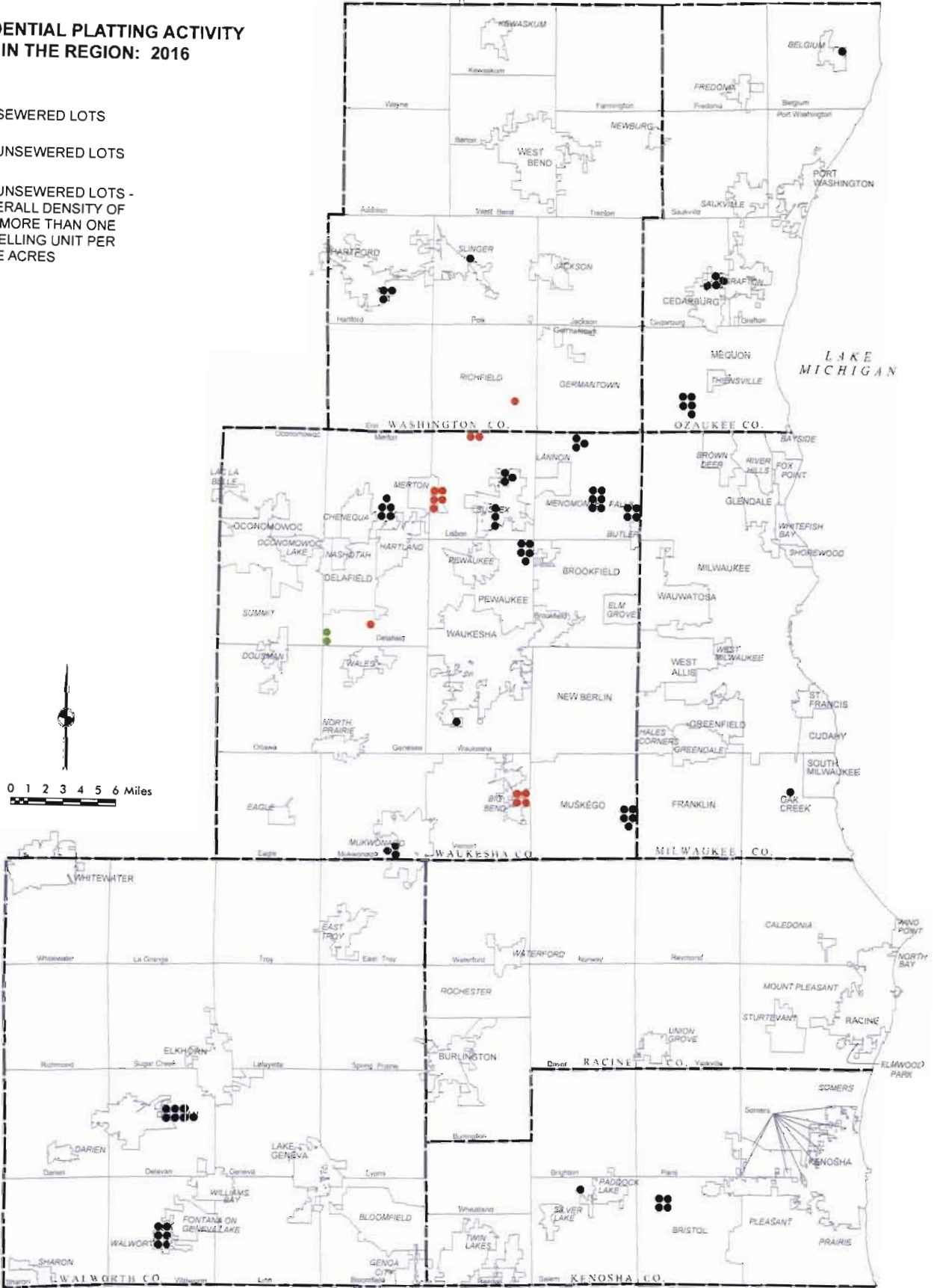


Figure 18

NEW HOUSING UNITS IN THE REGION AND ITS COUNTIES: 1990-2016

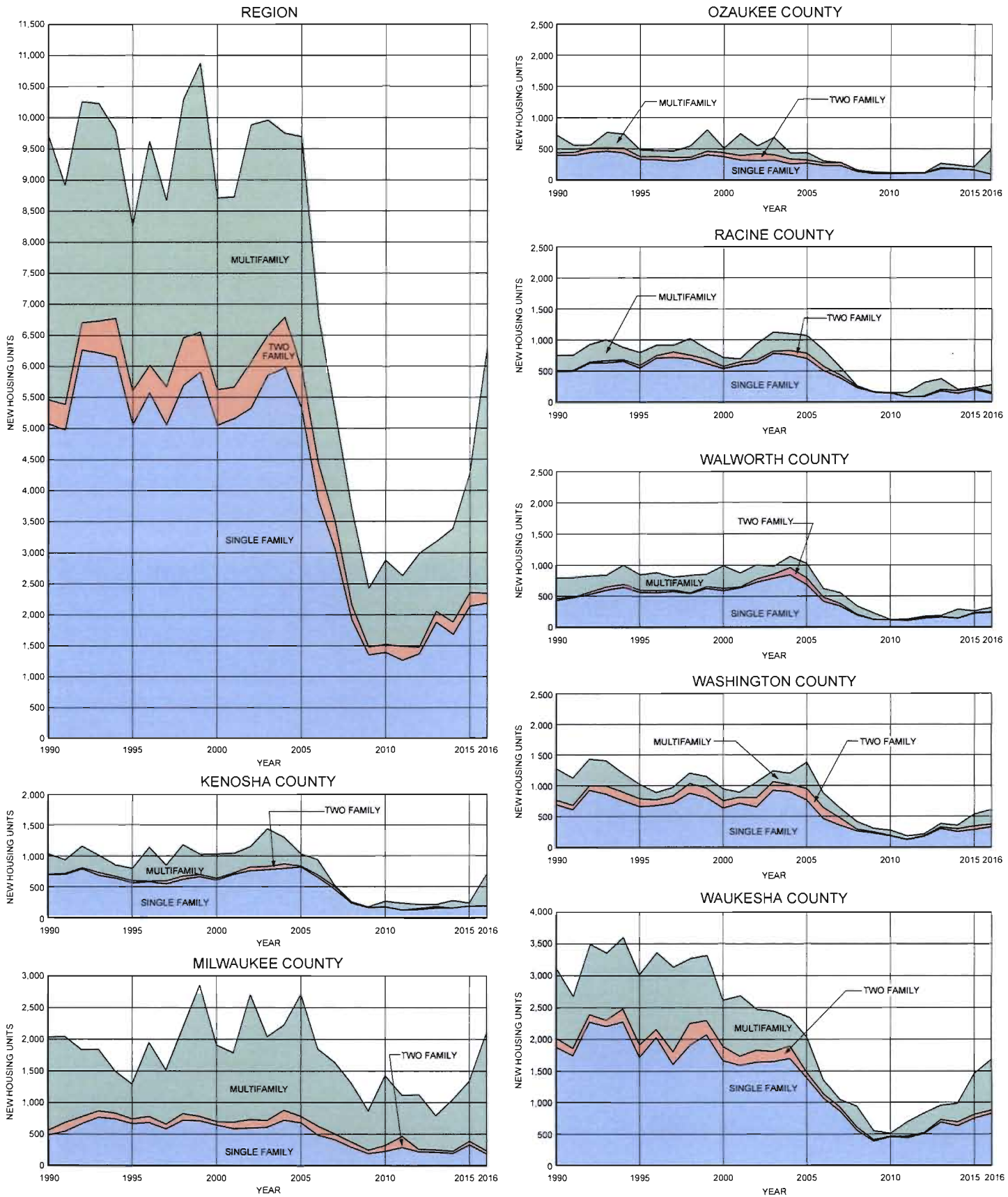


Table 10

**RESIDENTIAL SUBDIVISION
PLATTING ACTIVITY IN THE REGION: 2016**

County	Sewered Lots		Unsewered Lots		Total Lots	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Region
Kenosha.....	53	100.0	0	0.0	53	6.3
Milwaukee.....	9	100.0	0	0.0	9	1.1
Ozaukee.....	99	100.0	0	0.0	99	11.8
Racine.....	0	0.0	0	0.0	0	0.0
Walworth.....	131	100.0	0	0.0	131	15.5
Washington.....	33	73.3	12	26.7	45	5.3
Waukesha.....	372	73.5	134	26.5	506	60.0
Region	697	82.7	146	17.3	843	100.0

NOTE: This table indicates the number of lots created by residential subdivision plats in 2016.

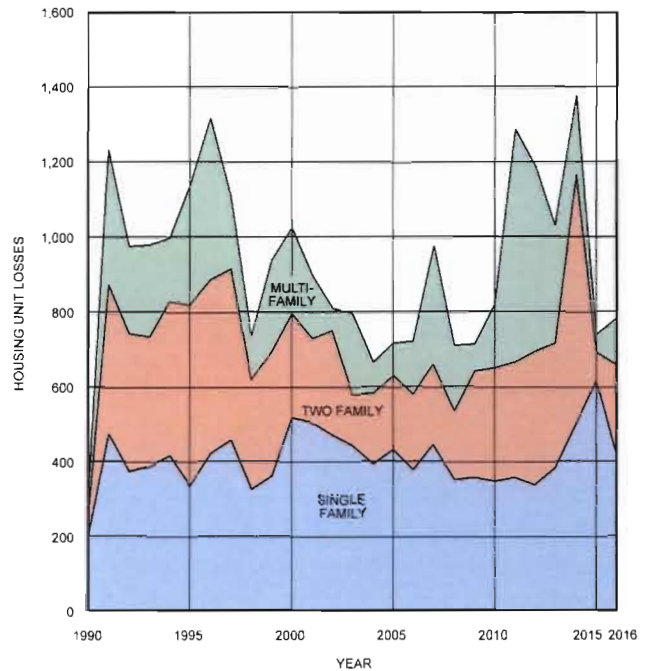
in two-unit structures, and 3,930 units in multi-family structures (see Table 11).

Net Change in Housing Units

A number of housing units are lost each year due to demolition, destruction by fire or flooding, or conversion to nonresidential use. Since 1990, the annual loss ranged between about 400 and 1,300 housing units (see Figure 19). A total of about 780 housing

Figure 19

**HOUSING UNIT LOSSES IN THE REGION
BY STRUCTURE TYPE: 1990-2016**



NOTE: Reported housing unit losses are due to demolition; destruction from fire, flood, or other event; or conversion to nonresidential uses.

units were lost in 2016, including 420 single-family units, 240 units in two-unit structures, and 120 units in multi-family structures. The net change in housing units in 2016 was a gain of about 5,520 (see Table 11).

Table 11

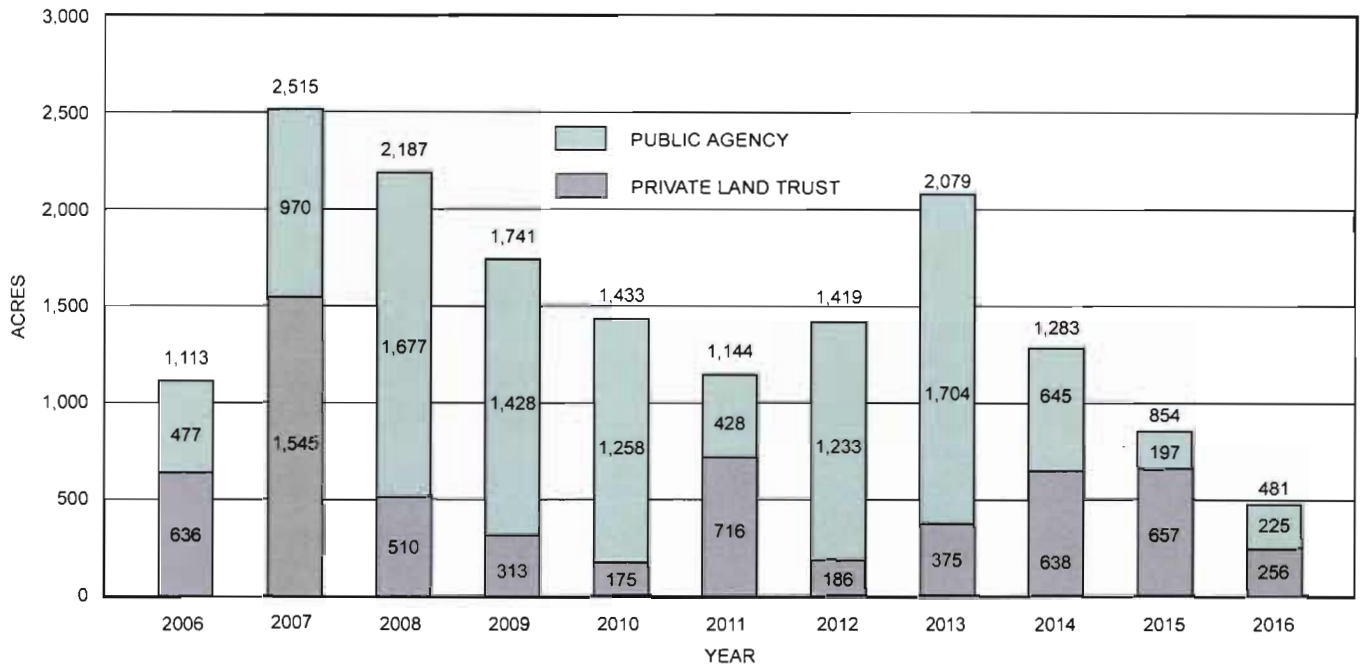
CHANGE IN HOUSING UNITS BY STRUCTURE TYPE IN THE REGION: 2016

County	New Housing Units				Housing Unit Losses				Net Change in Housing Units			
	Single Family	Two Family	Multi-Family	Total	Single Family	Two Family	Multi-Family	Total	Single Family	Two Family	Multi-Family	Total
Kenosha.....	193	0	513	706	31	2	4	37	162	-2	509	669
Milwaukee.....	182	50	1,890	2,122	220	232	116	568	-38	-182	1,774	1,554
Ozaukee.....	196	10	283	489	4	0	0	4	192	10	283	485
Racine.....	230	18	120	368	21	4	4	29	209	14	116	339
Walworth.....	232	14	70	316	46	2	0	48	186	12	70	268
Washington.....	328	40	244	612	21	2	0	23	307	38	244	589
Waukesha.....	824	52	811	1,687	72	0	0	72	752	52	811	1,615
Region	2,185	184	3,931	6,300	415	242	124	781	1,770	-58	3,807	5,519

NOTE: The Wisconsin Department of Administration conducts an annual survey of every municipality to collect data on the current housing stock. Respondents generally use building permits and demolition permits to report changes in housing units, which are reported by structure type: single family (including mobile homes), two family, and multi-family buildings.

Figure 20

PUBLIC INTEREST ACQUISITION OF ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS IN THE REGION: 2006-2016



Note: The indicated acreage represents the additional area protected through public interest acquisition or conservation easements for the year indicated. This acreage represents the total area of the parcels concerned, including the area within the environmental corridors, along with any agricultural or other open lands that are located outside the environmental corridors and may be expected to become part of the corridors as they revert to more natural conditions in the years ahead.

NATURAL RESOURCE BASE PRESERVATION ACTIVITY

The Commission has monitored efforts by governmental agencies and private land trusts to ensure the long-term protection of open space lands through public interest ownership, including conservation easements, since 2006. This monitoring focuses on lands associated with Commission-identified environmental corridors and Commission-identified natural areas and critical species habitat sites. These publicly and privately sponsored efforts help implement regional plan recommendations regarding the permanent preservation of environmental corridors, natural areas, and critical species habitat sites.

Figure 20 indicates the acreage of open space associated with environmental corridors and isolated natural resource areas in the Region protected through public interest acquisition or conservation easements since 2006. This acreage represents the total area of

the parcels concerned—including the area within the environmental corridors—along with any agricultural or other open lands located outside the environmental corridors that may be expected to become part of the corridors as they revert to more natural conditions in the years ahead. Summaries of recent open space protection efforts follow.

Total Area Protected





During 2016, 481 acres of open space associated with environmental corridors and isolated natural resource areas were protected through public interest acquisition or conservation easements (see location of sites on Map 28). This compares to an annual average of 1,223 acres of open space so protected over the five-year period 2012-2016.

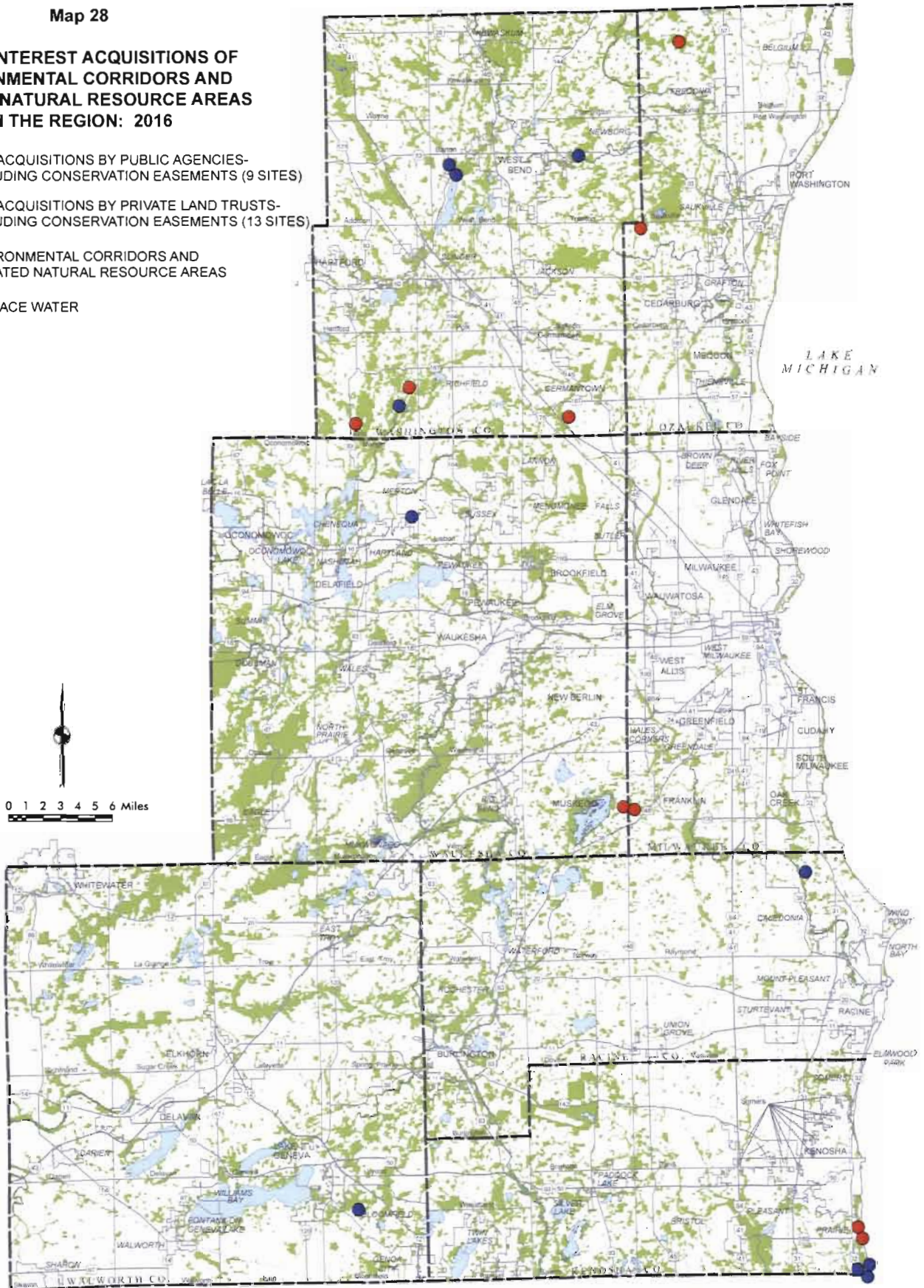
Area Protected by Public Agencies

Public agency efforts resulted in the protection of 225 acres during 2016, and an annual average of 801 acres over the five-year period 2012-2016.

Map 28

PUBLIC INTEREST ACQUISITIONS OF ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS IN THE REGION: 2016

-  2016 ACQUISITIONS BY PUBLIC AGENCIES-INCLUDING CONSERVATION EASEMENTS (9 SITES)
-  2016 ACQUISITIONS BY PRIVATE LAND TRUSTS-INCLUDING CONSERVATION EASEMENTS (13 SITES)
-  ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS
-  SURFACE WATER



Area Protected by Private Land Trusts

Private land trust efforts resulted in the protection of 256 acres in 2016, and an annual average of 422 acres over the past five-year period 2012-2016. Open space acquisition by private land trusts is often supported by matching State or Federal grants.

Natural Areas Protected

The lands protected in the public interest as described above during 2016 included 115 acres distributed among eight natural areas as identified in the SEWRPC natural areas and critical species habitat management plan. Specifically, the Wisconsin Department of Natural Resources acquired 0.4 acres in the Barnes Creek Dunes and Panné in Kenosha County. The Milwaukee Metropolitan Sewerage District acquired 15.2 acres of the Huiras Lake Woods Bog and 62.8 acres of the Cedar-Sauk Low Woods, both in Ozaukee County, as part of their Green Seams program. Finally, several land trust and conservancy organizations, local units of government, and one private entity acquired a total of nearly 37 acres among sites that included: Gilbert Lake Wetlands and Uplands in Washington County; Pell Lake Railroad Prairie in Walworth County; Little Oconomowoc River Woods and Wetlands and USH 41 Swamp sites in Washington County; and, the Chiwaukee Prairie State Natural Area in Kenosha County..

REGIONAL TRANSPORTATION SYSTEM PERFORMANCE

Each year the Commission gathers and analyzes available information relative to the performance of the regional transportation system. During 2016 that performance monitoring focused on vehicle availability, public transit operations, park-ride facilities and transit stations, pavement and bridge conditions, traffic congestion and travel times, crashes, aviation activity, and freight rail lines. Monitoring data on these topics usually comes from secondary sources. On occasion, however, the Commission is the source of the data, including travel origin-destination surveys directly conducted by the Commission at 10-year intervals, provided that fiscal resources are made available. Those surveys were undertaken in 2011-2012; the results are documented in Volume I, Chapter 5, “Travel Habits and Patterns,” SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin*.

Vehicle Availability¹

Personal-Use Vehicles

The number of personal-use vehicles—automobiles, trucks, and vans used by residents of the Region for personal transportation—increased over the past year by under 1 percent to a level of about 1.36 million. While the average annual rate of growth in personal-use vehicle availability in the Region from 1963 to 2016 has been about 1.6 percent, that rate of growth has been decreasing and is expected to lessen further in the coming years under VISION 2050 (see Figure 21). The estimated 2016 level of personal-use vehicle availability was only slightly less—about 0.4 percent—than the availability level envisioned under VISION 2050.

Persons Per Personal-Use Vehicle

The number of persons per personal-use vehicle in the Region was estimated at 1.49 in 2016, a slight decrease from 2015 (see Figure 21). This ratio has been relatively stable for over a decade and the SEWRPC forecast expects continued long-term stability as well.

Commercial and Municipal Trucks

The number of commercial and municipal trucks available in the Region during 2016 was estimated at about 128,930, which is 1,940 more than the 2015 estimate. Light commercial trucks account for about 54 percent of all commercial trucks. The number of commercial and municipal trucks available in the Region remains at a level slightly above the forecast level under VISION 2050 (see Figure 22).

¹ *The classifications used to estimate vehicle availability in this Annual Report differ from those used in Commission Annual Reports for years prior to 1994. In this report, motor vehicles are divided into “personal-use vehicles” and “commercial trucks.” Personal-use vehicles include automobiles, vans, and light trucks available for personal use. Commercial trucks include municipal trucks and light and heavy trucks available for commercial use. In Annual Reports for years prior to 1994, vans and light trucks available for personal use were classified with light trucks available for commercial use.*

Figure 21
PERSONAL-USE VEHICLE AVAILABILITY

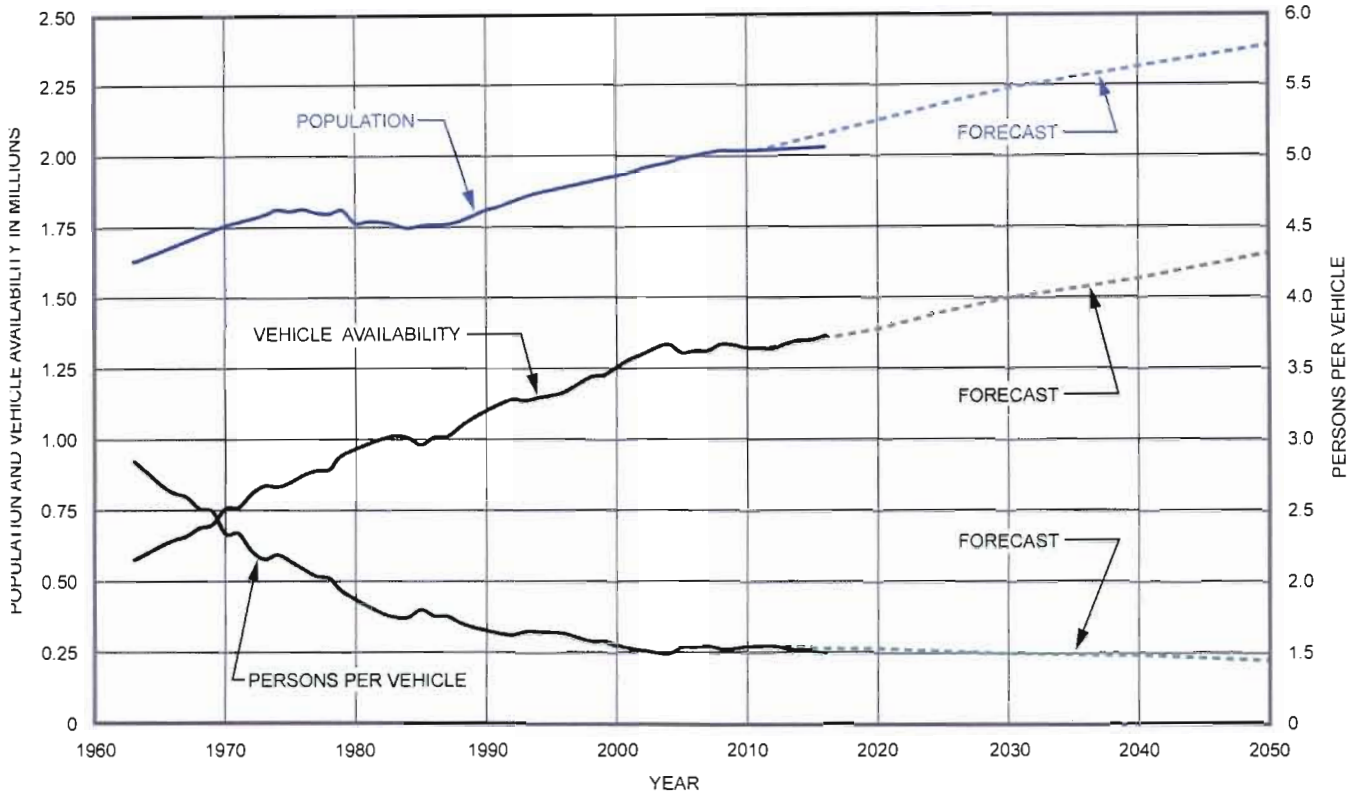
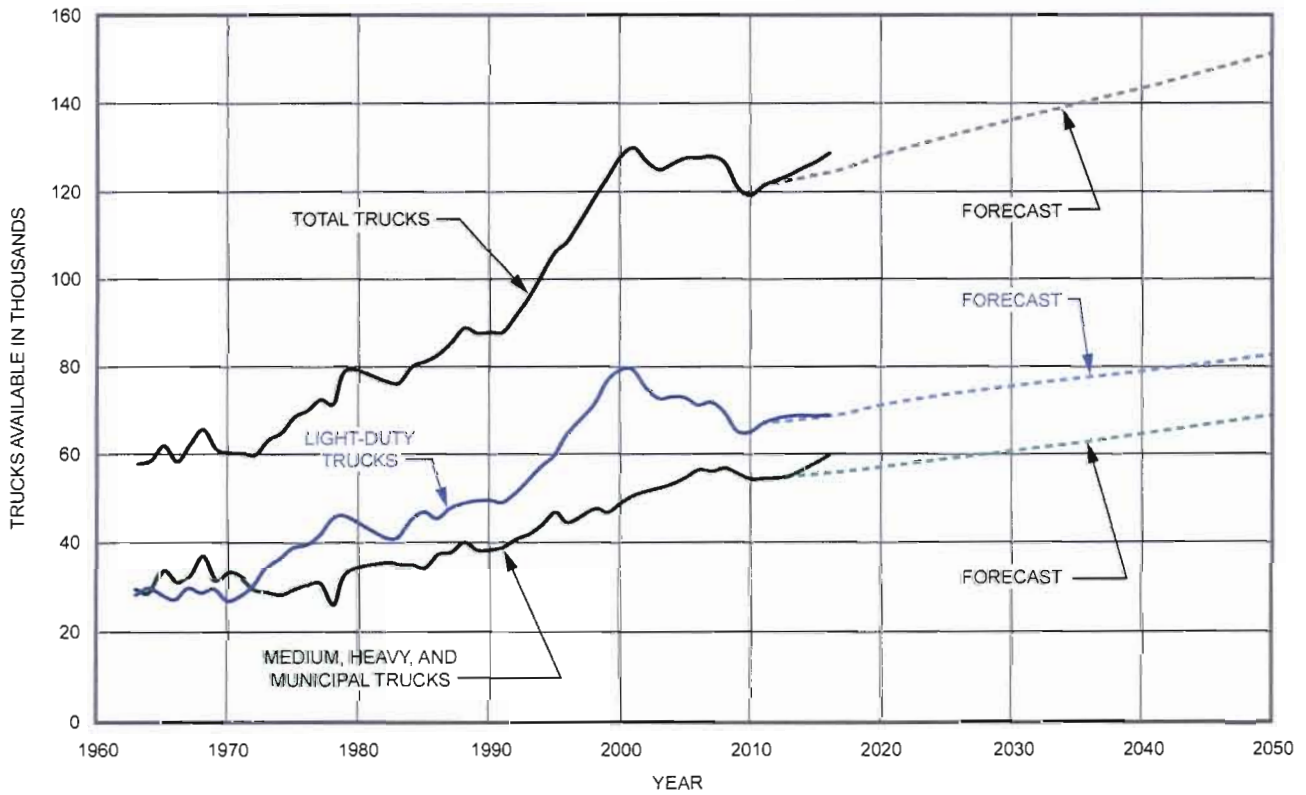


Figure 22
COMMERCIAL TRUCK AVAILABILITY



Public Transit Operations

Transit Systems and Service Areas

- The Southeastern Wisconsin Region was served by the following public transit systems during 2016 (see Map 29):
- Fixed-route intracounty bus service sponsored by Kenosha, Milwaukee, and Waukesha Counties and by the Cities of Kenosha, Racine, and Waukesha.
- Fixed-route intercounty bus service sponsored by the City of Racine for travel between Kenosha, Racine, and Milwaukee; and by Ozaukee, Washington, and Waukesha Counties for travel between those counties and Milwaukee County.
- Shared-ride taxi service sponsored by Ozaukee and Washington Counties and by the Cities of Hartford, West Bend, and Whitewater.
- Paratransit service for people with disabilities who are unable to use fixed-route bus services sponsored by Kenosha, Milwaukee, and Waukesha Counties and by the Cities of Kenosha, Racine, and Waukesha.
- Commuter rail service from Kenosha to the Chicago Loop sponsored by Metra, the commuter rail agency serving northeastern Illinois. Amtrak Hiawatha intercity rail service between Milwaukee and Chicago, sponsored by the States of Illinois and Wisconsin, and providing both connections to the national intercity Amtrak rail network and commuter service between Milwaukee; General Mitchell International Airport; Sturtevant; Glenview, Illinois; and the Chicago Loop.

Notable Changes to Services

- Due to low ridership, the Waukesha County Commuter Bus decreased its services hours for Route 79 by 10 percent to make the route more efficient.
- The Ozaukee County Taxi extended its hours of operation in 2016 from 5:00 a.m. until 10:00 p.m. instead of 6:00 a.m. until 9:00 p.m. on weekdays, and extending its hours on Saturdays until 10:00 p.m. instead of 8:30 p.m.

Fixed-Route Bus Ridership

The total reported ridership on fixed-route public bus services declined from about 38.2 million boarding passengers in 2015 to 37.9 million boarding passen-

gers in 2016, a decrease of less than one percent (see Figure 23 for individual system data).

Shared-Ride Taxi Ridership

The total reported ridership on shared-ride public taxi services decreased from about 356,400 in 2015 to about 354,300 in 2016, a decrease of less than one percent (see Figure 23 for individual system data).

Paratransit Vehicle Ridership

Paratransit vehicles serve people with disabilities unable to use fixed-route bus services. During 2016, about 601,000 one-way trips were made on paratransit services in the Region, an increase of about 2 percent from the 590,700 one-way trips made during 2015 (see Table 12 for individual system data). The number of one-way trips declined over the past few years, which may have been attributed to educational efforts made by Milwaukee County to encourage people with disabilities to reduce their out-of-pocket costs by using the fixed-route bus system, rather than Transit Plus, the Milwaukee County paratransit system, and to human service agencies using alternate transportation services.

Metra Ridership

Metra operates nine trains on weekdays, five trains on Saturdays, and three trains on Sundays and holidays from the Kenosha station to the Chicago Loop. The base one-way fare is \$9.50. For regular riders who use the service 20 days per month, a \$266.25 monthly pass reduces the fare to \$6.66 per trip.









Amtrak Ridership

Amtrak Hiawatha trains provide seven daily round trips on weekdays and Saturdays and six daily round trips on Sundays between Milwaukee and Chicago, with intermediate stops at Milwaukee General Mitchell International Airport; Sturtevant, WI; and Glenview, IL. In November 2016, the fare structure for Amtrak Hiawatha increased for its four busiest trains—two trains departing Milwaukee in the morning and two trains departing Chicago in the afternoon—to \$27 for a one-way ticket. The base one-way fare for all other trains remained \$25. The 10 ride pass increased to \$192 and the monthly pass increased to \$416. For regular riders who use the service 20 days per month, the monthly pass reduces the fare to \$10.40 per trip. Over the 10-year period 2007-2016, annual ridership increased by about 32 percent to a level of

Map 29

**PUBLIC TRANSIT SERVICES
IN THE REGION: 2016**

FIXED-ROUTE TRANSIT SERVICES

-  INTERCITY RAIL
-  RAPID BUS TRANSIT ROUTE
-  COMMUTER RAIL
-  EXPRESS BUS TRANSIT ROUTE
-  FLEXIBLE TRANSIT ROUTE
-  ONE-QUARTER MILE WALK ACCESS SERVICE AREA FOR LOCAL TRANSIT ROUTES
-  MUNICIPAL SHARED-RIDE TAXI (PRIMARY SERVICE AREA)
-  COUNTY SHARED-RIDE TAXI

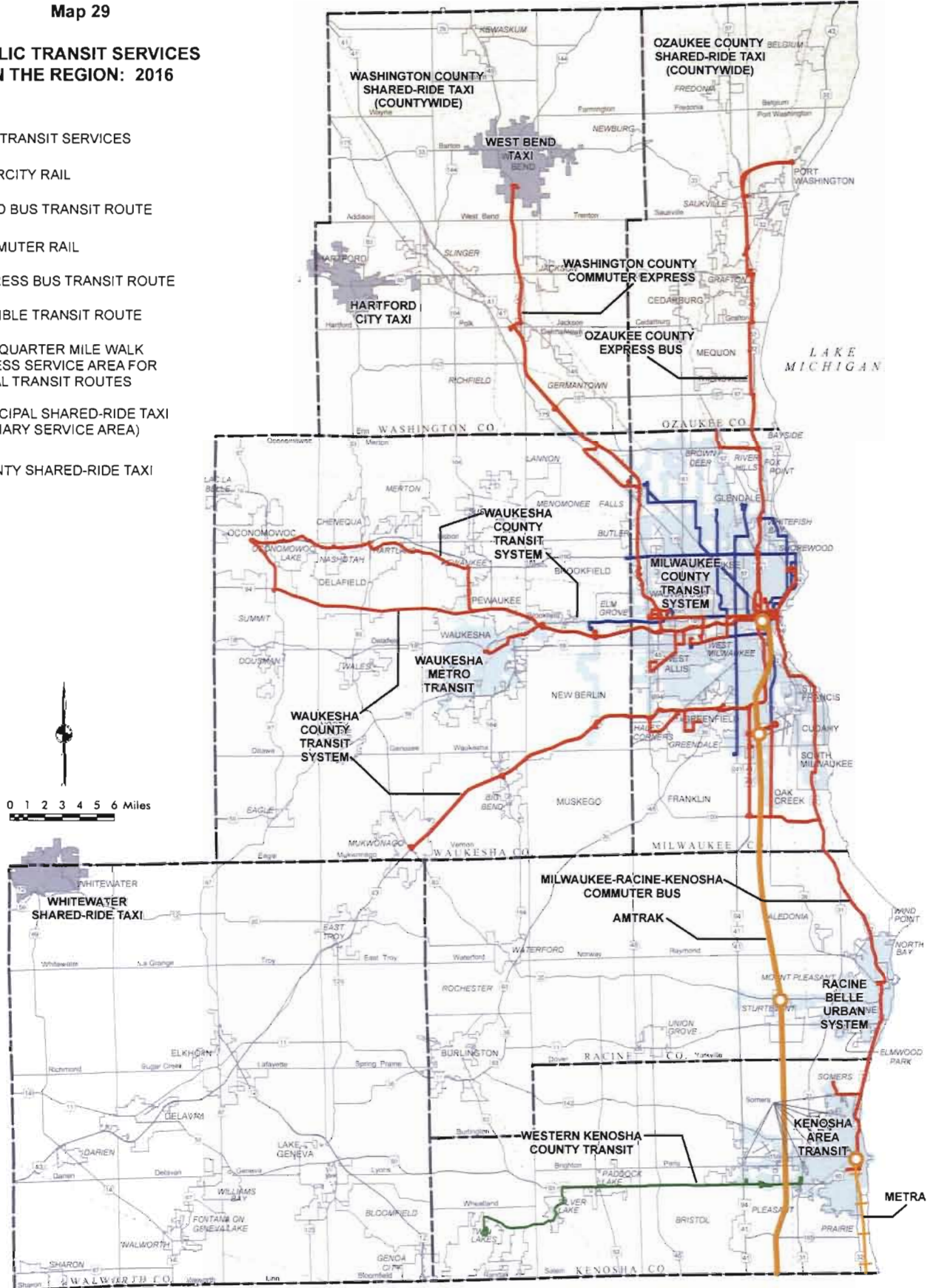
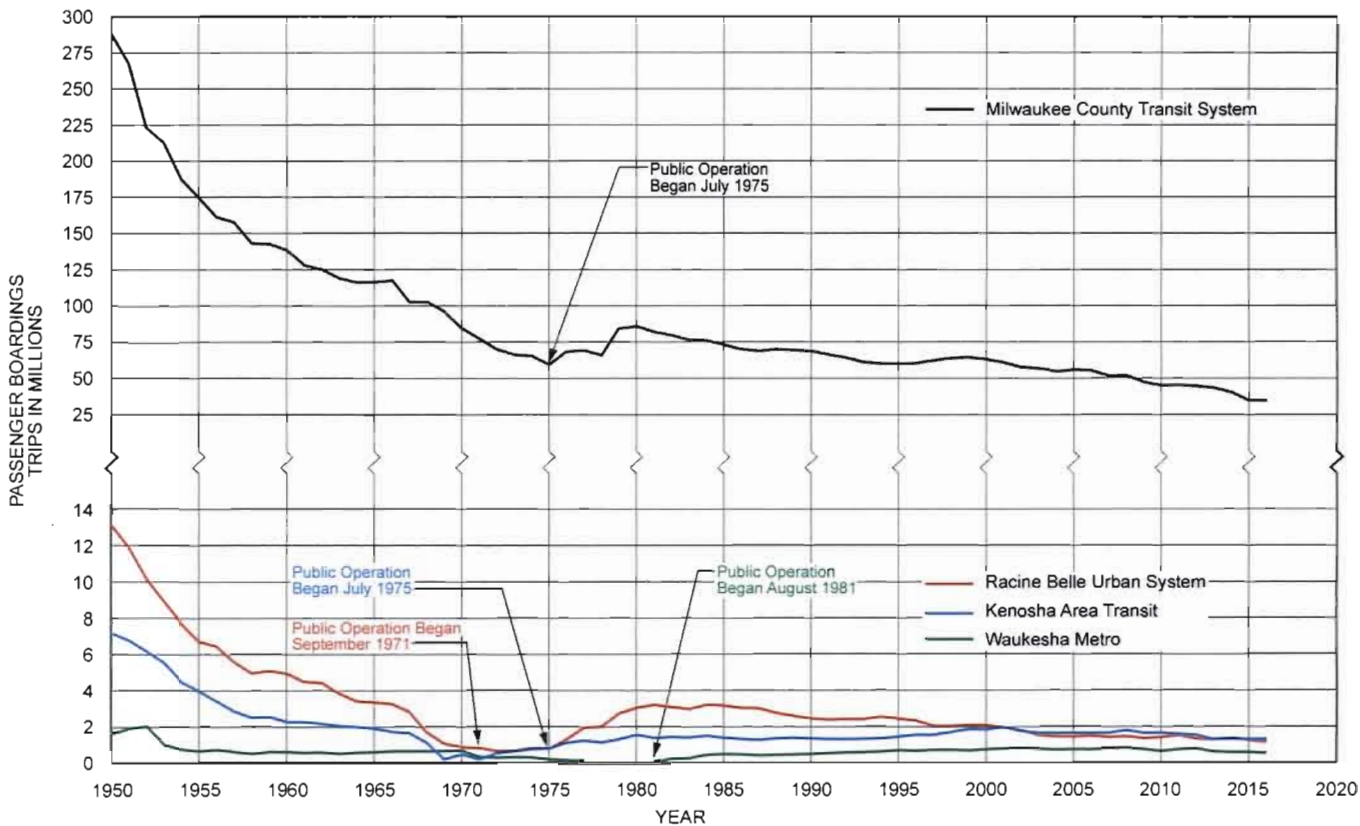


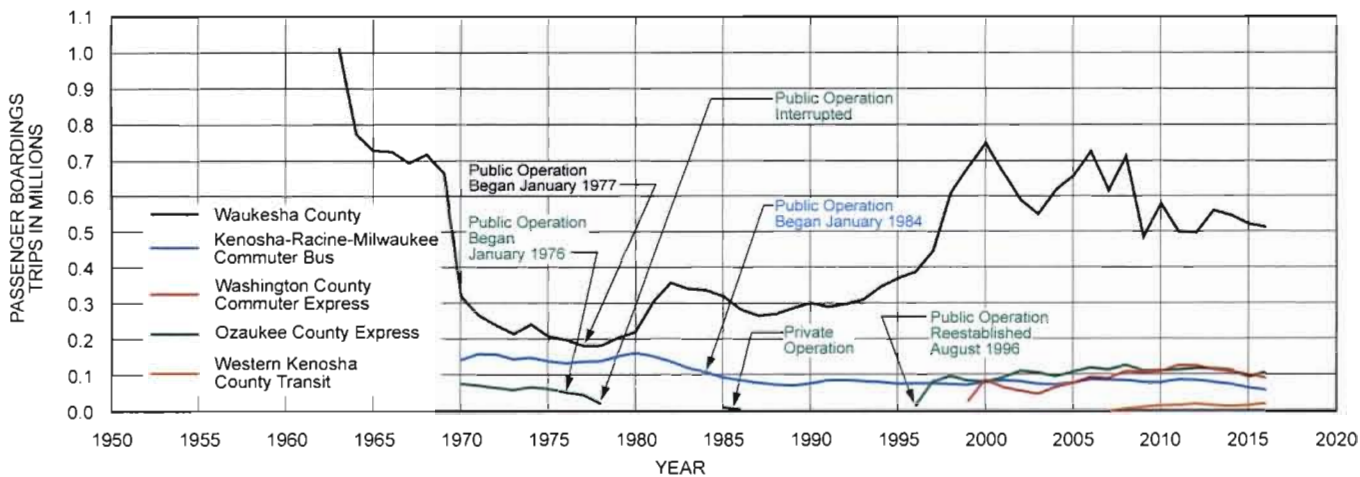
Figure 23

HISTORIC TRANSIT PASSENGER BOARDINGS IN SOUTHEASTERN WISCONSIN

INTRACOUNTY BUS SYSTEMS



INTERCOUNTY BUS SYSTEMS



SHARED-RIDE TAXI SYSTEMS

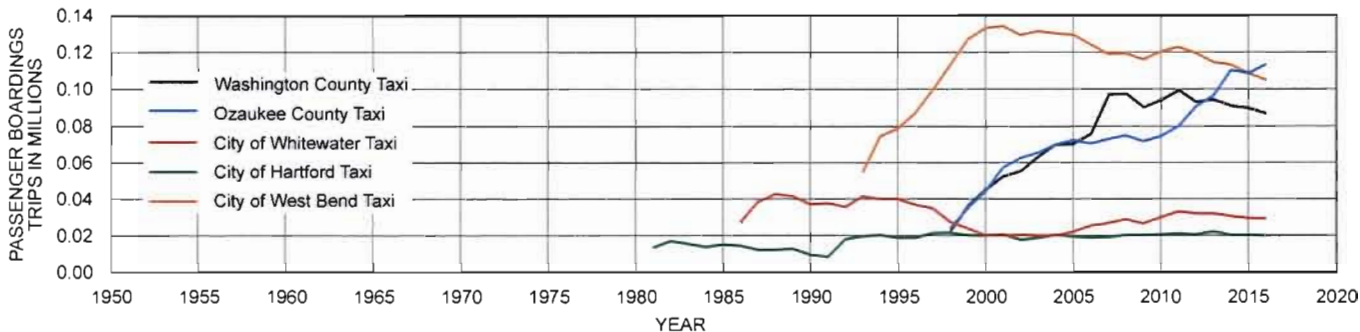


Table 12

REPORTED PARATRANSIT RIDERSHIP FOR FIXED-ROUTE TRANSIT SYSTEMS IN THE REGION

Transit Operator	Paratransit Trips				Percent Change 2015-2016
	1991	2001	2015	2016	
City of Kenosha	13,100	17,200	23,400	27,500	17.5
Milwaukee County	388,200	1,027,000	523,400	531,000	1.5
City of Racine	32,900	19,600	29,900	28,700	-4.0
City of Waukesha.....	11,000	13,000	10,900	10,600	-2.8
Waukesha County	1,200	11,200	3,100	3,200	3.2
Region Total	446,400	1,070,800	590,700	601,000	1.7

about 815,200 passengers. Starting in October 2013, Amtrak began using an eTicketing system that has resulted in the collection of more accurate ridership and revenue data. Ridership data from previous years had been overestimated due to the previous methodology of estimating the number of trips using multi-ride tickets. The State of Wisconsin provided about \$5.0 million to support Hiawatha operating services in the 2016 fiscal year.

Bus and Shared-Ride Taxi Vehicle Miles of Service

The number of vehicle-miles operated in revenue service by bus and taxi in the Region during 2016 totaled about 23.47 million, representing an increase of less than one percent from the 23.43 million vehicle-miles operated during 2015 (see Figure 24 for individual system data and Figure 25 for the historical trend).

Bus Vehicle Age and Reliability

The average age of buses operated by transit operators in the Region increased from 5.8 years in 2014 to 6.0 years in 2015. The number of service calls for those buses decreased about 1 percent, from 834 in 2014 to 826 in 2015. Over the same period, the average revenue vehicle-miles traveled between service calls increased from 23,312 in 2014 to 24,739 in 2015. A service call is defined as any repair made to a bus correcting a mechanical failure that either prevents the bus from completing a scheduled revenue trip or from starting its next scheduled revenue trip.

Transit Fares

Historical fares for the Region's transit operators are presented in Figure 26. Fares were stable between 2015 and 2016

Operating Assistance

Public transit operating assistance in the Region, exclusive of Metra and Amtrak services, totaled about

\$143.5 million in 2016, about an 8 percent increase from 2014 (see Table 13 for individual system data). Table 13 also provides the public subsidy per ride for each system.

Park-Ride Facilities and Transit Stations

Number and Location

Progress in providing the 99 park-ride lots and transit stations recommended in the regional transportation plan is summarized on Map 30. In 2016, there were 51 park-ride lots and transit stations in the Region. Of the 51 existing park-ride lots and transit stations in 2015, 38 were served by transit service and 13 were used exclusively by carpoolers. Seven of the 51 park-ride lots and transit stations were shared-use facilities that were not specifically constructed to serve as park-ride lots, such as parking lots at private retail businesses or municipal parking lots or ramps.

Capacity and Use

Table 14 provides data on both the number of parking spaces available and the number of parking spaces used on an average weekday in 2016. Park-ride lot utilization is also shown on Map 30. The total number of spaces available at park-ride lots in the Region was 7,335 in 2016, including 6,480 at park-ride lots served by transit and 855 at the lots not served by transit. Of the 6,480 spaces available at the 39 park-ride lots served by transit, 2,166 spaces were used on an average weekday during 2016—a utilization rate of about 33 percent. Of the 855 spaces available at the lots not served by transit, 221 spaces were utilized during 2016—a utilization rate of about 25 percent.

Pavement and Bridge Conditions

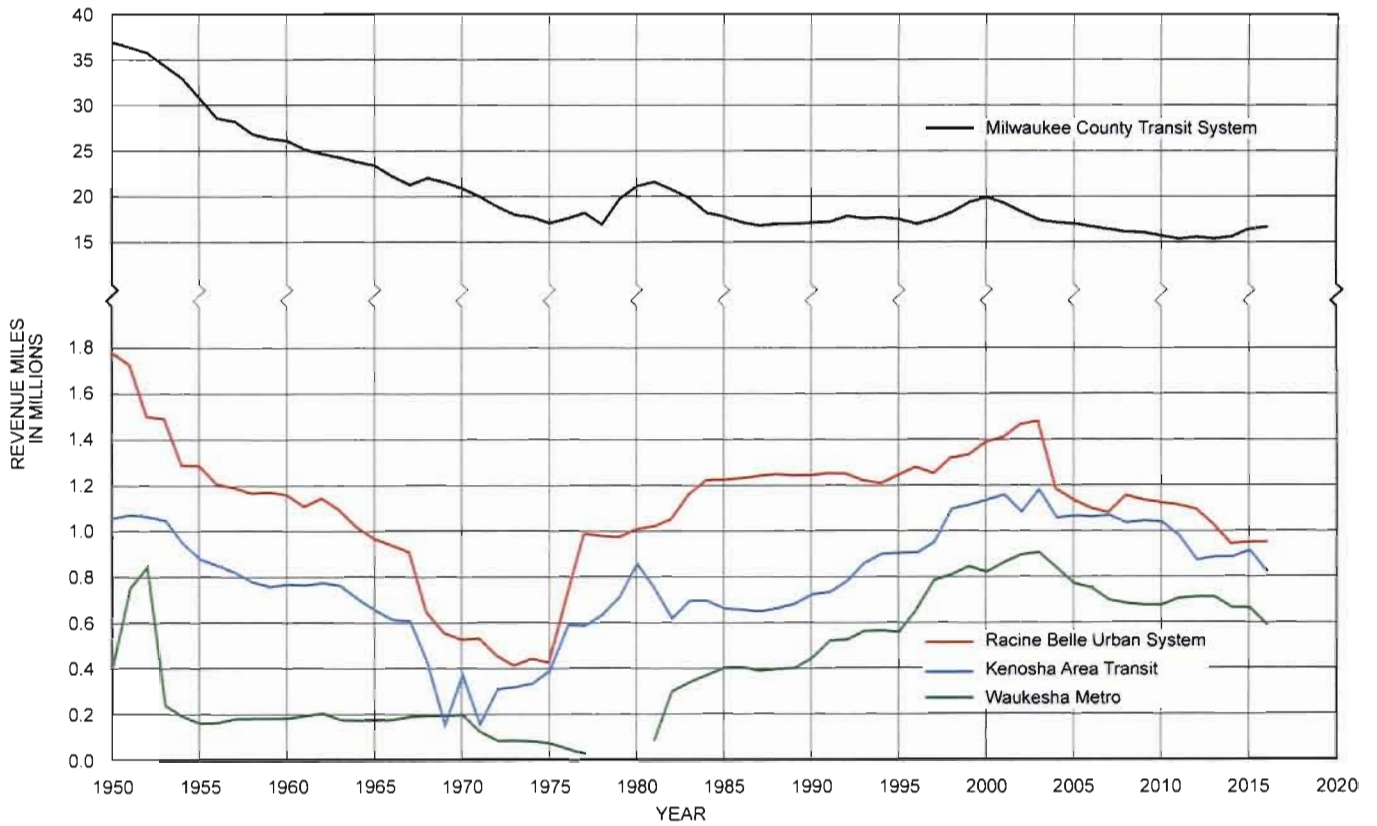
Pavement Condition

In Wisconsin, the condition of all roadways (arterials and nonarterials) in the Region are evaluated biennially by the level of government having jurisdiction of

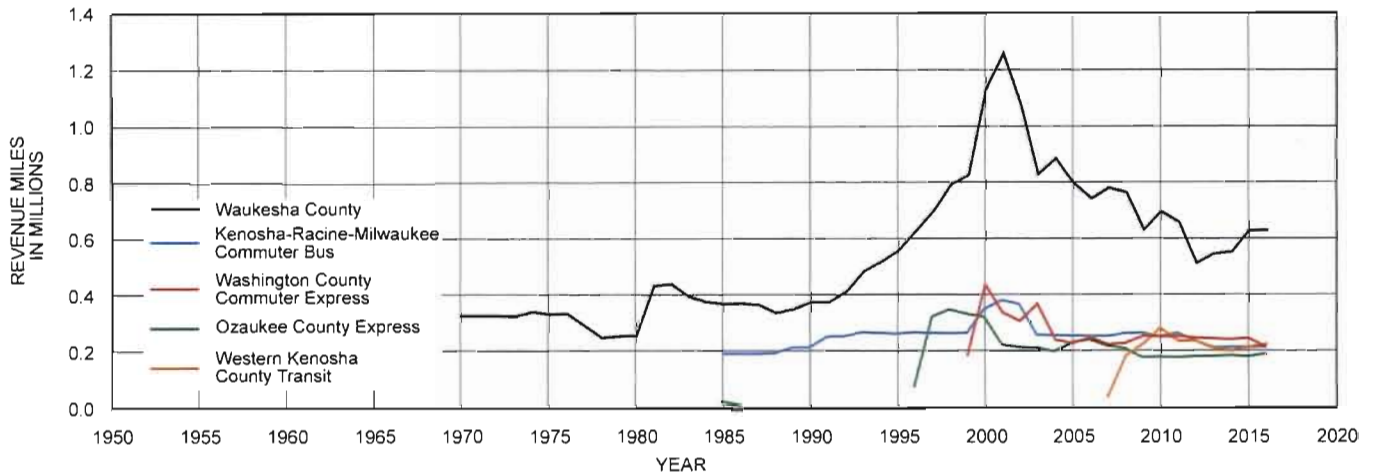
Figure 24

HISTORIC PUBLIC TRANSIT REVENUE MILES IN SOUTHEASTERN WISCONSIN

INTRACOUNTY BUS SYSTEMS



INTERCOUNTY BUS SYSTEMS



SHARED-RIDE TAXI SYSTEMS

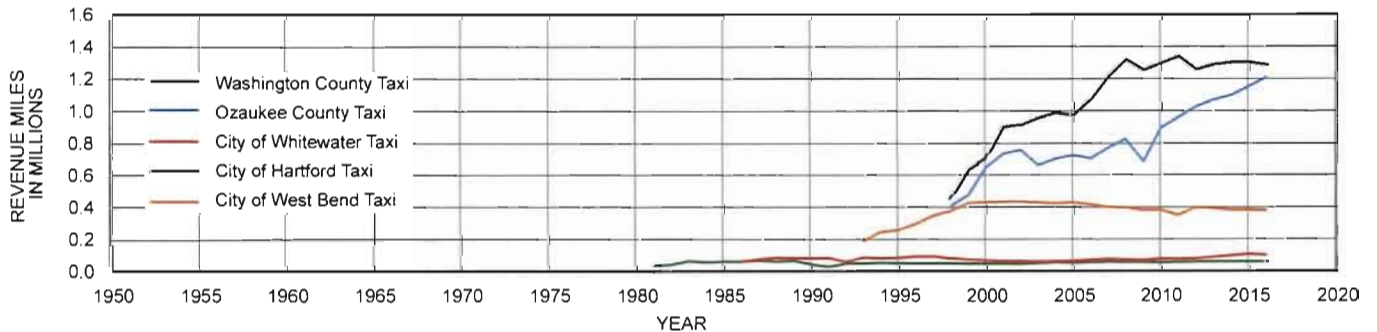
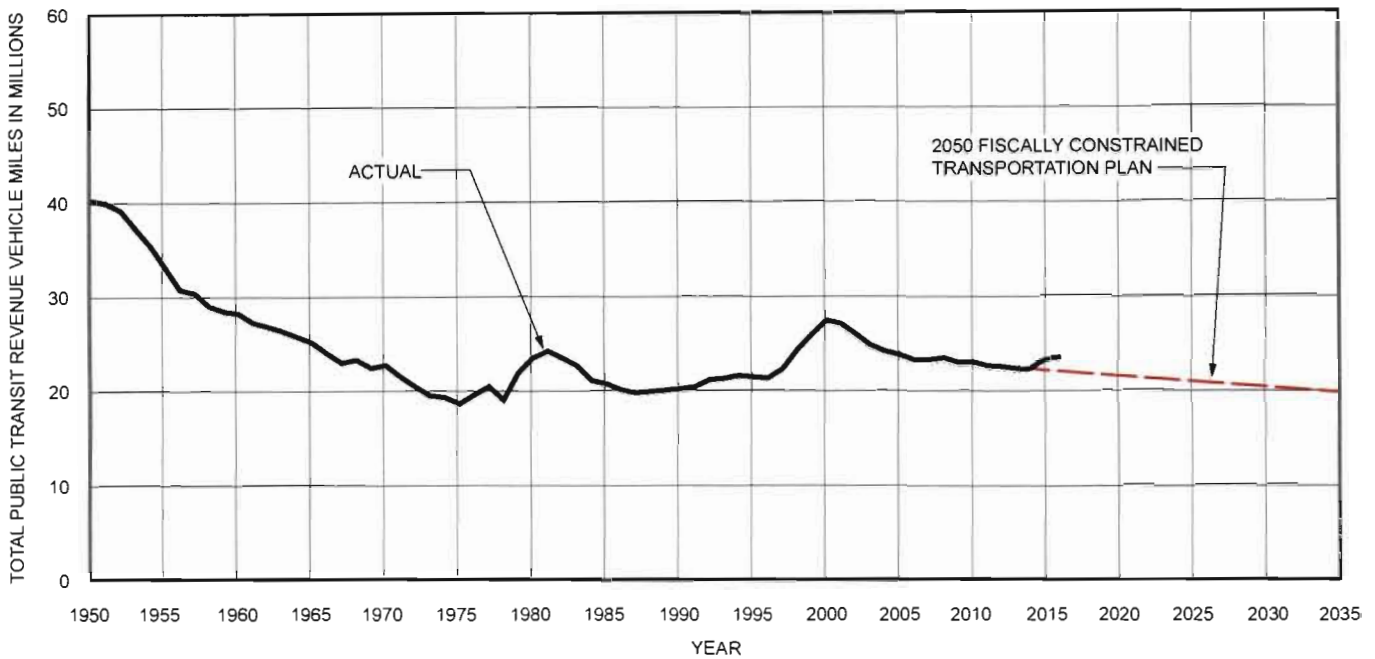


Figure 25

HISTORICAL TREND IN ANNUAL PUBLIC TRANSIT VEHICLE-MILES OF SERVICE IN THE REGION



the roadway (State for state trunk highways, counties for county trunk highways, and local governments for local trunk highways). In the Region, WisDOT assesses all of the state trunk highways (including interstate highways) based on many factors, including the International Roughness Index (IRI), which is estimated utilizing special equipment to physically measure pavement condition along the roadway. Counties and local governments generally use the Pavement Surface and Evaluation Rating (PASER) System to evaluate their roadways. PASER is a rating system that employs visual inspection techniques to assess the pavement condition. The results of these evaluations assist the State, counties, and local governments in determining the appropriate work needed to maintain their roadway systems and to prioritize the timing of that work.

Based on the IRI for state trunk highways and the PASER rating for county/local arterial streets and highways, the arterial streets and highways in the Region were grouped as having good, fair, or poor pavement conditions—good being a pavement that requires little or no maintenance; fair being a pavement that requires minor rehabilitation (sealcoating/nonstructural resurfacing), and poor being a pavement that requires major rehabilitation (structural resurfacing/pavement replacement) or reconstruction.

Map 31 shows the existing arterial streets and highways that have a pavement condition of good, fair, and poor for 2016. As shown in Table 15, State, county, and local governments have maintained these levels since 2013, with some improvement in reducing the mileage of poor pavements and increasing the mileage of fair pavements.

Bridge Structures

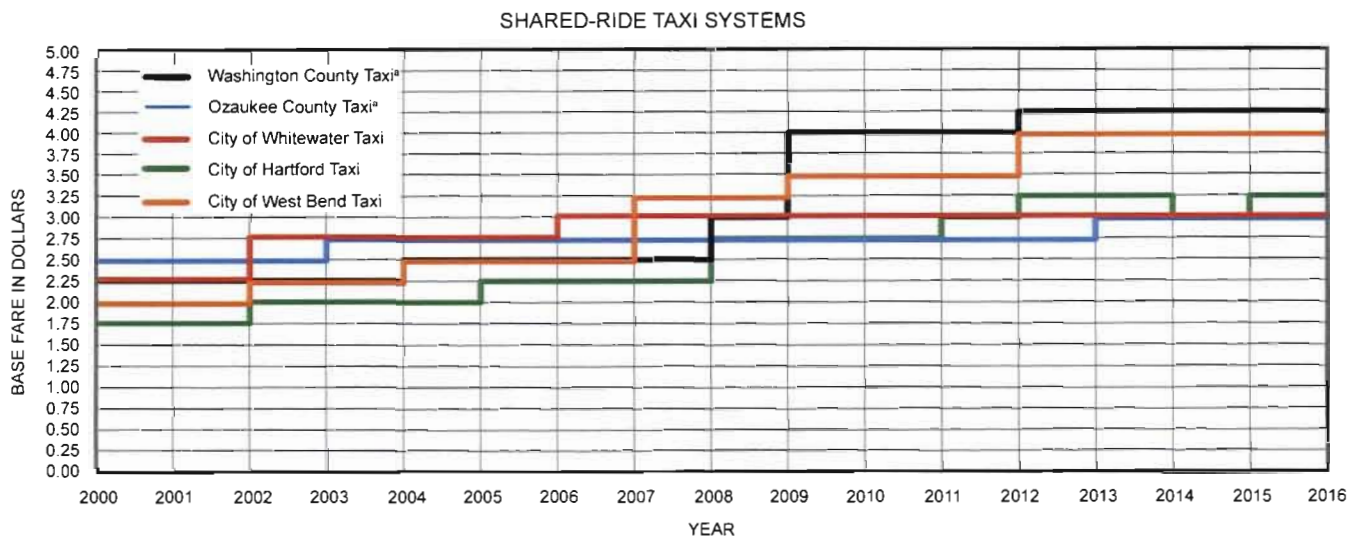
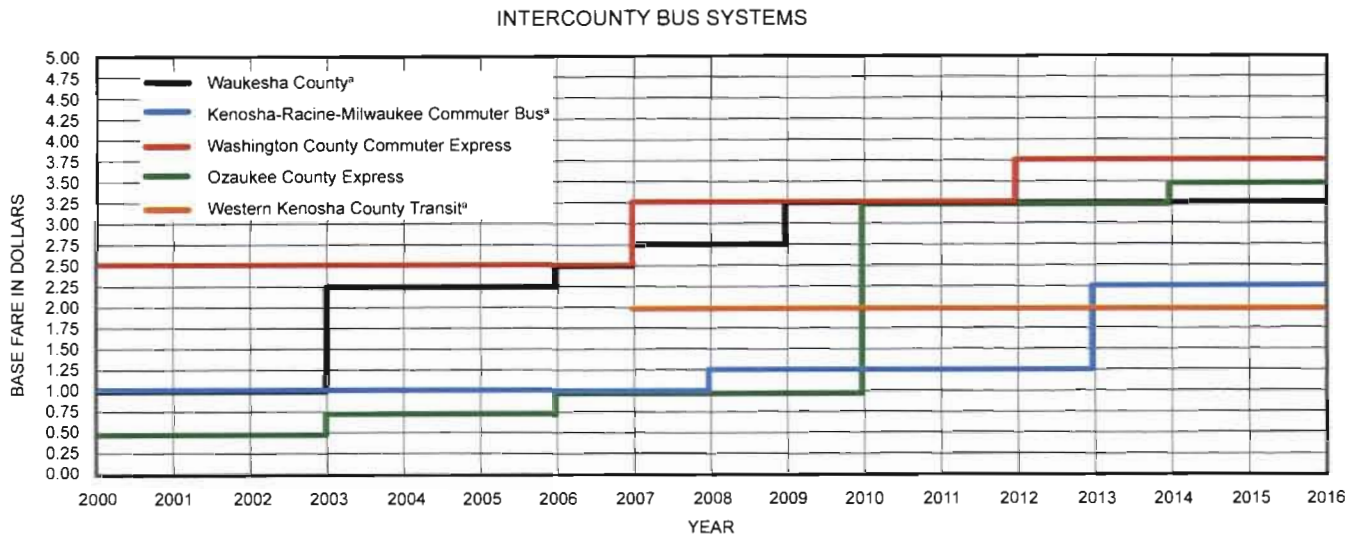
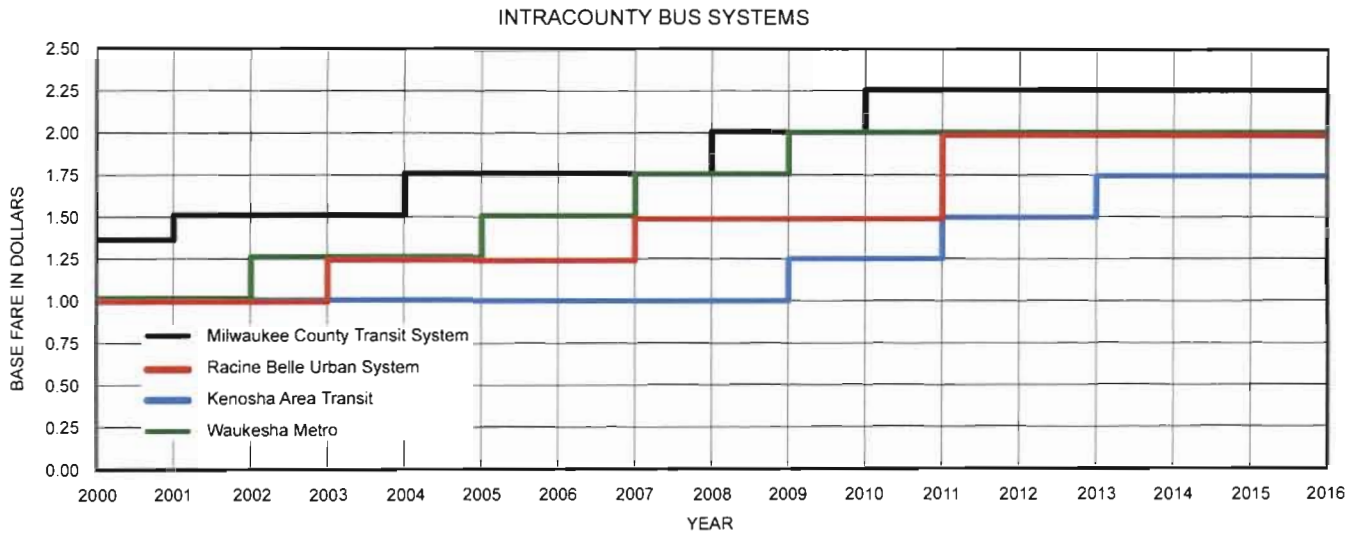
The condition of bridges is determined by a rating system having a scale of 0-100. The ratings for bridge structures located in the Region for 2006, 2015, and 2016 are shown in Table 16, while the 2015 ratings for individual bridge structures in the Region are shown on Map 32. The number of bridges in the Region having a rating less than 50, and therefore in need of replacement, has increased by about 18 percent over the past year. Similarly, the number of bridge structures with a rating from 50 to 80, indicating a need for rehabilitation, has increased by about 7 percent.

Volume of Travel

The amount of travel within the Region on the arterial street and highway system on an average weekday from 1963-2016 is shown on Figure 27. The regional freeway system of about 269 miles, while represent-

Figure 26

HISTORIC BASE ADULT FARES CHARGED BY PUBLIC TRANSIT SYSTEMS IN THE REGION



^aThe base adult fare is dependent on factors such as travel distance or bus route. This base adult fare represents the minimum fare charged.

Table 13

PUBLIC TRANSIT OPERATING ASSISTANCE WITHIN THE REGION: 2015-2016









Transit Services	Public Transit Operating Assistance (dollars)							
	2015 Actual/Estimated				2016 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Fixed Route Bus Systems								
Intracounty								
City of Kenosha	2,206,700	1,401,000	1,560,700	5,168,400	2,135,100	1,544,300	1,803,000	5,482,400
Milwaukee County	17,028,600	70,821,900	18,888,000	106,738,500	24,246,400	69,921,400	22,951,500	117,119,300
City of Racine	2,300,400	1,903,400	1,753,900	5,957,700	2,303,300	1,857,500	1,772,400	5,933,200
City of Waukesha	496,700	2,396,100	1,063,200	3,956,000	486,200	2,420,700	1,101,000	4,007,900
Subtotal	22,032,400	76,522,400	23,265,800	121,820,600	29,171,000	75,743,900	27,627,900	132,542,800
Intercounty								
Kenosha-Racine Milwaukee Counties.....	328,000	271,400	343,200	942,600	339,200	273,500	398,300	1,011,000
Ozaukee-Milwaukee Counties.....	515,000	441,300	101,200	1,057,500	470,600	395,000	174,500	1,040,100
Washington-Milwaukee Counties.....	493,800	367,100	74,000	934,900	466,900	384,200	183,400	1,034,500
Waukesha-Milwaukee Counties.....	469,500	2,092,100	732,300	3,293,900	467,700	2,075,700	747,400	3,290,800
Western Kenosha County	232,600	51,400	181,300	465,300	232,200	51,300	185,600	469,100
Subtotal	2,038,900	3,223,300	1,432,000	6,694,200	1,976,600	3,179,700	1,689,200	6,845,500
Total Bus Systems	24,071,300	79,745,700	24,697,800	128,514,800	31,147,600	78,923,600	29,317,100	139,388,300
Shared-Ride Taxi Systems								
City of Hartford	82,500	55,100	26,800	164,400	70,200	43,400	26,400	140,000
Ozaukee County.....	2,100	974,800	298,600	1,275,500	165,500	789,800	269,900	1,225,200
Washington County.....	706,300	917,000	375,100	1,998,400	715,400	919,700	215,900	1,851,000
City of West Bend.....	252,900	216,200	37,800	506,900	325,000	252,000	133,400	710,400
City of Whitewater	73,100	59,900	6,100	139,100	72,800	58,600	4,200	135,600
Subtotal	1,116,900	2,223,000	744,400	4,084,300	1,348,900	2,063,500	649,800	4,062,200
Region Total	25,188,200	81,968,700	25,442,200	132,599,100	32,496,500	80,987,100	29,966,900	143,450,500

Transit Services	Public Transit Operating Assistance per Ride (dollars)							
	2015 Actual/Estimated				2016 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Fixed Route Bus Systems								
Intracounty								
City of Kenosha	\$ 1.67	\$ 1.06	\$1.18	\$ 3.91	\$ 1.61	\$ 1.16	\$1.36	\$ 4.13
Milwaukee County.....	0.49	2.02	0.54	3.05	0.70	2.01	0.66	3.36
City of Racine	1.77	1.46	1.35	4.58	1.92	1.55	1.48	4.94
City of Waukesha	0.84	4.04	1.79	6.67	0.89	4.41	2.01	7.30
Weighted Average	0.58	2.00	0.61	3.19	0.77	2.00	0.73	3.50
Intercounty								
Kenosha-Racine Milwaukee Counties.....	5.13	4.24	5.36	14.73	5.94	4.79	6.98	17.71
Ozaukee-Milwaukee Counties.....	5.57	4.77	1.09	11.43	4.42	3.71	1.64	9.77
Washington-Milwaukee Counties.....	4.83	3.59	0.72	9.15	5.08	4.18	2.00	11.26
Waukesha-Milwaukee Counties.....	0.90	4.00	1.40	6.30	0.91	4.05	1.46	6.41
Western Kenosha County	15.10	3.34	11.77	30.21	11.97	2.64	9.57	24.18
Weighted Average	2.56	4.04	1.80	8.40	2.51	4.04	2.14	8.69
Total Bus Systems	0.62	2.04	0.63	3.29	0.80	2.04	0.76	3.60
Shared-Ride Taxi Systems								
City of Hartford	4.10	2.74	1.33	8.18	3.55	2.19	1.33	7.07
Ozaukee County.....	0.02	8.98	2.75	11.76	1.46	6.95	2.38	10.79
Washington County.....	7.86	10.20	4.17	22.23	8.23	10.58	2.48	21.30
City of West Bend.....	2.33	1.99	0.35	4.67	3.10	2.40	1.27	6.77
City of Whitewater	2.49	2.04	0.21	4.75	2.50	2.01	0.14	4.66
Weighted Average	3.13	6.24	2.09	11.46	3.81	5.82	1.83	11.47
Region Weighted Average	0.64	2.08	0.65	3.37	0.83	2.07	0.77	3.67






Map 30

EXISTING AND PROPOSED PARK-RIDE LOTS AND TRANSIT STATIONS LOCATED WITHIN SOUTHEASTERN WISCONSIN

EXISTING FACILITIES 2016

-  TRANSIT STATION
-  PARK-RIDE LOT
-  PROPORTION OF PARK-RIDE LOT UTILIZED ON AN AVERAGE WEEKDAY
 -  SPACES UTILIZED
 -  SPACES NOT UTILIZED
-  INTERCITY RAIL
-  COMMUTER RAIL
-  RAPID BUS TRANSIT ROUTE
- 10 PARK-RIDE LOT NUMBER (SEE TABLE)

FACILITIES PROPOSED IN VISION 2050

-  TRANSIT STATION
-  PARK-RIDE LOT
-  INTERCITY RAIL
-  COMMUTER RAIL
-  RAPID BUS TRANSIT ROUTE

NOTE: Park-ride lots with no utilization shown are shared use lots. Determining utilization rates is difficult for these lots.

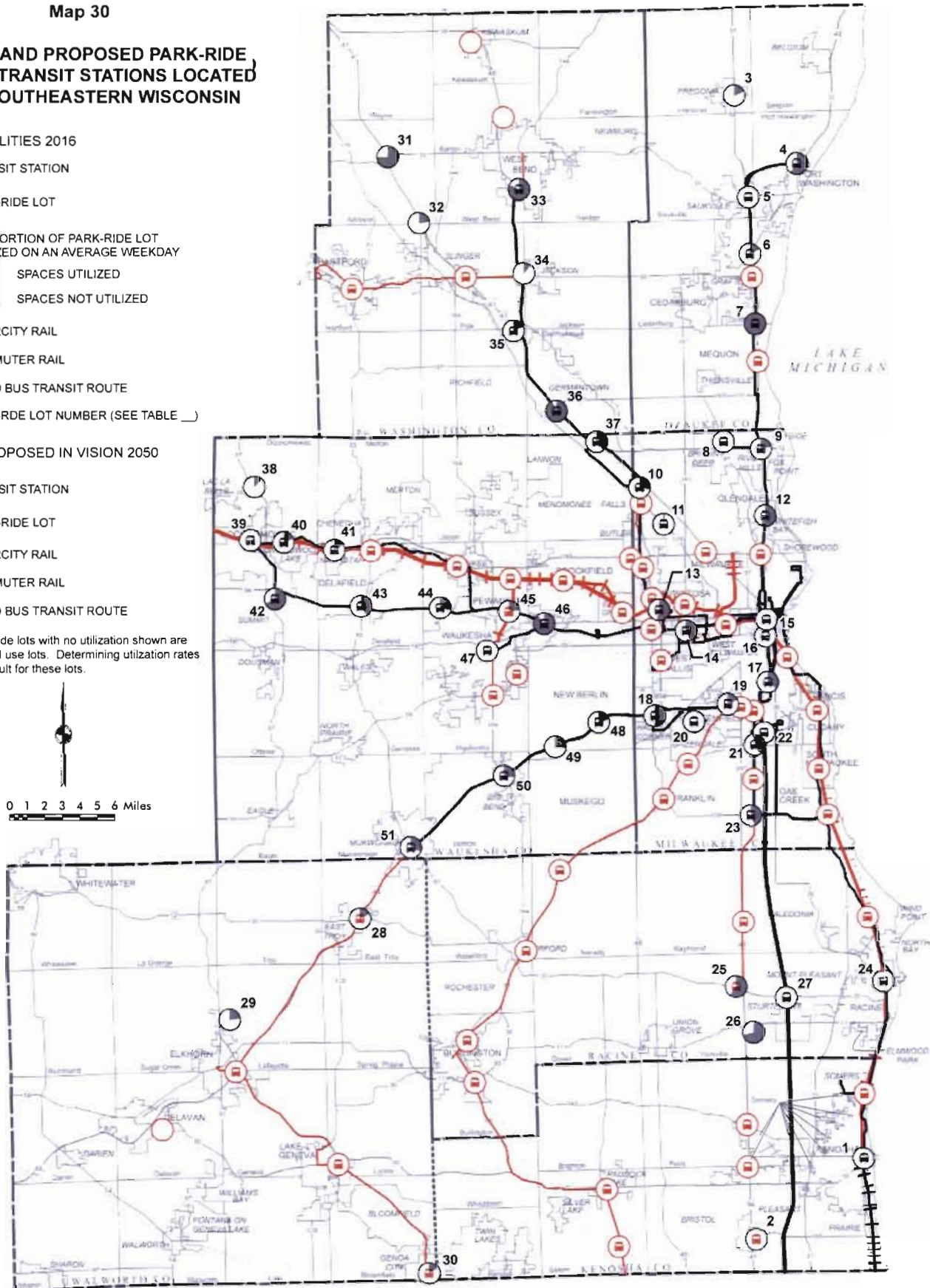


Table 14

AVERAGE WEEKDAY USE OF PARK-RIDE LOTS AND TRANSIT STATIONS: 2016

Number On Map 30	Location	Served by Transit	Not served by Transit	Shared Use	Available Parking Spaces	Autos Parked on an Average Weekday: 2016	Percent of Spaces Used
Kenosha County							
1	Metra Station (Kenosha).....	X		X	145	-- ^a	-- ^a
2	STH 165 and Terwall Terrace (Pleasant Prairie).....		X		160	-- ^a	-- ^a
Ozaukee County							
3	STH 57 and CTH H (Fredonia).....		X		60	11	18
4	IH 43 and STH 32-CTH H (Port Washington).....	X			50	30	60
5	Wal-Mart (Saukville).....	X		X	50	-- ^a	-- ^a
6	IH 43 and CTH V (Grafton).....	X			85	14	16
7	IH 43 and CTH C (Grafton).....	X			65	75	115
Milwaukee County							
8	Kohl's (Brown Deer).....	X		X	130	-- ^a	-- ^a
9	Brown Deer (River Hills).....	X			360	76	21
10	W. Good Hope Road (Milwaukee).....	X			135	37	27
11	Timmerman Field (Milwaukee).....	X			140	2	1
12	North Shore (Glendale).....	X			195	110	56
13	W. Watertown Plank Road (Wauwatosa).....	X			175	94	54
14	State Fair Park (Milwaukee).....	X			285	123	43
15	Downtown Milwaukee Intermodal Amtrak Station.....	X			240	-- ^a	-- ^a
16	National Avenue and IH 43/94 (Milwaukee).....	X		X	55	-- ^a	-- ^a
17	W. Holt Avenue (Milwaukee).....	X			235	83	35
18	Whitnall (Hales Corners).....	X			360	182	51
19	W. Loomis Road (Greenfield).....	X			410	70	17
20	Southridge (Greendale).....	X		X	170	-- ^a	-- ^a
21	W. College Avenue (Milwaukee).....	X			650	269	41
22	Mitchell Airport Amtrak Station (Milwaukee).....	X			280	-- ^a	-- ^a
23	W. Ryan Road (Oak Creek).....	X			305	135	44
Racine County							
24	Racine Metro Transit Center (Racine).....	X			120	-- ^a	-- ^a
25	IH 94 and STH 20 (Ives Grove).....		X		75	45	60
26	IH 94 and STH 11 (Mount Pleasant).....		X		60	43	72
27	Sturtevant Amtrak Station (Sturtevant).....	X			180	-- ^a	-- ^a
Wauworth County							
28	East Troy Municipal Airport (East Troy).....		X		30	5	17
29	USH 12 and STH 67 (Eikhorn).....		X		40	9	23
30	USH 12 and CTH P (Genoa City).....		X		40	6	15
Washington County							
31	IH 41 and STH 33 (Allenton).....		X		60	45	75
32	IH 41 and CTH K (Addison).....		X		40	9	23
33	USH 45 and Paradise Drive (West Bend).....	X			100	82	82
34	STH 60 and CTH P (Jackson).....		X		125	13	10
35	Pioneer Road and Mayfield Road (Richfield).....	X			280	51	18
36	IH 41 and Lannon Road (Germantown).....	X			100	93	93
Waukesha County							
37	Pilgrim Road (Menomonee Falls).....	X			70	28	40
38	STH 67 and Lang Road (Oconomowoc).....		X		35	4	11
39	Collins Street Parking Lot (Oconomowoc).....	X		X	-- ^b	-- ^a	-- ^a
40	STH 16 and CTH P (Oconomowoc).....	X			45	8	18
41	STH 16 and CTH C (Nashotah).....	X			60	9	15
42	STH 67 and CTH DR (Summit).....	X			60	41	68
43	IH 94 and STH 83 (Delafield).....	X			200	81	41
44	IH 94 and CTH G/CTH SS (Pewaukee).....	X			245	68	28
45	IH 94 and CTH F (Pewaukee).....		X		85	19	22
46	Goerke's Corners (Brookfield).....	X			315	282	90
47	Waukesha Metro Transit Downtown Transit Center (Waukesha).....	X		X	-- ^b	-- ^a	-- ^a
48	IH 43 and Moorland Road (New Berlin).....	X			175	35	20
49	IH 43 and CTH Y (New Berlin).....		X		45	12	27
50	IH 43 and STH 164 (Big Bend).....	X			145	38	26
51	IH 43 and STH 83 (Mukwonago).....	X			165	50	30
--	Total	--	--	--	7,735	2,387	33

^aData not available.^bParking available within larger public lot or structure.

Map 31

**PAVEMENT CONDITION ON THE
ARTERIAL STREETS AND HIGHWAYS
IN THE REGION: 2016**

PAVEMENT CONDITION

-  POOR
-  FAIR
-  GOOD
-  NO RATING

- NOTES:
- 1) For State Trunk Highways, a roadway with an International Roughness Index (IRI) of less than 1.5 is considered to be in good condition, and IRI between 1.5 and 3.5 is considered to be in fair condition, and an IRI of more than 3.5 is considered to be in poor condition. For county/local trunk highways, a roadway having a PASER of 7 or more is considered to be in good condition, a PASER of 5 or 6 is considered to be in fair condition, and a PASER of 4 or less is considered to be in poor condition.
 - 2) The pavement condition along State Trunk Highways was collected in the year 2016 and the pavement condition along County and Local arterials was collected in the year 2015.

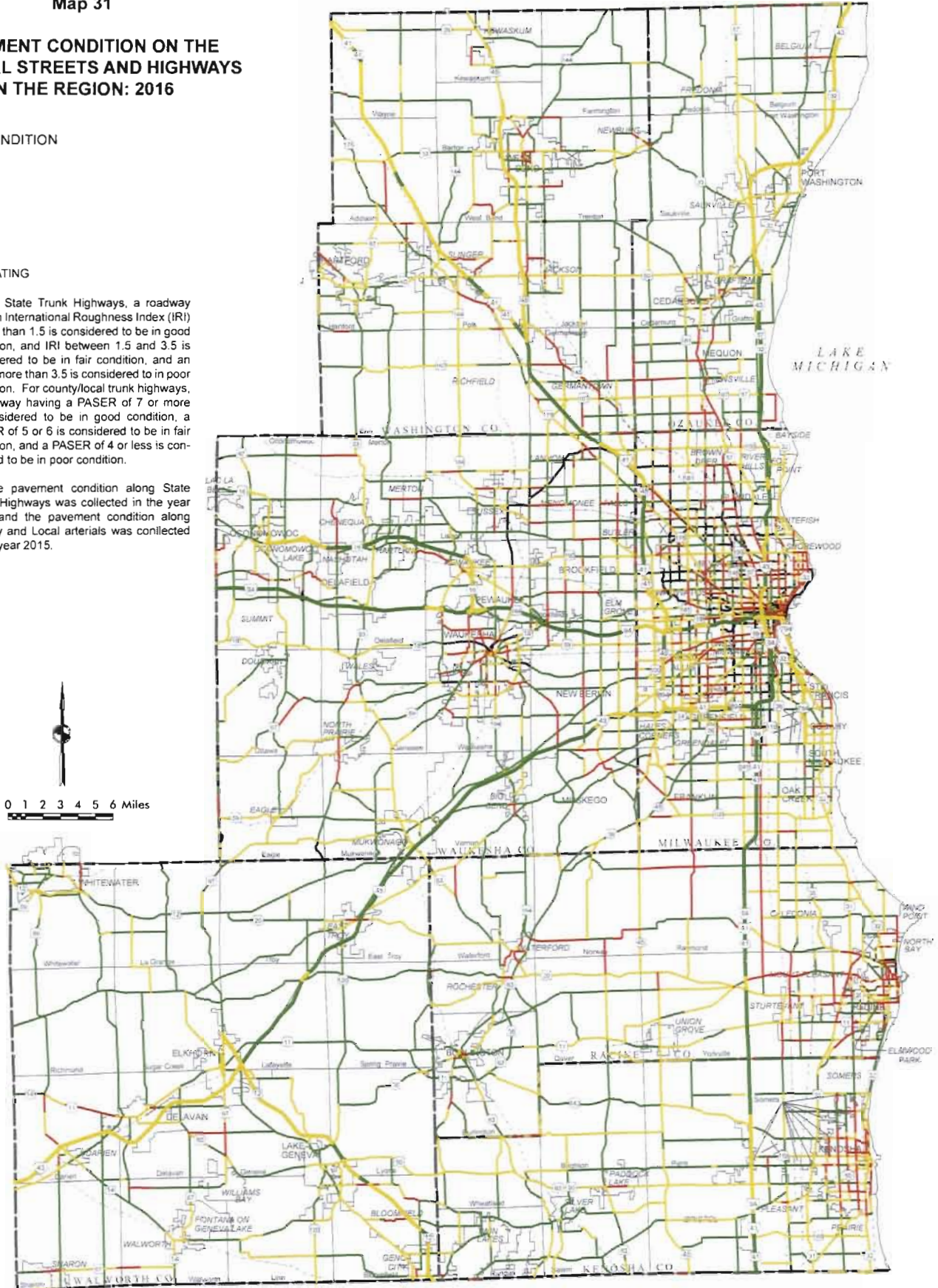


Table 15

ARTERIAL STREET AND HIGHWAY PAVEMENT CONDITION IN THE REGION: 2013/2014 and 2015/2016

Pavement Rating ^c	2013/2014 ^a				2015/2016 ^b			
	Surface Arterials	Freeways	Total	Percent of Total	Surface Arterials	Freeways	Total	Percent of Total
Good	1,842	116	1,958	54.7	1,804	135	1,939	54.2
Fair	1,084	155	1,239	34.7	1,132	136	1,268	35.5
Poor	380	--	380	10.6	370	--	370	10.3
Total	3,306	271	3,577	100.0	3,306	271	3,577	100.0

^aThe pavement condition along State Trunk Highways was collected in the year 2014 and the pavement condition along County and Local arterials was collected in the year 2013.

^bThe pavement condition along State Trunk Highways was collected in the year 2016 and the pavement condition along County and Local arterials was collected in the year 2015.

^cFor state trunk highways, a roadway with an International Roughness Index (IRI) of less than 1.5 is considered in good condition, an IRI between 1.5 and 3.5 is considered in fair condition, and an IRI of more than 3.5 is considered to be in poor condition. For county/local trunk highways, a roadway having a PASER of 7 or more is considered to be in good condition, a PASER of 5 or 6 is considered to be in fair condition, and a PASER of 4 or less is considered to be in poor condition.

ing only about 8 percent of the total arterial street and highway system in the Region, carried about 39 percent of the approximately 42 million vehicle miles of travel (VMT) on an average weekday in the Region in 2016. This proportion of travel on the freeway system has held relatively steady since the early 1990s and demonstrates the heavy reliance on the system for a wide variety of trip-making activities.

As shown on Figure 27, the volume of travel significantly increased through the year 2008. Though this period averaged 2.7 percent annual growth, the actual growth rate declined from approximately 4.9 percent in the 1960s to 1.0 percent in the mid 2000s. After the year 2008, VMT declined approximately 2.3 percent annually through the year 2011. This significant decline in the rate of growth may be largely attributed to the economic downturn beginning in 2008, with attendant high unemployment, loss of jobs, and consequent significant decline in travel to and from work. Among other factors at play in this phenomenon were a slowing regional population growth rate and declining average household incomes in real dollar terms. Between 2011 and 2015, regional VMT showed modest growth averaging a 0.2 percent annual increase. Year 2016 VMT estimates showed a possible return to historical increases observed in the past with a 2.6 percent increase over 2015 as the economy has begun to show a more robust recovery. Emerging preferences in lifestyle that favor more dense, compact living environments, shorter trip-making requirements, and

consequent minimization of personal transportation expenditures have the potential to impact the overall growth in the amount of travel into the future.

Congestion on the Arterial Street and Highway System

Traffic congestion on the arterial street and freeway system may be categorized as moderate, severe, or extreme, with each level characterized by travel speed, operating conditions, and level of service, (see Table 17). The freeway system represents only about 10 percent of total arterial system mileage, but carries about 39 percent of total regional average weekday vehicle-miles of travel. Given the utilization of the freeway system, a much greater proportion of the freeway system—as compared to the surface arterial street system—experiences extreme and severe peak-hour traffic congestion, as well as experiencing traffic congestion during hours of the weekday other than the peak traffic hours. The existing levels of traffic congestion experienced in the years 2011 and 2016 are set forth in Table 18 and shown on Map 33.

The amount of traffic congestion on the arterial street and highway system for the years 1963 through 2016 is shown in Figure 28. The miles of arterials experiencing traffic congestion declined from 217 miles in 1963 to 160 miles in 1972, even though traffic increased during that period by over 50 percent. The decline in traffic congestion may be attributed to the completion of the freeway system during that peri-

Map 32

**BRIDGE STRUCTURE CONDITIONS
IN THE REGION: 2016**

SUFFICIENCY RATING INDEX

- 0 TO 49.9
- 50.0 TO 79.9
- 80.0 TO 100.0

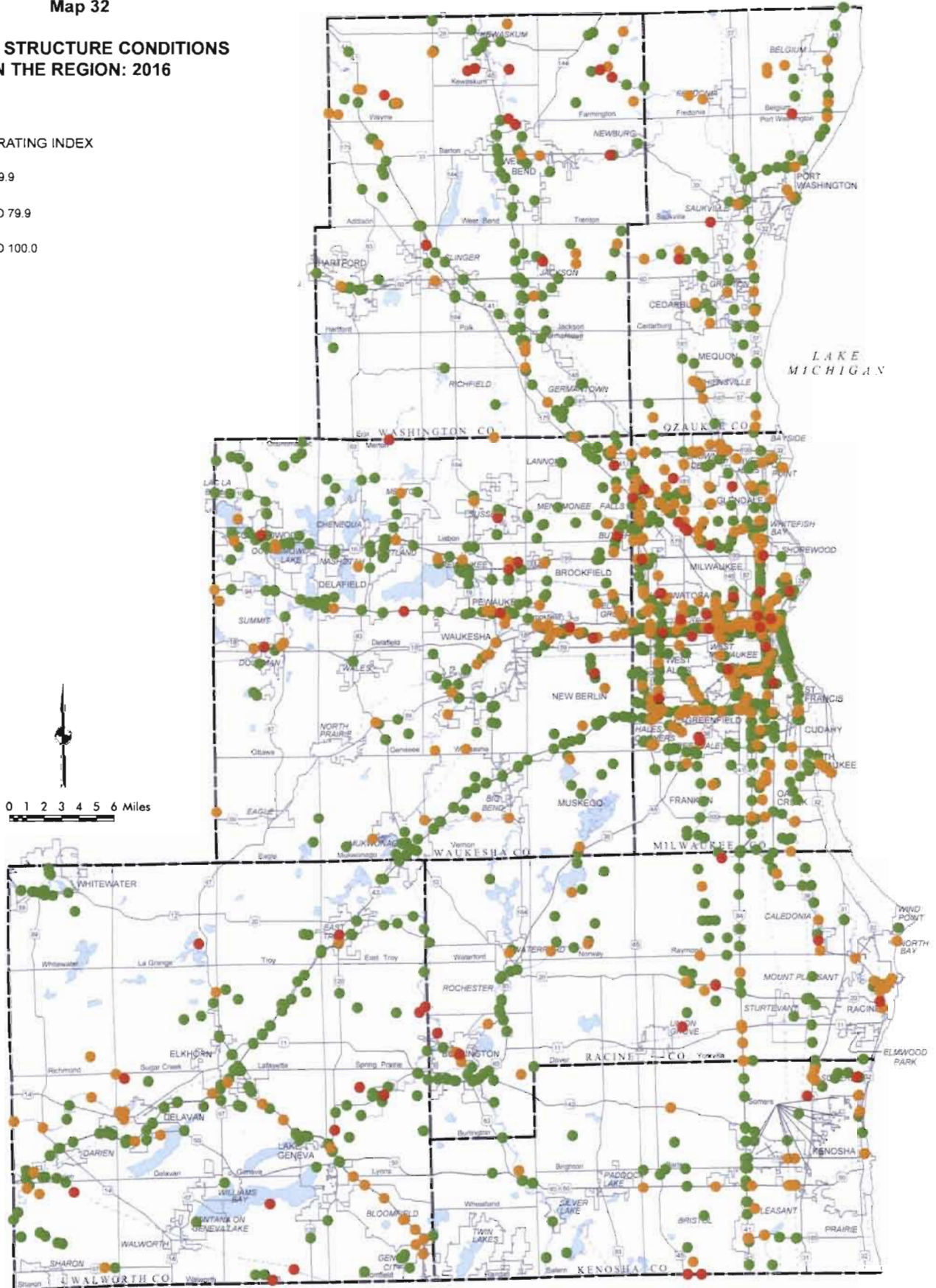


Table 16

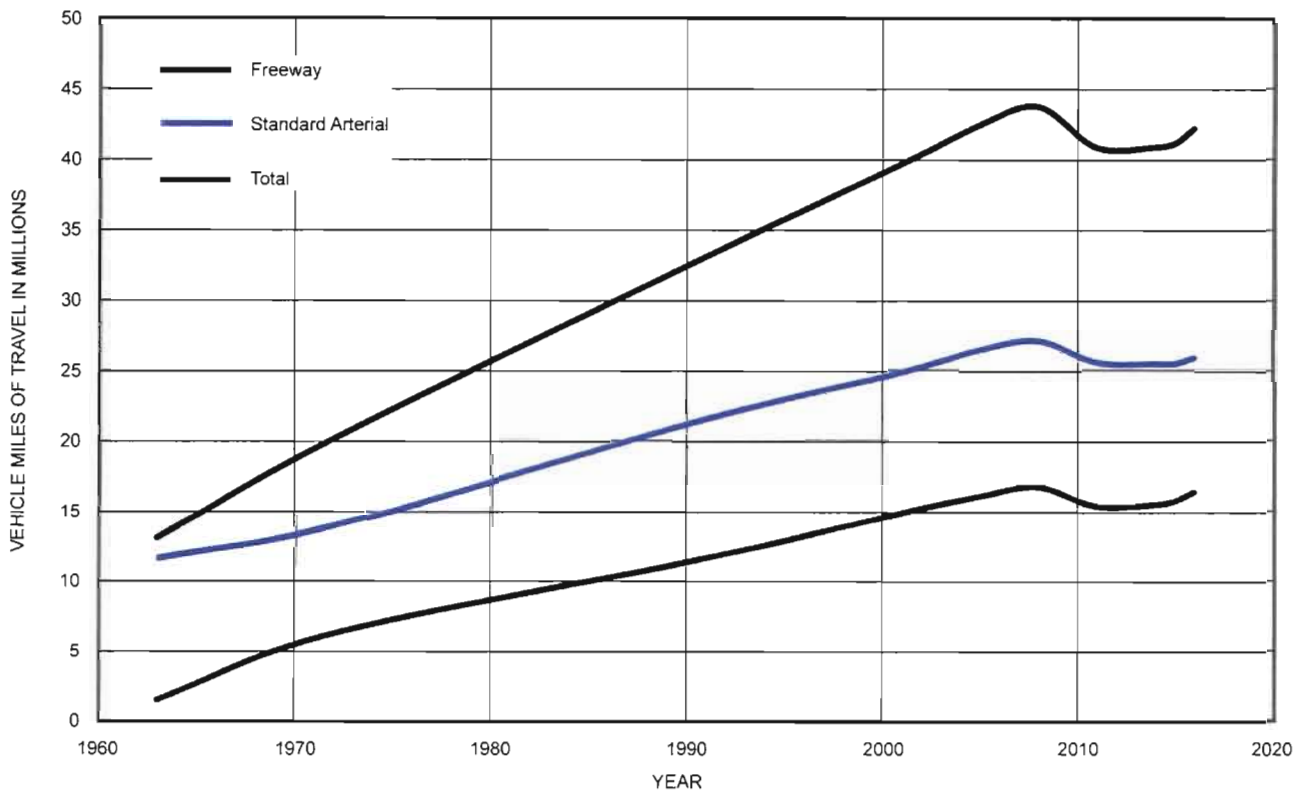
**SUFFICIENCY RATINGS FOR BRIDGE STRUCTURES
IN THE REGION: 2013, 2015, AND 2016**

Sufficiency Rating ^a	Relationship to Federal Funding Eligibility for Rehabilitation or Replacement	Number of Bridges			Percent Change 2015-2016
		2013	2015	2016	
Less than 50.0	Eligible for replacement funding	81	68	80	17.6
50.0 to 79.9	Eligible for rehabilitation funding	441	393	421	7.1
80.0 to 100.0	Not eligible for funding	1,372	1,466	1,433	-2.3
Total	—	1,894	1,927	1,934	0.4

^aEach bridge is rated from 0 to 100, with 0 being a failing structure and 100 being a structure in perfect condition. Ratings are based on four factors; structural adequacy and safety; serviceability and functional obsolescence; essentiality for public use; and special reductions.

Figure 27

ARTERIAL VEHICLE MILES OF TRAVEL WITHIN THE REGION ON AN AVERAGE WEEKDAY: 1963-2016



od. Between 1972 and 1991, the miles of arterials experiencing traffic congestion is estimated to have increased from 160 miles to 273 miles, as traffic increased during that period by nearly 65 percent, as regional employment and households increased by about 30 percent each, and as vehicle occupancy and

carpooling significantly declined. The decline in vehicle occupancy from an average of 1.39 persons per vehicle to 1.22 persons per vehicle alone is estimated to have resulted in nearly a 15 percent increase in vehicle traffic. As well, limited transportation system improvement and expansion was completed between

Table 17

FREEWAY AND SURFACE ARTERIAL TRAFFIC CONGESTION

Freeway			
Level of Traffic Congestion	Level of Service	Average Speed	Operating Conditions
None	A and B	Freeway free-flow speed	No restrictions on ability to maneuver and change lanes.
None	C	Freeway free flow speed	Ability to maneuver and change lanes noticeably restricted.
Moderate	D	1 to 2 mph below free flow speed	Ability to maneuver and change lanes more noticeably limited; reduced driver physical and psychological comfort levels.
Severe	E	Up to 10 mph below free flow speed	Virtually no ability to maneuver and change lanes. Operation at maximum capacity. No usable gaps in the traffic stream to accommodate lane changing.
Extreme	F	Typically 20 to 30 mph or less	Breakdown in vehicular flow with stop-and-go, bumper-to-bumper traffic.

Surface Arterial			
Level of Traffic Congestion	Level of Service	Average Speed	Operating Conditions
None	A and B	70 to 100 percent of free flow speed	Ability to maneuver within traffic stream is unimpeded. Control delay at signalized intersections is minimal.
None	C	50 to 100 percent of free flow speed	Restricted ability to maneuver and change lanes at midblock locations.
Moderate	D	40 to 50 percent of free flow speed	Restricted ability to maneuver and change lanes. Small increases in flow lead to substantial increases in delay and decreases in travel speed.
Severe	E	33 to 40 percent of free flow speed	Significant restrictions on lane changes. Traffic flow approaches instability.
Extreme	F	25 to 33 percent of free flow speed	Flow at extremely low speeds. Intersection congestion with high delays, high volumes, and extensive queuing.

1972 and 1991 in southeastern Wisconsin. The miles of arterials carrying traffic volumes exceeding their design capacity and experiencing traffic congestion is estimated to have increased modestly from 273 miles in 1991 to 290 miles in 2001, and decreased to 274 miles in 2011. From 1991 to 2001, traffic is estimated to have increased by about 20 percent, and then increased from 2001 to 2008 by about 10 percent. The 7 percent decrease in traffic congestion between 2008 and 2011 may be attributed to the decrease in traffic due primarily to the recession. Between 2011 and 2015 VMT was relatively flat. In 2016 VMT began to increase coincident with the recovery of the economy.

The estimated increase in congestion is not uniform system wide, as the extent and severity of freeway system congestion is estimated to have substantially increased since 1991. Detail on existing and historic congestion on the freeway system, including the number of hours of congestion experienced on congested freeway segments on an average weekday, is set forth in Table 19 and Figure 29 and on Map 34.

Congestion on Designated Truck Routes and the National Highway System

The levels of traffic congestion experienced on designated truck routes and the National Highway Sys-

tem (NHS) for the years 2011 and 2016 are presented in Table 20 and on Map 35. The State of Wisconsin maintains a truck operations map that identifies streets and highways for operation of vehicles and combinations of vehicles for which the overall lengths cannot be limited. In addition, the truck operations map identifies restricted truck routes where the overall lengths are limited. The NHS includes highways important to the nation’s economy, defense, and mobility. As part of the Moving Ahead for Progress in the 21st Century Act (MAP-21), the NHS was expanded to include urban and rural principal arterials that were not included in the NHS before October 1, 2012. Though, the miles of designated truck routes and NHS facilities carrying traffic volumes exceeding their design capacity has remained relatively stable since 2011, increasing only 2.5 percent from 244 miles in 2011 to 250 miles in 2016, increases in congestion on these roadways adversely affect the travel time and freight movement.

Arterial Highway and Transit Travel Times

The estimated peak-hour travel speeds for selected freeway and surface arterial street segments for 2001 and 2011 are shown on Map 36. Estimated peak-hour arterial street and highway travel time contours for 2001 and 2011 are shown on Map 37 for two loca-

Table 18

TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION BY COUNTY: 2001, 2011, AND 2016

2001

County	Under or At Design Capacity		Over Design Capacity						Total Mileage
			Moderate Congestion		Severe Congestion		Extreme Congestion		
	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	
Kenosha	303.2	95.5	9.9	3.1	1.5	0.5	3.0	0.9	317.6
Milwaukee.....	641.1	82.0	72.1	9.2	24.7	3.2	43.4	5.6	781.3
Ozaukee	244.2	97.4	4.3	1.7	1.5	0.6	0.8	0.3	250.8
Racine	341.3	96.8	9.4	2.7	0.5	0.1	1.4	0.4	352.6
Walworth.....	430.1	98.4	5.1	1.2	1.1	0.3	0.3	0.1	436.6
Washington.....	391.1	96.2	15.4	3.8	--	--	--	--	406.5
Waukesha.....	650.9	87.2	70.7	9.5	11.4	1.5	13.4	1.8	746.4
Region	3,001.9	91.2	186.9	5.7	40.7	1.2	62.3	1.9	3,291.8

2011

County	Under or At Design Capacity		Over Design Capacity						Total Mileage
			Moderate Congestion		Severe Congestion		Extreme Congestion		
	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	
Kenosha	303.2	94.8	11.3	3.5	4.9	1.5	0.6	0.2	320.0
Milwaukee.....	647.5	82.1	64.6	8.2	49.5	6.3	26.8	3.4	788.4
Ozaukee	236.2	94.2	9.6	3.8	4.7	1.9	0.3	0.1	250.8
Racine	345.0	96.3	9.5	2.7	2.5	0.7	1.3	0.4	358.3
Walworth.....	442.6	99.3	2.4	0.5	0.4	0.1	0.2	0.0	445.6
Washington.....	397.8	97.9	6.1	1.5	2.3	0.6	0.3	0.1	406.5
Waukesha.....	676.5	89.8	43.4	5.8	27.9	3.7	5.5	0.7	753.3
Region	3,048.8	91.8	146.9	4.4	92.2	2.8	35.0	1.1	3,322.9

2016

County	Under or At Design Capacity		Over Design Capacity						Total Mileage
			Moderate Congestion		Severe Congestion		Extreme Congestion		
	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	
Kenosha	306.3	95.7	8.4	2.6	4.8	1.5	0.5	0.2	320.0
Milwaukee.....	639.4	81.2	70.4	8.9	42.9	5.4	35.7	4.5	788.4
Ozaukee	232.1	92.6	12.1	4.8	6.3	2.5	0.3	0.1	250.8
Racine	344.5	95.5	13.0	3.6	2.2	0.6	1.0	0.3	360.7
Walworth.....	444.7	99.3	2.5	0.6	0.1	--	0.5	0.1	447.8
Washington.....	398.8	98.1	5.7	1.4	2.0	0.5	--	--	406.5
Waukesha.....	681.3	90.3	37.3	5.0	21.5	2.9	13.2	1.8	753.3
Region	3,047.1	91.6	149.4	4.5	79.8	2.4	51.2	1.5	3,327.5

tions: the Milwaukee central business district and the Milwaukee regional medical center. Year 2001 and 2011 arterial street and highway travel times are very similar.

The ratio of total overall transit travel time to automobile travel time between selected locations within Milwaukee County during the weekday-morning

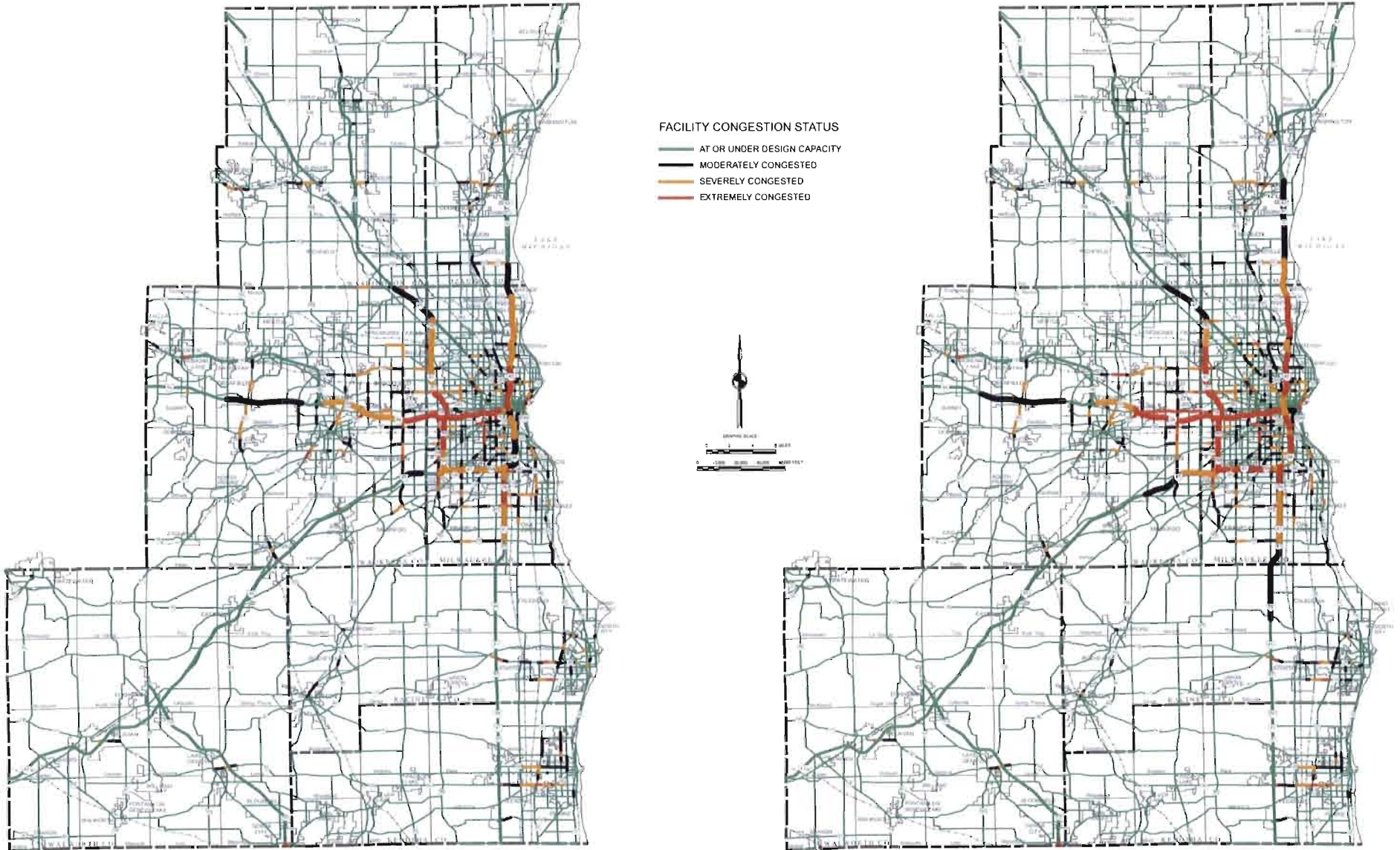
peak period and midday off-peak period in 2011 is shown on Map 38. Transit travel time is longer than automobile travel time because it includes the time spent in the transit vehicle and also the time spent walking to a bus stop, waiting for a bus, transferring between routes including waiting for another bus, and walking to a destination. Much of the transit out-of-vehicle time is related to waiting time for each

Map 33

CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION: YEARS 2011 AND 2016 ^a

2011

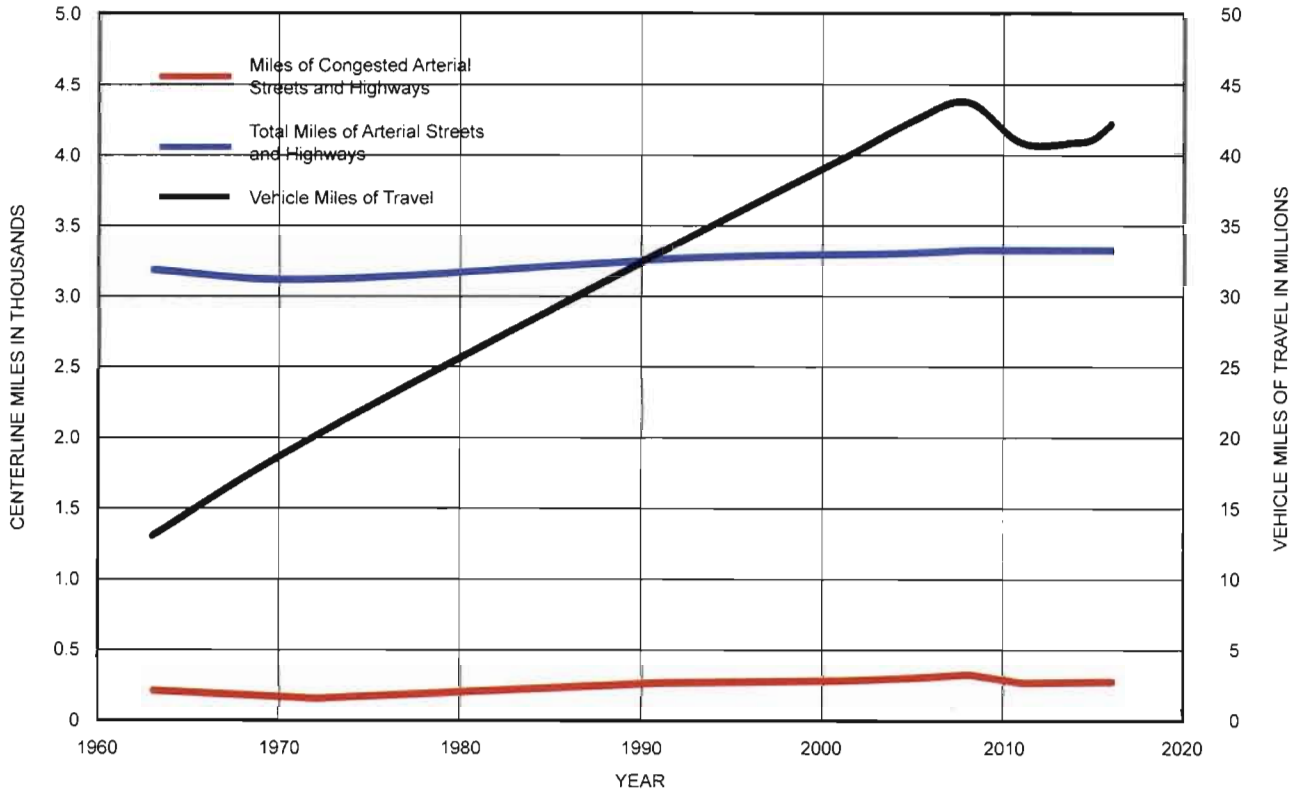
2016



^aDURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF IH 94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE. IN 2016, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE AND RAMP CLOSURES PRIMARILY ATTENDANT TO THE RECONSTRUCTION OF THE ZOO AND LAKE INTERCHANGES

Figure 28

HISTORICAL TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION: 1963-2016



bus used. Automobile travel time includes the time spent in the vehicle, parking, and walking between parking location and trip origin and destination.

The travel time ratios developed for travel between the selected locations indicate that the lowest ratios—and most competitive transit travel times—are for short transit trips made between areas within and adjacent to downtown Milwaukee, and the highest ratios—and least competitive transit travel times—are generally for transit trips to and from outlying portions of Milwaukee County, including locations in the northwest, southeast, and southwest portions of the County. Some reduction in transit service has occurred since 2011; however, the travel time ratios from 2011 likely have not changed significantly.

Transportation Air Pollutant Emissions and Fuel Consumption

The estimated transportation system air pollutant emissions and motor fuel consumption within southeastern Wisconsin for the years 2001 and 2010 are

shown in Table 21. Estimated air pollutant emissions have declined for all pollutants—particularly volatile organic compounds and nitrogen oxides—owing to cleaner, more efficient vehicles, with the exception being carbon dioxide emissions and ammonia (which are estimated to have increased from 2001 to 2010 as fuel consumption has increased during these years).

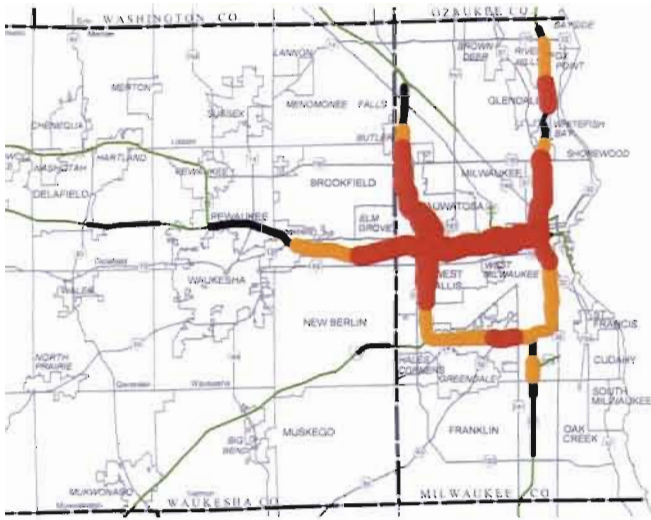
Vehicular Crashes
Number of Crashes

After a downward trend of total vehicular crashes in the Region since the mid-1990s, the total number of crashes have steadily increased since 2012 by about 26 percent (see Figure 30). The total number of vehicular crashes rose from 42,731 in 2015 to 44,968 in 2016, representing a nearly 5 percent increase. Crashes involving an injury or a fatality increased slightly to 13,420 crashes in 2016, representing about 30 percent of all crashes. Over the period 1997-2016, crashes involving an injury or a fatality have decreased by about 20 percent. Property-damage-only crashes increased over the past year by about 6 percent, to

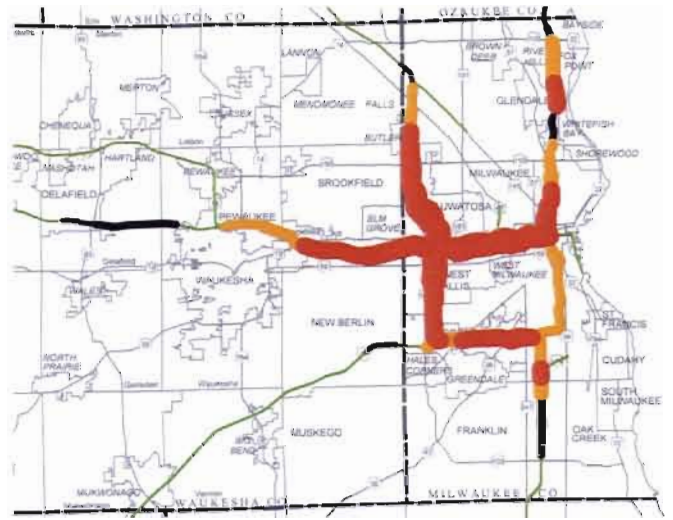
HISTORICAL TRAFFIC CONGESTION ON THE SOUTHEASTERN WISCONSIN FREEWAY SYSTEM
1972 1980 1991



2001



2005



2011^a



MOST SEVERE LEVEL OF WEEKDAY HOURLY CONGESTION EXPERIENCED	ESTIMATED HOURS OF CONGESTION ON AN AVERAGE WEEKDAY	ESTIMATED AVERAGE WEEKDAY HOURS OF CONGESTION BY CONGESTION LEVEL		
		EXTREME	SEVERE	MODERATE
NO CONGESTION	0	0	0	0
MODERATE	1	0	0	1
MODERATE	3	0	0	3
SEVERE	3	0	1	2
SEVERE	4	0	1	3
SEVERE	4	0	2	2
EXTREME	6	1	2	3
EXTREME	8	1	3	4
EXTREME	11	2	4	5
EXTREME	13	2	5	5
EXTREME	14	2	5	7
EXTREME	15	3	5	7
EXTREME	16	4	5	7
EXTREME	17	4	6	7

^a DURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF I-94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE.

Figure 29

**ESTIMATED EXISTING SOUTHEASTERN WISCONSIN FREEWAY SYSTEM
TRAFFIC CONGESTION OFN AN AVERAGE WEEKDAY: 1997, 1991, 2001, 2011, AND 2016**

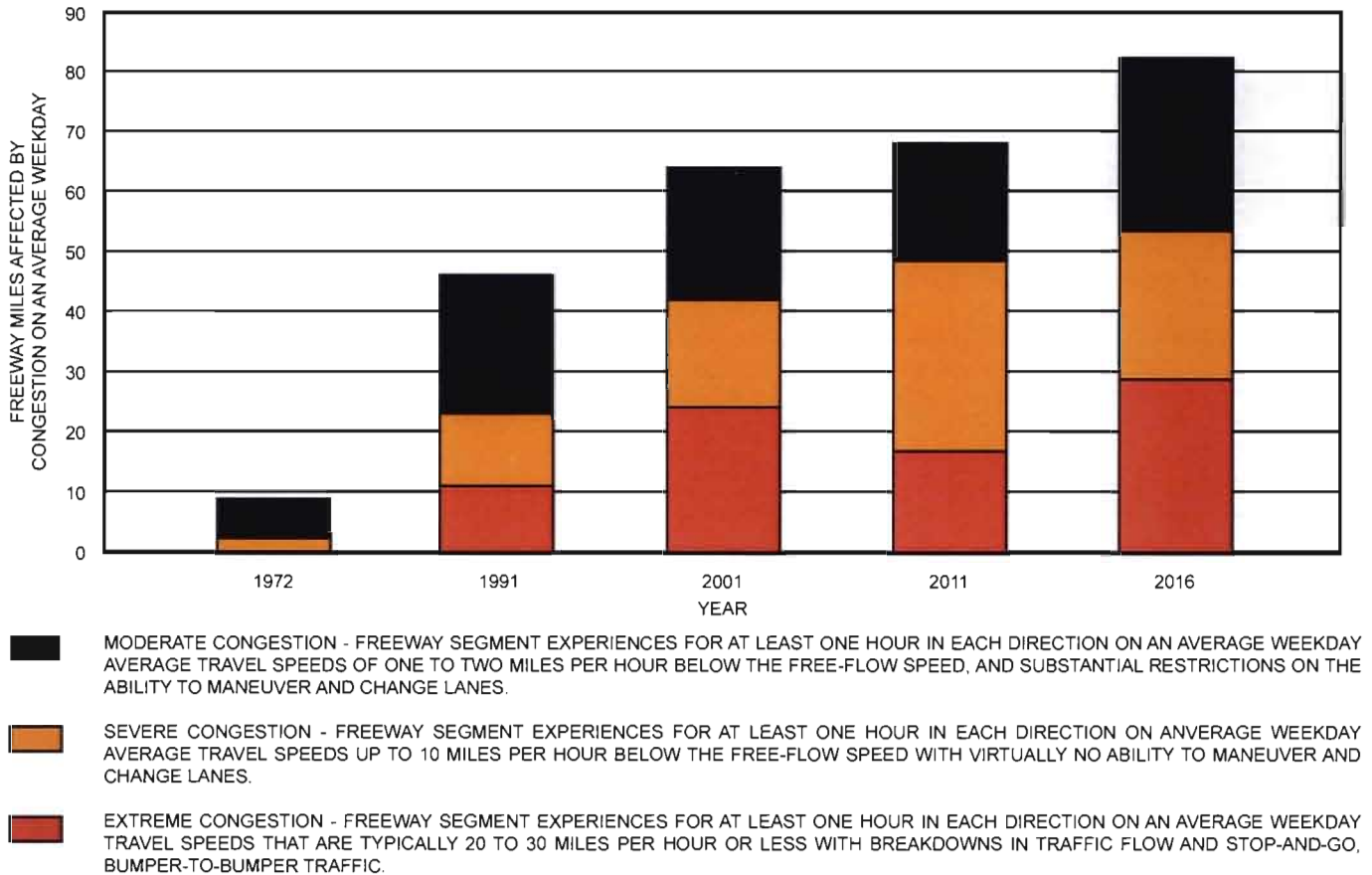


Table 19

**ESTIMATED EXISTING SOUTHEASTERN WISCONSIN FREEWAY SYSTEM
TRAFFIC CONGESTION ON AN AVERAGE WEEKDAY: 1972, 1991, 2001, 2011, AND 2016**

Year	Highest Level of Hourly Congestion Experienced	Miles of Congested Freeways		Average Hours of Congestion on an Average Weekday			
		Number	Percent of Freeway System	Extreme	Severe	Moderate	Total
2016	Extreme.....	29	10.7	1.5	3.3	4.4	9.2
	Severe.....	25	9.1	--	1.2	2.4	3.6
	Moderate.....	29	10.7	--	--	1.4	1.4
	Total	83	30.5	--	--	--	--
2011	Extreme.....	18	6.6	1.3	2.9	3.9	8.1
	Severe.....	34	12.6	--	1.4	2.3	3.7
	Moderate.....	21	7.8	--	--	1.8	1.8
	Total	73	27.0	--	--	--	--
2001	Extreme.....	24	8.9	1.4	3.3	4.4	9.1
	Severe.....	18	6.7	--	1.5	2.5	4.0
	Moderate.....	22	8.1	--	--	2.1	2.1
	Total	64	23.7	--	--	--	--
1991	Extreme.....	11	4.4	1.0	2.1	3.1	6.2
	Severe.....	12	4.8	--	1.1	2.9	4.0
	Moderate.....	23	9.1	--	--	2.3	2.3
	Total	46	18.3	--	--	--	--
1972	Extreme.....	--	--	--	--	--	--
	Severe.....	2	1.2	--	1.0	3.0	4.0
	Moderate.....	7	4.3	--	--	2.8	2.8
	Total	9	5.5	--	--	--	--

Table 20

TRAFFIC CONGESTION ON DESIGNATED TRUCK ROUTES AND THE NATIONAL HIGHWAY SYSTEM IN THE REGION: 2011 AND 2016

Year	Under or At Design Capacity	Over Design Capacity			Total Mileage
		Moderate Congestion	Severe Congestion	Extreme Congestion	
2011	1,403	124	86	34	1,647
2016	1,401	127	73	50	1,651

31,548 crashes, representing the remaining 70 percent of all crashes.

Fatal Crashes

There were 147 vehicular crashes in the Region in 2016 that resulted in 169 fatalities. As shown in Figure 31, the number of fatalities has oscillated over the 20-year period from 1997-2016, including a peak of 195 fatalities in 2005 and a low of 123 fatalities in 2013. However, the number of fatalities has increased each of the past three years. Figure 32 presents selected characteristics of vehicle crash-related fatalities in the Region during 2016. About 19.7 percent of fatalities involved bicyclists and pedestrians and 12.2 percent involved motorcyclists. Alcohol was cited as a contributing factor in about 29.9 percent of all fatalities.

Serious Injury Crashes

In 2016, there were 774 vehicle crashes in the Region that resulted in at least one serious injury, representing a 12 percent increase from 2015. As shown in Figure 33, over the period 1997-2016, the number of crashes resulting in serious injury has declined significantly, by about 55 percent.

Bicycle and Pedestrian Crashes

In 2016, there were 348 vehicular crashes involving bicycles and 706 vehicular crashes involving pedestrians. Over the past 20 years, the number of bicycle and pedestrian crashes has significantly decreased by nearly 44 percent and 35 percent, respectively (see Figure 34). The number of bicycle and pedestrian crashes resulting in a fatality or serious injury has also decreased substantially over the past 20 years,

as seen in Figure 35. In 2016, there were 39 bicycle crashes and 126 pedestrian crashes resulting in a fatality or serious injury.

State Trunk Highway Vehicular Crash Rates

A summary of the five-year average annual crash rates on those freeways and standard arterials on the State Trunk Highway network in the Region is presented in Table 22 for two time periods—2010-2014 and 2011-2015. Crash rates, expressed on the basis of the number of crashes per 100 million vehicle miles driven, slightly increased on the Region’s freeway system and the State Trunk Highway portion of the Region’s standard arterial system.

Aviation Activity

Change in GMIA Passenger Travel

The number of enplaning and deplaning passengers at General Mitchell International Airport (GMIA) decreased significantly, by 34 percent, from 2010 to 2013 (see Table 23 and Figure 36). Since 2013, passenger travel has remained relatively steady, slightly increasing (by 3 percent) from 2015 to 2016.

Change in GMIA Major Aircraft Operations

The number of scheduled air carrier and military aircraft operations (aircraft takeoffs and landings) at GMIA increased in 2016 by about 3 percent relative to 2015, to a level of about 101,100 operations (see Table 24 and Figure 37). Over the 10-year period 2007-2016, scheduled air carrier and military aircraft operations at GMIA have declined nearly 44 percent.

Change in General Aviation Aircraft Operations

Four airports in the Region have Federally sponsored control towers: GMIA, Waukesha County-Crites

Map 35

CONGESTION ON THE REGIONAL FREIGHT NETWORK IN THE REGION: YEARS 2011 AND 2016 ^a

2011

2016

- FACILITY CONGESTION STATUS
- AT OR UNDER DESIGN CAPACITY
 - MODERATELY CONGESTED
 - SEVERELY CONGESTED
 - EXTREMELY CONGESTED



REGIONAL TRANSPORTATION SYSTEM PERFORMANCE



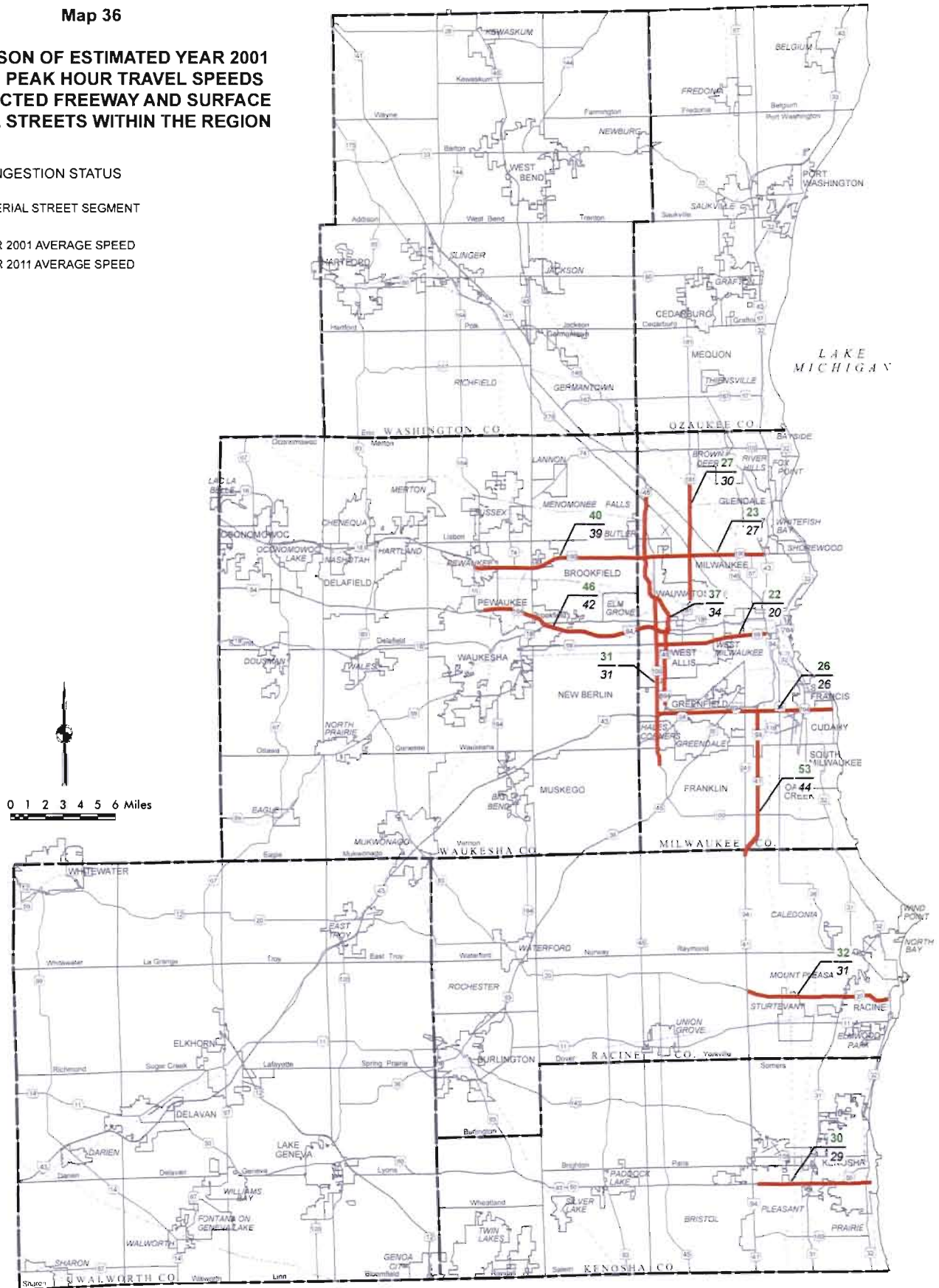
^a DURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF IH 94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE. IN 2016, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE AND RAMP CLOSURES PRIMARILY ATTENDANT TO THE RECONSTRUCTION OF THE ZOO AND LAKE INTERCHANGES.

Map 36

COMPARISON OF ESTIMATED YEAR 2001 AND 2011 PEAK HOUR TRAVEL SPEEDS FOR SELECTED FREEWAY AND SURFACE ARTERIAL STREETS WITHIN THE REGION

FACILITY CONGESTION STATUS

- ARTERIAL STREET SEGMENT
- $\frac{23}{23}$ YEAR 2001 AVERAGE SPEED
- $\frac{23}{23}$ YEAR 2011 AVERAGE SPEED



Map 37

ESTIMATED PEAK HOUR ARTERIAL STREET AND HIGHWAY TRAVEL TIME CONTOURS: YEARS 2001 AND 2011

MILWAUKEE CENTRAL BUSINESS DISTRICT

MILWAUKEE REGIONAL MEDICAL CENTER

AREA ACCESSIBLE BY PEAK HOUR TRAVEL TIME

2001

10 MINUTES

20 MINUTES

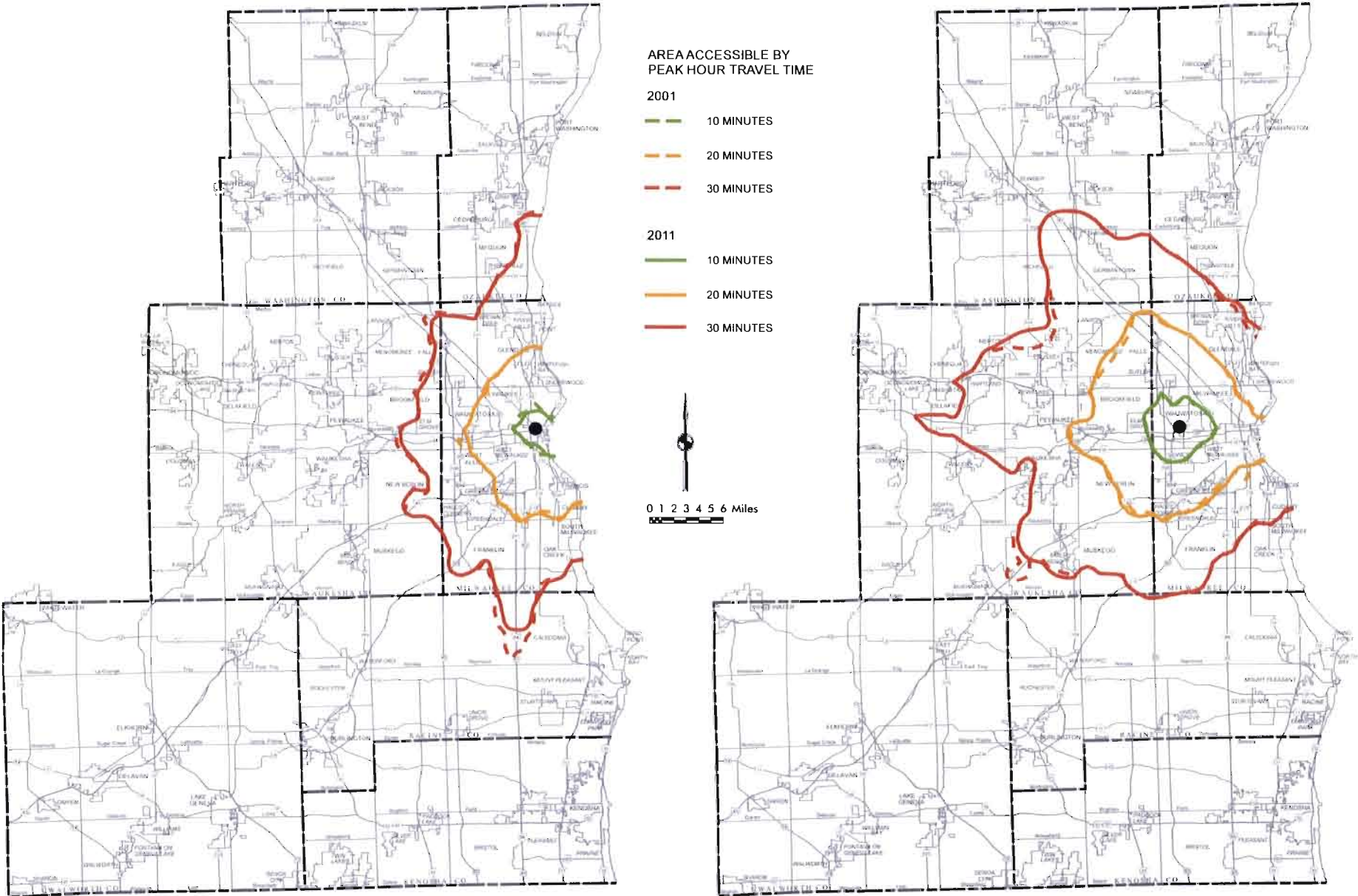
30 MINUTES

2011

10 MINUTES

20 MINUTES

30 MINUTES

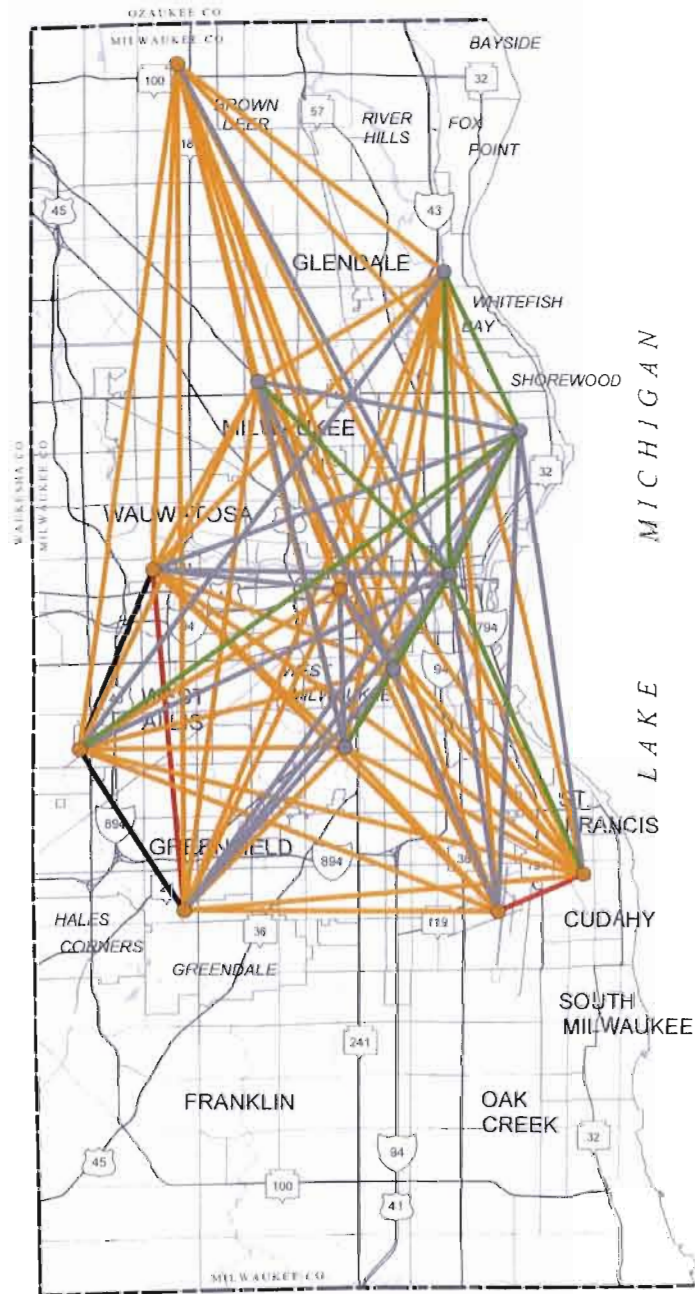


Map 38

RATIOS OF OVERALL TRANSIT TRAVEL TIMES TO OVERALL AUTOMOBILE TRAVEL TIMES BETWEEN SELECTED LOCATIONS IN MILWAUKEE COUNTY FOR WEEKDAY PEAK AND OFF-PEAK PERIODS: 2011

MORNING PEAK PERIOD

MIDDAY OFF-PEAK PERIOD



TRANSIT TO AUTOMOBILE TRAVEL TIME RATIO

- 1.51 - 1.99
- 2.00 - 2.99
- 3.00 - 3.99
- 4.00 - 4.99
- 5.00 AND OVER

AVERAGE TRANSIT TO AUTOMOBILE TRAVEL TIME RATIO FOR SELECTED TRIPS FROM LOCATION

- 1.51 - 1.99
- 2.00 - 2.99
- 3.00 - 3.99
- 4.00 - 4.99
- 5.00 AND OVER

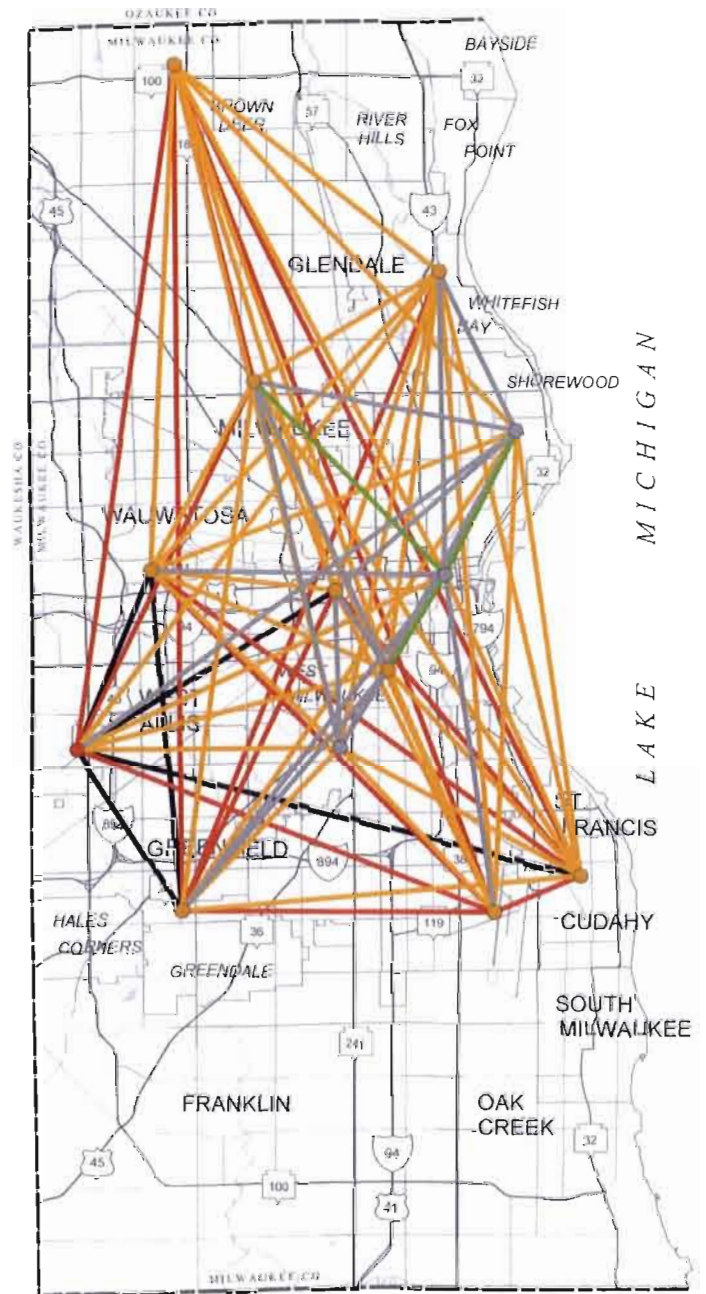
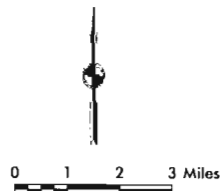


Table 21

**ESTIMATED SOUTHEASTERN WISCONSIN REGION TRANSPORTATION SYSTEM
AIR POLLUTANT EMISSION AND FUEL CONSUMPTION: 2001 AND 2010**

Year	Estimated Air Pollutant Emissions (Tons per Hot Summer Weekday)						
	Volatile Organic Compounds ^a	Nitrogen Oxides ^a	Carbon Monoxide	Carbon dioxide	Fine Particulate Matter	Sulfur Dioxide	Ammonia
2001	50.03	114.23	592.48	18,050	1.77	2.77	4.84
2010	27.30	60.92	358.29	18,500	1.18	0.51	5.62

Year	Estimated Air Pollutant Emissions (Tons per Hot Summer Weekday)					Estimated Fuel Consumption (Gallons per Average Weekday)
	Butadiene	Acetaldehyde	Acrolein	Benzene	Formaldehyde	
2001	0.20	0.43	0.03	1.40	0.63	1,805,000
2010	0.09	0.20	0.01	0.66	0.30	1,865,000

^aEstimated 1990 emissions were 154.6 tons of volatile organic compounds and 136.3 tons of nitrogen oxides. Estimated 1999 emissions were 61.3 tons of volatile organic compounds and 118.0 tons of nitrogen oxides.

Figure 30

TOTAL, PROPERTY-DAMAGE ONLY, AND INJURY AND FATAL VEHICULAR CRASHES REPORTED IN THE REGION: 1997-2016

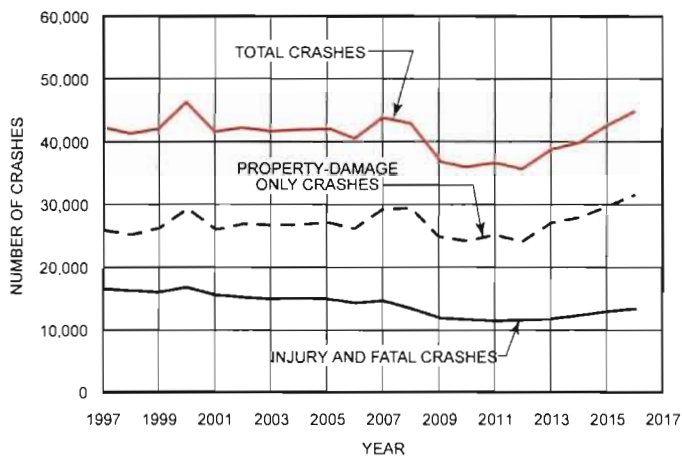
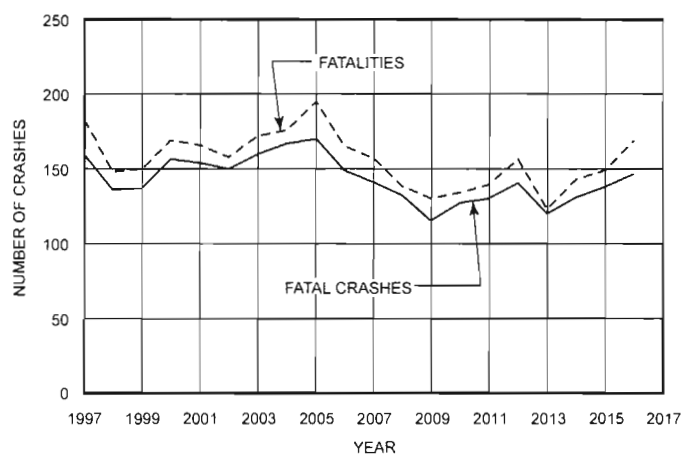


Figure 31

FATAL VEHICULAR CRASHES AND FATALITIES REPORTED IN THE REGION: 1997-2016



Field, Kenosha Regional Airport, and Lawrence J. Timmerman Airport. The annual numbers of general aviation aircraft operations at those four airports over the period 2007-2016 are shown in Table 25 and Figure 38. Over that 10-year period, general aviation aircraft operations at those airports have declined significantly, ranging from a decline of about 23 percent at Kenosha Regional Airport to a decline of about 42 percent at Lawrence J. Timmerman Airport. However, general aviation aircraft operation activity at Wauke-

sha County-Crites Field and Lawrence J. Timmerman Airport increased slightly from 2015 to 2016.

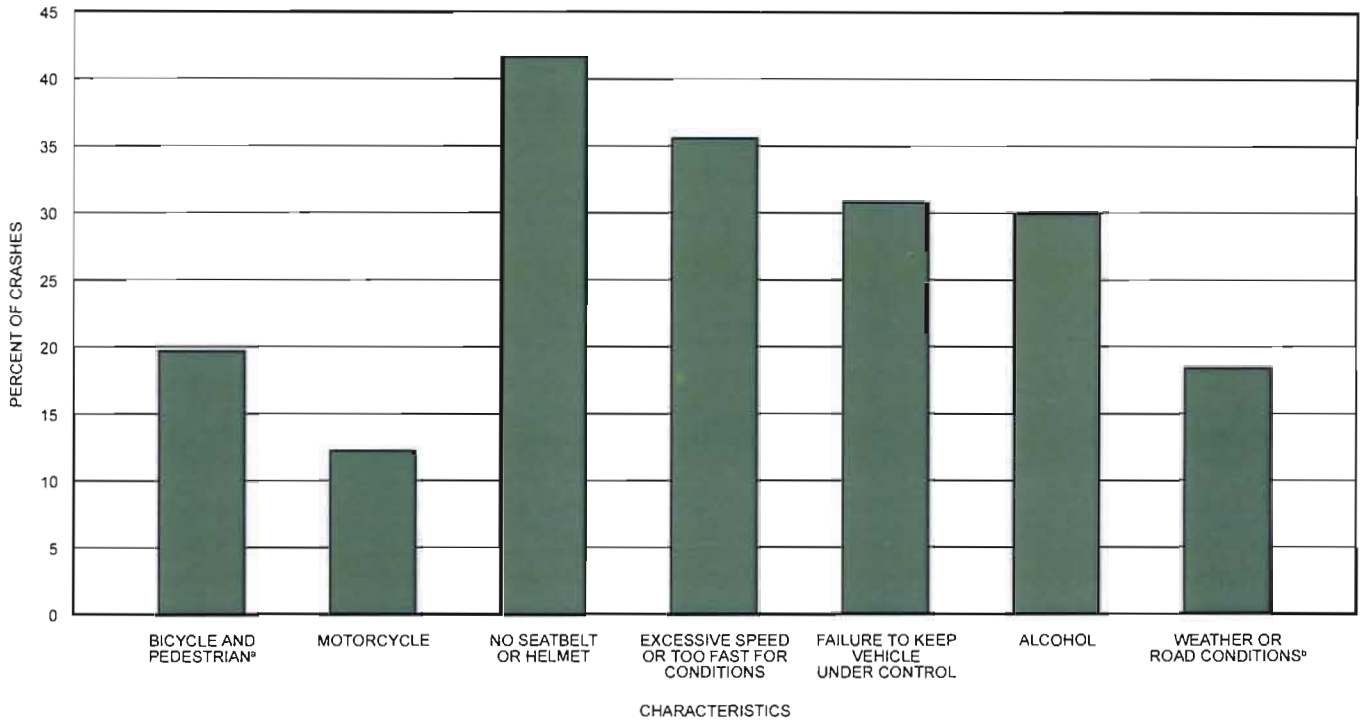
Freight Rail Lines

Active Main Lines

Freight rail service within the Southeastern Wisconsin Region is provided over a total of about 492 miles of active main lines (see Map 39). During 2016 there was no change to the number of miles of active freight rail lines.

Figure 32

SELECTED CHARACTERISTICS OF VEHICULAR CRASH-RELATED FATALITIES IN THE REGION: 2016



*IN 2016, THERE WERE 5 BICYCLE FATALITIES (3.4 PERCENT OF TOTAL FATAL CRASHES) AND 24 PEDESTRIAN FATALITIES (16.3 PERCENT OF TOTAL FATAL CRASHES).

*THIS CATEGORY INCLUDES SNOWY, RAINY, AND FOGGY CONDITIONS AND SNOW-COVERED, ICY OR WET ROADS.

NOTE: FATALITIES ATTRIBUTABLE TO MULTIPLE CATEGORIES ARE COUNTED MORE THAN ONCE.

Figure 33

NUMBER OF CRASHES RESULTING IN A SERIOUS INJURY REPORTED IN THE REGION: 1997-2016

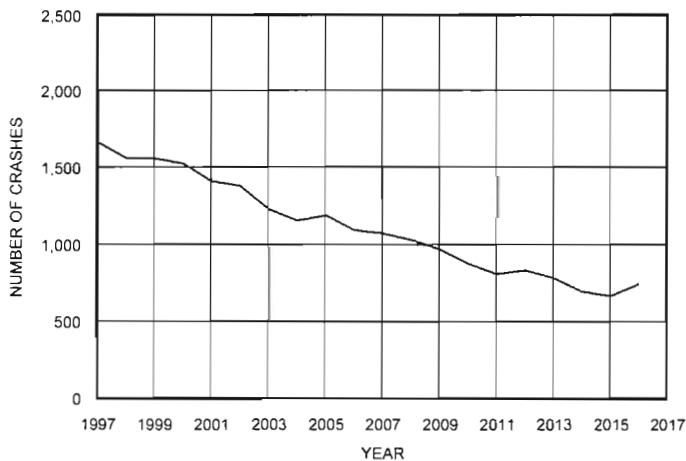


Figure 34

NUMBER OF VEHICULAR CRASHES INVOLVING BICYCLES OR PEDESTRIANS IN THE REGION: 1997-2016

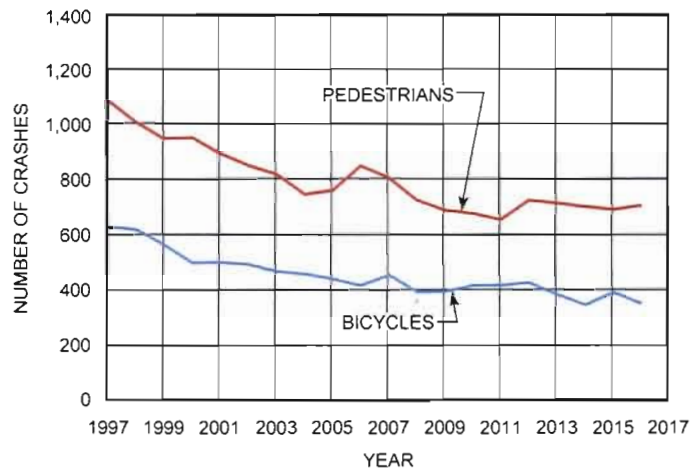


Figure 35

NUMBER OF VEHICULAR CRASHES RESULTING IN A FATALITY OR SERIOUS INJURY INVOLVING BICYCLES OR PEDESTRIANS AS REPORTED IN SOUTHEASTERN WISCONSIN: 1997-2016

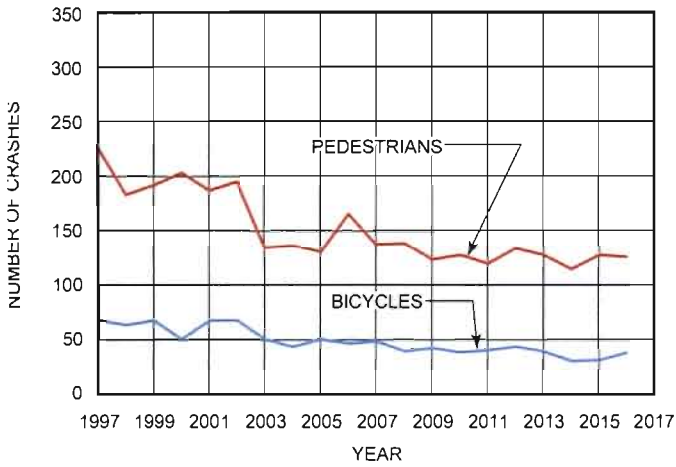


Figure 36

AIR CARRIER ENPLANING AND DEPLANING PASSENGERS AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2007-2016

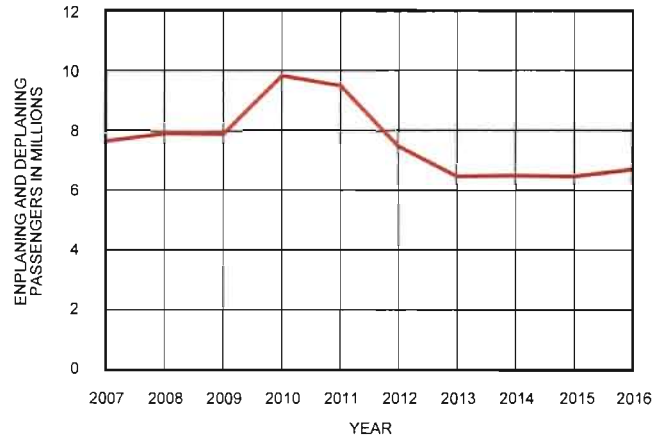


Table 22

AVERAGE VEHICULAR CRASH RATE OF STATE TRUNK HIGHWAYS BY ARTERIAL TYPE BY COUNTY IN SOUTHEASTERN WISCONSIN: 2010-2014 AND 2011-2015

County	Crash Rate per 100 Million Vehicle Miles			
	Freeways		Standard Arterials	
	2010-2014	2011-2015	2010-2014	2011-2015
Kenosha.....	49.8	46.5	224.6	242.3
Milwaukee.....	115.6	121.6	376.6	414.3
Ozaukee.....	41.6	44.6	136.5	143.6
Racine.....	40.1	40.5	241.1	248.7
Walworth.....	31.8	32.0	135.2	134.6
Washington.....	45.8	50.8	207.2	205.4
Waukesha.....	49.7	51.0	212.7	203.4
Region	73.1	76.8	262.6	268.3

Note: Only crashes that have occurred in years since a roadway segment was last reconfigured are included in the crash rates above.

Table 23

AIR CARRIER ENPLANING AND DEPLANING PASSENGERS AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2007-2016

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Percent Change: 2015-2016	Percent Change: 2007-2016
7,713,100	7,957,000	7,946,000	9,848,000	9,522,000	7,515,000	6,525,200	6,554,200	6,549,400	6,757,400	3.2	-12.4

Figure 37

AIR CARRIER AND MILITARY AIRCRAFT OPERATIONS AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2007-2016

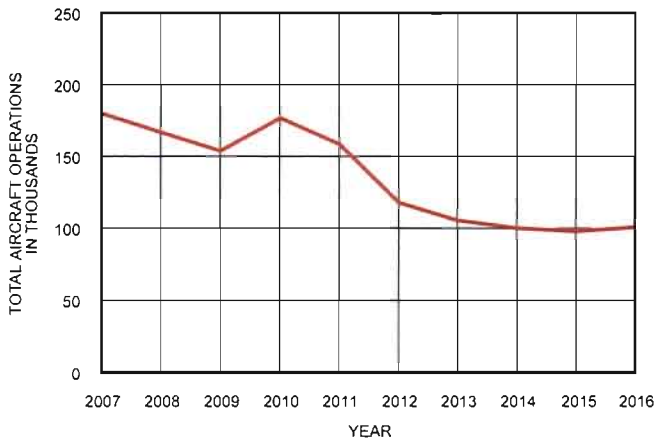


Figure 38

GENERAL AVIATION AIRCRAFT OPERATIONS AT AIRPORTS IN THE SOUTHEASTERN REGION WITH CONTROL TOWERS: 2007-2016

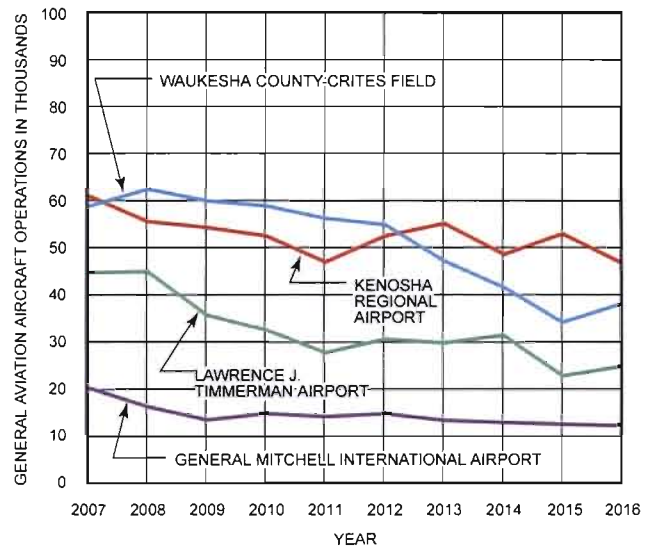


Table 24

AIR CARRIER AND MILITARY AIRCRAFT OPERATIONS AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2007-2016

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Percent Change: 2015-2016	Percent Change: 2007-2016
179,800	166,900	154,000	176,600	158,600	118,400	105,900	100,400	98,300	101,100	2.8	-43.8

Table 25

GENERAL AVIATION AIRCRAFT OPERATIONS AT AIRPORTS IN THE SOUTHEASTERN WISCONSIN REGION WITH CONTROL TOWERS: 2007-2016

Airport	2007	2008	2009	2010	2011	2012
Waukesha County-Crites Field	58,700	62,400	59,900	58,800	56,100	54,800
Kenosha Regional Airport	61,000	55,500	54,300	52,500	47,100	52,700
Lawrence J. Timmerman Airport	44,600	44,900	35,600	32,600	27,800	30,800
General Mitchell International Airport	20,400	16,400	13,700	15,000	14,400	15,000

Airport	2013	2014	2015	2016	Percent Change: 2015-2016	Percent Change: 2007-2016
Waukesha County-Crites Field	47,200	41,700	34,200	38,200	11.7	-34.9
Kenosha Regional Airport	56,200	48,700	53,100	46,900	-11.7	-23.1
Lawrence J. Timmerman Airport	29,900	31,500	22,900	25,000	9.2	-41.9
General Mitchell International Airport	13,600	12,900	13,200	12,400	-6.1	-39.2

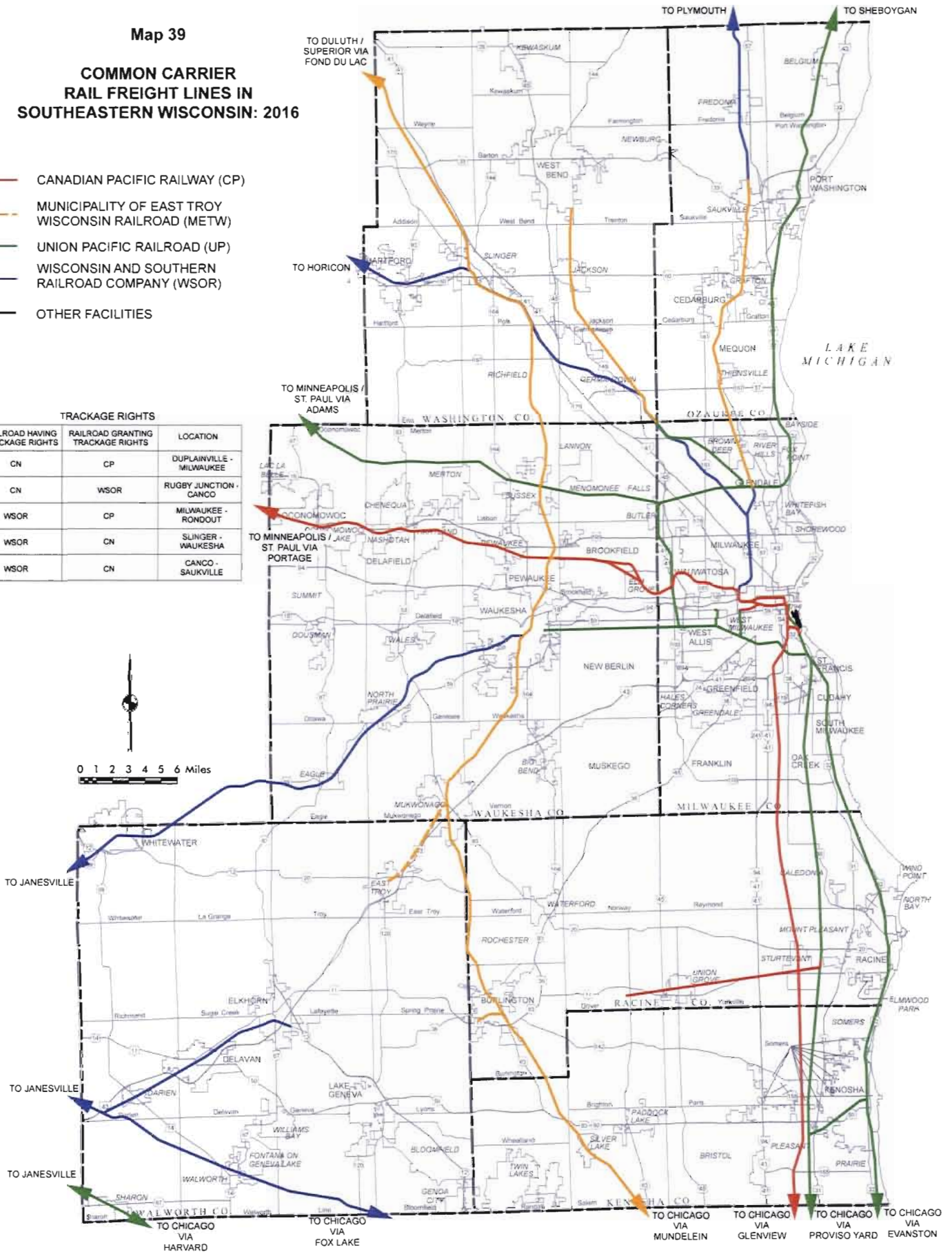
Map 39

**COMMON CARRIER
RAIL FREIGHT LINES IN
SOUTHEASTERN WISCONSIN: 2016**

- CANADIAN PACIFIC RAILWAY (CP)
- MUNICIPALITY OF EAST TROY WISCONSIN RAILROAD (METW)
- UNION PACIFIC RAILROAD (UP)
- WISCONSIN AND SOUTHERN RAILROAD COMPANY (WSOR)
- OTHER FACILITIES

TRACKAGE RIGHTS

RAILROAD HAVING TRACKAGE RIGHTS	RAILROAD GRANTING TRACKAGE RIGHTS	LOCATION
CN	CP	DUPLAINVILLE - MILWAUKEE
CN	WSOR	RUGBY JUNCTION - CANCO
WSOR	CP	MILWAUKEE - RONDOUT
WSOR	CN	SLINGER - WAUKESHA
WSOR	CN	CANCO - SAUKVILLE



REGIONAL HOUSING PLAN IMPLEMENTATION ACTIVITY

A regional housing plan was adopted by the South-eastern Wisconsin Regional Planning Commission (SEWRPC) in early 2013. The housing plan recommends that implementation of the plan be monitored and the results reported every one, five, or 10 years. The full 2016 Regional Housing Plan Implementation Report is available on the Commission website at www.sewrpc.org/housing, or can be requested by contacting the Commission office. A brief summary of implementation activities associated with the regional housing plan is provided in this section.

Housing Plan Presentations

During 2016, SEWRPC staff gave a presentation about the Regional Housing Plan to a class at UW-Milwaukee. Staff also participated in the following housing events:

- A housing mobility discussion with HUD, County, and local government officials.
- A panel discussion on affordable housing policy hosted by the Greater Milwaukee Foundation in October 2016. The purpose of the panel was to discuss coordinating policies to address housing needs in the Region among a number of housing policy and financing agencies and organizations.
- A roundtable discussion in December 2016 with the Secretary of the U.S. Department of Housing and Urban Development (HUD) and housing policy and service agencies and organizations in the Region. The topic of the discussion was regional collaboration, including a discussion of preparing a regional Assessment of Fair Housing (AFH) submission.

Implementation of Housing Plan Recommendations

The following paragraphs describe activities undertaken by State and Federal agencies, county and local units of government, and SEWRPC to implement regional housing plan recommendations. Monitoring results are organized according to the six general topic areas addressed by housing plan recommendations. Only those recommendations that were fully or partially implemented during 2016 are included.

Affordable Housing

Most of the measures related to implementing affordable housing recommendations involve the extent to which sewerred communities have incorporated housing plan recommendations into local regulations and plans, particularly zoning ordinances and comprehensive plans. A comprehensive review of local and county zoning and land division regulations will be conducted as part of the next update to the regional housing plan.

Wisconsin Tax Increment Financing (TIF) legislation was amended in 2009 to allow municipalities to extend the life of a Tax Increment District (TID) for one year after paying off the TID's project costs. In that year, at least 75 percent of any tax revenue received from the value increment must be used to benefit affordable housing in the municipality and the remainder must be used to improve the municipality's housing stock. The regional housing plan encourages communities located in a subsidized housing priority sub-area and communities with a job/housing imbalance to use the TID extension provision to increase the supply of affordable housing. A housing study completed for the City of Wauwatosa in 2016 (see the Housing Development section) notes that the City has recently used the TID extension provision and recommends continued use of the provision. A TID extension program has also been implemented by the City of Milwaukee.

Fair Housing/Opportunity

As described in Chapter VI of the regional housing plan report, States and entitlement jurisdictions² must prepare a Consolidated Plan every five years in order to receive Community Planning and Development

² Generally, entitlement jurisdictions are States, cities with a population of 50,000 or more residents, and counties with a population of 200,000 or more residents outside an entitlement city. Milwaukee and Waukesha Counties and the Cities of Kenosha, Milwaukee, Racine, Wauwatosa, and West Allis are entitlement jurisdictions within the Region. The City of Waukesha merged its entitlement status with Waukesha County in 1993.

(CPD) block grant funding from the U.S. Department of Housing and Urban Development (HUD). CPD programs include the Community Development Block Grant (CDBG), HOME Investment Partnership (HOME), Emergency Solutions Grant (ESG), and Housing Opportunities for Persons with Aids (HOPWA) programs. The State of Wisconsin and all of the entitlement jurisdictions in the Region updated their Consolidated Plans between 2013 and 2015. The plans are summarized in the Regional Housing Plan implementation reports for 2013, 2014, and 2015.

In 2016, the State of Wisconsin made two amendments to its 2015 to 2019 Consolidated Plan. Substantial Amendment 1 would increase funding for programs to help rehabilitate rental housing and create a proposed Rural Economic and Area Development Initiative (READI) that would provide sources of funding for communities and agencies in the Region to help increase income levels through job creation and training and create affordable workforce housing. Substantial Amendment 2 designates the Wisconsin Housing and Economic Development Authority (WHEDA) as the administrator of the National Housing Trust Fund in the State of Wisconsin. Over \$3 million was allocated to the State to provide resources to construct and rehabilitate housing for extremely low-income households. Both amendments will help to implement regional housing plan recommendations and improve housing opportunities in the Region.

Milwaukee County updated its Consolidated Plan in 2013 and Waukesha County updated its Consolidated Plan in 2014. In 2014 and 2015, respectively, Milwaukee County and Waukesha County developed an agreement form for communities that receive pass-through CDBG and HOME program grant funds from the County. As a condition of receiving pass-through funds, a community must agree to implement at least three of eight activities listed in the agreement intended to affirmatively further fair housing. Several of the activities were derived from the regional housing plan, including working with SEWRPC to review and revise zoning ordinances to better accommodate affordable housing. In 2015, the State of Wisconsin also began requiring CDBG recipients to agree to implement at least three fair housing actions as a grant condition for CDBG programs for non-entitlement jurisdictions administered by the Department

of Administration (see options at the following website: http://doa.wi.gov/Documents/DOH/CD/Application_Materials/Potential_Fair_Housing_Actions.pdf).

Disparate Impact is a legal doctrine under the Fair Housing Act of 1968 which states that a policy may be considered discriminatory if it has a disproportionate “adverse impact” against any group based on race, national origin, color, religion, sex, familial status, or disability when there is no legitimate, non-discriminatory business need for the policy. In June 2015, the U.S. Supreme Court ruled in favor of citing disparate impact in housing cases, meaning that Federal money cannot be used to fund programs that perpetuate segregation, even unintentionally. The ruling allows the practice of using statistics and other evidence to show decisions and practices have discriminatory effects without having to prove discriminatory intent. Following the Supreme Court’s ruling, HUD released final regulations setting out a framework for county and local governments, States, and public housing agencies that receive HUD funding to meet the fair housing obligations in their use of HUD funds.

In 2016, HUD released updated Fair Housing Act guidance on state and local land use laws. The Fair Housing Act prohibits state and local governments from enacting or enforcing land use and zoning laws, policies, practices, and decisions that discriminate against people because of a protected characteristic. The updated guidance was issued in the form of questions and answers to help governmental units determine if they are in compliance with the Fair Housing Act.

Job/Housing Balance

In accordance with a housing plan recommendation, information on the job/housing balance analysis conducted as part of the housing plan is provided as part of the review process for sewer service area amendments. The intent of the recommendation is to remind local communities of the regional housing plan findings for their community as they propose expansion of their sewer service areas. Specifically, communities are encouraged to consider job/housing balance as part of the next major update of their comprehensive plans. The regional housing plan recommends that communities with sanitary sewer service projected to have a job/housing imbalance (based on

a general analysis of their comprehensive plan conducted as part of the housing plan) conduct their own detailed analysis based on specific conditions in their community when the comprehensive plan is updated. The Commission did not adopt any amendments to sewer service area plans in 2016.

The Cities of Elkhorn and St. Francis and Village of Menomonee Falls adopted 10-year updates of their comprehensive plans³ in 2016. Based on the regional job/housing balance analysis, the City of St. Francis has a balance between jobs and housing. In addition, the City's zoning ordinance does not restrict affordable single-family or multifamily housing. The City of Elkhorn zoning ordinance also does not restrict affordable single-family or multifamily housing; however, the regional job/housing balance analysis did identify a possible shortage of lower-cost housing compared to lower-wage jobs in Elkhorn. Elkhorn's plan update includes a housing objective to "Reestablish predominantly single-family, owner-occupied neighborhoods, supported by other housing such as duplex and multifamily housing, to meet the needs of a diverse residential population of all sizes, incomes, and age levels." If additional duplex and multifamily housing is developed in the City, it may increase the supply of lower-cost housing compared to lower-wage jobs.

The regional job/housing balance analysis identified a possible shortage of moderate-cost housing compared to moderate-wage jobs in the Village of Menomonee Falls. In response, the Village conducted a housing price overview as part of their 10-year comprehensive plan update, which implements a regional housing plan job/housing balance recommendation. The Village analysis concluded that the supply of moderate-cost housing significantly exceeds the supply identified under the regional job/housing balance analysis which was based on lot size/density, due largely to a significant amount of older single-family housing stock. The comprehensive plan update does recognize that the SEWRPC recommendation to increase the supply of moderate-cost housing remains

³ *The Wisconsin comprehensive planning law, in Section 66.1001(2)(i) of the Wisconsin Statutes, requires that comprehensive plans be updated at least once every 10 years.*

relevant because the size and cost of most single-family homes constructed in the Village during the last 20 years is significantly higher when compared with older housing stock.

In addition to the three comprehensive plan updates, SEWRPC received 54 amendments to comprehensive plans adopted by 29 communities in the Region during 2016. Most of the amendments were related to changes to land use plan designations pertaining to one parcel.

Accessible Housing

Although housing construction slowed considerably in the Region following the national recession and housing crisis in the late 2000s, construction of multifamily units has been fairly strong in recent years. As shown in Table 26, housing units in one- and two-family buildings comprised 75 percent of the housing stock in the Region at the beginning of 2010, with housing units in multifamily buildings (three or more units) making up the remaining 25 percent. Between 2010 and the end of 2016, 51 percent of the new units constructed (13,304 units) were in one- or two-family buildings and 49 percent (12,750 units) were in multi-family buildings (see Table 27), which is similar to the percentages of new housing structure-types constructed in 2016. Table 27 also shows the number of housing units removed from the Region's housing stock, and the net change in housing by structure type. Overall, there was a net increase of 9,107 one-family units and 10,775 multi-family units. The number of units in two-family buildings decreased by 1,043 units, with 95 percent of the decrease occurring in Milwaukee County.

As shown by comparison of Tables 26 and 28, the percentage of multi-family units in the Region increased slightly, by 0.7 percent, between 2010 and the end of 2016. The increase in the number and percentage of multi-family units in the Region helps increase the supply of accessible housing units, because many new multi-family units must be accessible to people with mobility disabilities under Fair Housing Act requirements.

Subsidized and Tax Credit Housing Housing Vouchers

Table 28 provides information on the number and type of housing vouchers allotted to Public Housing

Table 26

HOUSING UNITS BY STRUCTURE TYPE IN THE SOUTHEASTERN WISCONSIN REGION: 2010

County	Single-Family ^a		Two-Family		Multi-Family		Total ^b	
	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total
Kenosha.....	49,946	72.1	5,341	7.7	14,011	20.2	69,298	100.0
Milwaukee.....	216,047	51.7	72,032	17.2	129,934	31.1	418,013	100.0
Ozaukee.....	29,014	79.9	1,931	5.3	5,347	14.7	36,292	100.0
Racine.....	60,800	74.0	5,071	6.2	16,338	19.9	82,209	100.0
Walworth.....	39,467	76.5	2,140	4.2	9,949	19.3	51,556	100.0
Washington.....	42,172	77.1	2,669	4.9	9,897	18.1	54,738	100.0
Waukesha.....	124,212	77.2	3,959	2.5	32,778	20.4	160,949	100.0
Region	561,658	64.3	93,143	10.7	218,254	25.0	873,055	100.0

^aIncludes mobile homes.

^bTotals are based on all housing units, including occupied and vacant units.

Table 27

CHANGE IN HOUSING UNITS BY STRUCTURE TYPE IN SOUTHEASTERN WISCONSIN: 2010 THROUGH 2016

County	New Housing Units				Housing Unit Losses				Net Change in Housing Units			
	Single Family	Two Family	Multi-Family	Total	Single Family	Two Family	Multi-Family	Total	Single Family	Two Family	Multi-Family	Total
Kenosha.....	1,134	42	976	2,152	263	38	67	368	871	4	909	1,784
Milwaukee.....	1,668	490	6,839	8,997	1,355	2,181	1,327	4,863	313	-1,691	5,512	4,134
Ozaukee.....	1,019	56	481	1,556	84	6	0	90	935	50	481	1,466
Racine.....	1,056	136	606	1,798	210	44	472	726	846	92	134	1,072
Walworth.....	1,120	54	313	1,487	372	10	30	412	748	44	283	1,075
Washington.....	1,645	200	716	2,561	105	8	0	113	1,540	192	716	2,448
Waukesha.....	4,412	272	2,819	7,503	558	6	79	643	3,854	266	2,740	6,860
Region	12,054	1,250	12,750	26,054	2,947	2,293	1,975	7,215	9,107	-1,043	10,775	18,839

NOTE: The Wisconsin Department of Administration conducts an annual survey of each local government to collect data on the current housing stock. Respondents generally use building permits and demolition permits to report changes in housing units which are reported by structure type: single family (including mobile homes), two family, and multifamily buildings. This table reports changes in the Region's housing stock from January 1, 2010, to December 31, 2016.

Agencies (PHAs) in the Region in 2015. The number of vouchers allotted in the Region increased by about 10 percent between 2011⁴ and 2015, from 13,061 to 14,353, an increase of 1,292 vouchers. The number of vouchers increased by 538 from 2014 to 2015, and included an increase of 466 vouchers in Milwaukee County and 72 vouchers to the Housing Authority of Racine County. All of the additional vouchers

are Housing Choice Vouchers. Table 29 includes the number of housing choice (or tenant-based, meaning the voucher is attached to a household rather than a housing unit) vouchers and the number of project-based vouchers, which are attached to a housing unit allotted to a PHA. All of the PHA project-based vouchers in the Region are attached to housing units managed by PHAs in Milwaukee County. The actual number of vouchers in use by each PHA may be less than the number allotted, which fluctuates based on available funding, participating households, and the funding level needed to make up the difference between 30 percent of a household's income and the actual rent for a housing unit.

⁴ Data from 2011 is included in the *Regional Housing Plan report*.

Table 28

HOUSING UNITS BY STRUCTURE TYPE IN THE SOUTHEASTERN WISCONSIN REGION: 2016^a

County	Single-Family ^b		Two-Family		Multi-Family		Total ^c	
	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total
Kenosha.....	50,817	71.5	5,345	7.5	14,920	21.0	71,082	100.0
Milwaukee.....	216,360	51.2	70,341	16.7	135,446	32.1	422,147	100.0
Ozaukee.....	29,949	79.3	1,981	5.3	5,828	15.4	37,758	100.0
Racine.....	61,646	74.0	5,163	6.2	16,472	19.8	83,281	100.0
Walworth.....	40,215	76.4	2,184	4.2	10,232	19.4	52,631	100.0
Washington.....	43,712	76.4	2,861	5.0	10,613	18.6	57,186	100.0
Waukesha.....	128,066	76.3	4,225	2.5	35,518	21.2	167,809	100.0
Region	570,765	64.0	92,100	10.3	229,029	25.7	891,894	100.0

^a2016 data includes 2010 Census data plus the number of building permits issued for each type of housing unit from 2010 to December 31, 2016. Building permit data were provided by the Wisconsin Department of Administration.

^bIncludes mobile homes.

^cTotals are based on all housing units, including occupied and vacant units.

Table 30 provides information on the number of public housing units managed by PHAs in the Region. There were 5,449 public housing units in the Region in 2015, with 88 percent of the units located in and managed by the Housing Authority of the City of Milwaukee. About 57 percent of PHA housing units were designated for families and the remaining 43 percent were designated for the elderly or persons with disabilities.

Low-Income Housing Tax Credit (LIHTC) Program

Housing developed under the Low-Income Housing Tax Credit (LIHTC) program has been a major source of new affordable housing in the Region. There were 18,905 available LIHTC units in the Region as of 2016, including 5,875 units placed in service between 2011, when data were collected for the regional housing plan, and the end of 2016. Nine projects in the Region were awarded tax credits in 2016, all located in the City of Milwaukee. Seven projects are intended to provide a total of 316 units to low-income families. Of these seven family-occupied projects, five will be newly constructed projects, one project will be to rehabilitate existing housing units, and one project will consist of both new construction and rehabilitation of existing housing. The other two projects include one rehabilitation project intended for elderly residents

and one rehabilitation project intended for both family and elderly residents.

Choice Neighborhoods Initiative

Beginning in 2010, the City of Milwaukee and the Housing Authority of the City of Milwaukee (HACM) have been working together to redevelop the 37-acre eastern half of the Westlawn public housing development, renaming the development Westlawn Gardens. As of 2015, this redevelopment has accomplished the demolition of 332 barracks-style housing units and replaced them with 250 energy-efficient units. Amenities at Westlawn Gardens include a public safety team, internal streets, Browning Elementary School, playground, walking trail along Lincoln Creek, and community garden. Also located at Westlawn Gardens is the Silver Spring Neighborhood Center that provides a child care and development center, teen programs, youth sports programs, family programs, adult education programs, after-school programs, employment programs, emergency food pantry and clothing bank, and the UW-Milwaukee Silver Spring Community Nursing Center.

In 2015, the City of Milwaukee and HACM were awarded a \$30 million HUD Choice Neighborhoods Implementation Grant to continue redevelopment of the western portion of the Westlawn public housing

Table 29

SECTION 8 HOUSING VOUCHERS ALLOTTED IN THE SOUTHEASTERN WISCONSIN REGION: 2016

Public Housing Agency ^a	Housing Choice Vouchers		Project-Based Vouchers		Total Vouchers	
	Number	Percent	Number	Percent	Number	Percent
Kenosha County						
City of Kenosha Housing Authority.....	1,211 ^b	9.1	0	0.0	1,211	8.4
Kenosha County Housing Authority ^c	100	0.7	0	0.0	100	0.7
County Subtotal	1,311	9.8	0	0.0	1,311	9.1
Milwaukee County						
Housing Authority of the City of Milwaukee	5,942 ^d	44.4	548	56.1	6,490	45.2
Milwaukee County Housing Division	1,660	12.4	329	33.7	1,989	13.9
West Allis Housing Authority	457 ^e	3.4	100 ^f	10.2	557	3.9
County Subtotal	8,059	60.2	977	100.0	9,036	63.0
Ozaukee County						
WHEDA.....	125	0.9	0	0.0	125	0.9
County Subtotal	125	0.9	0	0.0	125	0.9
Racine County						
The Housing Authority of Racine County	1,646 ^g	12.3	0	0.0	1,646	11.5
County Subtotal	1,646	12.3	0	0.0	1,646	11.5
Walworth County						
Walworth County Housing Authority.....	410	3.1	0	0.0	410	2.8
County Subtotal	410	3.1	0	0.0	410	2.8
Washington County						
Hartford Community Development Authority ^h	148	1.1	0	0.0	148	1.0
West Bend Housing Authority ^h	244	1.8	0	0.0	244	1.7
WHEDA.....	102	0.8	0	0.0	102	0.7
County Subtotal	494	3.7	0	0.0	494	3.4
Waukesha Countyⁱ						
New Berlin Housing Authority.....	88	0.7	0	0.0	88	0.6
Housing Authorities of the City and County of Waukesha	1,243	9.3	0	0.0	1,243	8.7
County Subtotal	1,331	10.0	0	0.0	1,331	9.3
Region Total	13,376	100.0	977	100.0	14,353	100.0

^aIncludes only public housing agencies that administer housing vouchers.

^bIncludes 41 family-unification vouchers, 89 vouchers for people with disabilities, and two vouchers for Veterans Affairs Supportive Housing (VASH).

^cKenosha County Housing Authority vouchers are administered by the City of Kenosha Housing Authority.

^dIncludes 100 vouchers for people with disabilities and 258 vouchers for VASH.

^eIncludes 100 vouchers for VASH.

^fAll 100 vouchers are for the Beloit Road Senior Housing Complex. The West Allis Housing Authority does not receive any direct Federal rent-assistance funding for the Beloit Road complex.

^gIncludes 14 vouchers for VASH.

^hAll PHA voucher programs in Washington County are administered by WHEDA.

ⁱThe voucher programs for all PHAs in Waukesha County are administered by the Housing Authorities of the City and County of Waukesha.

Table 30

PUBLIC HOUSING UNITS MANAGED BY PUBLIC HOUSING AGENCIES (PHA) IN THE SOUTHEASTERN WISCONSIN REGION: 2016

Public Housing Agency ^a	Family Units		Elderly/Other Units		Total Units	
	Number	Percent	Number	Percent	Number	Percent
Milwaukee County						
Housing Authority of the City of Milwaukee	2,881	93.1	1,919	81.5	4,800 ^b	88.1
South Milwaukee Housing Authority	52	1.7	8	0.3	60	1.1
West Allis Housing Authority	0	0.0	104 ^c	4.4	104 ^c	1.9
County total	2,933	94.8	2,031	86.2	4,964	91.1
Racine County						
Housing Authority of Racine County	0	0.0	24	1.0	24	0.4
County total	0	0.0	24	1.0	24	0.4
Washington County						
Slinger Housing Authority	8	0.3	41	1.7	49	0.9
West Bend Housing Authority	0	0.0	146	6.2	146	2.7
County total	8	0.3	187	7.9	195	3.6
Waukesha County						
Housing Authorities of the City and County of Waukesha	152	4.9	114	4.9	266	4.9
County total	152	4.9	114	4.9	266	4.9
Region	3,093	100.0^d	2,356	100.0^d	5,449	100.0

^aIncludes only public housing agencies that manage low-rent public housing units. Some of the units managed by PHAs may have project-based housing vouchers attached to them or may be occupied by a household with a housing choice voucher.

^bTotal does not include updated information for the West Lawn redevelopment project.

^cThe West Allis Housing Authority does not receive any Federal rent-assistance funding for the Beloit Road Senior Housing complex, but does receive 100 project-based vouchers for the complex.

^dAbout 57 percent of public housing units are designated to be occupied by families. The remaining 43 percent are designated for occupancy by the elderly or people with disabilities, or are supportive housing units.

development and revitalization of the surrounding Westlawn neighborhood. The Westlawn Transformation Plan includes the demolition of the remaining 394 barracks-style housing units and development of 708 new mixed-income housing units. The new units will include 394 replacement units, with 312 on the Westlawn site and the remainder in the surrounding neighborhood. In 2016, the Milwaukee Bucks and the Medical College of Wisconsin announced a \$5 million partnership to advance the health and well-being of residents of Milwaukee’s Northside, including the Choice Neighborhood area.

Homelessness

In 2012, HUD enacted an interim rule that established regulations for the Continuum of Care (CoC) program. The CoC program provides funding to local CoCs to assist homeless individuals and families. There are three CoCs serving the Region, including the Milwaukee CoC, the CoC for the City and County of Racine, and the Balance of State CoC. The Balance of State (BoS) CoC provides homelessness planning and coordination services to all counties in Wisconsin outside Dane, Milwaukee, and Racine Counties, and is comprised of 21 local homeless coalitions (see Table 31 and Map 40).

HUD regulations now require that each CoC implement “Coordinated Entry” of homeless individuals and families into the service system, and encourages use of a Homeless Management Information System (HMIS). HUD, the Department of Health and Human Services, and the Department of Veterans Affairs released updated technical specifications for reporting HMIS data in 2014.

Coordinated entry is intended to connect individuals and families experiencing homelessness or potential homelessness with organizations providing housing or diversion services in a systematic and efficient manner. The HMIS is intended to collect client-level unduplicated information on homelessness and the provision of housing and services to homeless individuals, families, and people at risk of homelessness. Equally important, HMIS allows for the development, implementation, and evaluation of practices whose effectiveness can be tracked, such as how many clients are stably housed after completing a program or how many subsequently return to a shelter. Each CoC in the State worked to develop policies and standards for implementing Coordinated Entry and HMIS requirements during 2015. The Wisconsin Service Point (WISP) serves as the HMIS for the State.

In addition to developing procedures for implementing Coordinated Entry and HMIS requirements, the Milwaukee CoC updated its 10-year Plan to End Homelessness during 2015. The plan is available on the Milwaukee CoC website: <http://milwaukeecoc.org/wp-content/uploads/2014/11/Mid-Course-Revisions-10-Year-Plan-Final.pdf>

Milwaukee County is a partner agency with the Milwaukee CoC. The County prepared a Plan to End Chronic Homelessness in 2015, which is an initiative focusing on expanding the Housing First concept that emphasizes first obtaining stable housing for chronically homeless individuals or households, and then addressing other issues affecting the household once housing is obtained. The plan proposes spending approximately \$1.8 million in rental assistance and supportive services to serve 300 chronically homeless individuals in the next three years. Funding for implementing several of the above recommendations was included in the County budget for 2016. The

program was credited with reducing the number of people experiencing homelessness in Milwaukee County by 70 percent between 2015 and 2016. The plan is available on the Milwaukee County website: <http://county.milwaukee.gov/ImageLibrary/Groups/cntyExecutive/Homeless/PlantoEndChronicHomelessness.pdf>

A new Statewide nonprofit organization, the Wisconsin Coalition Against Homelessness (WCAH), was formed in 2015. The coalition endeavors to be the hub of a statewide network of homeless service providers and other concerned individuals and organizations across Wisconsin. In 2016, WCAH developed policy and budget recommendations with the goal of ending homelessness in Wisconsin. They include creating a State interagency council on homelessness, using existing resources, increasing State funding for emergency shelters, creating a State-level homelessness prevention program, creating a State fund for services attached to permanent supportive housing, establishing a WHEDA financing mechanism for low-income housing development affordable to very low-income households, and exploring social impact bonding.

In 2016, the Wisconsin Department of Veterans Affairs and Wisconsin Department of Administration collaborated to develop the “Welcome Home Veterans Pilot,” which used Federal Low Income Home and Energy Assistance Program funds to provide housing and/or energy assistance to Veterans and spouses of deceased Veterans experiencing homelessness or at risk of homelessness. Continuums of Care, County Veterans Services Offices, and Wisconsin Home Energy Plus Programs helped to implement the program across the State.

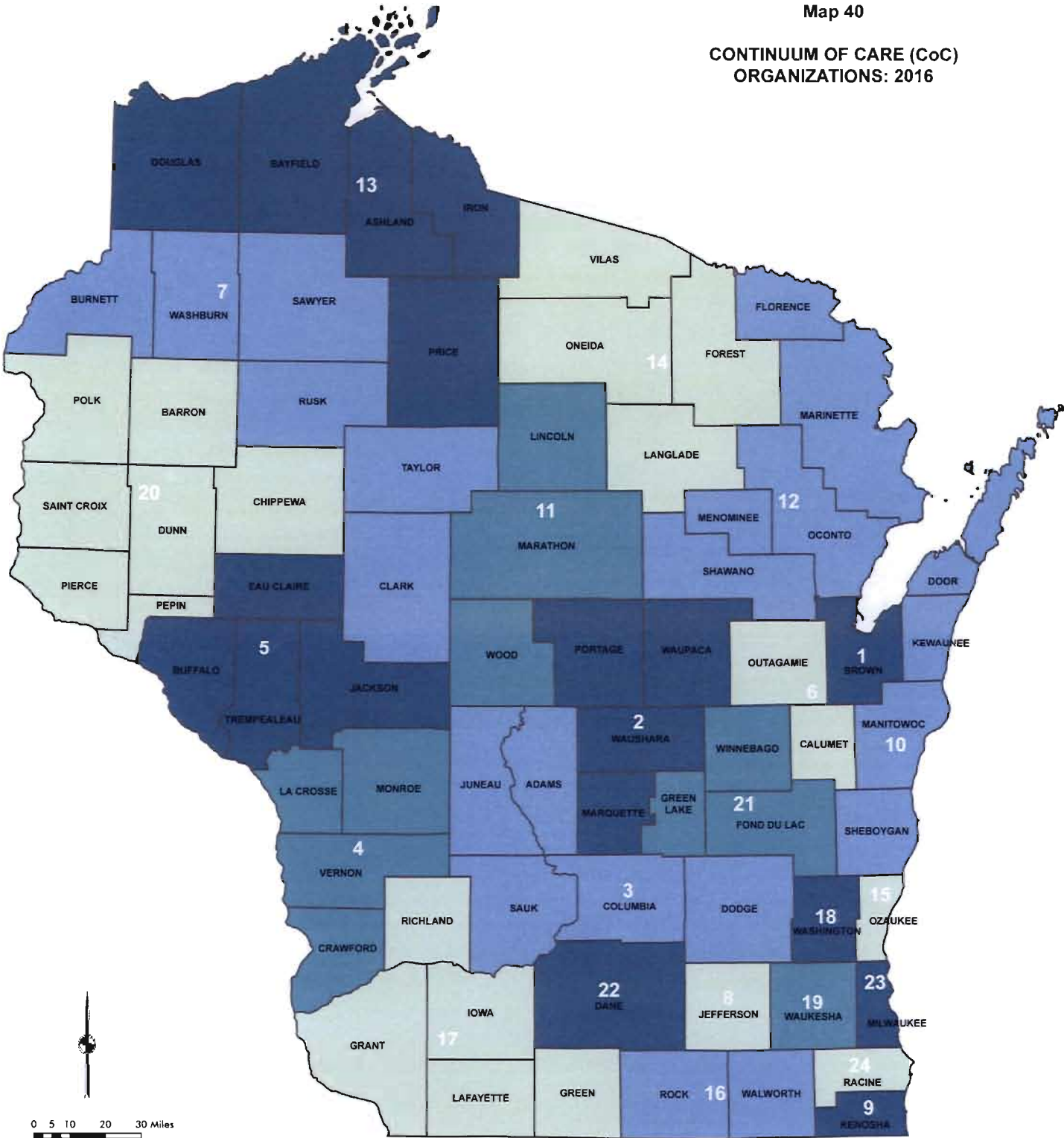
Housing Development

The housing development recommendations of the Regional Housing Plan are directed toward planning activities that local governments can undertake to encourage a variety of residential structure types and compact, mixed use neighborhoods.

The City of Wauwatosa initiated a housing needs analysis in 2015 to help plan for the housing needs of

Map 40

CONTINUUM OF CARE (CoC) ORGANIZATIONS: 2016



Notes:
 See Table 31 for CoC names and counties included in each CoC.
 Local CoC's outside of Dane, Milwaukee, and Racine Counties together make-up the Balance of State (BOS) CoC.
 Source: Institute for Community Alliances and SEWRPC.

Table 31

WISCONSIN CONTINUUM OF CARE (CoC) ORGANIZATIONS FOR HOMELESSNESS ASSISTANCE: 2015

Number on Map 40	Name	Counties Included
CoC in Balance of State Area		
1	Brown CoC	Brown
2	CAP CoC	Marquette, Portage, Waupaca, Waushara
3	Central CoC	Adams, Columbia, Dodge, Juneau, Sauk
4	Couleecap CoC	Crawford, La Crosse, Monroe, Vernon
5	Dairyland CoC	Buffalo, Eau Claire, Jackson, Trempealeau
6	Fox Cities CoC	Calumet, Outagamie
7	Indianhead CoC	Burnett, Clark, Rusk, Sawyer, Taylor, Washburn
8	Jefferson CoC	Jefferson
9	Kenosha CoC	Kenosha
10	Lakeshore CoC	Door, Kewaunee, Manitowoc, Sheboygan
11	North Central CoC	Lincoln, Marathon, Wood
12	Northeast CoC	Florence, Marinette, Menominee, Oconto, Shawano
13	Northwest CoC	Ashland, Bayfield, Douglas, Iron, Price
14	N*Wish CoC	Forest, Langlade, Oneida, Vilas
15	Ozaukee CoC	Ozaukee
16	Rock Walworth CoC	Rock, Walworth
17	Southwest CoC	Grant, Green, Iowa, Lafayette, Richland
18	Washington CoC	Washington
19	Waukesha CoC	Waukesha
20	West Central CoC	Barron, Chippewa, Dunn, Pepin, Pierce, Polk, St. Croix
21	Winnebago CoC	Fond du Lac, Greek Lake, Winnebago
CoC Outside Balance of State Area		
22	Dane CoC	Dane
23	Milwaukee CoC	Milwaukee
24	Racine City and County CoC	Racine

current and potential residents. The study is intended to address the extent to which current housing stock meets the needs of current residents and employees who work in the City but live elsewhere; whether projected population and economic changes over the next five to 15 years will impact the type, tenure, and affordability of housing required; whether recent and proposed multi-family development appears to be

sustainable; the ability of baby boomers and seniors to age in place in Wauwatosa; the availability of housing options for residents with disabilities; and potential policies and programs that could be utilized to ensure the City is meeting future housing needs. The study includes several recommendations that would help to implement regional housing plan affordable and accessible housing recommendations.

APPENDICES

Appendix A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION COMMISSIONERS AND COMMITTEES: DECEMBER 2016

COMMISSIONERS

**Term
Expires**

KENOSHA COUNTY

* Michael J. Skalitzky	2016
** Aloysius Nelson	2022
*** Robert W. Pitts	2018

MILWAUKEE COUNTY

*** William R. Drew, Treasurer	2020
* Brian R. Dranzik	2020
** Theodore Lipscomb, Sr.	2022

OZAUKEE COUNTY

* Jennifer K. Rothstein	2020
*** Thomas H. Buestrin	2018
** Gustav W. Wirth, Jr.	2020

RACINE COUNTY

* Mike Dawson	2020
*** James A. Ladwig	2022
** Peggy L. Shumway	2018

WALWORTH COUNTY

** Charles L. Colman, Vice-Chairman	2020
* Nancy L. Russell	2018
*** vacant	2018

WASHINGTON COUNTY

** Daniel S. Schmidt	2022
* Jeffrey D. Schleif	2020
*** David L. Stroik, Chairman	2018

WAUKESHA COUNTY

** Michael A. Crowley	2022
*** Jose M. Delgado	2022
* James T. Dwyer	2018

* Elected by County Board or appointed by County Executive and confirmed by County Board.

** Appointed by the Governor from a County-supplied list of candidates.

*** Appointed by the Governor on his own motion without reference to any County-supplied list.

COMMITTEES

EXECUTIVE COMMITTEE

David L. Stroik, Chairman
 Charles L. Colman, ViceChairman
 Thomas H. Buestrin
 Michael A. Crowley
 Mike Dawson
 William R. Drew
 James T. Dwyer
 Nancy L. Russell
 Daniel S. Schmidt
 Gustav W. Wirth, Jr.

ADMINISTRATIVE COMMITTEE

James T. Dwyer, Chairman
 Thomas H. Buestrin
 Charles L. Colman
 Michael A. Crowley
 Mike Dawson
 William R. Drew
 Nancy L. Russell
 Daniel S. Schmidt
 David L. Stroik
 Gustav W. Wirth, Jr.

INTERGOVERNMENTAL AND PUBLIC RELATIONS COMMITTEE

Michael A. Crowley, Chairman
 Mike Dawson
 Brian Dranzik
 William R. Drew
 Nancy L. Russell
 Jeffrey D. Schleif
 Michael J. Skalitzky
 Gustav W. Wirth, Jr.

PLANNING AND RESEARCH COMMITTEE

Daniel S. Schmidt, Chairman
 Charles L. Colman
 Jose M. Delgado
 Brian R. Dranzik
 William R. Drew
 Robert W. Pitts
 Jennifer K. Rothstein
 Nancy L. Russell
 Jeffrey D. Schleif
 Peggy Shumway
 Michael J. Skalitzky
 David L. Stroik

Appendix B

COMMISSION ADVISORY COMMITTEES

Commission Advisory Committee membership can be found on the Commission website under the Reports & Resources tab. Each Committee listed below is also accessible by the link provided.

Environmental

Regional Water Supply Planning Advisory Committee

<http://www.sewrpc.org/RWSPCommittee>

Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds

<http://www.sewrpc.org/RegWaterQualityMgmt>

Technical Advisory Committee for the Protection and Management of Natural Areas in Southeastern Wisconsin

<http://www.sewrpc.org/NAProtectionMgmt>

Land Use and Community Assistance

Advisory Committee on Regional Land Use Planning

<http://www.sewrpc.org/RegLandUsePlanning>

Advisory Committee on Regional Population and Economic Forecasts

<http://www.sewrpc.org/PopEconForecasts>

Regional Housing Plan Advisory Committee

<http://www.sewrpc.org/RegHousingPlan>

Transportation

Advisory Committee on Transportation System Planning and Programming for the Kenosha Urbanized Area

<http://www.sewrpc.org/TSPPKenoUrbanArea>

Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area

<http://www.sewrpc.org/TSPPMilwUrbanArea>

Advisory Committee on Transportation System Planning and Programming for the Racine Urbanized Area

<http://www.sewrpc.org/TSPPRaciUrbanArea>

Advisory Committee on Transportation System Planning and Programming for the Round Lake Beach-McHenry-Grayslake, IL-WI Urbanized Area (Wisconsin Portion)

<http://www.sewrpc.org/TSP-RLMGUrbanArea>

Advisory Committee on Transportation System Planning and Programming for the West Bend Urbanized Area

<http://www.sewrpc.org/TSPWBUrbanArea>

Advisory Committee on Regional Transportation System Planning

<http://www.sewrpc.org/RTSPCommittee>

Jurisdictional Highway Planning

Kenosha County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/KenoCoJHPC>

Milwaukee County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/MilwCoJHPC>

Ozaukee County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/OzauCoJHPC>

Racine County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/RaciCoJHPC>

Walworth County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/WalwCoJHPC>

Washington County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/WashCoJHPC>

Waukesha County Jurisdictional Highway Planning Committee

<http://www.sewrpc.org/WaukCoJHPC>

Other SEWRPC Committees

Environmental Justice Task Force

<http://www.sewrpc.org/EJTF>

Technical Advisory Committee on the Review and Reevaluation of the Regional Control Survey Program

<http://www.sewrpc.org/RegionalSurveyProgram>

Technical Advisory Committee on the 2010 Regional Orthophotography Product Evaluation

<http://www.sewrpc.org/RegionalOrthoReview>

Appendix C

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION STAFF: 2016

EXECUTIVE DIVISION

Kenneth R. Yunker, PE
Executive Director

Michael G. Hahn, PE, PH
Deputy Director

Kevin J. Muhs
Assistant Director

Debra D'Amico
Executive Secretary

Dr. Kurt W. Bauer, PE, PLS, AICP
Executive Director Emeritus

COMMUNITY ASSISTANCE PLANNING DIVISION

Nancy M. Anderson, AICP
Chief Community
Assistance Planner

Richard R. Kania, AICP, RLA
Principal Planner

John R. Meland
Principal Specialist

Christopher D. Parisey
Robbie L. Robinson
Planners

TRANSPORTATION PLANNING DIVISION

Christopher T. Hiebert, PE
Chief Transportation
Engineer

Dr. Gom B. Ale
Robert E. Beglinger
Principal Planners

Ryan W. Hoel, PE
Principal Engineer

Nicholas A. Koncz
Senior Engineer

Joseph M. Delmagori
Victor Helin
Ethan S. Johnson
Senior Planners

Joshua W. Depies
Engineer

Laurie B. Miller
Xylia N. Rueda
Planners

Reginald L. Mason
Research Analyst

Jeffrey Cross
Gabriel A. Rosenwald
Engineering Technicians

SURVEYING & GIS DIVISION

Robert W. Merry, PLS
Chief Surveyor

Michael G. Gosetti
GIS Manager

Paul J. Clavette
John D. Harasha
Principal Systems
Analysts

John T. Washburn, PLS
Senior Specialist–
Land Surveyor

Bradley T. Subotnik
Senior GIS
Specialist

Andrew J. Traeger
Certified Survey
Technician

Patricia L. Bouchard
Timothy R. Gorsegner
GIS Specialists

Byron D. Guerra
Benjamin O. Johnson
Land Survey
Assistants

PUBLIC INVOLVEMENT AND OUTREACH DIVISION

Stephen P. Adams
Public Involvement and
Outreach Manager

Nakeisha Payne
Gary K. Korb
Public Involvement
and Outreach
Specialists

ADMINISTRATIVE SERVICES DIVISION

Elizabeth A. Larsen, SPHR,
SHRM-SCP
Assistant Director-
Administration

Katherine M. Davis
Secretary

Christine A. Kettner
Accounting Clerk/
Human Resource
Assistant

Robert J. Klatkiewicz
Office Clerk

Nancee A. Nejedlo
Receptionist

Jean C. Peters
Principal Planning
Draftsman

Richard J. Wazny
Print Shop Supervisor

LAND USE PLANNING DIVISION

David A. Schilling
Chief Land Use Planner

Benjamin R. McKay
Principal Planner

Kathryn E. Sobottke
Principal Specialist

Rochelle M. Brien
Frank G. Fierek, Jr.
James P. Siegler
Planners

Leroy Mims, Jr.
Land Use Mapping
Specialist

Joyce A. Gramz
Senior GIS Specialist

ENVIRONMENTAL PLANNING DIVISION

Laura K. Herrick, PE, CFM
Chief Environmental
Engineer

Dr. Thomas M. Slawski
Chief Specialist-
Biologist

Ronald J. Printz, PE
Principal Engineer

Dale Buser
Dr. Daniel L. Carter
Principal Specialists

Karin M. Hollister
Joshua A. Murray, PE
Senior Engineers

Dr. Joseph E. Boxhorn
Senior Planner

Jennifer L. Dietl
Christopher J. Jors
Senior Specialists

Zijia Li
Julia C. Orlowski
Engineers

Shane T. Heyel
Zofia Noe
Specialists

Aaron W. Owens
Planner

Megan A. Beauchaine
Michael A. Borst
Anna C. Cisar
Research Analysts

SPECIAL PROJECTS DIVISION

Eric D. Lynde
Chief Special
Projects Planner

Kaleb W. Kutz
Research Analyst

Appendix D

REPORT OF AUDIT EXAMINATION FOR YEAR ENDING 2016

**SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION
Waukesha, Wisconsin**

**FINANCIAL STATEMENTS
December 31, 2016**



CliftonLarsonAllen

CliftonLarsonAllen LLP
CLAAconnect.com

INDEPENDENT AUDITORS' REPORT

Board of Commissioners
Southeastern Wisconsin Regional Planning Commission
Waukesha, Wisconsin

Report on the Financial Statements

We have audited the accompanying statement of net position, statement of revenues, expenses and changes in net position, and cash flows of the Southeastern Wisconsin Regional Planning Commission, as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the entity's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Southeastern Wisconsin Regional Planning Commission as of December 31, 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information, as presented in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

The Southeastern Wisconsin Regional Planning Commission has not presented the management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements, is required by the Governmental Accounting Standards Board, who consider it to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion is not affected by the missing information.

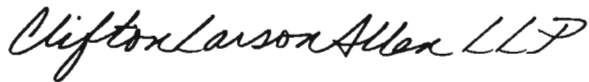
Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Southeastern Wisconsin Regional Planning Commission's basic financial statements. The Statement of Revenues, Expenses, and Changes in Net Position - Budget to Actual is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Statement of Revenues, Expenses, and Changes in Net Position - Budget to Actual is the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated May 31, 2017 on our consideration of the Southeastern Wisconsin Regional Planning Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Southeastern Wisconsin Regional Planning Commission's internal control over financial reporting and compliance.



CliftonLarsonAllen LLP

Milwaukee, Wisconsin
May 31, 2017

BASIC FINANCIAL STATEMENTS

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
STATEMENT OF NET POSITION
December 31, 2016

ASSETS	
CURRENT ASSETS	
Cash and cash equivalents	\$ 4,748,754
Receivables	1,581,759
Prepaid expenses	119,546
Total current assets	<u>6,450,059</u>
NONCURRENT ASSETS	
Capital assets, not being depreciated	335,300
Capital assets, net of accumulated depreciation	2,281,869
Total noncurrent assets	<u>2,617,169</u>
Total assets	<u>9,067,228</u>
DEFERRED OUTFLOWS OF RESOURCES	
Pension activity	<u>2,549,525</u>
Total deferred outflows of resources	<u>2,549,525</u>
Total assets and deferred outflows of resources	<u>\$ 11,616,753</u>
LIABILITIES	
CURRENT LIABILITIES	
Accounts payable	\$ 37,402
Accrued liabilities	146,339
Deposits	1,332
Unearned revenues	332,099
Total current liabilities	<u>517,172</u>
NONCURRENT LIABILITIES	
Compensated absences	745,280
Pension liability	457,516
Total noncurrent liabilities	<u>1,202,796</u>
Total liabilities	<u>1,719,968</u>
DEFERRED INFLOWS OF RESOURCES	
Pension activity	
Total deferred inflows of resources	<u>988,757</u>
NET POSITION	
Net investment in capital assets	2,617,169
Unrestricted	6,290,859
Total net position	<u>8,908,028</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$ 11,616,753</u>

The accompanying notes are an integral part of the basic financial statements.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
STATEMENT OF REVENUES, EXPENSES, AND
CHANGES IN NET POSITION
Year Ended December 31, 2016

OPERATING REVENUES

Intergovernmental:	
Charges for services	\$ 1,333,943
Grants:	
Federal	3,498,109
State	330,736
Local	297,527
Contributions	2,370,245
Miscellaneous	3,295
Total operating revenues	<u>7,833,855</u>

OPERATING EXPENSES

Salaries and fringe benefits	6,031,442
Technical consultants	1,022,154
Office supplies	50,519
Insurance, audit, legal fees	41,247
Library acquisition and dues	37,313
Printing and graphic supplies	66,292
Postage expenses	25,314
Travel expenses	78,095
Telephone expenses	25,189
Building usage	34,494
Building maintenance	140,300
Other operating expenses	45,275
Software and equipment maintenance	158,575
Other equipment outlays	68,007
Depreciation	149,395
Total operating expenses	<u>7,973,611</u>
Operating loss	<u>(139,756)</u>

NONOPERATING REVENUES (EXPENSES)

Rental income	71,518
Investment income	19,399
Total nonoperating revenues (expenses)	<u>90,917</u>

Change in net position (48,839)

Fund balance - beginning, restated 8,956,867

Fund balance - ending \$ 8,908,028

The accompanying notes are an integral part of the basic financial statements.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
STATEMENT OF CASH FLOWS
Year Ended December 31, 2016

CASH FLOWS FROM OPERATING ACTIVITIES

Collection from intergovernmental activities and other sources	\$ 7,366,933
Payments made to suppliers	(1,962,490)
Payments made to employees	<u>(5,889,341)</u>
Net cash used by operating activities	<u>(484,898)</u>

CASH FLOWS FROM CAPITAL AND RELATED FINANCING

Acquisition and construction of capital assets	<u>(56,932)</u>
Net cash used by capital and related financing activities	<u>(56,932)</u>

CASH FLOWS FROM INVESTING ACTIVITIES

Collection of rents	72,517
Interest on investments	<u>19,399</u>
Net cash provided by investing activities	<u>91,916</u>

NET DECREASE IN CASH AND CASH EQUIVALENTS (449,914)

CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR 5,198,668

CASH AND CASH EQUIVALENTS, END OF YEAR \$ 4,748,754

RECONCILIATION OF OPERATING INCOME TO NET

CASH USED BY OPERATING ACTIVITIES

Operating income	\$ (139,756)
Adjustments to reconcile operating income	
to net cash provided by operating activities:	
Depreciation	149,395
Effects on changes in operating assets and liabilities:	
Receivables	(358,772)
Prepaid expenses	4,509
Pension activities	262,898
Accounts payable and other liabilities	(296,524)
Unearned revenues	(108,150)
Compensated absences	<u>1,502</u>

NET CASH USED BY OPERATING ACTIVITIES \$ (484,898)

The accompanying notes are an integral part of the basic financial statements.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements have been prepared in conformity with generally accepted accounting principles as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The following is a summary of the significant accounting policies utilized by the Southeastern Wisconsin Regional Planning Commission (the Commission).

A. Reporting Entity

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) was established in 1960 as the official area-wide planning agency for the southeastern region of the State of Wisconsin. SEWRPC serves the seven counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha.

The Commission was created to provide objective information and professional planning initiatives to help solve problems and to focus regional attention on key issues of regional consequence. Regional planning provides a meaningful technical approach to the proper planning and design of public works systems.

SEWRPC board of commissioners consists of 21 members, three from each of the seven member counties. One Commissioner from each County is appointed, or confirmed by the county board in those counties where a county executive appoints, and is usually an elected county board supervisor. The remaining two from each county are appointed by the Governor, one from a list prepared by the county.

B. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

All activities of the Commission are accounted for within a single proprietary (enterprise fund) using the full accrual basis of accounting whereby revenues are recognized when earned and expenses, including depreciation, are recorded when incurred. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges: or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues, expenses, gains, losses, and other changes in net position during the reporting period. Actual results could differ from those estimates.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position

1. Cash and cash equivalents

The Commission's cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition.

2. Prepaid items

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in the statement of net position. The cost of prepaid items is recorded as expenses when consumed rather than when purchased.

3. Capital assets

Capital assets, which include property, plant, and equipment assets are reported in the statement of net position. Capital assets are defined by the government as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year.

As the Commission constructs or acquires additional capital assets each period they are capitalized and reported at historical cost. The reported value excludes normal maintenance and repairs which are amounts spent in relation to capital assets that do not increase the capacity or efficiency of the item or increase its estimated useful life. Donated capital assets are recorded at their estimated fair value at the date of donation.

Interest incurred during the construction phase of capital assets of enterprise funds is included as part of the capitalized value of the assets constructed. The amount of interest capitalized depends on the specific circumstances.

Land and construction in progress are not depreciated. The other property, plant, and equipment of the Commission are depreciated using the straight line method over the following estimated useful lives:

<u>Capital asset classes</u>	<u>Lives</u>
Land improvements	20 years
Buildings and improvements	40 years
Office furniture	7 years
Computers and related equipment	3 years
Office equipment	5 years
Automobiles	5 years
Field equipment	5 years

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position (continued)

4. Deferred outflows of resources

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Commission only has one item that qualifies for reporting in the statement of net position. Activity related to the Commission's participation in the Wisconsin Retirement System for the purpose of administering the defined benefit pension plan of the eligible employees. Further disclosure regarding these items can be identified in Note 5.

5. Pensions

For purposes of measuring the net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Wisconsin Retirement System (WRS) and additions to/deductions from WRS' fiduciary net position have been determined on the same basis as they are reported by WRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

The WRS adopted GASB Statement No. 82, Pension Issues, an amendment of GASB No. 67, No. 68, and No. 73 during the year ended December 31, 2015. Statement No. 82 addresses the presentation of payroll-related measures in the Required Supplementary Information, the selection of assumptions used in determining the total pension liability and related measures, and the classification of employer-paid member contributions.

6. Compensated absences

It is the Commission's policy to permit employees to accumulate earned but unused vacation and sick pay benefits. The Commission pays partial amounts of accumulated sick leave time when employees retire from services, and a liability is recorded for this amount. All vacation pay is accrued when incurred in the financial statements. Payments for accumulated vacation will be made at rates in effect when the benefits are used or paid out upon separation.

7. Net position

Equity is classified as net position and displayed in three components:

- a. Investment in capital assets – Consists of capital assets including restricted capital assets, net of accumulated depreciation.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position (continued)

- b. Restricted net position – Consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally, a liability relates to restricted assets if the asset results from a resources flow that also results in the recognition of a liability or if the liability will be liquidated with the restricted assets reported.
- c. Unrestricted net position – The net amount of the assets, deferred outflows of resources, and liabilities that are not included in the determination of net investment in capital assets or the restricted components of net position.

Sometimes the Commission will fund outlays for a particular purpose from both restricted and unrestricted resources. In order to calculate the amounts to report as restricted net position and unrestricted net position in the statement of net position assumptions must be made about the order in which the resources are considered to be applied.

When both restricted and unrestricted resources are available for use, it is the Commission's policy to use restricted resources first, then unrestricted resources as they are needed.

8. Revenues and Expenses

The Commission distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the principal ongoing operations. The principal operating revenues of the Commission are federal, state and local grants, and charges to local government for services. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016**

NOTE 2 – CASH AND CASH EQUIVALENTS

The Commission had the following deposits as of December 31, 2016:

	<u>Carrying Value</u>	<u>Financial Institution Balances</u>	<u>Risks</u>
Governmental Activities			
Petty cash	\$ 100	\$ -	N/A
Deposits			
Demand deposits	160,375	276,391	Custodial credit risk
Time and savings deposits	<u>1,331,825</u>	<u>1,331,825</u>	Custodial credit risk
Total deposits	<u>1,492,200</u>	<u>1,608,216</u>	
Investments			
Local Government Investment Pool (LGIP)	<u>3,256,454</u>	<u>3,256,454</u>	Interest rate risk and credit risk
Total investments	<u>3,256,454</u>	<u>3,256,454</u>	
Total deposits and investments	<u>\$ 4,748,754</u>	<u>\$ 4,864,670</u>	

Deposits in each local bank are insured by the FDIC in the amount of \$250,000 for demand deposits and \$250,000 for time and savings deposits. Bank accounts are also insured by the State Deposit Guarantee Fund in the amount of \$400,000. However, due to the relatively small size of the Guarantee Fund in relationship to the total deposits covered and other legal implications, recovery of material principal losses may not be significant to individual governmental agencies. This coverage has not been considered in computing the custodial credit risk.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that in the event of the failure of a depository financial institution, the Commission's deposits may not be returned. The Commission does not have a policy related to custodial credit risk. As of December 31, 2016, \$48,465 of the Commission's total bank balance of \$1,608,216 was uninsured and uncollateralized.

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. In general, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The Commission does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The Commission held amounts in LGIP which has a weighted average maturity of 61 days as of December 31, 2016.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 2 – CASH AND CASH EQUIVALENTS (continued)

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Commission has no investment policy which minimizes credit risk by limiting investments to specific types of securities, other than state laws and regulations. The Commission held amounts in LGIP which is not rated.

Fair Value Measurements

The Authority uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures.

The Authority follows an accounting standard that defines fair value, establishes a framework for measuring fair value, establishes a fair value hierarchy based on the quality of inputs used to measure fair value, and requires expanded disclosures about fair value measurements. In accordance with this standard, the Authority has categorized its investments, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the financial instruments fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument

Financial assets and liabilities recorded on the statement of fiduciary net position is based on the inputs to the valuation techniques as follows:

Level 1 – Financial assets and liabilities are valued using inputs that are unadjusted quoted prices in active markets accessible at the measurement date of identical financial assets and liabilities.

Level 2 – Financial assets and liabilities are valued based on quoted prices for similar assets, or inputs that are observable, either directly or indirectly for substantially the full term through corroboration with observable market data.

Level 3 – Financial assets and liabilities are valued using pricing inputs which are unobservable for the asset, inputs that reflect the reporting entity's own assumptions about the assumptions market participants and would use in pricing the asset.

The Commission does not have any assets or liabilities subject to fair value measurement as of December 31, 2016.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 3 – RECEIVABLES

The Commission has the following receivables outstanding as of December 31, 2016:

	<u>Federal Grants</u>	<u>State Grants</u>	<u>Other Sources</u>	<u>Total</u>
State of Wisconsin	\$ 999,520	\$ 73,353	\$ 270,443	\$ 1,343,316
Local governments	-	-	232,349	232,349
Other receivables	-	-	6,094	6,094
Total receivables	<u>\$ 999,520</u>	<u>\$ 73,353</u>	<u>\$ 508,886</u>	<u>\$ 1,581,759</u>

All receivables are expected to be collected within one year; as such, no long-term receivables have been recorded as of December 31, 2016.

As of December 31, 2016, the Commission has not established an allowance for doubtful accounts. During the year 2016, the Commission did not record any bad debt related to the outstanding receivables.

NOTE 4 – CAPITAL ASSETS

Capital assets activity for the year ended December 31, 2016, was as follows:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Deletions</u>	<u>Ending Balance</u>
Capital assets not being depreciated				
Land	\$ 335,300	\$ -	\$ -	\$ 335,300
Total capital assets, not being depreciated	<u>335,300</u>	<u>-</u>	<u>-</u>	<u>335,300</u>
Capital assets being depreciated				
Land improvements	213,655	-	-	213,655
Buildings and improvements	3,415,990	-	-	3,415,990
Computers and related equipment	90,413	20,769	-	111,182
Office equipment	206,337	-	-	206,337
Automobiles	168,225	17,674	48,589	137,310
Field equipment	43,650	18,489	-	62,139
Total capital assets being depreciated	<u>4,138,270</u>	<u>56,932</u>	<u>48,589</u>	<u>4,146,613</u>
Accumulated depreciation				
Land improvements	154,903	10,683	-	165,586
Buildings and improvements	1,238,300	85,400	-	1,323,700
Computers and related equipment	41,536	13,820	-	55,356
Office equipment	158,533	19,906	-	178,439
Automobiles	129,071	16,370	48,589	96,852
Field equipment	41,595	3,216	-	44,811
Total accumulated depreciation	<u>1,763,938</u>	<u>149,395</u>	<u>48,589</u>	<u>1,864,744</u>
Net capital assets being depreciated	<u>2,374,332</u>	<u>(92,463)</u>	<u>-</u>	<u>2,281,869</u>
Total Governmental Activities capital assets, net of accumulated depreciation	<u>\$ 2,709,632</u>	<u>\$ (92,463)</u>	<u>\$ -</u>	<u>\$ 2,617,169</u>

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN

General Information about the Pension Plan

Plan description. The Wisconsin Retirement System (WRS) is a cost-sharing multiple employer defined benefit pension plan. WRS benefits and other plan provisions are established by Chapter 40 of the Wisconsin Statutes. Benefit terms may only be modified by the legislature. The retirement system is administered by the Wisconsin Department of Employee Trust Funds (ETF). The system provides coverage to all eligible State of Wisconsin, local government and other public employees. All employees, initially employed by a participating WRS employer on or after July 1, 2011 and expected to work at least 1200 hours a year (880 hours for teachers and school district educational support employees) and expected to be employed for at least one year from employee's date of hire are eligible to participate in the WRS.

Vesting. For employees beginning participation on or after January 1, 1990, and no longer actively employed on or after April 24, 1998, creditable service in each of five years is required for eligibility for a retirement annuity. Participants employed prior to 1990 and on or after April 24, 1998, and prior to July 1, 2011, are immediately vested. Participants who initially became WRS eligible on or after July 1, 2011, must have five years of creditable service to be vested.

Benefits provided. Employees who retire at or after age 65 (54 for protective occupation employees, 62 for elected officials and State executive participants) are entitled to receive an unreduced retirement benefit. The factors influencing the benefit are: (1) final average earnings, (2) years of creditable service, and (3) a formula factor.

Final average earnings is the average of the participant's three highest years' earnings. Creditable service is the creditable current and prior services expressed in years or decimal equivalents of partial years for which a participant receives earnings and makes contributions are required. The formula factor is a standard percentage based on employment category.

Employees may retire at age 55 (50 for protective occupation employees) and receive reduced benefits. Employees terminating covered employment before becoming eligible for a retirement benefit may withdraw their contributions and forfeit all rights to any subsequent benefits.

The WRS also provides death and disability benefits for employees.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)

General Information about the Pension Plan (continued)

Post-retirement adjustments. The Employee Trust Funds Board may periodically adjust annuity payments from the retirement system based on annual investment performance in accordance with s. 40.27, Wis. Stat. An increase (or decrease) in annuity payments may result when investment gains (losses), together with other actuarial experience factors, create a surplus (shortfall) in the reserves, as determined by the system’s consulting actuary. Annuity increases are not based on cost of living or other similar factors. For Core annuities, decreases may be applied only to previously granted increases. By law, Core annuities cannot be reduced to an amount below the original, guaranteed amount (the “floor”) set at retirement. The Core and Variable annuity adjustments granted during recent years are as follows:

<u>Year</u>	<u>Core Fund Adjustment</u>	<u>Variable Fund Adjustment</u>
2006	0.8%	3.0%
2007	3.0%	10.0%
2008	6.6%	0.0%
2009	(2.1)%	(42.0)%
2010	(1.3)%	(22.0)%
2011	(1.2)%	11.0%
2012	(7.0)%	(7.0)%
2013	(9.6)%	9.0%
2014	4.7%	25.0%
2015	2.9%	2.0%

Contributions. Required contributions are determined by an annual actuarial valuation in accordance with Chapter 40 of the Wisconsin Statutes. The employee required contribution is one-half of the actuarially determined contribution rate for general category employees, including teachers, and Executives and Elected Officials. Required contributions for protective employees are the same rate as general employees. Employers are required to contribute the remainder of the actuarially determined contribution rate. The employer may not pay the employee required contribution unless provided for by an existing collective bargaining agreement.

During the reporting period, the WRS recognized \$282,268 in contributions from the employer.

Contribution rates as of December 31, 2016 are:

<u>Employee Category</u>	<u>Employee</u>	<u>Employer</u>
General (including teachers)	6.8%	6.8%
Executives & Elected Officials	7.7%	7.7%
Protective with Social Security	6.8%	9.5%
Protective without Social Security	6.8%	13.1%

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)

General Information about the Pension Plan (continued)

At December 31, 2016, the Commission reported a liability of \$457,516 for its proportional share of the net pension liability. The net pension liability was measured as of December 31, 2015, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2014 rolled forward to December 31, 2015. No material changes in assumptions or benefit terms occurred between the actuarial valuation date and the measurement date. The Commission's proportion of the net pension liability was based on the Commission's share of contributions to the pension plan relative to the contributions of all participating employers. At December 31, 2015, the Commission's proportion was 0.02815519%, which was an increase of 0.00056303% from its proportion measured as of December 31, 2014.

For the year ended December 31, 2016, the Commission recognized pension expense of \$544,493.

At December 31, 2016, the Commission reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Difference between expected and actual experience	\$ 77,399	\$ 962,835
Changes in assumptions	320,098	-
Net differences between projected and actual earnings on pension plan investments	1,873,203	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	25,922
Employer contributions subsequent to the measurement date	278,825	-
	<u>\$ 2,549,525</u>	<u>\$ 988,757</u>

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)

General Information about the Pension Plan (continued)

\$278,825 reported as deferred outflows related to pension resulting from the WRS Employer's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Year ended December 31:		
2017	\$ 589,562	\$ 240,117
2018	589,562	240,117
2019	589,562	240,117
2020	491,772	237,276
2021	10,242	31,130
Thereafter	-	-
	\$ 2,270,700	\$ 988,757

Actuarial assumptions. The total pension liability in the December 31, 2015, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Valuation Date:	December 31, 2014
Measurement Date of Net Pension Liability (Asset):	December 31, 2015
Actuarial Cost Method:	Entry Age
Asset Valuation Method:	Fair Market Value
Long-Term Expected Rate of Return:	7.2%
Discount Rate:	7.2%
Salary Increases	
Inflation:	3.2%
Seniority/Merit	0.2% - 5.6%
Mortality:	Wisconsin 2012 Mortality Table
Post-retirement Adjustments*	2.1%

*No post-retirement adjustment is guaranteed. Actual adjustments are based on recognized investment return, actuarial experience, and other factors. 2.1% is the assumed annual adjustment based on the investment return assumption and the post-retirement discount rate.

Actuarial assumptions are based upon an experience study conducted in 2012 using experience from 2009 – 2011. The total pension liability for December 31, 2015 is based upon a roll-forward of the liability calculated from the December 31, 2014 actuarial valuation.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)

General Information about the Pension Plan (continued)

Long-term expected return on plan assets. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

<u>Core Fund Asset Class</u>	Destination		Long-Term	Long-Term
	<u>Current Asset Allocation %</u>	<u>Target Asset Allocation%</u>	<u>Expected Nominal Rate of Return %</u>	<u>Expected Real Rate of Return %</u>
U.S. Equities	27.00%	23.00%	7.60%	4.70%
International Equities	24.50%	22.00%	8.50%	5.60%
Fixed Income	27.50%	37.00%	4.40%	1.60%
Inflation Sensitive Assets	10.00%	20.00%	4.20%	1.40%
Real Estate	7.00%	7.00%	6.50%	3.60%
Private Equity/Debt	7.00%	7.00%	9.40%	6.50%
Multi-Asset	<u>4.00%</u>	<u>4.00%</u>	<u>6.70%</u>	<u>3.80%</u>
Total Core Fund	<u>107.00%</u>	<u>120.00%</u>	<u>7.40%</u>	<u>4.50%</u>
 <u>Variable Fund Asset Class</u>				
U.S. Equities	70.00%	70.00%	7.60%	4.70%
International Equities	<u>30.00%</u>	<u>30.00%</u>	<u>8.50%</u>	<u>5.60%</u>
Total Variable Fund	<u>100.00%</u>	<u>100.00%</u>	<u>7.90%</u>	<u>5.00%</u>

New England Pension Consultants Long Term US CPI (Inflation) Forecast: 2.75%

Asset Allocations are managed within established ranges, target percentages may differ from actual monthly allocations

Single discount rate. A single discount rate of 7.20% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.20% and a long-term bond rate of 3.56%. Because of the unique structure of WRS, the 7.20% expected rate of return implies that a dividend of approximately 2.1% will always be paid. For purposes of the single discount rate, it was assumed that the dividend will always be paid. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments (including expected dividends) of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)

Sensitivity of the Commission’s proportionate share of the net pension liability (asset) to changes in the discount rate. The following presents the Commission’s proportionate share of the net pension liability (asset) calculated using the discount rate of 7.2 percent, as well as what the Commission’s proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.20 percent) or 1-percentage-point higher (8.20 percent) than the current rate:

	1% Decrease to Discount Rate <u>(6.20%)</u>	Current Discount Rate <u>(7.20%)</u>	1% Increase to Discount Rate <u>(8.20%)</u>
The Commission’s proportionate share of the net pension liability (asset)	\$3,209,029	\$457,516	(\$1,691,464)

Pension plan fiduciary net position. Detailed information about the pension plan’s fiduciary net position is available in separately issued financial statements available at <http://legis.wisconsin.gov/lab/> and reference report 15-11.

NOTE 6 – COMMITMENTS AND CONTINGENCIES

From time to time, the Commission becomes party to claims and legal proceedings. Although the outcome of such matters cannot be forecasted with certainty, it is the opinion of management and the Commission’s legal counsel that the likelihood is remote that most of such claims or proceedings will not have a material adverse effect on the Commission’s financial position.

The Commission has received federal grants for specific purposes that are subject to review and audit by the grantor agencies. Such audits could lead to requests for reimbursements to the grantor agency for expenditures disallowed under terms of the grants. Management believes such disallowances, if any, would be immaterial.

NOTE 7 – NET POSITION

Net position reported on the statement of net position is comprised of the following:

Net investment in capital assets	
Land	\$ 335,300
Other capital assets, net of accumulated depreciation	<u>2,281,869</u>
Total net investment in capital assets	<u>2,617,169</u>
Unrestricted	<u>6,290,859</u>
Total net position	<u>\$ 8,908,028</u>

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
NOTES TO THE FINANCIAL STATEMENTS
December 31, 2016

NOTE 8 – RISK MANAGEMENT

The Commission is exposed to various risks of loss related to torts; theft of, damage to, or destruction of assets; errors and omissions; workers compensation; and health care of its employees. All of these risks are covered through the purchase of commercial insurance, with minimal deductibles. Settled claims have not exceeded the commercial coverage in any of the past three years. There were no significant reductions in coverage compared to the prior year.

REQUIRED SUPPLEMENTARY INFORMATION

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
REQUIRED SUPPLEMENTARY INFORMATION
December 31, 2016**

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
SCHEDULE OF THE COMMISSION'S PROPORTIONATE SHARE
OF THE NET PENSION LIABILITY (ASSET)
Wisconsin Retirement System
Last 10 Fiscal Years*
For the Year Ended December 31, 2016**

	<u>2016</u>	<u>2015</u>
The Authority's proportion of the net pension liability (asset)	0.02811519%	0.02759216%
The Authority's proportionate share of the net pension liability (asset)	\$ 457,516	\$ (677,739)
The Authority's covered-employee payroll	\$ 4,150,992	\$ 3,886,202
Plan fiduciary net position as a percentage of the total pension liability (asset)	98.20%	102.74%

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
SCHEDULE OF THE COMMISSION'S PENSION CONTRIBUTIONS
Wisconsin Retirement System
Last 10 Fiscal Years*
For the Year Ended December 31, 2015**

	<u>2016</u>	<u>2015</u>
Contractually required contributions	\$ 282,268	\$ 272,178
Contributions in relation to the contractually required contributions	\$ (282,268)	\$ (272,178)
Contribution deficiency (excess)	\$ -	\$ -
The Authority's covered-employee payroll	\$ 4,150,992	\$ 3,886,202
Contributions as a percentage of covered-employee payroll	6.80%	7.00%

*The amounts presented for each fiscal year were determined as of the calendar year-end that occurred within the fiscal year.

Notes to the Required Supplementary Information

Changes of Benefit Terms – There were no changes of benefit terms for any participating employer in WRS.

Change of Assumptions – There were no changes in the assumptions.

SUPPLEMENTARY INFORMATION

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
SCHEDULE OF PRIOR YEAR FINDINGS
December 31, 2016

	<u>Original and Final Budget</u>	<u>Actual</u>	<u>Variance with Final Budget</u>
OPERATING REVENUES			
Intergovernmental:			
Charges for services	\$ 1,661,135	\$ 1,333,943	\$ (327,192)
Grants:			
Federal	3,038,866	3,498,109	459,243
State	378,901	330,736	(48,165)
Local	-	297,527	297,527
Contributions	2,370,245	2,370,245	-
Miscellaneous	-	3,295	3,295
Total operating revenues	<u>7,449,147</u>	<u>7,833,855</u>	<u>384,708</u>
OPERATING EXPENSES			
Salaries	6,300,155	6,031,442	268,713
Technical consultants	152,250	1,022,154	(869,904)
Office supplies	50,000	50,519	(519)
Insurance, audit, legal fees	78,000	41,247	36,753
Library acquisition and dues	35,000	37,313	(2,313)
Printing and graphic supplies	50,000	66,292	(16,292)
Postage expenses	25,000	25,314	(314)
Travel expenses	50,000	78,095	(28,095)
Telephone expenses	30,000	25,189	4,811
Building usage	20,000	34,494	(14,494)
Building maintenance	174,000	140,300	33,700
Other operating expenses	30,000	45,275	(15,275)
Software and equipment maintenance	170,000	158,575	11,425
Other equipment outlays	184,000	68,007	115,993
Depreciation	172,260	149,395	22,865
Total operating expenses	<u>7,520,665</u>	<u>7,973,611</u>	<u>(452,946)</u>
Operating loss	<u>(71,518)</u>	<u>(139,756)</u>	<u>(68,238)</u>
NONOPERATING REVENUES (EXPENSES)			
Rental income	71,518	71,518	-
Investment income	-	19,399	19,399
Total nonoperating revenues (expenses)	<u>71,518</u>	<u>90,917</u>	<u>19,399</u>
Change in net position	<u>\$ -</u>	<u>(48,839)</u>	<u>\$ (48,839)</u>
Fund balance - beginning, restated		<u>8,956,867</u>	
Fund balance - ending		<u>\$ 8,908,028</u>	

Appendix E

PUBLICATIONS OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION: 2011-2016

Publications that have been completed and published within the last five years are listed under each report type. Publications issued before 2011 can be accessed on the Commission's website by going to "Publication Search" under the Reports and Resources tab. Publications can also be found under several of the Commission program elements listed on the website. To request a publication, call the Commission offices or complete the on-line publication request form.

PROSPECTUSES

Prospectus for a Chloride Impact Study for the Southeastern Wisconsin Region, March 2016

OVERALL WORK PROGRAMS

Overall Work Program—2012
Overall Work Program—2013
Overall Work Program—2014
Overall Work Program—2015
Overall Work Program—2016
Overall Work Program—2017

STUDY DESIGNS

The most recent Study Design was completed in September 1995

PLANNING REPORTS

No. 54 - A Regional Housing Plan for Southeastern Wisconsin: 2035, March 2013

PLANNING GUIDES

The most recent Planning Guide was updated in July 2001

TECHNICAL REPORTS

No. 10 - 5th Edition, The Economy of Southeastern Wisconsin, March, 2013
No. 11 - 5th Edition, The Population of Southeastern Wisconsin, March, 2013

COMMUNITY ASSISTANCE PLANNING REPORTS

No. 46 - 2nd Edition, A Farmland Preservation Plan for Racine County, Wisconsin, December 2013
No. 84 - 3rd Edition, Sanitary Sewer Service Area for the Village of Sussex and Town of Lisbon, Waukesha County, Wisconsin, June 2011
No. 87 - 2nd Edition, A Farmland Preservation Plan for Ozaukee County, Wisconsin, December 2013

COMMUNITY ASSISTANCE PLANNING REPORTS—continued

- No. 108- 3rd Edition, A Park and Open Space Plan for the City of Brookfield, Waukesha County, Wisconsin, August 2011
- No. 131- 2nd Edition, A Park and Open Space Plan for Kenosha County, April 2012
- No. 133- 3rd Edition, A Park and Open Space Plan for Ozaukee County, June 2011
- No. 134- 3rd Edition, A Park and Open Space Plan for Racine County, February 2013
- No. 135- 3rd Edition, A Park and Open Space Plan for Walworth County, March 2014
- No. 176- 2nd Edition, Sanitary Sewer Service Area for the City of Franklin, Milwaukee County, Wisconsin, June 2011
- No. 191- 2nd Edition, Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin, June 2015
- No. 199- 3rd Edition, A Park and Open Space Plan for the Village of Mt. Pleasant, Racine County, Wisconsin, April 2015
- No. 226- 2nd Edition, A Lake Management Plan for Eagle Spring Lake, Waukesha County, Wisconsin, June 2011
- No. 270- 2nd Edition, A Park and Open Space Plan for the City of Racine, Racine County, Wisconsin, December 2011
- No. 282- 2nd Edition, City of Milwaukee All Hazards Mitigation Plan, Milwaukee County, Wisconsin, June 2012
- No. 286- Racine County Public Transit Plan: 2013-2017, October 2013
- No. 311- Waukesha Metro Transit Development Plan: 2013-2017, December 2012
- No. 312- A Land and Water Resource Management Plan for Milwaukee County: 2012-2021, August 2011
- No. 313- Pewaukee River Watershed Protection Plan, December 2013
- No. 315- A Water Resources Management Plan for the Village of Chenequa, Waukesha County, Wisconsin, June 2014
- No. 316- A Restoration Plan for the Root River Watershed, July 2014
Part One, Chapters 1-7
Part Two, Appendices
- No. 317- Washington County Transit System Development Plan, March 2015
- No. 318- A Lake Protection Plan for Bark Lake, Washington County, Wisconsin, December 2014
- No. 319- A Lake Protection Plan for School Section Lake, Waukesha County, Wisconsin, December 2014
- No. 323- A Lake Protection and Aquatic Plant Management Plan for Rock Lake, Kenosha County, Wisconsin, June 2015
- No. 327- A Lake Protection and Aquatic Plan Management Plan for Pleasant Lake, Walworth County, Wisconsin, March 2016

MEMORANDUM REPORTS

- No. 134- 2nd Edition, An Aquatic Plant Management Plan for Fowler Lake, Waukesha County, Wisconsin, July 2012
- No. 136- 3rd Edition, Racine County Industrial Park Land Absorption Study, August 2014
- No. 190 - An Aquatic Plant Management Plan for Delavan Lake, Walworth County, Wisconsin, May 2011
- No. 191- A Lake Protection Plan for Cravath and Trippe Lakes, Walworth County, Wisconsin, April 2011
- No. 193- A Lake Protection Plan for Powers Lake, Kenosha and Walworth Counties, Wisconsin, November 2011

MEMORANDUM REPORTS—continued

- No. 199- Southeastern Wisconsin Fox River Commission Implementation Plan: 2011-2020, September 2011
- No. 200- Comparison of the Relationship of Alternative 2010 Orthophotographs for Milwaukee County to National Map Accuracy Standards, June 2011
- No. 201- Study of a Lake Parkway (STH 794) Extension from Edgerton Avenue to STH 100 in Milwaukee County, April 2012
- No. 202- Comparison of the Relationship of Alternative 2010 Orthophotographs for Milwaukee County to National Map Accuracy Standards, June 2011
- No. 203- Regional Transportation Operations Plan for Southeastern Wisconsin: 2012-2016, May 2012
- No. 204- Development of a Framework for a Watershed-Based Municipal Stormwater Permit for the Menomonee River Watershed, January 2013
- No. 205- Assessment of Conformity of the Year 2035 Regional Transportation Plan and the Year 2013-2016 Transportation Improvement Program for the 1997 and 2008 Eight-Hour Ozone and 2006 24-Hour Fine Particulate National Ambient Air Quality Standards, October 2012
- No. 206- Estimate of the Costs of Converting the Foundational Elements of the Land Information and Public Works Management Systems in Southeastern Wisconsin from Legacy to New Datums, October 2012
- No. 206- Revised Estimate of the Costs of Converting the Legacy Datums within the Region to National Datums, Addendum to Memorandum Report No. 206, August 2015
- No. 207- Public Transit–Human Services Transportation Coordination Plan for Kenosha County: 2012, February 2013
- No. 208- Public Transit–Human Services Transportation Coordination Plan for Milwaukee County: 2012, February 2013
- No. 209- Public Transit–Human Services Transportation Coordination Plan for Ozaukee County: 2012, February 2013
- No. 210- Public Transit–Human Services Transportation Coordination Plan for Racine County: 2012, February 2013
- No. 211- Public Transit–Human Services Transportation Coordination Plan for Walworth County: 2012, February 2013
- No. 212- Public Transit–Human Services Transportation Coordination Plan for Washington County: 2012, February 2013
- No. 213- Public Transit–Human Services Transportation Coordination Plan for Waukesha County: 2012, February 2013
- No. 214- An Aquatic Plant Management Plan for Saratoga Lake, Waukesha County, Wisconsin, February 2014
- No. 215- Review and Update of the Year 2035 Regional Transportation Plan, June 2014
- No. 217- Assessment of Conformity of the Year 2035 Regional Transportation Plan and the Year 2013-2016 Transportation Improvement Program for the 2008 Eight-Hour Ozone and 2006 24-Hour Fine Particulate National Ambient Air Quality Standards, June 2014
- No. 218- Traffic Study for North Lincoln Street within the City of Elkhorn, May 2014
- No. 220- Supplemental Information Developed for the Root River Watershed Restoration Plan, April 2015
- No. 221- A Comparison of the Milwaukee Metropolitan Area to its Peers, May 2015
- No. 225- A Comprehensive Plan Update for the Town of Lyons: 2035, Walworth County, August 2016

LAKE USE REPORTS

Lake Use Reports are listed on-line and may be requested by contacting the Commission office or completing the publication search form.

TECHNICAL RECORDS

The most recent Technical Record was completed in December 1993

ANNUAL REPORTS

2011, 2012, 2013, 2014, and 2015

CONFERENCE PROCEEDINGS

Conference Proceedings are listed on-line and may be requested by contacting the Commission office or completing the publication search form.

NEWSLETTERS

Newsletters are listed on-line and may be requested by contacting the Commission office or completing the publication search form. In July 2014, the Commission debuted an on-line Newsletter. Those newsletters may be found on the Commission website at <http://www.sewrpc.org/SEWRPC/DataResources/E-Newsletter.htm>

TRANSPORTATION IMPROVEMENT PROGRAMS

- A Transportation Improvement Program for Southeastern Wisconsin: 2013-2016, October 2012
- A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018, November 2014
- A Transportation Improvement Program for Southeastern Wisconsin: 2017-2020, November 2016



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