

# 2017 ANNUAL REPORT

**SERVING THE COUNTIES OF**

**KENOSHA • MILWAUKEE • OZAUKEE • RACINE • WALWORTH • WASHINGTON • WAUKESHA**

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REGIONAL PLANNING COMMISSION**

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## FIFTY-SEVENTH ANNUAL REPORT

### 2017 ANNUAL REPORT

Prepared by the  
Southeastern Wisconsin Regional Planning Commission  
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The preparation of this publication was financed in part through planning funds provided by the Wisconsin Departments of Administration, Transportation, and Natural Resources, and the U.S. Department of Transportation, Federal Highway and Federal Transit Administrations. The contents of this report do not necessarily reflect the official views or policies of these agencies.



U.S. Department of Transportation  
**Federal Highway Administration**  
**Federal Transit Administration**



December 2018



# SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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December 1, 2018

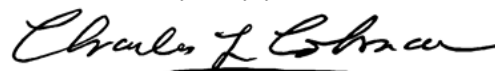
TO: The Wisconsin Legislature and the Legislative Bodies of the  
Local Governmental Units within the Southeastern Wisconsin Region

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 57th annual report not only summarizes our work in 2017, but it also contains a certified statement of our financial position as determined by an independent auditor.

The 2017 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 2017. Part Three documents the results of Commission monitoring efforts carried out during 2017 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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This section of the 2017 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 regional 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 2017, begins on page 41. Part Three, which documents the results of Commission monitoring efforts during the year, begins on page 93.



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## 1.1 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](http://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 1.1). 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 \$185.4 billion, or about 35 percent of all the tangible wealth of the State as measured by equalized valuation. At the end of 2017, there were 154 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.

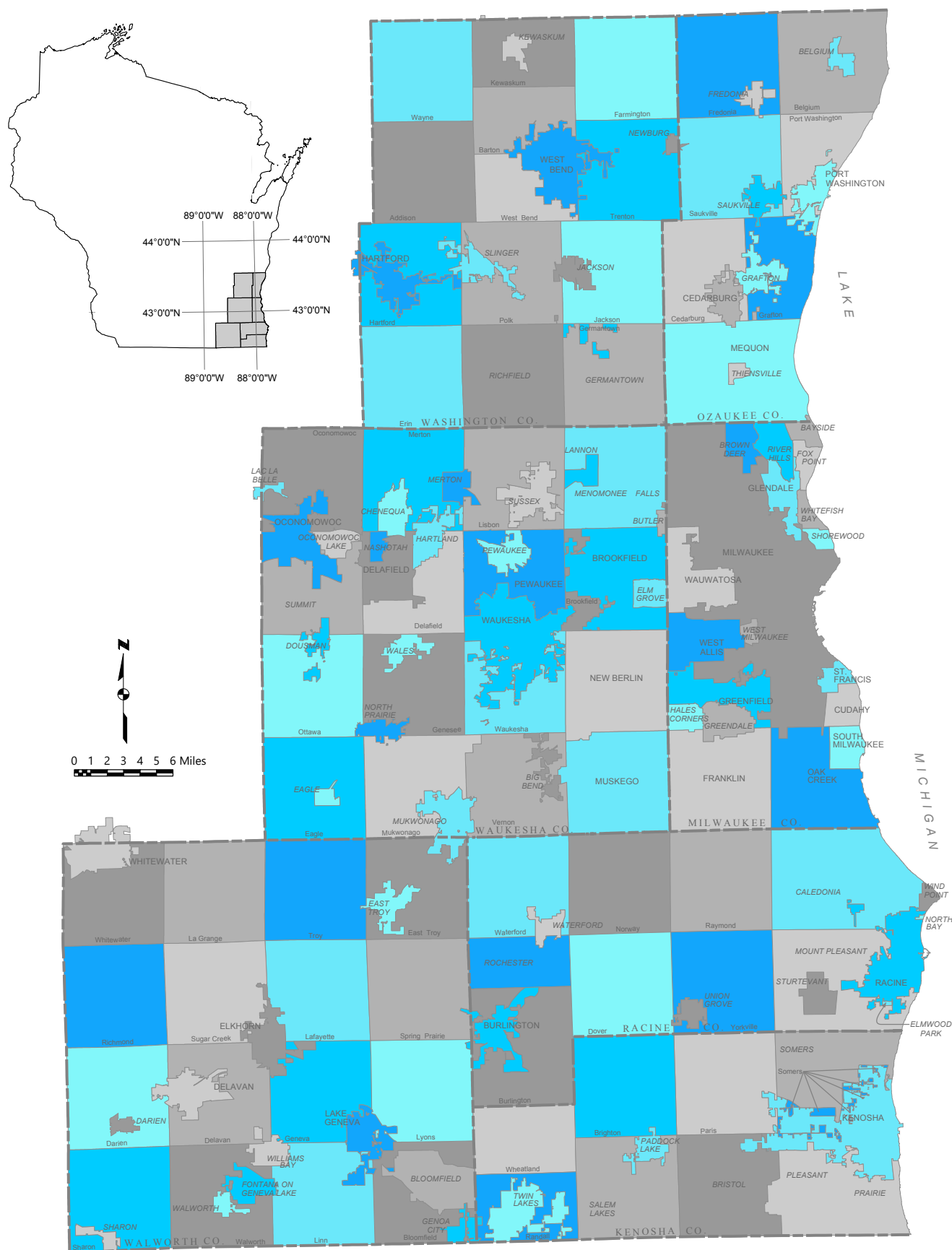
As used by the Commission, the term “region” means an area larger than a county but smaller than a state, united by economic interests, geography, and common developmental and environmental problems. A regional basis is necessary to provide a meaningful technical approach to the proper planning and design 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 1.1

### Southeastern Wisconsin: 2017





## 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 2017 are listed 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 listed in Appendix B.

## Staffing

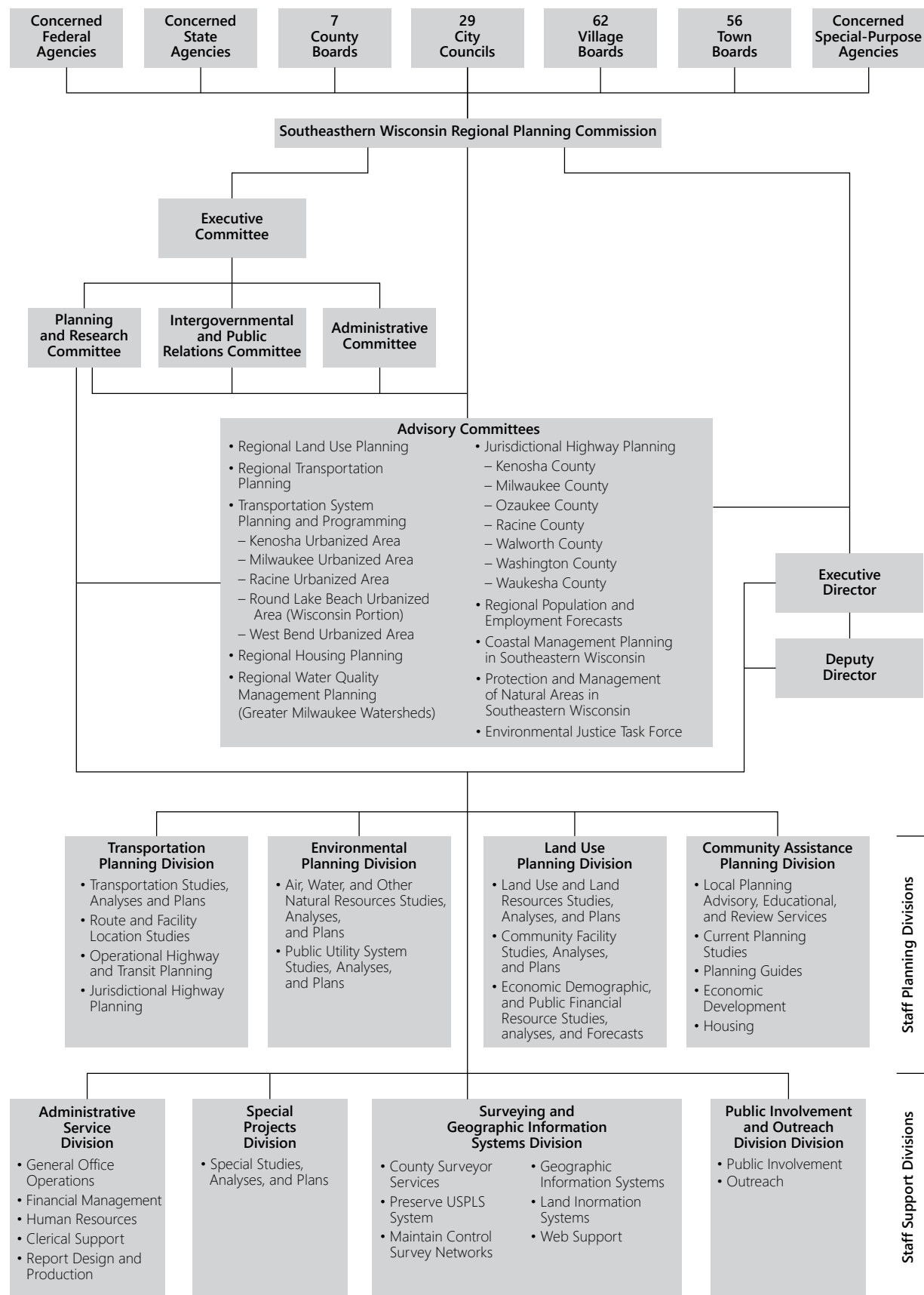
The Commission prepares an annual work program that is reviewed and approved by Federal and State funding agencies. This work program is then carried out by a core staff of full-time professional, technical, and clerical personnel, supplemented by additional temporary staff and consultants as required by the various work programs under way. At the end of 2017, the Commission staff totaled 69, including 63 full-time and six part-time employees. An organizational chart is shown on Figure 1.1. A list of Commission staff members for 2017 can be found in Appendix C.

## Funding

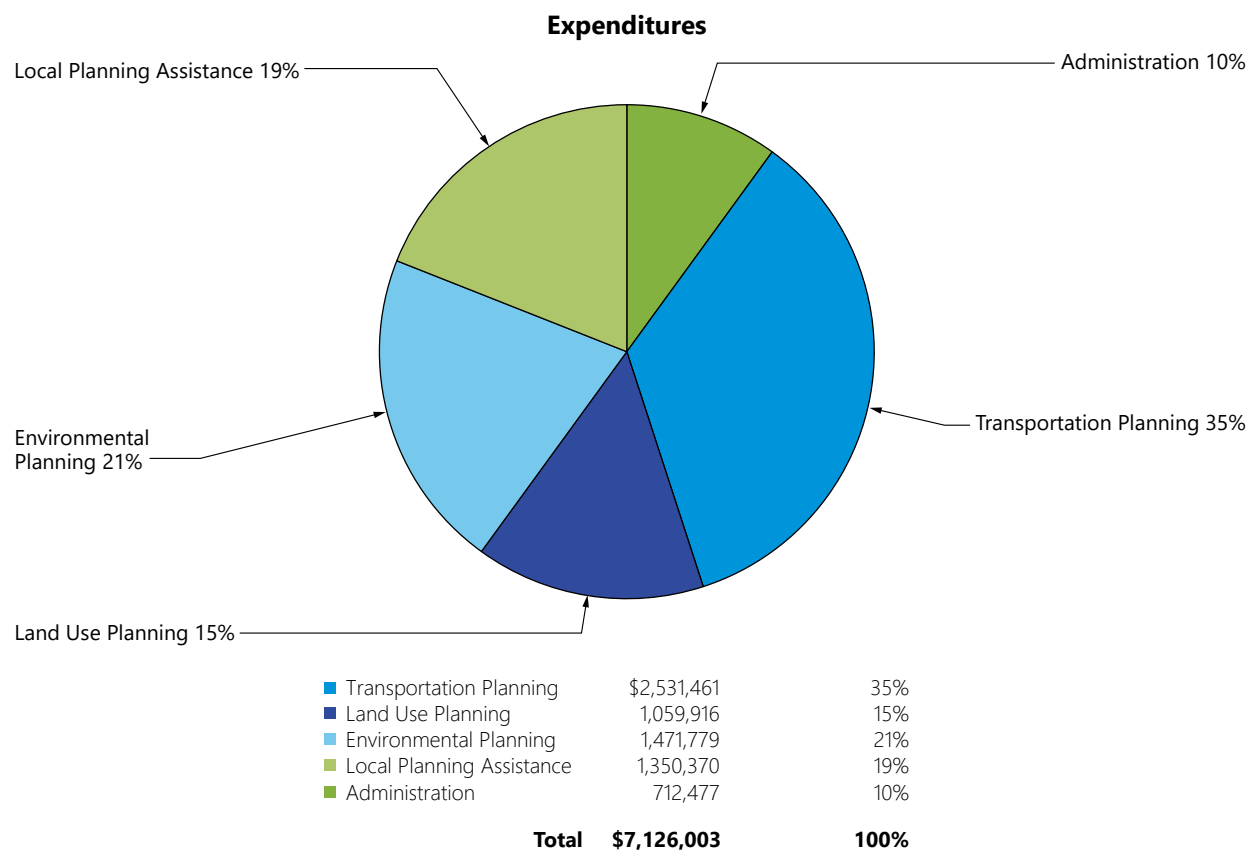
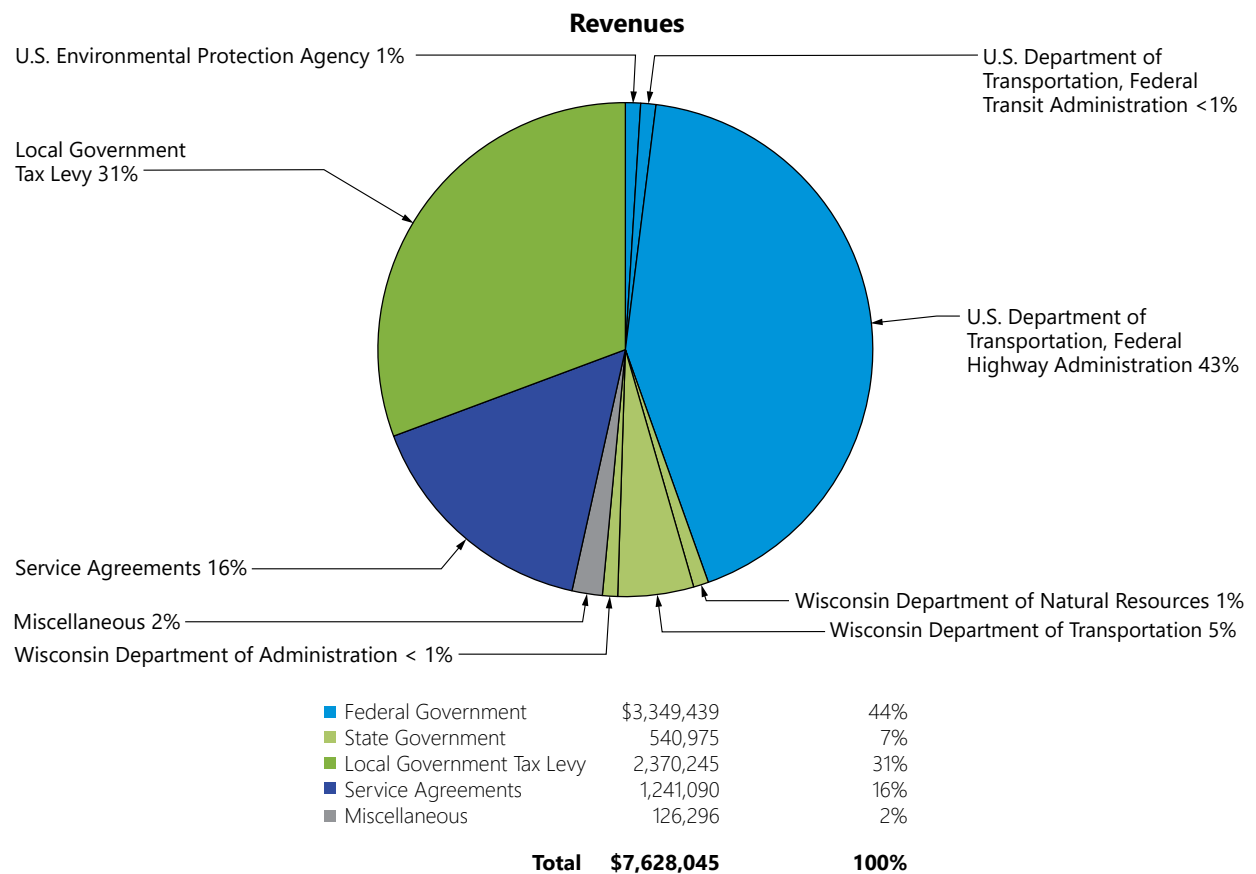
Basic financial support for the Commission's work program is provided by a special property tax charge levied on local governmental units by the counties and apportioned on the basis of equalized valuation. These basic funds are supplemented by State and Federal aids. County-levied special property tax charges in 2017 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 2017 is presented in Figure 1.2.

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 2017 audit report is listed in Appendix D.

**Figure 1.1**  
**SEWRPC Organizational Structure: 2017**



**Figure 1.2**  
**SEWRPC Revenues and Expenditures: 2017**



## 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 listed in Appendix E and can be found at [www.sewrpc.org/publications](http://www.sewrpc.org/publications). All publications are available from the Commission offices and through the website.

## 1.2 THE REGIONAL COMPREHENSIVE PLAN 2017: 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](http://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.

## **1.3 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 1.2 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 [www.vision2050sewis.org](http://www.vision2050sewis.org).

### **Land Use Component**

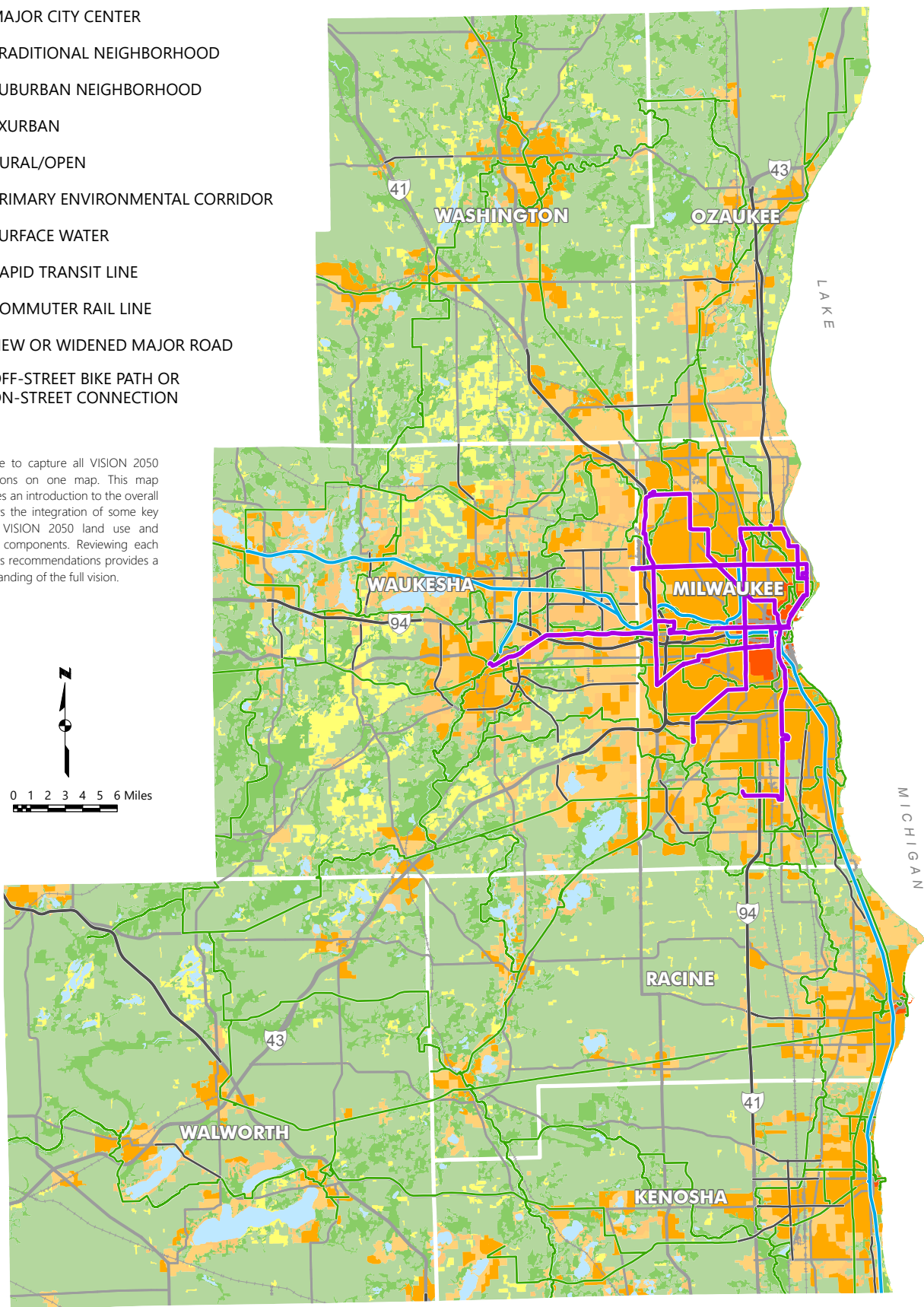
The VISION 2050 land use component presents a development pattern and recommendations that are intended to provide a guide, or overall framework, for future land use in the Region. The land use component accommodates projected growth in regional population, households, and employment in a sustainable 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 1.3 illustrates the land use categories to which population, households, and employment were allocated under VISION 2050 and Map 1.3 presents the recommended land use development pattern. Key land use recommendations for the Region follow.

## Map 1.2 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 1.3**  
**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 ¼- to ½-acre lots found at the edges of cities and villages



**LARGE LOT NEIGHBORHOOD** (showing lots of about ½ acre)  
 Primarily single-family homes on ½-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

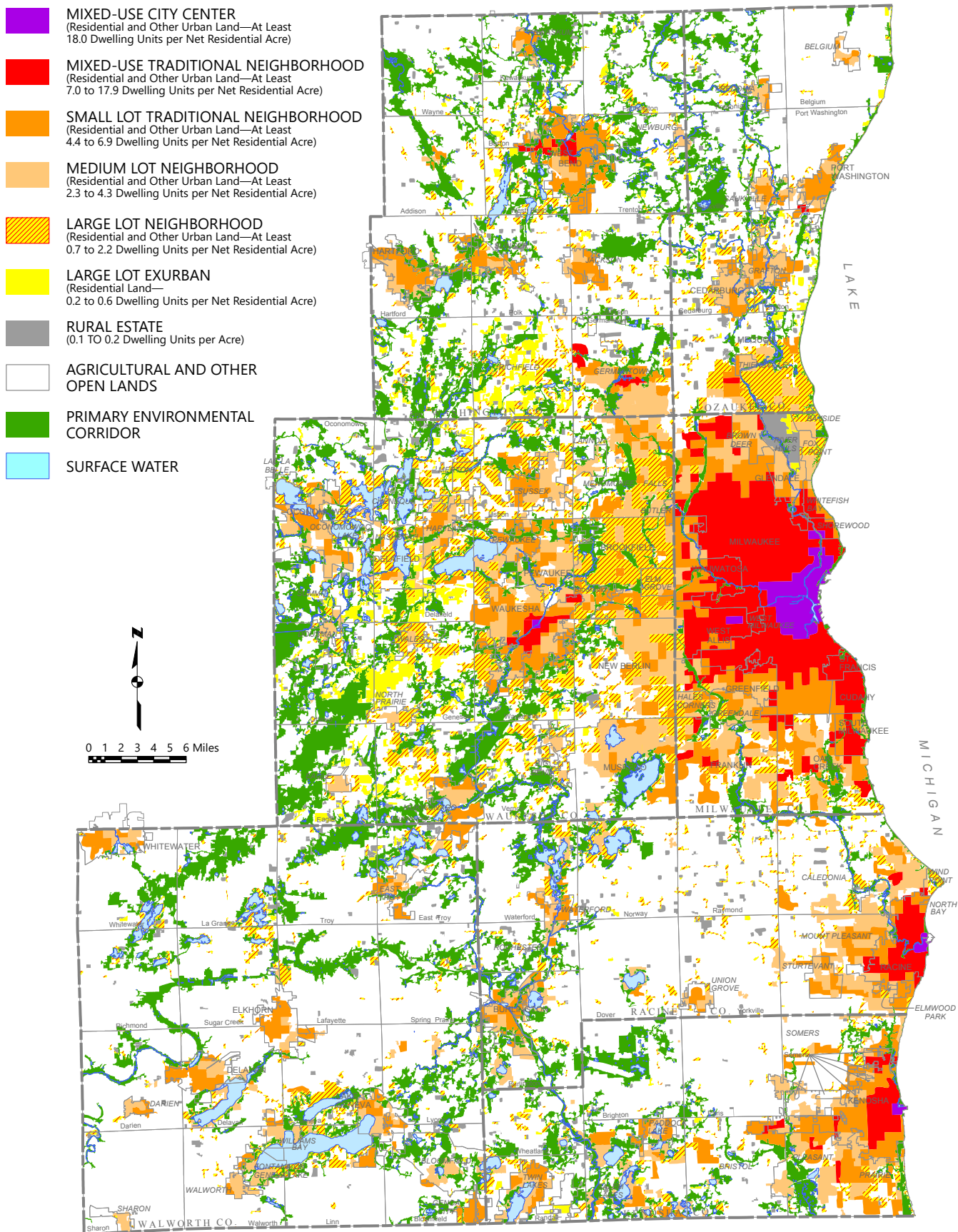


**SMALL LOT TRADITIONAL NEIGHBORHOOD**  
 (showing lots of about 7,000 square feet)  
 Mix of housing types and businesses with single-family homes on lots of ¼-acre or less and multifamily housing found within and at the edges of cities and villages



**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

## VISION 2050 Land Use Development Pattern



► **Preserve primary environmental corridors**

The best remaining features of the Region's natural resource base (lakes, rivers, streams, wetlands, woodlands, 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 1.4, have a concentration of at least 2,000 retail jobs or 3,500 total jobs.

► **Develop urban service areas with a mix of housing types and land uses**

Allow a mix of housing types and land uses, including multifamily 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 1.4 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.



## Map 1.4

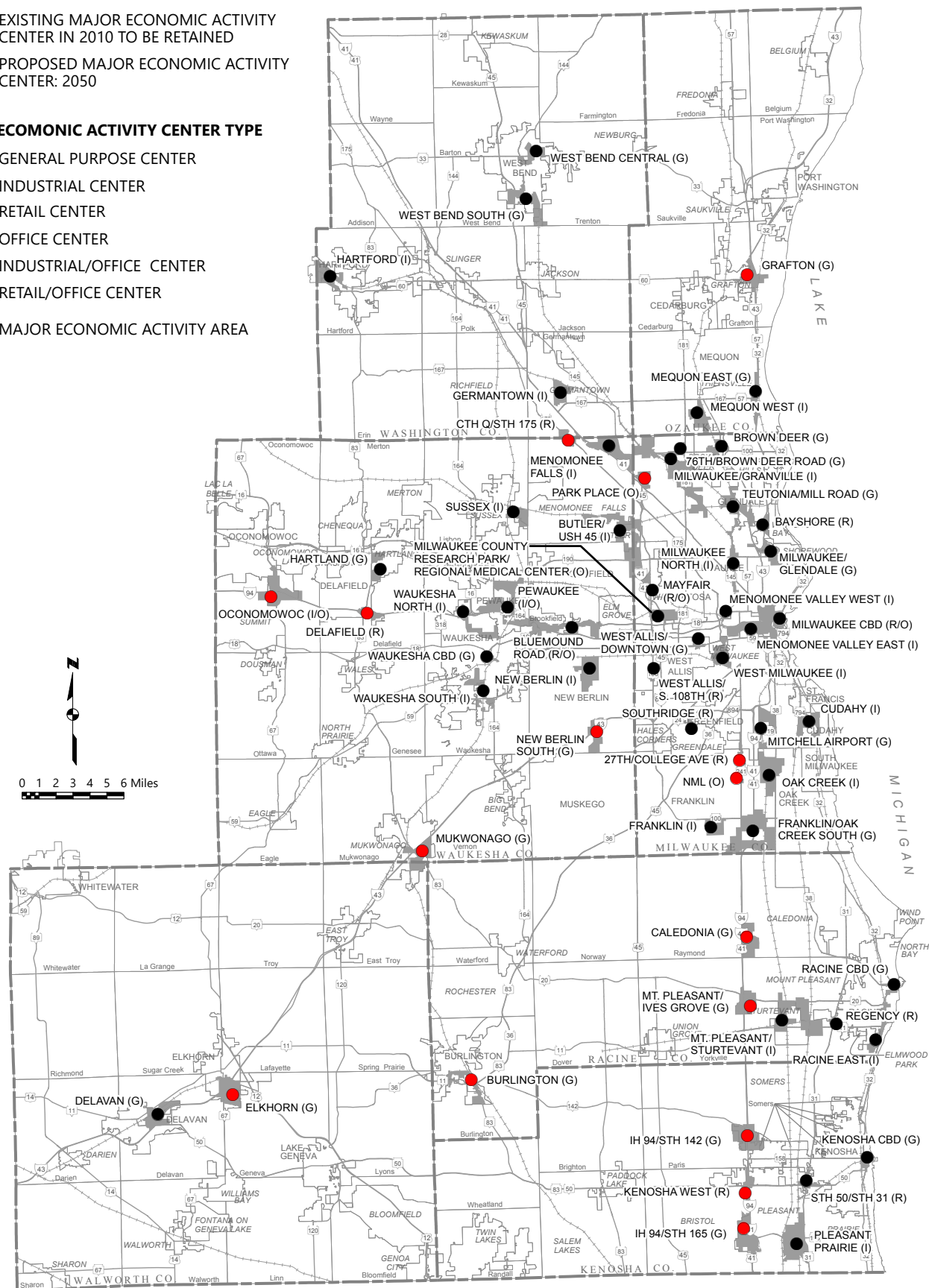
### VISION 2050 Major Economic Activity Centers

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

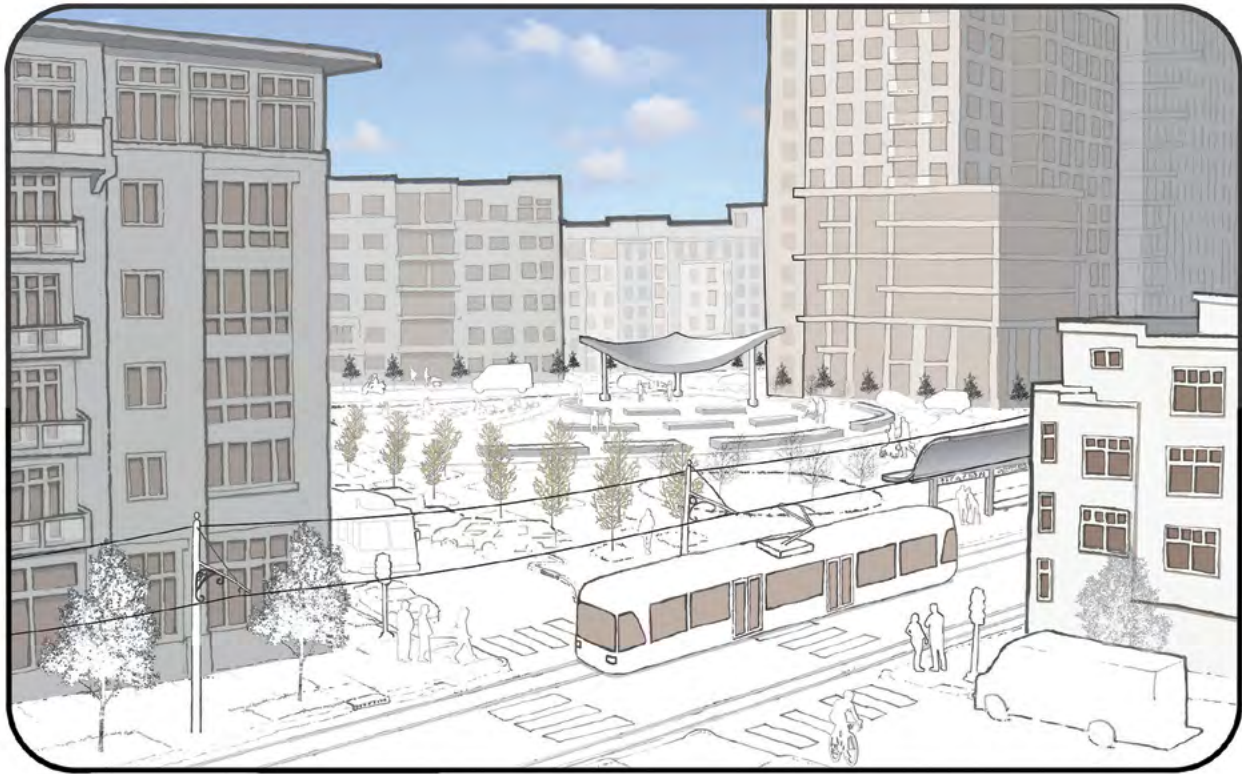
## MAJOR ECONOMIC ACTIVITY CENTER TYPE

- |     |                          |
|-----|--------------------------|
| 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 1.4**  
**A Transit-Oriented Development**



### **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](http://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 1.5 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.

## Map 1.5 VISION 2050 Transit Services

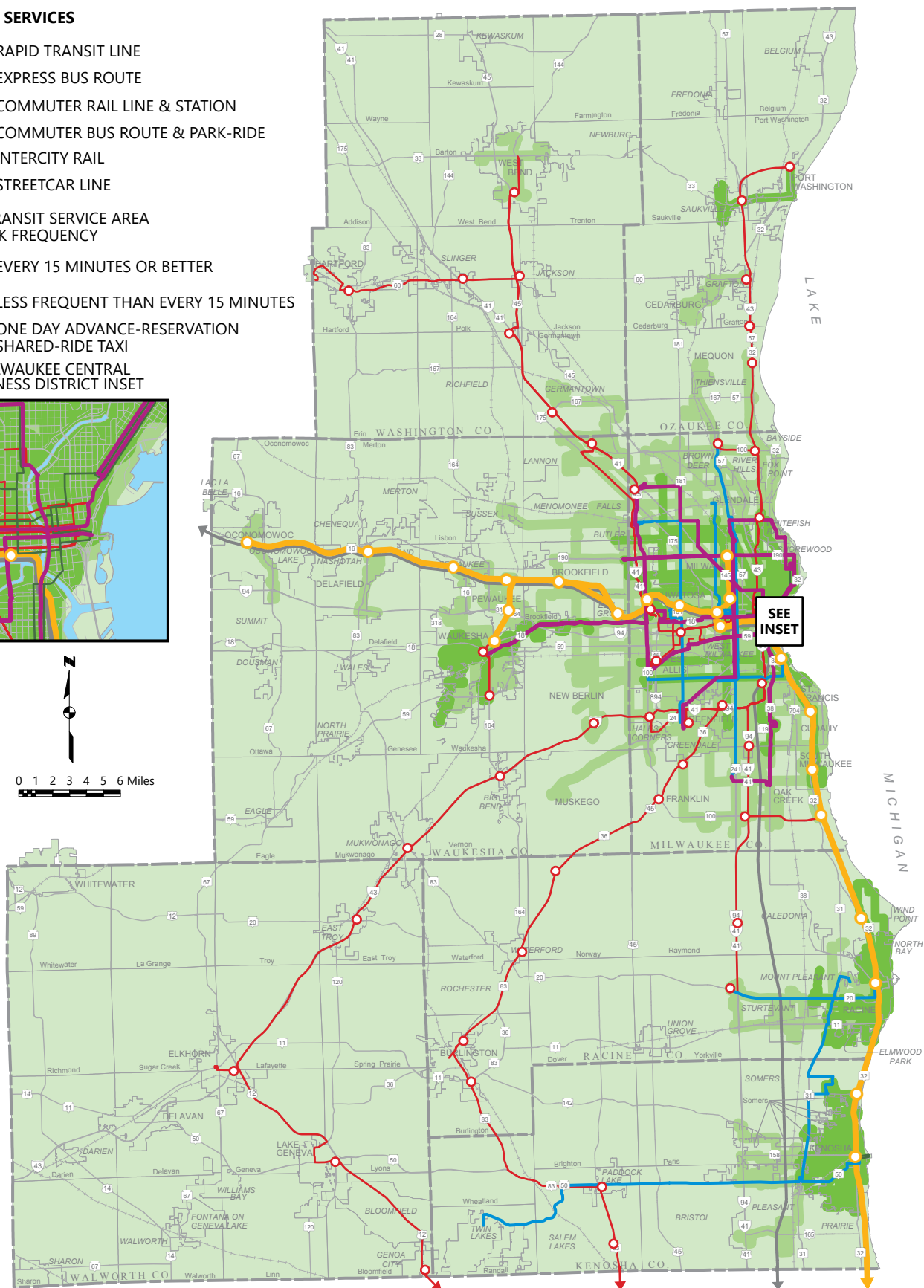
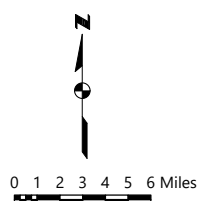
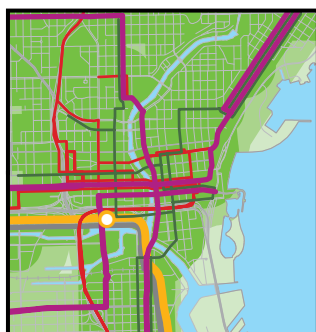
### TRANSIT SERVICES

- 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



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 1.5 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 1.5 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.

► **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 1.5 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 1.5 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 1.6 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 1.6 shows bicycle accommodations on arterials as blue lines and on non-arterials 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 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 1.6 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 1.6 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.



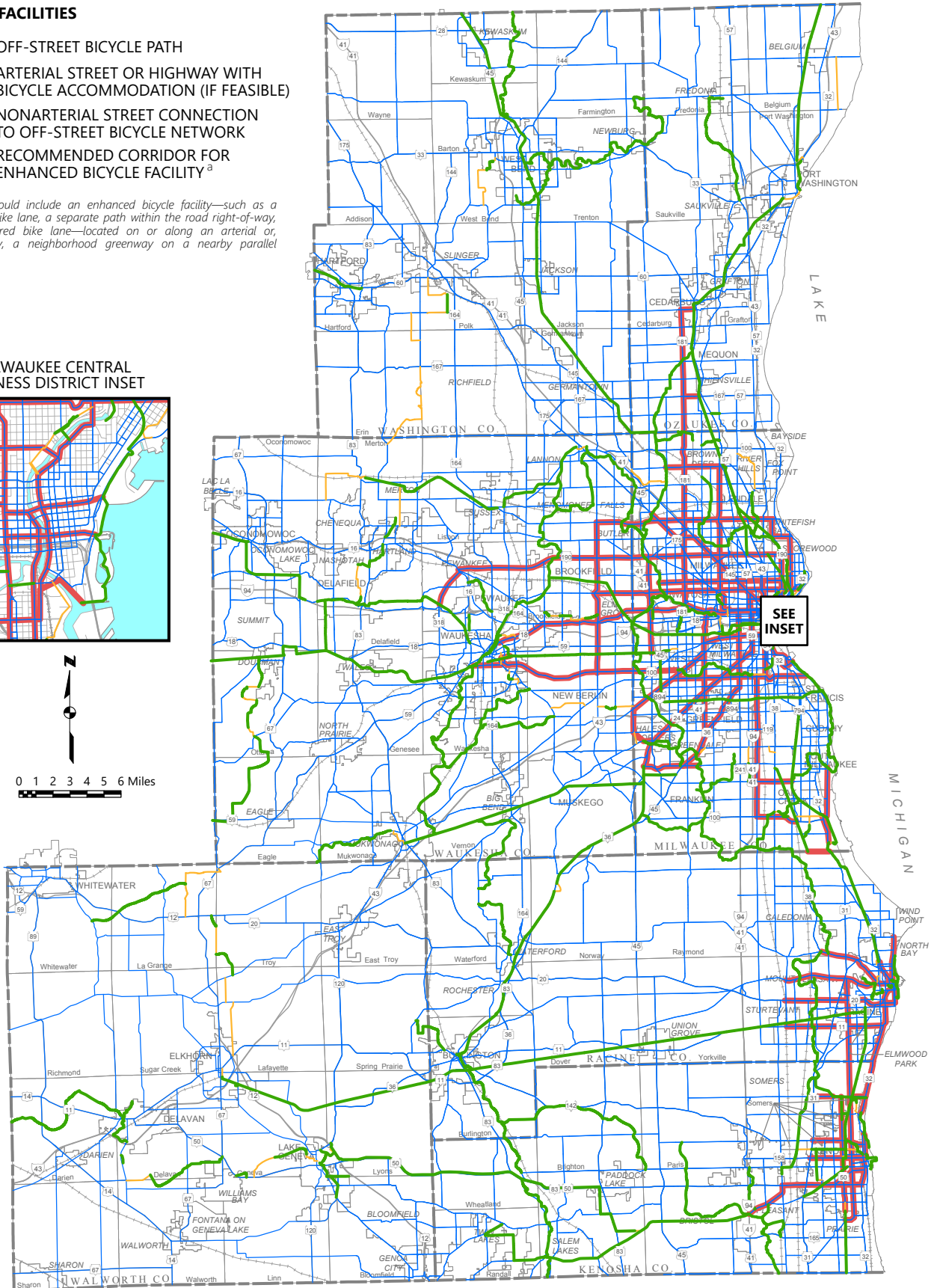
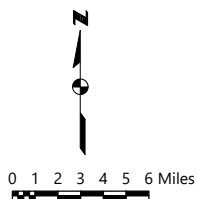
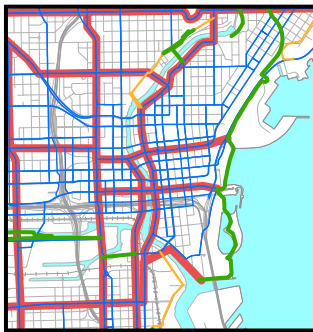
## Map 1.6 VISION 2050 Bicycle Network

### 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<sup>a</sup>

<sup>a</sup> 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



## ***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 1.7 shows the recommended arterial streets and highways element.

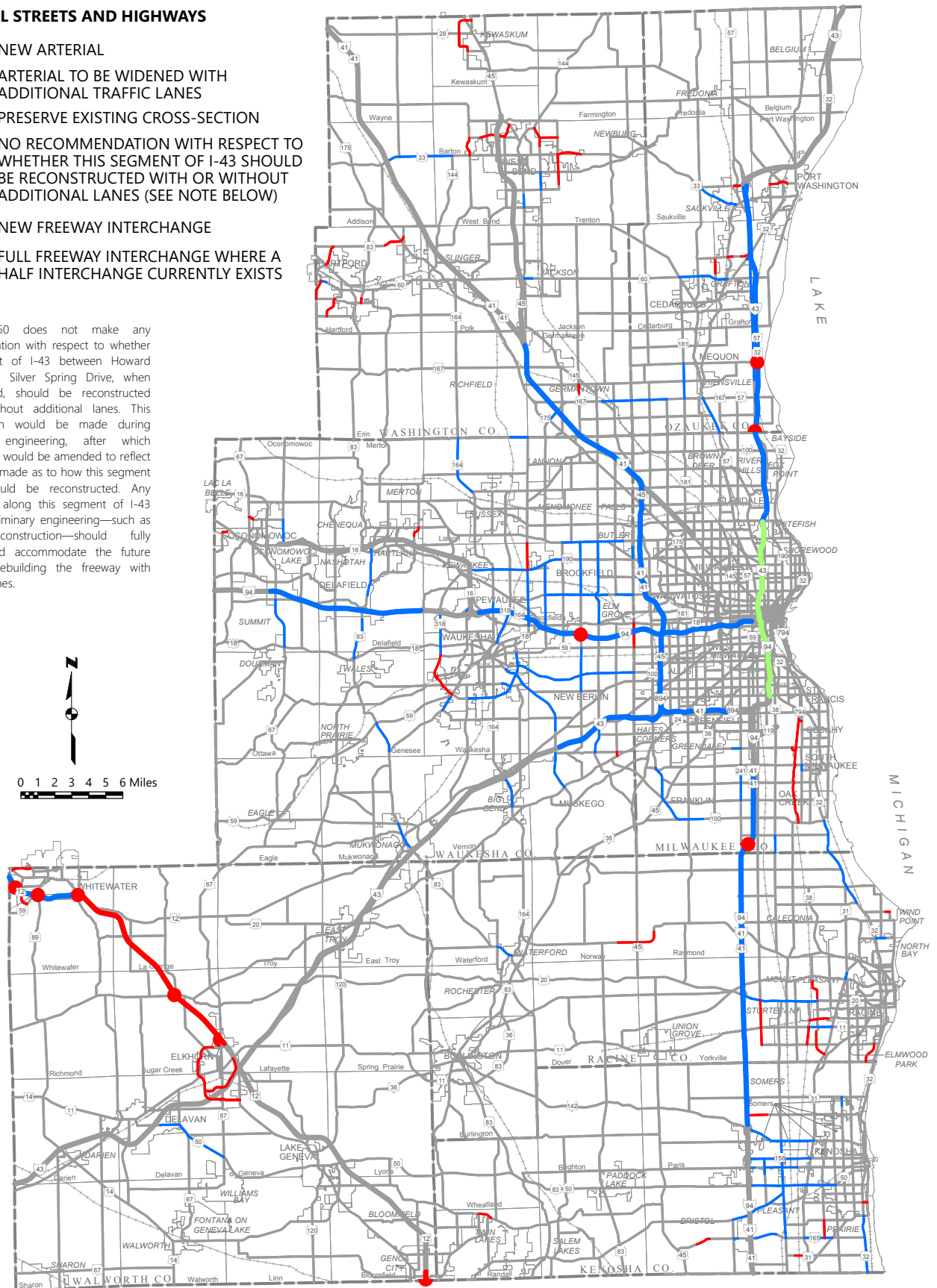
## Map 1.7 VISION 2050 Arterial Street and Highway System

### 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 prior to preliminary engineering—such as bridge reconstruction—should fully preserve and accommodate the future option of rebuilding the freeway with additional lanes.



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 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](http://www.sewrpc.org/jhp).

## **1.4 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 initial plan. The regional park and open space plan as amended is graphically summarized on Map 1.8. 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



## Map 1.8 Park and Open Space Plan for Southeastern Wisconsin: 2050

### MAJOR OUTDOOR RECREATION SITES AND CORRIDORS

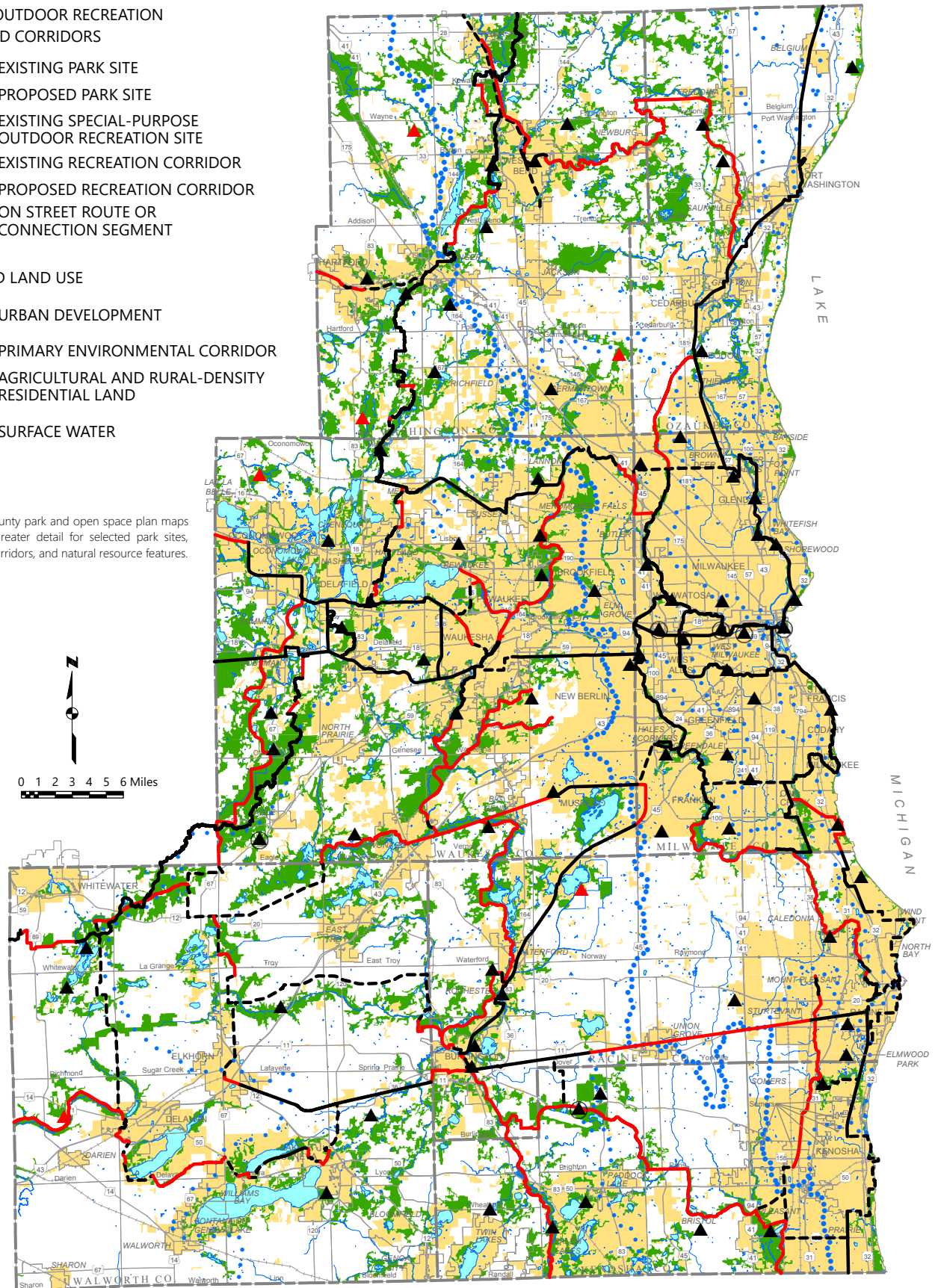
- ▲ EXISTING PARK SITE
- ▲ PROPOSED PARK SITE
- ▲ EXISTING SPECIAL-PURPOSE  
OUTDOOR RECREATION SITE
- EXISTING RECREATION CORRIDOR
- PROPOSED RECREATION CORRIDOR
- - - ON STREET ROUTE OR  
CONNECTION SEGMENT

### 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.



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 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](http://www.sewrpc.org/regionalparkplan).

## 1.5 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 1.9. 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.

### 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

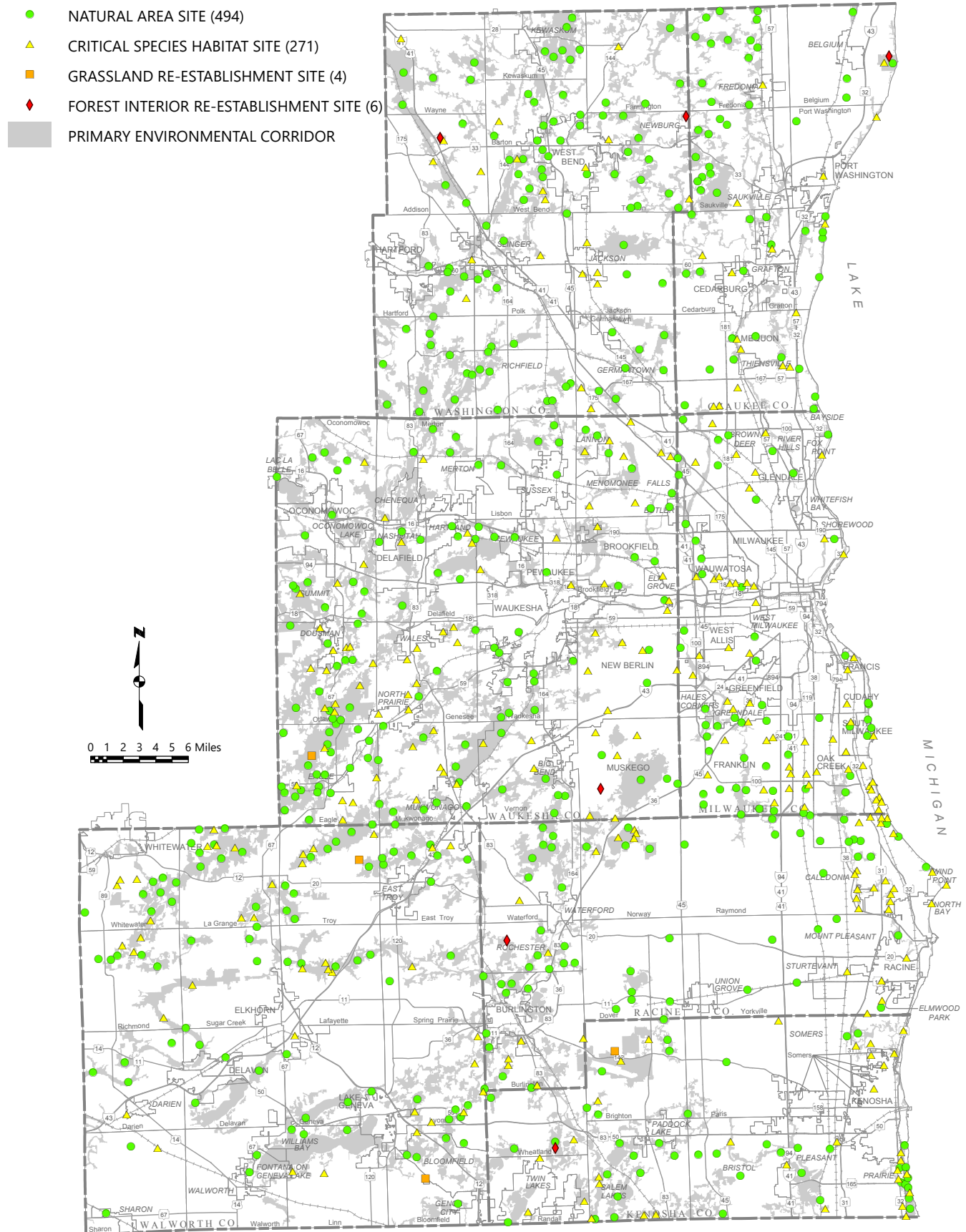
A total of 271 critical species habitat sites lying outside of identified natural areas have been identified in the Region. These sites range from one to 5,021 acres in size. Collectively, these sites total about 31 square miles, or about 1 percent of the area of the Region. About 74 percent of the collective 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.



## Natural Areas and Critical Species Habitat Plan for Southeastern Wisconsin





### **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](http://www.sewrpc.org/naturalareasplan).

## **1.6 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. Multifamily 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 multifamily 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.

In addition, the plan 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 1.10 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 multifamily 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. A portion of these jobs pay moderate and lower wages, and many of these communities lack the modest single-family and multifamily 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.

## Projected Job/Housing Imbalances in Sewered Communities in Southeastern Wisconsin: 2035



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 multifamily 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 people without disabilities.

The plan recommends the development of additional modest multifamily housing that would help people with disabilities obtain accessible and more affordable housing. Development of more multifamily 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 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 sewerage 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-impovertised 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**

Multifamily 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](http://www.sewrpc.org/housing).

## 1.7 REGIONAL WATER QUALITY MANAGEMENT PLAN

As the State-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 listed 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 listed 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 listed below.

### **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 1.11, there are 45 existing public wastewater treatment facilities in the Region, including 36 facilities that were improved and upgraded in accordance with regional 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 1.11 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 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 in-line 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 1.12 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](http://www.sewrpc.org/sewerserviceplanstatus).

### **Runoff Pollution Abatement**

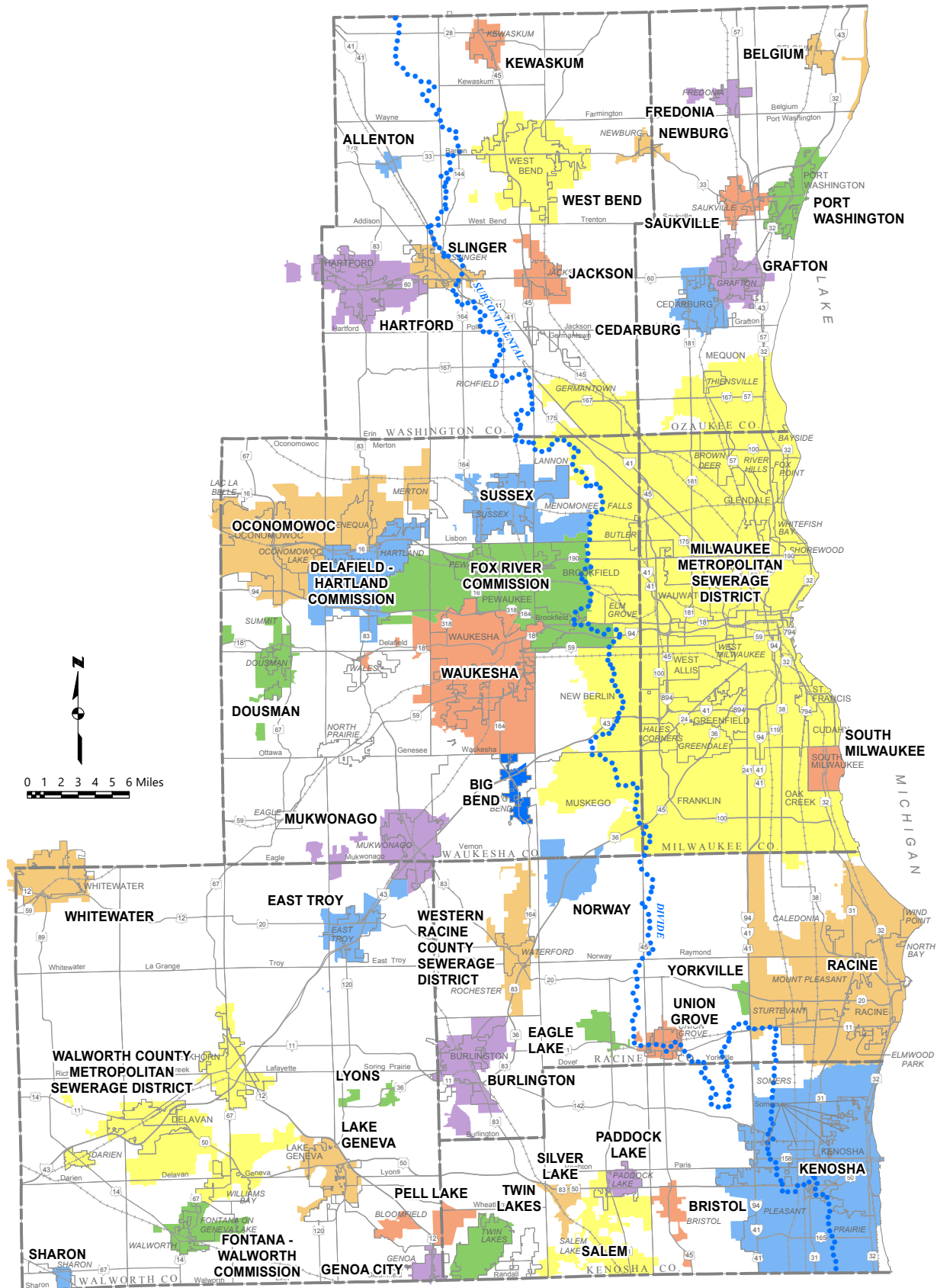
This element of the plan seeks to abate water pollution from nonpoint sources that show up in both urban and rural rainwater runoff. Toward this end, the initial regional plan identified target levels of reduction in such pollution, recommending that more detailed nonpoint source pollution abatement 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.



## Implementation Status of Regional Plan Recommendations Regarding Public Wastewater Treatment Plants in Southeastern Wisconsin: 2017



**Map 1.12**  
**Planned Sanitary Sewer Service Areas Grouped by Wastewater**  
**Treatment Plant Operator in Southeastern Wisconsin: 2017**



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 listed 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.

### **Inland Lake Water Quality Measures**

The plan recommends that detailed lake-focused planning efforts be undertaken for all inland lakes to 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](http://www.sewrpc.org/regionalwaterqualityplan).

## **1.8 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 listed 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 1.13. 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.<sup>1</sup> One proposed new utility—Elm Grove—lies in the Lake Michigan Basin 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 1.14. 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; re-pump 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 1.15). 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](http://www.sewrpc.org/regionalwatersupplyplan).

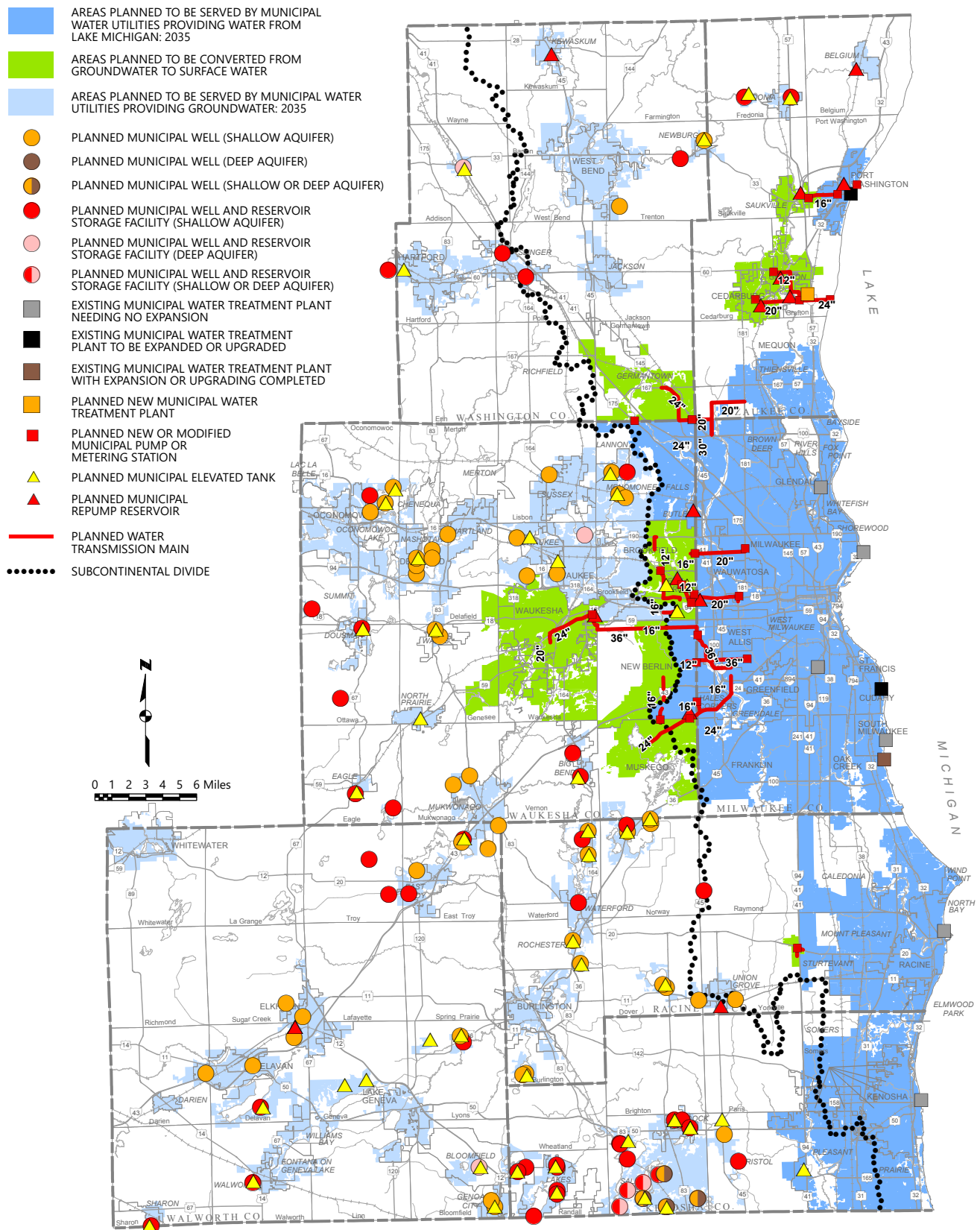
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<sup>1</sup> In 2009, the city of New Berlin received WDNR approval for a Lake Michigan diversion, according to the requirements of the Great Lakes Compact. In 2016, the City of Waukesha received approval for a Lake Michigan diversion from the Compact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

## Public Water Utility Service Area Plan for Southeastern Wisconsin: 2035



## Public Water Supply Facilities Plan for Southeastern Wisconsin: 2035



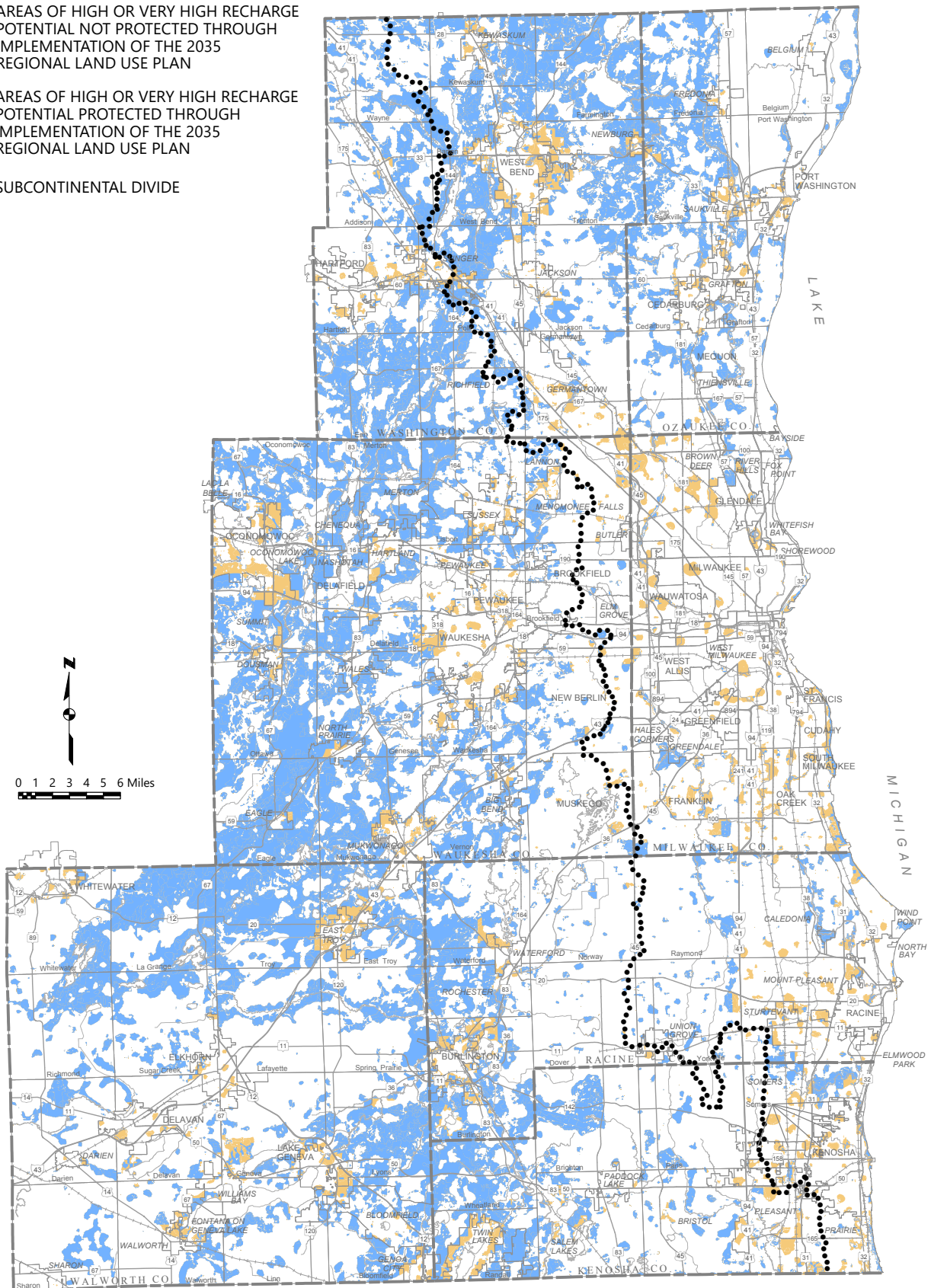
Notes: 1) The City of Oak Creek Sewer and Water Utility completed expansion and upgrading of its water treatment plant in 2010. The City of Hartford completed the recommended new well and storage tank in 2010. This map does not indicate the return flow options of the recommended plan. 2) The green Waukesha 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 113, 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 1.15

**Groundwater Recharge Protection Component of the  
Recommended Water Supply Plan for Southeastern Wisconsin: 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



## **1.9 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 sets forth recommendations to address existing flooding problems.

The SEWRPC Fox River watershed plan provides an example of sound flood mitigation planning and implementation over time. A number of alternatives incorporating both structural and nonstructural measures were explored in the preparation of the Fox River watershed plan and a subsequent U.S. Army Corps of Engineers update. The flood mitigation alternatives considered by SEWRPC for the Kenosha County portion of the watershed included structure floodproofing or removal of about 180 residences located in extreme-flood-prone areas in Kenosha County near the Wisconsin/Illinois State line. The Corps of Engineers determined that the only viable alternatives were nonstructural floodproofing, the protection of floodplain areas through floodland regulations, and limited acquisition of homes. Implementation of structure acquisition, demolition, and physical removal from the floodplain continues to this date, with over 100 homes having been acquired and demolished by Kenosha County.

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, listed recommendations to address the mobility problems of elderly people and people with disabilities. Many of the recommendations listed 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, listed 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 the Commission offices and on the website at [www.sewrpc.org/legacyregionalplans](http://www.sewrpc.org/legacyregionalplans).

This section of the 2017 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 issued 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 93.



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## 2.1 LAND USE PLANNING

In 2017, 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 2.1 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.

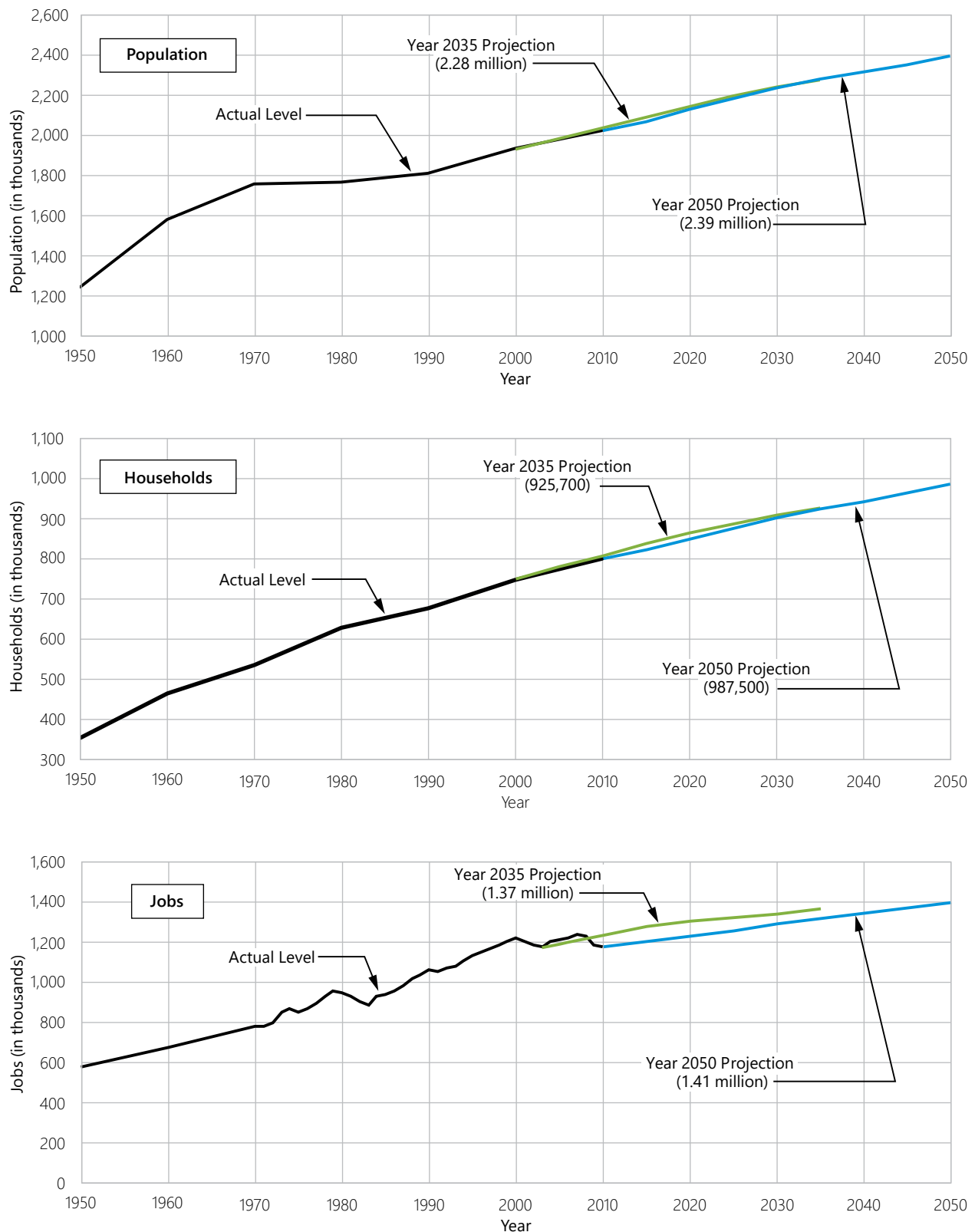
### **Environmental Corridor Inventory**

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 2017, the Commission staff initiated work on the update of the regional environmental corridor inventory to the year 2015. Work on the environmental corridor inventory update is scheduled to be completed in 2018.

### **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 (see the Transportation Planning section for more details). The plan was reviewed and adopted by the Commission in July 2016. Staff completed a summary document in December 2016 and published the full three-volume plan report (SEWRPC Planning Report No. 55) in July 2017.

**Figure 2.1**  
**Comparison of Intermediate Growth Projections for**  
**Southeastern Wisconsin: Plan Design Years 2035 and 2050**



### **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 15 designated or proposed natural areas and critical species habitats were visited in 2017, 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 2.1).

While no formal amendments were made to the regional natural areas plan this year, three new natural areas and one new critical species habitat were proposed as a result of Commission staff field work (Table 2.1).

### **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 the field inspection component for a total of 85 requests in 2017; these requests follow (see Map 2.2).

### ***Individual Development Parcels***

During 2017, 34 requests were fulfilled for the field identification and staking of wetland and primary environmental corridor boundaries on small individual parcels to facilitate consideration by local governments of 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 Development Sites***

During 2017, 22 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***

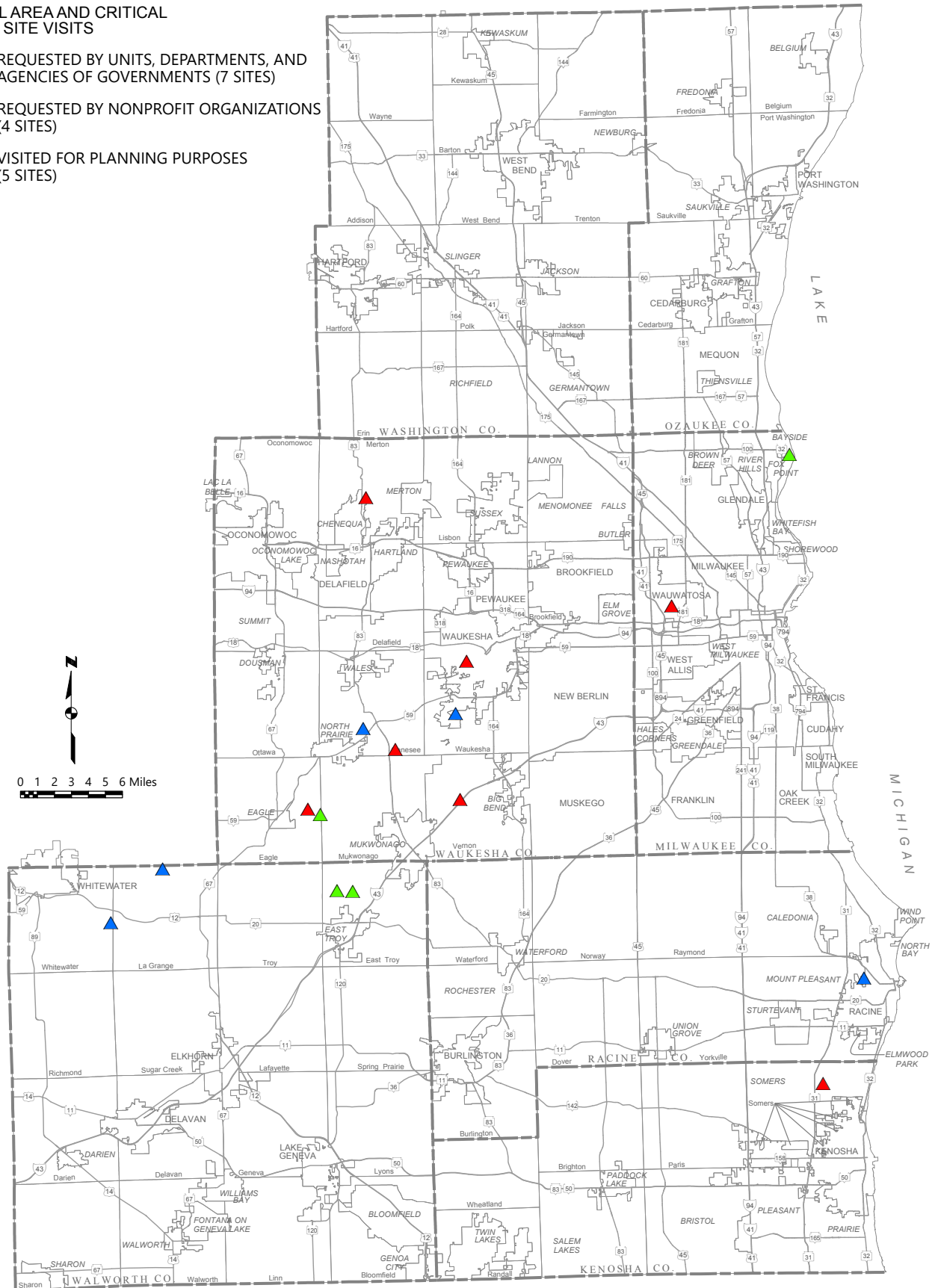
During 2017, 10 requests were fulfilled for the field identification and evaluation of environmentally sensitive areas, including wetlands, associated with transportation improvement projects. These requests came from the Wisconsin Department of Transportation; Kenosha, Ozaukee, Walworth, Washington, and Waukesha Counties; the Cities of Milwaukee and Racine; and the Town of Cedarburg.

## Map 2.1

### Locations of Natural Area and Critical Species Habitat Field Work: 2017

#### NATURAL AREA AND CRITICAL SPECIES HABITAT SITE VISITS

- ▲ REQUESTED BY UNITS, DEPARTMENTS, AND AGENCIES OF GOVERNMENTS (7 SITES)
- ▲ REQUESTED BY NONPROFIT ORGANIZATIONS (4 SITES)
- ▲ VISITED FOR PLANNING PURPOSES (5 SITES)



**Table 2.1**  
**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 Fen <sup>a</sup>	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

<sup>a</sup> Proposed natural area formerly designated as critical species habitat.

### Utility and Public Facility Sites

During 2017, 10 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 Delavan, New Berlin, Oconomowoc, Pewaukee, and Waukesha; the Town of Brookfield; the Villages of Elm Grove and Williams Bay; and the Milwaukee Metropolitan Sewerage District (MMSD).

### Public Park Sites

During 2017, 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, Walworth, Washington, and Waukesha Counties.

### Other Sites

During 2017, one request was fulfilled that consisted of a specialized field evaluation in the Village of Bayside, Milwaukee County. The Village of Bayside, on behalf of the Schlitz Audubon Nature Center, requested a delineation and comprehensive vegetation survey of the wetlands on the nature center property related to a proposal for wetland restoration, trail reconstruction, and stormwater management improvements,

### Summary of 2017 Field Work

In the course of 2017 field work a total of 3,362 plant species records were made: 678 from Kenosha County, 516 from Milwaukee County, 256 from Ozaukee County, 317 from Racine County, 548 from Walworth County, 127 from Washington County, and 920 from Waukesha County. Two plant taxa never previously recorded as naturalized or established in the Region were observed in the course of 2017 field work. The first, peppermint (*Mentha x piperita*), is exotic and was observed along a spring run at Petrifying Springs Park in Racine County. The second, English hawthorn (*Crataegus laevigata*), is also exotic and was observed in a thicket at the Schlitz Audubon Center in Milwaukee County.

A total of 14 records of State endangered (0 records), threatened (3 records) and special concern (11 records) plant species were made: three from Kenosha County, two from Milwaukee County, one from Racine County, three from Walworth County, and five from Waukesha County. The discovery of a native population of lanceleaf coreopsis (special concern, *Coreopsis lanceolata*) at the newly proposed Badger Knoll Dry Prairie natural area in Waukesha County, represents the first record for that species in the Region outside of Chiwaukee Prairie in Kenosha County.

### Locations of Requested Special Environmental Inventories, Assessments, and Evaluations Involving Field Work: 2017





Commission staff also responded to seven various information 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, two pertained to natural resources in Walworth County, and four pertained to natural resources in Waukesha County.

## **2.2 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 (USDOT), 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, USDOT conducted a quadrennial certification review of that process. The results of that review are scheduled to be released in 2018.

The Commission undertook a wide range of transportation planning activities in 2017. 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 2017, 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.

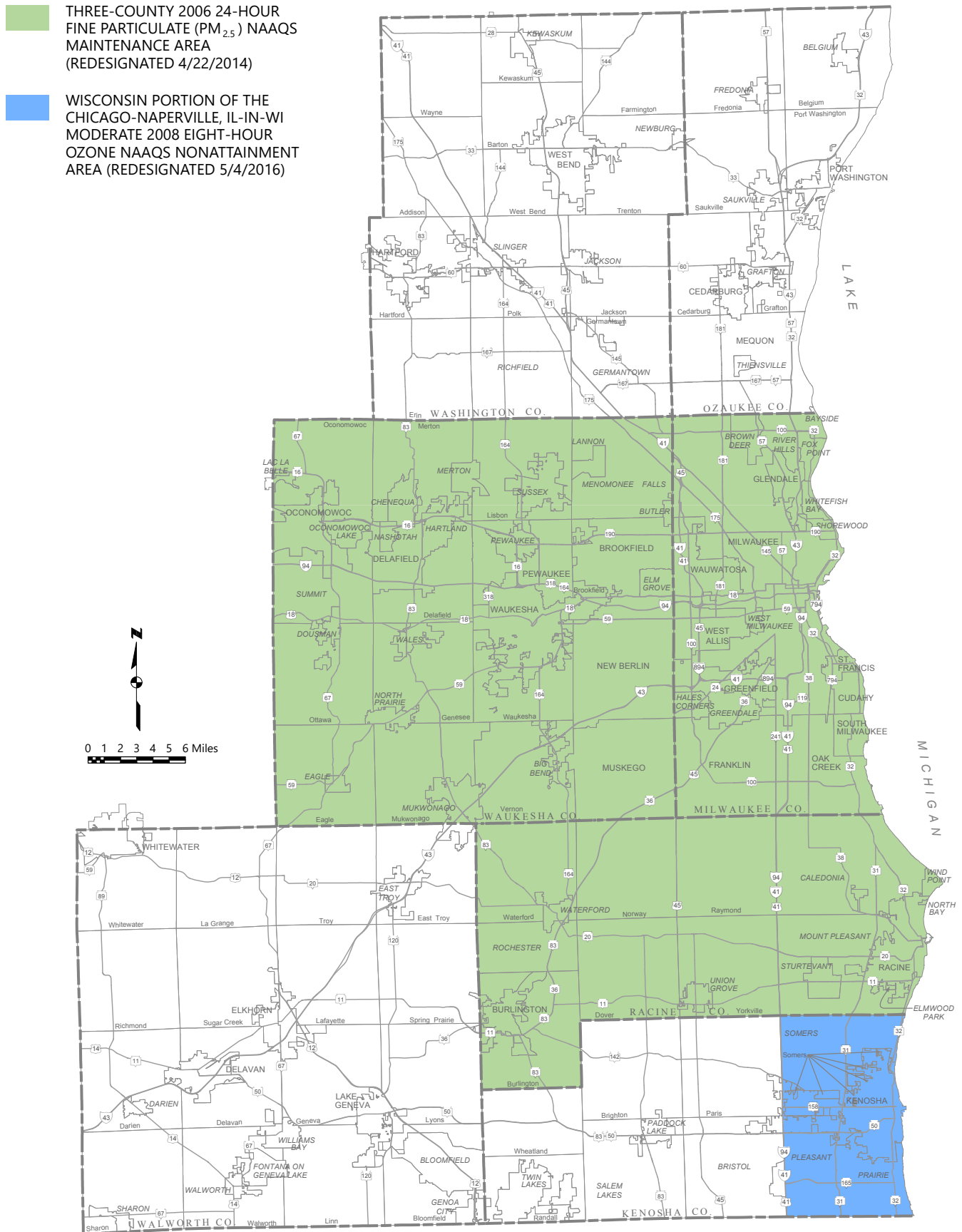
#### ***Transportation Improvement Program***

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 local 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<sub>2.5</sub>) (see Map 2.3).

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 was both amended and administratively modified as requested by WisDOT and local units of government on six occasions during 2017, adding 49 projects and revising 15 projects. As amended through the end of 2017, the TIP contains 448 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 \$2.75 billion. Of this total, \$1.06 billion, or about 38.6 percent, is proposed to be provided through Federal aids; \$1.27 billion, or about 46.1 percent, through State funds; and \$421 million, or about 15.3 percent, through county and local monies.

## Map 2.3

### NAAQS Nonattainment and Maintenance Areas Within Southeastern Wisconsin



About \$598 million is programmed in 2018, the second year of the TIP. As shown in Figure 2.2:

- About \$362 million, or 61 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 \$165 million in 2018, or 28 percent of total expenditures, which includes the service and facility preservation, improvement, and expansion categories of projects.
- Highways are programmed to receive a total of about \$403 million in 2018, or about 67 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 \$191 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 \$30 million in expenditures, or 5 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](http://www.sewrpc.org/tip).

Three additional work activities were related to project selection and implementation activities drawn from the TIP in 2017, including:

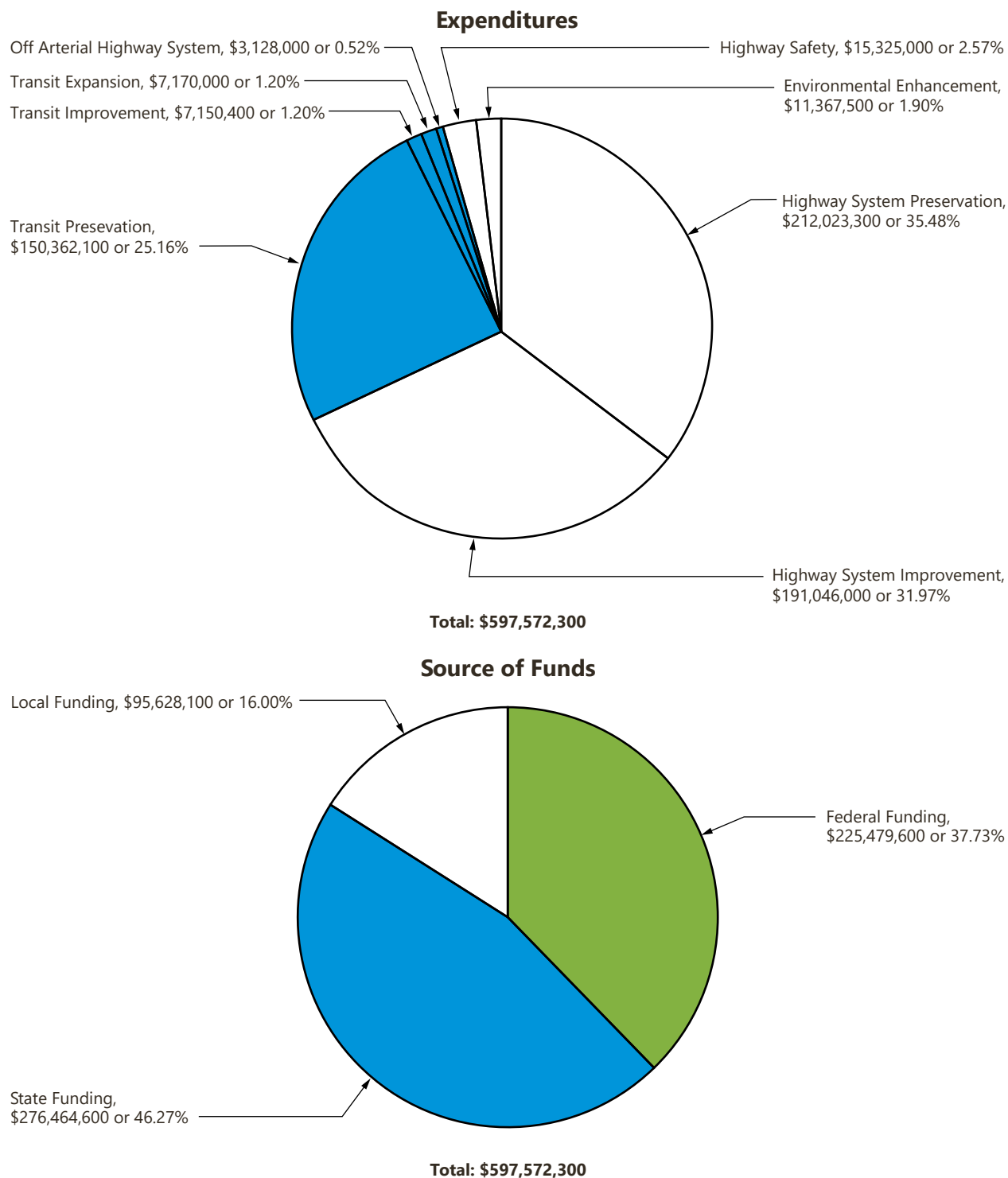
- Congestion Mitigation and Air Quality  
In 2017, Commission staff initiated work with the TIP Committees, WisDOT, and WDNR to evaluate, prioritize, and recommend projects for Federal Highway Administration Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds. A total of 31 projects totaling \$76 million applied for years 2021-2022 CMAQ funds. However, in the second half of 2017, WisDOT staff initiated a review of the procedures utilized by the Commission staff, WisDOT, and WDNR. These procedures included the staffs of the three agencies independently rating each candidate project seeking CMAQ funding and, working with local governments in Southeastern Wisconsin, prioritizing the projects for funding. WisDOT's review of the existing procedures continued into 2018, so no further progress on project selection occurred in 2017.
- Surface Transportation Block Grant Program – Milwaukee Urbanized Area  
In 2017, Commission staff initiated work with the Milwaukee Urbanized Area TIP Committee to prioritize 38 candidate projects totaling \$169 million for years 2021-2022 Surface Transportation Block Grant Program – Milwaukee Urbanized Area (STP-M) funding. However, in the second half of 2017 WisDOT staff initiated a review of the STP local program statewide, which continued into 2018.
- 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 on such projects listed in the preceding year of the TIP. The lists of obligated highway and transit projects for 2017 were made available in early 2017 through the Commission's website at [www.sewrpc.org/tip](http://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 2017:

- 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.
- Commission staff assisted Ozaukee County in the development of a short-term Transit Development Plan including a performance review of the existing County transit system; analyses

**Figure 2.2**  
**Programmed Expenditures and Funding Sources for Transportation**  
**Facilities and Services in Southeastern Wisconsin: 2018**



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.

of travel habits, patterns, and needs of system; and an analysis of potential alternatives for the transit system.

- Commission staff initiated work on a Group Transit Asset Management Plan for small transit operators in the Region to inventory assets, conduct condition assessments, identify a decision support tool, and develop a prioritized list of transit investments.

### **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 while maintaining a minimum 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. In June 2016, the Committees approved VISION 2050, which 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. Staff completed a summary document in December 2016 and published the full three-volume plan report (SEWRPC Planning Report, No. 55) in July 2017.

### ***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 2017, 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. More information on the jurisdictional highway planning process can be found at [www.sewrpc.org/jhp](http://www.sewrpc.org/jhp).

### **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 2017 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 2017, numerous forecasts were prepared or under way for WisDOT and other agencies. Some of the projects for which forecasts have been developed were:

- IH 94 north-south reconstruction
- STH 175 visioning study for the City of Milwaukee
- Milwaukee County Bus Rapid Transit project

### ***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
- Reviewing study reports and other documents prepared for a project

Some of the projects or studies that Commission staff provided technical assistance for in 2017 included:

- Milwaukee streetcar project
- Milwaukee County Bus Rapid Transit project
- IH 43 north-south reconstruction

### ***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 2017:

- 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 2018.



- Commission staff completed work on a traffic engineering study for the intersection of W. Drexel Avenue and S. 51st Street in the City of Franklin.

### ***Bicycle-Pedestrian Count Program***

In 2015, the Commission received a grant from FHWA Bicycle-Pedestrian Count Technology Pilot Project, to initiate a non-motorized count program within Southeastern Wisconsin. Since the initial pilot, the Commission has continued to collect non-motorized counts. In addition to the count data collected, data on daily temperatures and other weather conditions are also collected to evaluate their potential effects on count volumes. After each count session, Commission staff prepares summary reports of the volumes and trends and provides them to the respective local government that owns and maintains the off-street path.

Map 2.4 displays all of the locations in 2017 where bicycle/pedestrian counts were collected. Also shown on Map 2.4 are 10 permanent urban counter locations 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 placed four permanent counters on rural and suburban trails to supplement the existing permanent urban counters in Milwaukee County. Also, in 2017 Commission staff initiated work on the development of a website to disseminate the count summaries

### **Regional Transportation Consultation Activities**

The following summarizes regional transportation consultation activities conducted by the Commission pursuant to its Regional Transportation Consultation Process during 2017.

#### ***Ozaukee County Transit Planning Advisory Committee***

The Committee met five times in 2017. The January, February, and April meetings considered the existing transit services and performance, and resulted in the approval of the first four chapters of the Transit Development Plan. In July, the Advisory Committee reviewed input from the first round of public meetings and a business-focused meeting and considered potential alternatives based on the input. The November meeting included approval of the draft alternatives chapter and directed Commission staff to conduct an additional round of public outreach to gather input on the draft alternatives.

#### ***Advisory Committee on Regional Transportation Planning***

The Committee did not meet in 2017. Staff scheduled a joint meeting with the Advisory Committee on Regional Land Use Planning for January 2018. The two Advisory Committees are expected to consider two or more potential amendments to VISION 2050 during 2018.

#### ***Advisory Committee on Transportation System Planning and Programming for the Round Lake Beach Urbanized Area (Round Lake Beach TIP Committee)***

The Round Lake Beach Urbanized Area Committee met on December 17, 2017, and approved the proposed functional classification of the arterial street and highway system in the year 2010 adjusted Round Lake Beach urbanized area. The Commission's Executive Committee is expected to review and consider the functional classification in early 2018.

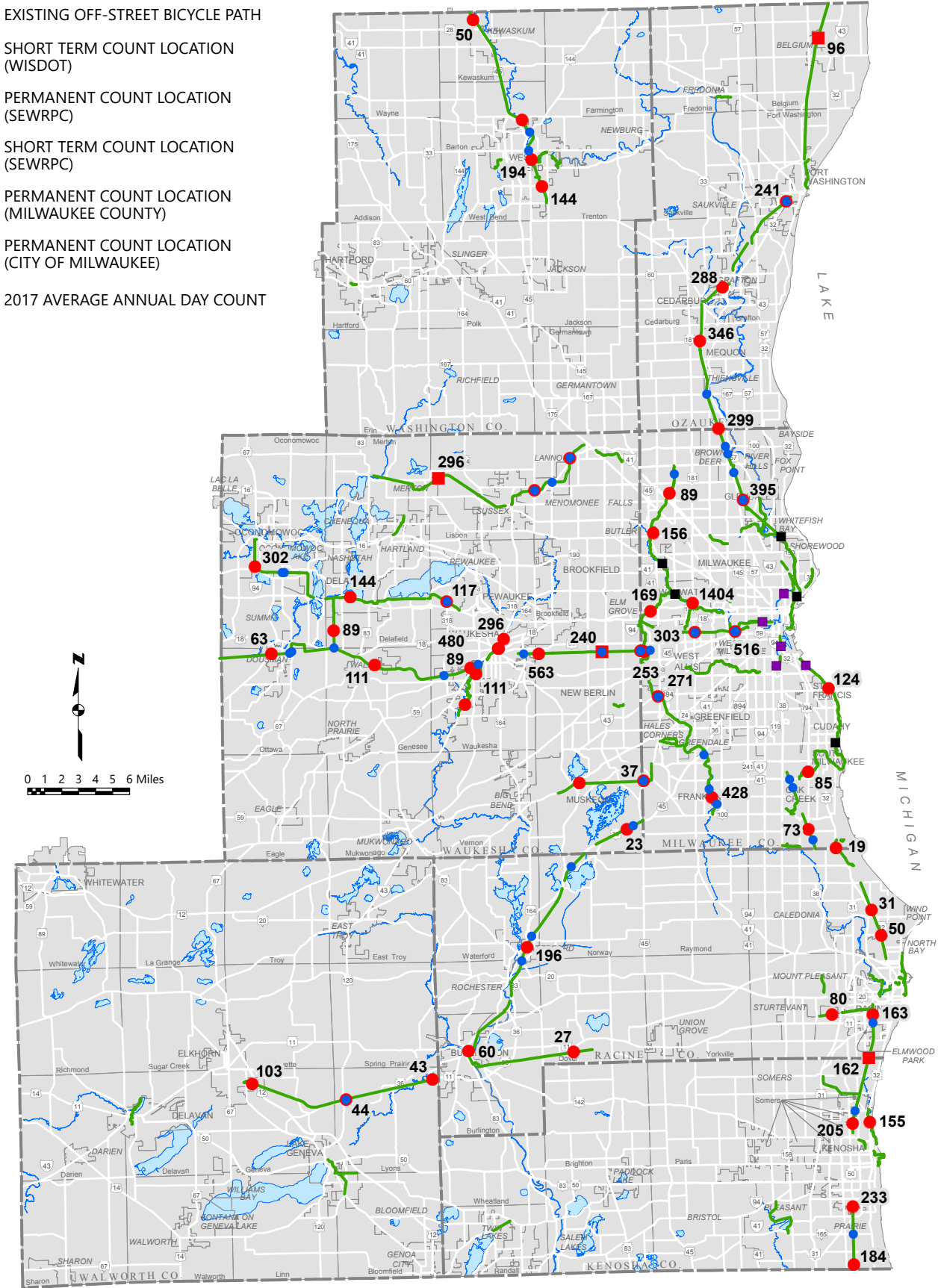
#### ***Environmental Justice Task Force (EJTF)***

The Task force met twice in 2017, on June 6 and November 14. The Task force was provided with updates regarding several Commission work programs at the June 6 meeting. At the November 14 meeting, the Task Force reviewed their purpose and functions and discussed a holding a retreat to receive information on the history of discriminatory practices in the Region and how regional planning can part of the solution to disparities in the Region.

### ***Public Outreach***

In development of the Ozaukee County Transit Development Plan, Commission staff held two public workshops and one business-focused meeting to gather input that would assist in the development of alternatives to be studied in the next phase of the planning process. There were 38 attendees at the two public meetings and 17 attendees at the business-focused meeting.

## Bicycle-Pedestrian Count Locations: 2017



Also during 2017, Commission staff conducted extensive public outreach and consultation efforts with groups, organizations, and officials representing minority populations and low-income populations. More information is provided in the Public Involvement and Outreach section.

## **2.3 ENVIRONMENTAL PLANNING**

During 2017, 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.

### **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 2017 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 [www.swwtwater.org](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 with 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 [www.southeastfoxriver.org](http://www.southeastfoxriver.org).

#### Oak Creek Watershed Restoration Plan

Field work continued in 2017 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), WDNR, and Root-Pike Watershed Initiative Network (WIN).

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 Nine 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 [www.sewrpc.org/OakCreekWRP](http://www.sewrpc.org/OakCreekWRP).

### ***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 2017 in this category follow.

#### Wastewater Treatment Plants

During 2017, 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 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 2017, the Commission did not adopt any amendments to sanitary sewer service area plans. Reports for all refined and detailed sanitary sewer service area plans are available from the Commission offices and also can be found on the Commission website at [sewrpc.org/sewerserviceplanstatus](http://sewrpc.org/sewerserviceplanstatus).

#### 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 2017, review comments were provided on 54 proposed public sanitary sewer extensions and 74 proposed private main sewer or building sewer extensions, distributed by county as shown in Table 2.2.

### ***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 management 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 2017 follow.

**Table 2.2**

**Commission Sanitary Sewer Extension Reviews: 2017**

<b>County</b>	<b>Public Sanitary Sewer Extensions</b>	<b>Private Main Sewer or Building Sewer Extensions</b>	<b>Total</b>
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

#### Jackson Creek Watershed

The Commission incorporated runoff pollution abatement considerations in development of the Jackson Creek watershed protection plan as documented in Community Assistance Planning Report No. 320, *Jackson Creek Watershed Protection Plan*.

#### 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 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) comprehensive 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 2017, the Commission staff completed and published four lake management, protection, and/or aquatic plant management plans among five counties as documented below:

- Memorandum Report No. 177, *A Lake Protection and Aquatic Plant Management Plan for Whitewater and Rice Lakes, Walworth County*
- Community Assistance and Planning Report No. 324, *A Lake Management Plan for Lake Denoon, Racine and Waukesha Counties*



- Community Assistance and Planning Report No. 328, *A Lake Protection Plan for Hooker Lake, Kenosha County*
- Community Assistance and Planning Report No. 322 *A Lake Protection and Aquatic Plant Management Plan for Pike Lake, Washington County*

These plans focused on multiple issues including aquatic plant growth, water quality, blue green floating algae, shoreline maintenance, recreation, public access, and wildlife, as well as recommendations to address the issues.

SEWRPC staff also drafted lake management plans for Fowler, Little Muskego, Nagawicka, and Pewaukee Lakes in Waukesha County. Staff continued to work on planning efforts for Silver Lake in Washington County, Phantom Lakes in Waukesha County, and Twin Lakes in Kenosha County.

#### Other Lake Planning Efforts

The Commission staff also completed work on a Kenosha County Lake and Stream Classification project designed to inform the County's shoreland management efforts. It was documented in Memorandum Report No. 222, *Lake and Stream Resources Classification Project for Kenosha County, Wisconsin: 2017*.

Commission staff completed a draft Aquatic Invasive Species (AIS) Strategic Plan for Waukesha County that summarizes the 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 the County. This AIS information was vital to the ongoing AIS management program in the County.

#### Stream Management Planning

The Commission works with non-governmental organizations, local units of government, Counties, and the WDNR and 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 2017, the Commission completed a stream protection plan for Jackson Creek in Walworth County as documented in Community Assistance Planning Report No. 320, *Jackson Creek Watershed Protection Plan*. This planning effort was conducted in cooperation with the Kettle Moraine Land Trust, Delavan Lake Improvement Association, Delavan Lake Sanitary District, local municipalities, Walworth County, WDNR, USEPA, and Natural Resources Conservation Service (NRCS).

During 2017, the Commission completed a draft 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, local municipalities, Washington and Waukesha Counties, WDNR, USEPA, and NRCS.

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 Nine 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.

Commission staff completed a streambank erosion and natural resource inventory on the Lower Fox River (IL) from the Waterford dam to the Wisconsin-Illinois state line. This information is being analyzed to update the Southeastern Wisconsin Fox River Commission's shoreline erosion and invasive species mapping report for Waukesha, Racine, and Kenosha Counties.

### *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 organizations. 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 2017, Commission staff continued to assist in 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 2017 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/Associations for Twin Lakes and Silver 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 2017 follow:

- Provided support to Milwaukee County, the City of Glendale, and the MMSD regarding environmental hydraulic considerations related to the Estabrook dam on the Milwaukee River.
- 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.sewfrfrc.org](http://www.sewfrfrc.org).
- Participated as a member of the Mid-Kettle Moraine Partners Group.
- 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.
- 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 North Lake Management District in developing a scope of work and a grant application to study sediment and nutrient sources to the Oconomowoc River upstream of North Lake.
- Assisted the Village of Twin Lakes, Kenosha County, with evaluating ice damage and water level complaints. Developed technical approach and budget for a grant application to study hydrology and hydraulics, weather, and other factors influencing water levels in Lakes Marie and Elizabeth. Helped the Village prepare the grant application.
- Assisted the Keesus Lake Management District in evaluating existing and potential erosion and sedimentation issues and slow-no-wake and navigation buoy issues among several bays.
- Developed a technical approach and a budget for grant application to study high water levels in Moose Lake, Waukesha County.
- Coordinated with WDNR staff, the Wind Lake Management District, and the University of Wisconsin-Extension to convene and host a cross-agency and private sector chemical applicators meeting to discuss starry stonewort management issues for Southeastern Wisconsin.
- SEWRPC staff continued to provide assistance as requested to the Wisconsin Lakes Partnership and in coordinating the year 2017 Wisconsin Lake Convention.
- Worked with the Southeastern Wisconsin Fox River Commission to organize, coordinate, and host the 5th Annual Fox River Summit to continue to bring together watershed organizations in Wisconsin and Illinois for a one-day discussion of common interests and possible opportunities for future cooperation.
- Gave formal presentations on lake and stream management related topics at the first annual Southeastern Wisconsin Conservation Summit, Wisconsin Lutheran College (Natural Resource Connections Course), and Land Trust Workshop at the Urban Ecology Center.
- Provided technical advice to the Ozaukee County Planning and Parks Department on naturalizing portions of the Little Menomonee River in Ozaukee County and preparation of an affiliated grant application.
- Assisted Washington County and the Washington County Land Trust with design of a pilot project focused on naturalizing an unnamed ditched zero order streams, improving riparian and in-stream habitat, and reducing sediment and nutrient loads to the stream. Included provision of one set of sketch plans and two field inspection/project conceptualization site visits.
- Assisted Ozaukee County with grant applications requesting funding for aquatic organism passage on Mole Creek, Buser Creek, and improvements to the Mequon-Thiensville dam fishway.
- 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.

### **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 2017, the Commission staff incorporated the regional water supply plan recommendations related to preservation of groundwater recharge areas in each of the completed lake and stream plans listed below:

- Memorandum Report No. 177, *A Lake Protection and Aquatic Plant Management Plan for Whitewater and Rice Lakes, Walworth County*
- Community Assistance and Planning Report No. 324, *A Lake Management Plan for Lake Denoon, Racine and Waukesha Counties*
- Community Assistance and Planning Report No. 328, *A Lake Protection Plan for Hooker Lake, Kenosha County*
- Community Assistance and Planning Report No. 322 *A Lake Protection and Aquatic Plant Management Plan for Pike Lake, Washington County*
- Memorandum Report No. 222, *Lake and Stream Resources Classification Project for Kenosha County, Wisconsin: 2017*
- Community Assistance Planning Report No. 320, *Jackson Creek Watershed Protection Plan*

### **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 2.5. 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 2017 follow.

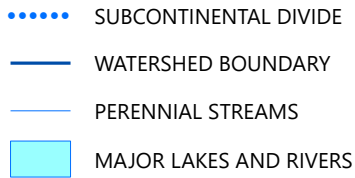
#### **Menomonee River Floodplain Revisions**

Provided continued support on the FEMA-approved conditional letter of map revision (CLOMR) 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 was 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 2017 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):

## Major Watersheds in Southeastern Wisconsin





- 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 and the Root River Canal in the City of Franklin. Continued developing HEC-RAS models for 21 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.
- Continued an update of the hydraulic model and floodplain mapping for the Menomonee River main stem upstream of W. North Avenue to its upstream terminus. The reach mapped includes the Cities of Milwaukee and Wauwatosa and the Villages of Butler, Germantown, and Menomonee Falls.
- Continued work on an update of the hydraulic model and floodplain mapping for Fish Creek, two unnamed tributaries to Fish Creek, and the County Line Road Tributary to Fish Creek. The floodplain mapping updates were located in the City of Mequon and the Villages of Bayside and River Hills.
- Completed 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, Oak Creek and two tributaries, and Fish Creek and three tributaries.

### ***FEMA RiskMAP Program***

Work performed in 2017 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 2.6).

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 2017, 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 2.6. In addition, in 2017 there



## Locations of U.S. Geological Survey Stream-Gaging Stations: 2017

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



were three gages at which water levels, but not streamflow, were continuously recorded. These included one each at Geneva Lake in the City of Lake Geneva, the Fox River in the Village of Waterford, and 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 2017 follow:

- 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.
- Developed a scope of work with Kenosha County to update floodplains on the South Branch Pike River. Effort will include hydraulic model development and revised floodplain mapping for the mainstem of South Branch Pike River along with five tributaries: Airport Branch, Unnamed Tributary, Somers Branch and its unnamed tributary, and School Tributary.

Staff also responded to 25 requests for hydrologic and hydraulic data for 13 streams, rivers, and lakes throughout the Region.

### **Hazard Mitigation Planning**

Hazard mitigation plans outline local strategies for mitigating hazards such as flooding, drought, lakeshore 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 completed work on a new hazard mitigation plan for Washington County, an update to the 2010-2015 plan for Racine County, and an update to the 2011-2015 plan for Kenosha County. In 2017, work continued on an update to the 2012-2017 hazard mitigation plan for the City of Milwaukee. In 2017 the planning effort for the City of Milwaukee included completion of the study area and hazard inventories. In 2017, work began on an update to the 2013 hazard mitigation plan for Ozaukee County. The planning process for Ozaukee County included the development of a governmental and technical planning group and the initiation of a comprehensive inventory and analysis of existing reports of severe weather and hazard incidents. 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 2017, 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 2.7. The Commission provides various technical services in coastal-related activities within the Region to support planning and/or project implementation 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 2017, Commission activities were focused on conducting field investigations attendant to wetlands and other sensitive lands in the coastal management area (see Map 2.7), 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.

In 2017 work began on the Southeastern Wisconsin Coastal Resilience Study along with staff from the Wisconsin Coastal Management Program (WCMP), the University of Wisconsin Sea Grant Institute, and the University of Wisconsin-Madison Department of Civil and Environmental Engineering. The three-year study will focus on the Lake Michigan coast in Ozaukee, Milwaukee, Racine, and Kenosha Counties. Deliverables for the study will include projecting future shoreline recession, developing guidance materials for implementing risk reduction practices and communicating risk along the coastal shoreline, organizing a network for communities to collaborate, and identifying coastal resilience projects to fund. SEWRPC staff are participating in the effort by providing technical support for guidance materials related to bluff vegetation and assisting in organizing and interacting with the project Community of Practice, which will be a network of local officials, scientists, and outreach specialists in the study region.

## **2.4 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.

## **2.5 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 2017 follow.

### **Comprehensive Plans**

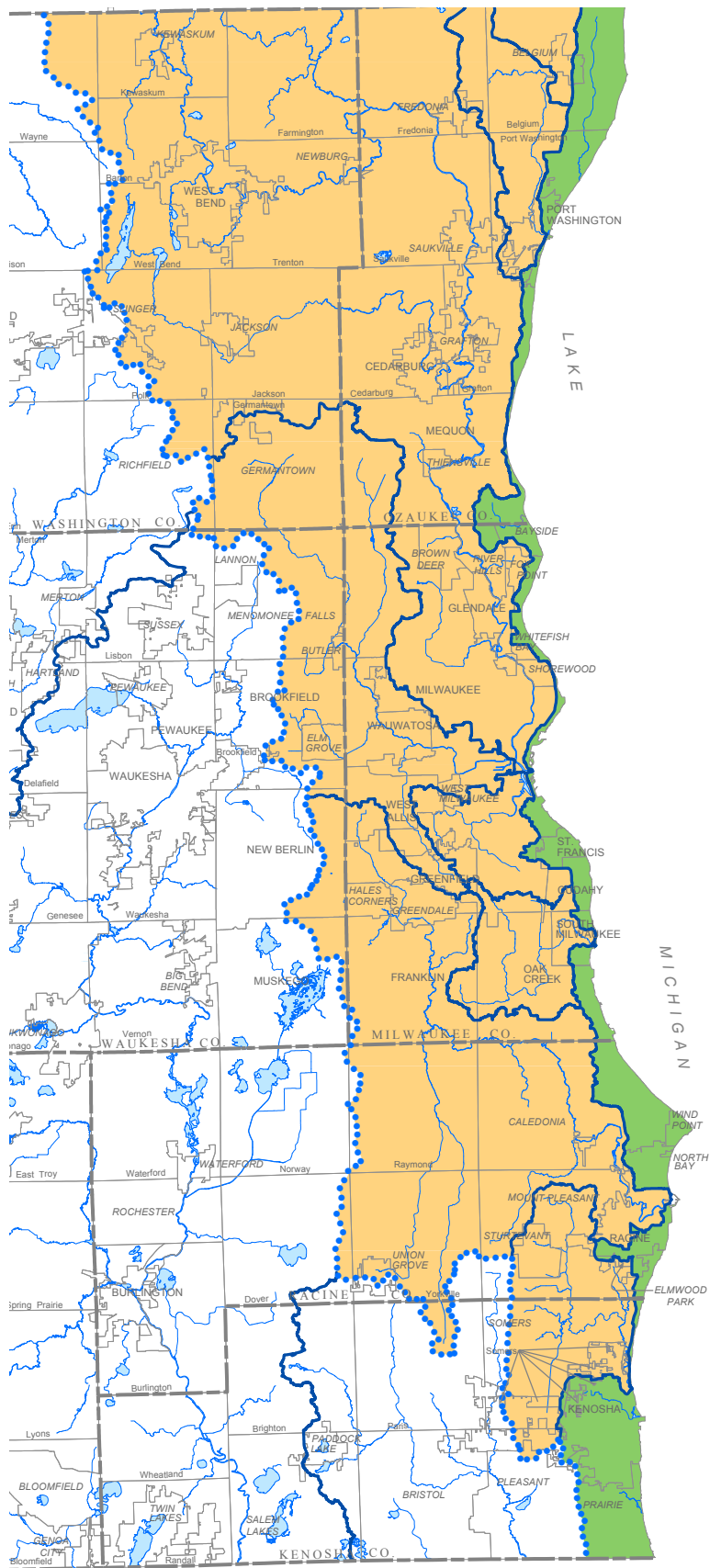
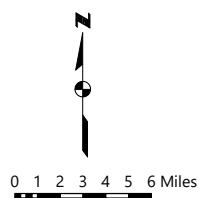
Between 2004 and 2011, the Commission staff assisted county and local units of government in the Region in preparing comprehensive plans in accordance with the State comprehensive planning law (Section 66.1001 of the Wisconsin Statutes). Commission assistance included preparing multi-jurisdictional comprehensive plans for Kenosha, Ozaukee, Racine, Walworth, and Washington Counties,<sup>2</sup> 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

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<sup>2</sup> Milwaukee County has not prepared a comprehensive plan because it does not administer a zoning, land division, or official mapping ordinance.

**Map 2.7**  
**Designated Coastal Areas in Southeastern Wisconsin: 2017**

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



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 2017, Commission staff undertook the following comprehensive planning activities:

- Continued 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 early 2019. Drafts of the first three chapters were completed in 2016 and reviewed by the Advisory Committee in 2017. Drafts of the Agricultural, Natural, and Cultural Resources Element; Utilities and Community Facilities Element; Housing Element; and Economic Development Element were completed and reviewed by the Advisory Committee in 2017. 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 in 2016 to offer assistance with updating local comprehensive plans. Activities related to local government plan updates in 2017 included:
  - Work was completed on the Town of Wayne Comprehensive Plan Update, which was adopted by the Town Board in June
  - Work was completed on the Town of Trenton Comprehensive Plan Update, which was adopted by the Town Board in November
  - Work was initiated on the Town of Farmington Comprehensive Plan Update
  - Work was initiated on the Village of Kewaskum Comprehensive Plan Update
  - Assistance was provided to the Town of Polk to publish the Polk Comprehensive Plan Update, which was adopted by the Town Board in March
  - Work was completed for the Towns of Addison and Kewaskum to update their comprehensive plan land use plan maps to reflect existing comprehensive plan amendments
- Initiated work on the 10-year update to the Multi-Jurisdictional Comprehensive Plan for Walworth County. The update will consist of a limited update of the original plan completed in 2009 for the 13 towns that participated in that multi-jurisdictional planning effort. The update will focus on incorporating new plans adopted by the County since 2009 and updating population, employment, land use, and natural resource information. Work on this project is expected to be completed in early 2019.
- Provided information to County and local planning staff in Kenosha County on options and sample materials for complying with the requirement in the Wisconsin comprehensive planning law to update plans at least once every 10 years. Sample materials were also posted on the Commission website.

### **County and Local Plans**

- Continued work on park and open space plan updates for the City of Racine and the Village of Caledonia during 2017. 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.



- Continued work on the development of an update and extension to the year 2050 of the Milwaukee County park and open space plan. The 2050 plan will: 1) include a description of existing population, households, employment, land use, natural resources, and park and open space sites; 2) address park system use, park facility level of service across Milwaukee County, and estimated costs of capital maintenance of Milwaukee County parks and facilities; and 3) include a needs analysis for park sites and facilities, the park and open space plan, and activities needed to implement the plan.
- Completed 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 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. The amendments to the comprehensive plan, zoning ordinance, and zoning map were adopted by the Town Board in March. Commission staff assisted with incorporating the amendments into the Town zoning ordinance and comprehensive plan documents and publishing these documents.
- Completed 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 was provided to affected towns for their review and comments prior to County Board adoption in September. The ordinance was renamed the Kenosha County Land Division Ordinance, adopted by the County, and published by the Commission.

### **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 2017:

- Continued work on updating the Commission's zoning guide. Sections of the attendant model zoning ordinance 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 2017 was initiating an update to model zoning regulations for nonconforming uses, structures, and lots to comply with 2017 Wisconsin Act 67 and updating model zoning regulations to potentially allow development of affordable housing through planned unit developments (PUD) and accessory dwellings.
- Initiated a comprehensive update to the Commission's model land division ordinance, which was last updated in 2016. The update includes: 1) recent changes to the State platting law (Chapter 236 of the Wisconsin Statutes), including changes to deadlines for county and local review and approval or denial of plats and certified survey maps (CSM), and for recording of approved plans and CSMs; 2) transmittal of plats to objecting agencies; 3) collection and use of fees for public park acquisitions and improvements; 4) the option to use certified survey maps to create more than four parcels on land zoned for commercial, industrial, multifamily residential, or mixed-use development; and 5) the provision of various updated and flexible design standards. The updated model ordinance will be posted on the Commission's website.



## **Review and Advisory Services**

- Continued to assist the Mukwonago River Initiative (MRI) Subcommittee as needed. Completed a report on voluntary measures, sample zoning regulations, and potential comprehensive plan language to help protect the water quality and quantity of the Mukwonago River. Continued work on comprehensive maps of existing and potential water trails (for human-powered watercrafts such as canoes, kayaks, and paddle-boards) 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 continues to include 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 90 percent complete. Also continued to participate as a team member assisting and attending monthly meetings of the FRWT CDT and providing water trail planning and design standards to a team member that will eventually prepare a FRWT plan document.
- Provided a recommendation to the Town of Jackson regarding a proposal for a self-storage site within the Town.

## **Data Provision**

- Provided information to the Town of Erin on zoning regulations for event barns, including consistency provisions for conditional uses from the comprehensive planning law.
- Updated the Town of Farmington zoning map to reflect re-zonings approved by the Town Board since the map was last updated in 2009.
- Provided the Village of Hartland with recommendations on calculating development density and allowable uses on parcels that are located partially in a primary environmental corridor.
- Provided recommendations to the Town of Polk regarding consistency between land division proposals and the Town comprehensive plan and amendments to the Town zoning ordinance regarding mini-warehouses, nonconforming structures, and auto service stations.
- Provided an explanation to the Village of Kewaskum regarding multiple zoning designations on a single parcel.
- Provided SEWRPC illustrations for use by a private consultant assisting the Village of Union Grove in updating their zoning ordinance.
- Provided updated ordinance interpretation to the Town of Belgium on the use of abutting nonconforming (substandard) vacant lots under common ownership as related to new State laws regulating such substandard lots.
- Provided additional information about health impact assessment planning to Kenosha County.
- Provided the Town of Addison information on livestock facility siting regulations as related to Chapter ATCP 51 of the Wisconsin Administrative Code and on model erosion control and stormwater management regulations, including such model ordinance from Washington County.
- Provided Fox River water trail information to the City of Pewaukee and to Waukesha County to include in an update to the County's park and open space plan document.
- Provided water trail information in Southeastern Wisconsin to the River Management Society and the National Oceanic and Atmospheric Administration for use in the Wisconsin Coastal Management Program. Provided additional information to the Rails-to-Trails Conservancy (RTC) on certain potential water trails in the Southeastern Wisconsin Region which may be supplemented with potential long-distance bicycle touring/recreation trails or routes in the Region to denote possible "hike/bike and paddle trails or trail loops" for Southeastern Wisconsin

as RTC continues to prepare a plan called "Routes of the Badger" that will identify statewide bicycle routes for Wisconsin.

- Provided City of Milwaukee planning staff with data for existing and planned household and population and area of industrial and commercial land for the City of Franklin for use in evaluating potential water service.
- Provided the Village of Sussex planning staff with 2000 and 2010 environmental corridor, natural resource, and agricultural data and a map of planned environmental corridors and isolated natural resource areas for the Village and the Town of Lisbon for use in an update to the Village comprehensive plan.
- Provided geographic information system (GIS) shapefiles to the Town of Yorkville planned sewer service area to a private consultant for use in ongoing facility planning.
- Provided background information on potential restorable wetlands to the WDNR staff for use in ongoing planning work.
- Provided a detailed review of existing natural resources on a Milwaukee County owned property in the City of South Milwaukee for use in considering a park disposition request.
- Provided the Racine County Planning and Development Department with GIS map files of local land use plan maps for communities in Racine County for use in ongoing planning work.
- Provided the State of Wisconsin with digital files of environmental corridors and planned sewer service areas for Racine County for use in ongoing project planning.
- Provided a private consultant with files of existing and planned population and land use for a study area in Milwaukee County related to the Milwaukee Bus Rapid Transit project.
- Provided City of New Berlin with a detailed review of existing primary environmental corridor lands on a parcel in the City.
- Provided review comments related to regional plan recommendations on a parcel of land in the Town of Farmington with respect to the potential acquisition of land by the Metropolitan Milwaukee Sewerage District (MMSD), under the MMSD Greenseams program.
- Provided information on the delineation of environmental corridors within multiple parcels located near Big Cedar Lake in Washington County to the Town of West Bend for use in future land preservation planning.
- Provided historical Waukesha County Land Use map files to the Army Corps of Engineers for an Upper Underwood Creek restoration project.
- Provided SEWRPC Park and Open Space Inventory GIS files to Gathering Waters Land Trust Alliance for use in educating Land Trusts and Conservancies in using GIS for land acquisition, management, and monitoring activities.
- Provided GIS files of 2010 land use and 2010 environmental corridors for the Village of Lannon to a private consultant for use in updating the Village's comprehensive plan.
- Provided MMSD and a consultant with 12 SEWRPC inventory GIS layers including orthophotography, floodplains, land use, civil divisions and other related mapping files for use in developing a facilities resiliency study.
- Provided GIS files of 2010 land use and orthophotography for Ozaukee County to a contractor to calculate hydrologic parameters for stormwater management analyses.

- Provided GIS files of 2010 environmental corridors for the City of Delavan to a contactor working for the City to update the Park and Open Space plan.
- Provided GIS files of 2010 environmental corridors for areas in Walworth County to a contactor working for the Village of Mukwonago on a Comprehensive Outdoor Recreation Plan.
- Provided the WDNR with Trail Program GIS files from the VISION 2050 Land Use and Transportation Plan to be used for a Recreation Opportunities Analysis.
- Provided GIS files of groundwater recharge potential and 2010 Environmental Corridors to Tall Pines Conservancy to be used for a Conservation Plan for the Oconomowoc River Watershed.
- Provided digital orthophotos and GIS layers to a consultant working with the Federal Transit Administration and the Milwaukee County Transit System to prepare an Environmental Assessment for the proposed Bus Rapid Transit route.
- Provided vegetation inventory GIS files to the Waukesha County Land Conservancy for use in developing a tool for evaluating the environmental significance of lands in Waukesha County.
- Provided GIS files of Natural Areas and Planned Sewer Service Areas as well as tabular data of population and economic forecasts to a firm working with the Village of Slinger to update the Village Comprehensive Land Use Plan.
- Provided GIS files of natural areas and critical species habitats to Waukesha County for use in updating their Park and Open Space Plan
- Responded to an additional 41 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 2017 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. The number of distressed census tracts in the Region fell to 217 according to the most recent ACS data from 2012-2016.
- In 2017, SEWRPC worked with the Waukesha County Center for Growth and We Energies to prepare economic profiles for 12 participating communities in Waukesha County, including the Cities of Brookfield, Oconomowoc, and Waukesha; Villages of Big Bend, Dousman, Hartland, Lannon, Menomonee Falls, Mukwonago, Pewaukee, and Sussex; and the Town of Lisbon. The profiles highlight community assets that help to attract, retain, and grow businesses within each community and throughout the County. Each profile includes a history of the community as well as information on demographics, housing, educational opportunities, healthcare facilities, transportation, business/industrial parks, labor force, major employment sectors, and contact information for local governments and utilities.

### ***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 30 EMSI reports in response to 7 data requests during 2017.
- Prior to 2017, 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 2017, no new loans were made and 5 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 \$9,000 by the end of 2017 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.

## **2.6 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 a map projection which recognizes 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 a quarter-mile from any location 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.

- **Cadastral Mapping**

The preparation of companion, correlated real property ownership maps based on Commission recommended standards for about 75 percent of the Region.

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](http://www.sewrpc.org/surveyingandmapping).

### **Survey Datum Conversion**

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 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, 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 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 quarter-section lines, and the interior angles of the 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 and the Commission offered staff assistance with the conversion process. All seven counties in the Region agreed to the conversion process and by the end of 2017, the Commission had entered into contract with each County to complete the conversion of the legacy horizontal datums to the new Federal datums. Washington County elected to observe all U.S. Public Land Survey System (USPLSS) corners as originally outlined in SEWRPC Memorandum Report No. 206. Thus requiring a primary network and secondary network achieving a relative accuracy of greater than one part in 50,000 on each USPLSS corner. Kenosha, Milwaukee, Ozaukee, Racine, Walworth, and Waukesha Counties elected to observe a selective number of USPLSS corners as outlined in the Addendum to SEWRPC MR No. 206. The horizontal conversion utilizes the measurements made in the creation of the legacy control network and minimizes the number of field observations required to position the control survey station on the new datum. This method minimizes the number of field observations which significantly reduces the cost and preserves the integrity of the legacy horizontal network with the use of the legacy measurements as part of the adjustment. The resultant accuracy maintains the legacy relative accuracy of one part in 10,000.

At the end of calendar year 2017, the primary network horizontal conversion for Washington County was completed and the secondary network was about 70% complete with the GPS observations on all of the USPLSS corners. Horizontal network conversion was completed for Kenosha, Milwaukee, and Racine Counties in 2017. Network conversion for Ozaukee, Walworth, and Waukesha Counties was scheduled to be completed in 2018.

### **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 2.3 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 the following regional planning data sets in 2017:

- The collection of a 1980 Environmental Corridor Inventory in an effort to prepare a historical data set depicting environmental corridors and isolated natural resource features as they appeared over 30 years ago
- Data collection on the 2015 Land Use and 2015 Environmental Corridor Inventory
- The update of the county base maps to bring base data to 2015 currency

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

Aerial imagery and LiDAR data for the project were acquired in the spring of 2015. The orthoimagery was prepared by the project contractor and delivered to the Commission in late 2015. The Commission staff reviewed the orthoimagery and delivered the final orthos 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 products have been used in a variety of regional and local planning activities.

The 2020 orthoimagery project was initiated in December of 2017. Initial discussions with the seven counties in the Region were held to determine the level of interest in obtaining 3-inch pixel resolution orthoimagery, to define the scope of services that each County may desire for the 2020 flights, and to characterize the costs associated with each service.

The regional land information website at [www.sewrpc.org/regionallandinfo](http://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 2.4). Each sheet contains an identification of the corner, a sketch of the location, witness monuments and ties, monument coordinates and elevations, and other surveyor's information. CSSDs summarize horizontal and vertical control survey

## Figure 2.3 SEWRPC Regional Land Information Digital Data Sets: 2017

### ► Reference Data

- [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, 2017](#)

### ► Environmental Resource Data

- [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

### ► Land Planning Data

- [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

### ► General Planning Data

- Regional Land Use Plan: 2010, 2020, 2035, 2050
- Regional Transportation Plan: 2020, 2035, 2050
- Public and Private Water Supply Systems: 2000, 2010
- Archaeological Sites

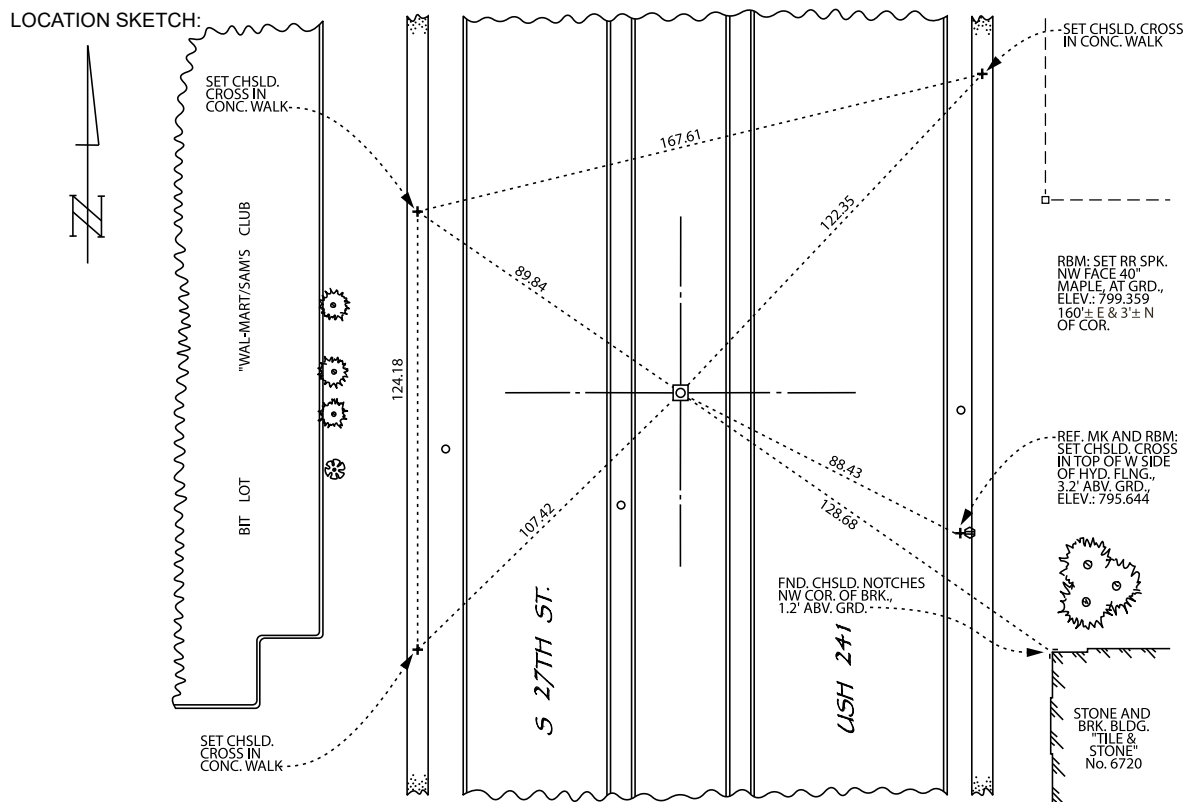
### ► Geologic and Hydrologic Data

- 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 blue are available for viewing on the SEWRPC Regional Land Information website ([www.sewrpc.org/regionallandinfo](http://www.sewrpc.org/regionallandinfo)).

**Figure 2.4**  
**Record of U.S. Public Land Survey Control Station**

RECORD OF U. S. PUBLIC LAND SURVEY CONTROL STATION			
U. S. PUBLIC LAND SURVEY CORNER	$\frac{1}{16}$ T 5 N, R 21/22 E, MILWAUKEE	COUNTY, WISCONSIN	
HORIZONTAL CONTROL SURVEY BY:	AERO-METRIC ENGINEERING, INC.	YEAR: 1993	
VERTICAL CONTROL SURVEY BY:	SEWRPC	YEAR: 2017	
STATE PLANE COORDINATES OF:	QUARTER SECTION CORNER		
NORTH	343,381.08		
EAST	2,549,157.81		
ELEVATION OF STATION	792.825		
HORIZONTAL DATUM: WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NORTH AMERICAN DATUM OF 1927			
VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929			
CONTROL ACCURACY:	THETA ANGLE: +1-24-32		
HORIZONTAL:	THIRD ORDER, CLASS I	VERTICAL: SECOND ORDER, CLASS II	



**SURVEYOR'S AFFIDAVIT:**

STATE OF WISCONSIN)  
 MILWAUKEE COUNTY) SS

As Milwaukee County Surveyor I hereby certify that following street reconstruction I set a concrete monument with SEWRPC brass cap to mark the location of this corner; replacing a concrete monument with SEWRPC brass cap having been set to mark the location of this corner in August 2006 by Kurt W. Bauer, S-157, former Milwaukee County Surveyor, following street reconstruction; replacing a concrete monument with City of Oak Creek brass cap having been set to mark the location of this corner in August 1991 by David Stein, Wisconsin Department of Transportation Project Engineer, following highway reconstruction; replacing a concrete monument with City of Oak Creek brass cap having been set to mark the location of this corner in May 1961 by William T. Wambach, Jr., S-371, following highway reconstruction; replacing a concrete monument with cast iron plug with cross as set to mark the location of this corner in July 1956 by J. L. Dauplaise, State Highway Commission of Wisconsin Project Engineer, following highway reconstruction; replacing a concrete monument with cast iron plug with cross as set to mark the location of this corner in 1932 by E. G. Plautz, State Highway Commission of Wisconsin Project Engineer, following highway reconstruction; replacing an iron bolt with chiseled cross in top as set in the then existing pavement surface to mark the location of this corner in 1913 by a Milwaukee County Highway Department Project Engineer, following highway reconstruction; replacing an old cut limestone monument set to mark the location of this corner in 1876 by George F. Epeneter, former Milwaukee County Surveyor, in the conduct of the remonumentation of the Town of Oak Creek; replacing in turn a wood post set to mark this corner in January 1836 by John Brink, Deputy United States Surveyor, in the conduct of the original United States Public Land Survey; that I have referenced the same as shown hereon; and that this record is correct and complete to the best of my knowledge and belief.

DATE OF SURVEY: 13 SEPTEMBER 2016

REGISTERED LAND SURVEYOR

S - 2412



FORM PREPARED BY SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

**LEGEND**

- ☐ U.S. PUBLIC LAND-BUREAU OF LAND MANAGEMENT WITH ADJUTANT GENERAL'S WARRANT
- ▨ U.S. PUBLIC LAND-BUREAU OF LAND MANAGEMENT WITH ADJUTANT GENERAL'S WARRANT
- U.S. PUBLIC LAND-BUREAU OF LAND MANAGEMENT WITH ADJUTANT GENERAL'S WARRANT
- U.S. PUBLIC LAND-BUREAU OF LAND MANAGEMENT WITH ADJUTANT GENERAL'S WARRANT
- △ N.G.S. HORIZONTAL CONTROL
- ▽ N.G.S. VERTICAL CONTROL

**NOTES:**

- HORIZONTAL DISTANCES BASED ON THE MEAN SEA LEVEL DATUM.
- VERTICAL DISTANCES BASED ON THE MEAN SEA LEVEL DATUM.
- COOPERATIVE WITH DNR/CIP.
- REMARKS TO BE MADE BY THE USER.
- ADJUTANT GENERAL'S WARRANT REQUIRED TO GRADE.
- SUBSTANTIATION OF THE DATA IS THE RESPONSIBILITY OF THE USER.
- VERIFICATION OF THE DATA IS THE RESPONSIBILITY OF THE USER.
- VERTICAL DISTANCES ARE BASED ON NATIONAL GEODETIC DATUM OF 1983.
- SUBSTANTIATION OF THE DATA IS THE RESPONSIBILITY OF THE USER.
- ADJUTANT GENERAL'S WARRANT REQUIRED TO GRADE.
- REMARKS TO BE MADE BY THE USER.

**DRAWN BY:** C. A. SWANNICK **DATE:** JUNE, 1993  
**CHECKED BY:** L. H. KREIBER **DATE:** JUNE, 1993  
**APPROVED BY:** [Signature] **DATE:** JUNE, 1993  
**REVISED BY:** A. NEUELO **DATE:** JANU, 2010  
**REVISED BY:** A. NEUELO **DATE:** DEC., 2010

**SECTION SHEETS CONTAINING ALL INFORMATION NECESSARY FOR RECOVERY AND USE OF CONTROL SURVEY STATIONS AVAILABLE FROM DNR/CIP**

**SECTIONS**  
 18, 17, 16,  
 19, 20, 21  
 E.  
 T.S.N. R.21 E.  
 MILWAUKEE  
 COUNTY

- **Aerial Imagery**

- **Regional Map Server**

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The Commission, with the assistance of the counties, works to continually enhance the regional land information website with the addition of new orthoimagery, 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.

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 2.8 identifies the availability of LiDAR and derived elevation data in the Region in 2017. Map 2.9 also identifies the availability of topographic contour line data in the Region in 2017. 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 2017 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, Ozaukee, 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 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 2017 provided County Surveyor services to Kenosha, Ozaukee, Walworth, and Waukesha Counties. In each case, such special services are provided under contract agreements.

In performing the duties of the County Surveyor in the five counties concerned, the Commission during 2017 remonumented a total of 120 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.

### **U.S. Geological Survey Grant**

In October of 2016, the Commission received a request from the U.S. Geological Survey (USGS) to reformat the existing 2015 LiDAR data to meet the latest version of the USGS LiDAR Base Specifications. To fund the requested reformat, the Commission applied for, and in January of 2017, received a grant from the USGS to fund the necessary work. The Commission initiated the work in 2017 and is preparing the reformatted data supporting this grant effort.

## **2.7 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

## Map 2.8

### Availability of Lidar and Elevation Data in Southeastern Wisconsin: 2017



#### 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

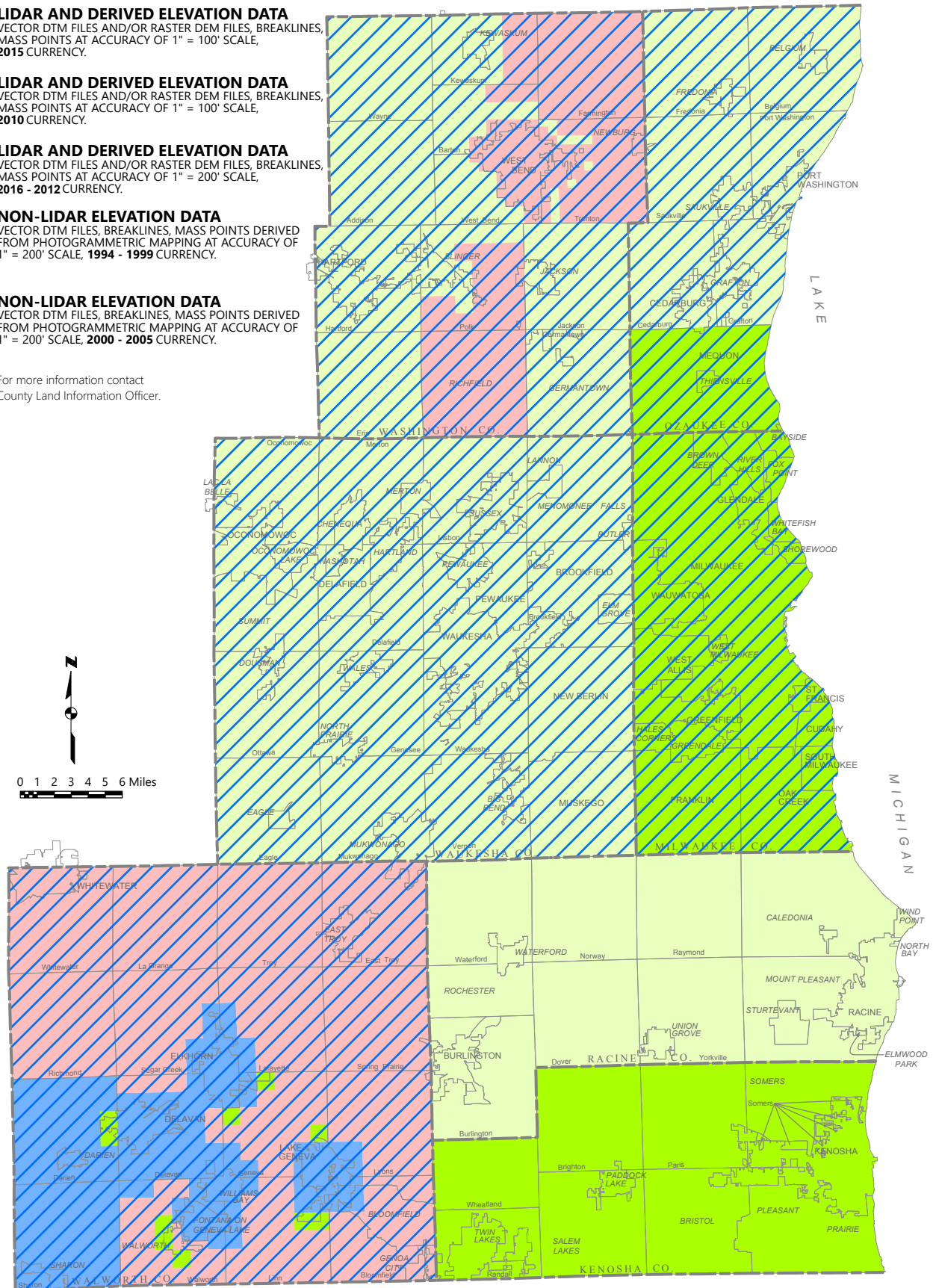
VECTOR DTM FILES, BREAKLINES, MASS POINTS DERIVED FROM PHOTOGRAMMETRIC MAPPING AT ACCURACY OF 1" = 200' SCALE, 1994 - 1999 CURRENCY.



#### NON-LIDAR ELEVATION DATA

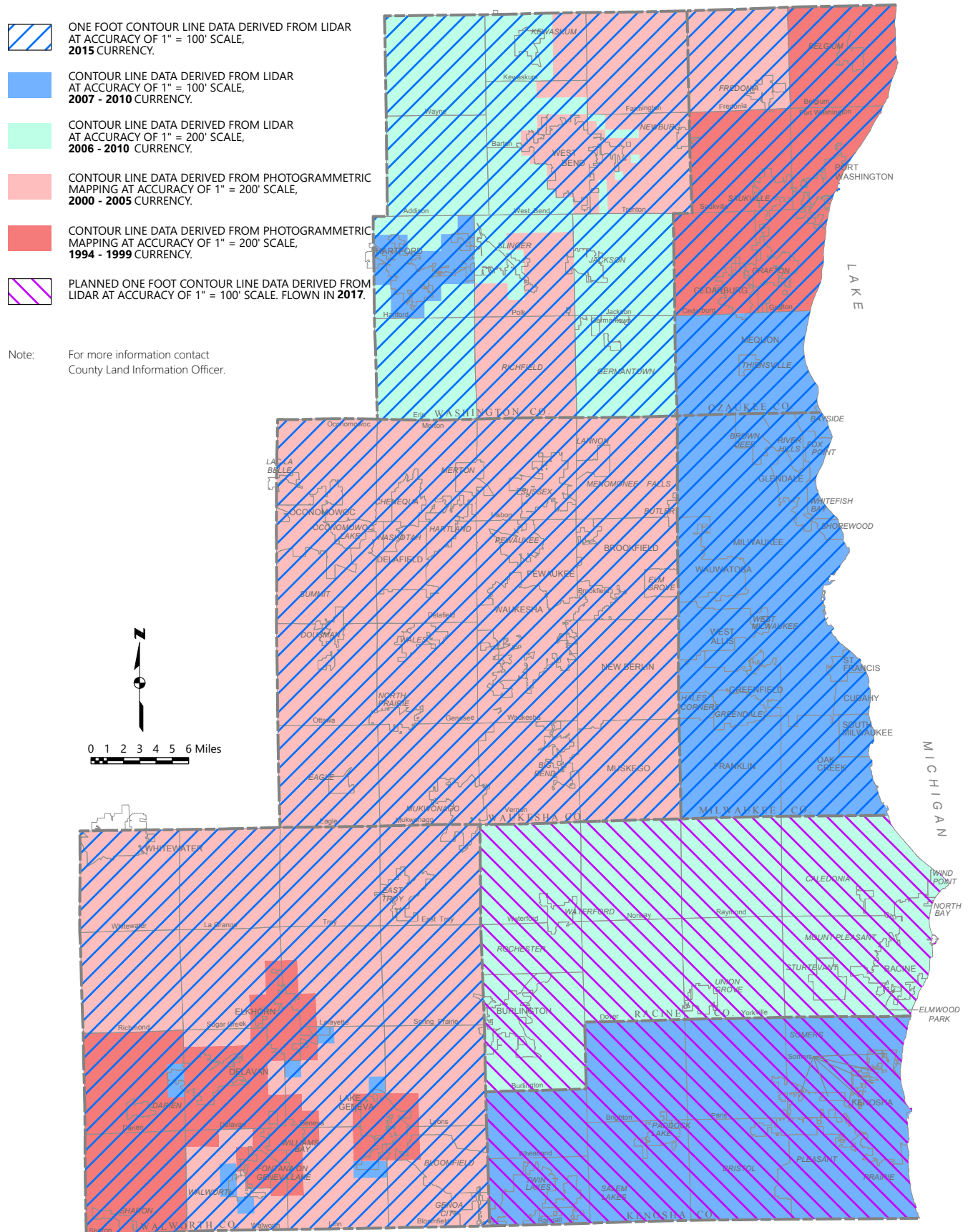
VECTOR DTM FILES, BREAKLINES, MASS POINTS DERIVED FROM PHOTOGRAMMETRIC MAPPING AT ACCURACY OF 1" = 200' SCALE, 2000 - 2005 CURRENCY.

Note: For more information contact County Land Information Officer.



## Map 2.9

### Availability of Contour Line Data in Southeastern Wisconsin: 2017



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 2017. This document and a condensed summary brochure are available from the Commission office and can be accessed at [www.sewrpc.org/involvement](http://www.sewrpc.org/involvement).

The following summarizes the public involvement and outreach activities carried out during 2017 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.

### **VISION 2050 Public Information and Outreach Efforts**

- Two SEWRPC *Regional Planning News* newsletters, one email announcement, two print versions of a brochure on SEWRPC *Public Participation in Regional Planning in Southeastern Wisconsin* and VISION 2050 articles were distributed to the general public relative to the progress being made in the planning process. These publications, emails, and articles included links to the VISION 2050 website ([www.vision2050sewis.org](http://www.vision2050sewis.org)). The *VISION 2050 Summary* report, presenting the final plan, was also completed in December 2016 and has been distributed across the Region.
- Personalized annual 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 if there were questions about 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.
- Twenty-eight 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-nine 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. A new event SEWRPC participated in was the 2017 National Society of Black Engineers Fall Regional Conference in Milwaukee, which allowed SEWRPC to recruit possible future minority staff.
- Outreach continued to eight 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. One additional partner nonprofit community organization, Renew Environmental Public Health Associates (REPHA), was added to the Community Organization partner group. REPHA's mission is to improve the quality of life for individuals and families, socially, physically, and economically in targeted neighborhoods by utilizing a triad composed of a community organizer—alderperson—population-health nurse (PHN) as the central operational unit of this initiative.

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](http://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 2.6.

There were 329 direct contacts made with community organizations and leaders in 2017—almost all of which serve low-income populations and minority populations. A portion of the direct contacts serve primarily transportation and environmental interests. The direct contacts include 284 recurring contacts and 45 new contacts. Contacts are based on meetings and activities that were held with individuals (one-on-one meetings), small group discussions, resource tables at special events, and activities sponsored by formal organizational entities. Recurring contacts are meetings and/or activities with organizations that have multiple activities the Commission is involved with throughout the year.

As discussed in the VISION 2050 public involvement and outreach activities listed above, 2017 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 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:

**Figure 2.6**

### **Major Objectives of SEWRPC Targeted Public Involvement and Outreach Program**

#### **► Outreach**

- Build awareness and inform residents regarding SEWRPC purpose, activities, resources, and participation opportunities
- Achieved through media, mass distributions, and large public event exhibits

#### **► Public Involvement**

- 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

#### **► Education**

- 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

#### **► Environmental Justice**

- 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



- 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
- 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 (BID), and other entities involved in business development. As part of a collaborative approach, the Commission provides information involving transportation, economic development, housing, 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, economic development, housing 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 2.7.

Nearly 118 direct contacts were made with the Commission's Primary Organizations in 2017 to engage in direct dialog about VISION 2050, transportation, housing, and other issues. These direct contacts represented an average of 2.8 contacts per organization.

### **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, 2017 activities included the following:

- **Urban Economic Development Association**

For the eighth 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 16th Annual Community Development Summit, which was attended by more than 100 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 and Iclicker polling devices, so the audience was able to give an immediate response to questions posted 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 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, Lifecourse Initiatives For Healthy Families (LIHF) through the United Way of Milwaukee and Waukesha, – United Way of Kenosha and United Way of Racine, United Way (in all seven counties), United Way 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 2017 VISION 2050 public outreach presentations and exhibits mentioned previously, SEWRPC staffed exhibit tables with VISION 2050 and environmental planning materials at the following events: the Johnson Foundation; Milwaukee Sustainability Summit; the Southeastern Wisconsin Watersheds Trust, Inc. Clean Rivers, Clean Lake Conference; Midwest Water Analyst Conference; and the Root River Festival.

SEWRPC partnership-building science education activities include Commission participation in the Kenosha School of Technology Enhanced Curriculum Science Fair. During 2017, about 400 students and educators from Kenosha Unified School District public benefitted from Commission expertise related to environmental science, with one of the staff serving as the science fair judge.

**Figure 2.7**  
**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

- **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, 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 (MICA), 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 (NBMBAA), Migrant and Seasonal Farm Workers (MSFW)/United Migrant Opportunity Services (UMOS), and MARKETPLACE 2017 – Wisconsin Governor's Conference on Minority Business Development. During 2017, information was provided on housing, transportation, land use, and environmental issues, as well as the VISION 2050 plan.

## **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, the Commission coordinates an Environmental Justice Task Force to help ensure that this requirement is met. This Task Force consists of 15 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 2.8.

The Task Force met two times in 2017. The June meeting included a presentation of the MKE Aerotropolis Development Plan, a review of the Commission plan recommendations that would benefit EJ populations, comprehensive plan updates and relationship to VISION 2050, and discussion of the proposed chloride study. The November meeting focused attention on evaluating the purpose and function of the Task Force after being in existence for 11 years.

## 2.8 2017 SEWRPC PUBLICATIONS

The following publications were issued by SEWRPC during the year:

### Community Assistance Planning Reports

No. 266 (3rd edition), *Racine County Hazard Mitigation Plan Update: 2017-2022*, Racine County, Wisconsin, December 2017, 555 pages

No. 278 (3rd edition), *Kenosha County Hazard Mitigation Plan Update: 2017-2022*, Kenosha, County, Wisconsin, November 2017, 613 pages

No. 297 (2nd edition), *A Comprehensive Plan Update for the Town of Wayne: 2050*, Washington County, Wisconsin, June 2017, 18 pages

No. 320, *Jackson Creek Watershed Protection Plan*, Walworth County, Wisconsin, June 2017, 354 pages

No. 322, *A Lake Protection Plan for Pike Lake*, Washington County, Wisconsin, August 2017, 388 pages

No. 324, *A Lake Management Plan for Lake Denoon*, Racine and Waukesha Counties, Wisconsin, December 2017, 348 pages

No. 328, *A Lake Protection Plan for Hooker Lake*, Kenosha County, Wisconsin, March 2017, 360 pages

### Memorandum Reports

No. 177 (2nd edition), *A Lake Protection and Aquatic Plant Management Plan for Whitewater and Rice Lakes*, Walworth County, Wisconsin, April 2017, 393 pages

No. 222, *Lake and Stream Resources Classification Project for Kenosha County*, Wisconsin: 2017, October 2017, 204 pages

No. 224, *MKE Aerotropolis Development Plan*, Milwaukee County, Wisconsin, February 2017, 124 pages

No. 226, *STH 60 Northern Reliever Route Feasibility Study*, April 2017, 63 pages

No. 227, *Waukesha County Industrial/Business Park Land Absorption Study*, April 2017, 98 pages

No. 228, *Public Transit – Human Services Transportation Coordination Plan for Kenosha County: 2016*, April 2017, 42 pages

## Figure 2.8 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.

No. 229, *Public Transit – Human Services Transportation Coordination Plan for Milwaukee County: 2016*, April 2017, 46 pages

No. 230, *Public Transit – Human Services Transportation Coordination Plan for Ozaukee County: 2016*, April 2017, 40 pages

No. 231, *Public Transit – Human Services Transportation Coordination Plan for Racine, County: 2016*, April 2017, 42 pages

No. 232, *Public Transit – Human Services Transportation Coordination Plan for Walworth County: 2016*, April 2017, 40 pages

No. 233, *Public Transit – Human Services Transportation Coordination Plan for Washington County: 2016*, April 2017, 42 pages

No. 234, *Public Transit – Human Services Transportation Coordination Plan for Waukesha County: 2016*, April 2017, 46 pages

### **Planning Reports**

No. 55, *VISION 2050 Volume I: Groundwork for Vision and Plan Development*, July 2017, 420 pages

No. 55, *VISION 2050 Volume II: Developing the Vision and Plan, Part I – Visioning and Scenarios*, July 2017, 279 pages

No. 55, *VISION 2050 Volume II: Developing the Vision and Plan, Part II – Alternate Plans*, July 2017, 435 pages

No. 55, *VISION 2050 Volume II: Developing the Vision and Plan, Part III – Preliminary Recommended Plan*, July 2017, 407 pages

No. 55, *VISION 2050 Volume III: Recommended Regional Land Use and Transportation Plan*, July 2017, 343 pages

### **Technical Reports**

No. 50, *Conversion of Horizontal Survey Control Network in Kenosha County From Legacy Datum to New Federal Datum*, March 2017, 43 pages

No. 52, *Conversion of Horizontal Survey Control Network in Racine County From Legacy Datum to New Federal Datum*, April 2017, 46 pages

No. 53, *Conversion of Horizontal Survey Control Network in Milwaukee County From Legacy Datum to New Federal Datum*, September 2017, 43 pages

No. 59, *Report on the Possibility of Substitution of Coordinates for Monuments in Control Survey Preservation*, November 2017, 17 pages

### **Annual Report**

*2016 Annual Report*, October 2017, 172 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](http://www.sewrpc.org/SEWRPC/DataResources/E-Newsletter.htm).





# REGIONAL MONITORING ACTIVITIES 3

This final section of the 2017 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 at 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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### 3.1 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 12,200 persons, or 0.6 percent—to an estimated 2,032,200 persons in 2017 (see Table 3.1).

##### ***Comparison to Forecast***

The estimated year 2017 population is slightly lower (by 2.7 percent) than the Commission's forecast population level for 2017 of 2,089,600 persons (see Table 3.2 and Figure 3.1).

##### ***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 in 2010. Since the 2010 Federal census, the number of households in the Region has increased by 18,000, or 2.2 percent, to an estimated 818,100 households in 2017 (see Table 3.3).

##### ***Comparison to Forecast***

The estimated number of households in the Region in 2017 is slightly lower (by 1.8 percent) than the Commission's forecast household level for 2017 of 833,000 households (see Table 3.4 and Figure 3.2).

#### 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 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 national 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 112,100 jobs, or 9.5 percent, from the low of 2010, to 1,288,700 jobs in 2017. Service, retail, and construction jobs accounted for much of this increase (see Tables 3.5 and 3.6).

**Table 3.1**  
**Population in Southeastern Wisconsin by County: 2000, 2010, and 2017**

County	Population			2000-2010 Change		2010-2017 Change	
	2000 Census	2010 Census	2017 Estimate	Number	Percent	Number	Percent
Kenosha	149,600	166,400	168,100	16,800	11.2	1,700	1.0
Milwaukee	940,200	947,800	945,400	7,600	0.8	-2,400	-0.3
Ozaukee	82,300	86,400	88,200	4,100	5.0	1,800	2.1
Racine	188,800	195,400	195,100	6,600	3.5	-300	-0.2
Walworth	92,000	102,200	102,600	10,200	11.1	400	0.4
Washington	117,500	131,900	134,600	14,400	12.3	2,700	2.0
Waukesha	360,800	389,900	398,200	29,100	8.1	8,300	2.1
Region	1,931,200	2,020,000	2,032,200	88,800	4.6	12,200	0.6

**Table 3.2**  
**Actual and Projected Population Levels in Southeastern Wisconsin by County: 2017**

County	2017 Population	Projected 2017 Population		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	168,100	185,100	178,300	172,600
Milwaukee	945,400	967,400	965,000	936,800
Ozaukee	88,200	92,700	90,000	88,500
Racine	195,100	206,300	199,600	195,600
Walworth	102,600	112,700	108,900	106,100
Washington	134,600	146,500	140,700	136,000
Waukesha	398,200	419,200	407,100	397,900
Region	2,032,200	2,129,900	2,089,600	2,033,500

### **Comparison to Forecast**

The estimated total employment in the Region in 2017 of 1,288,700 jobs was above the Commission's forecast employment level by about 5.9 percent, or 72,000 jobs (see Table 3.7 and Figure 3.3). 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.

### **Change in Unemployment Rate**

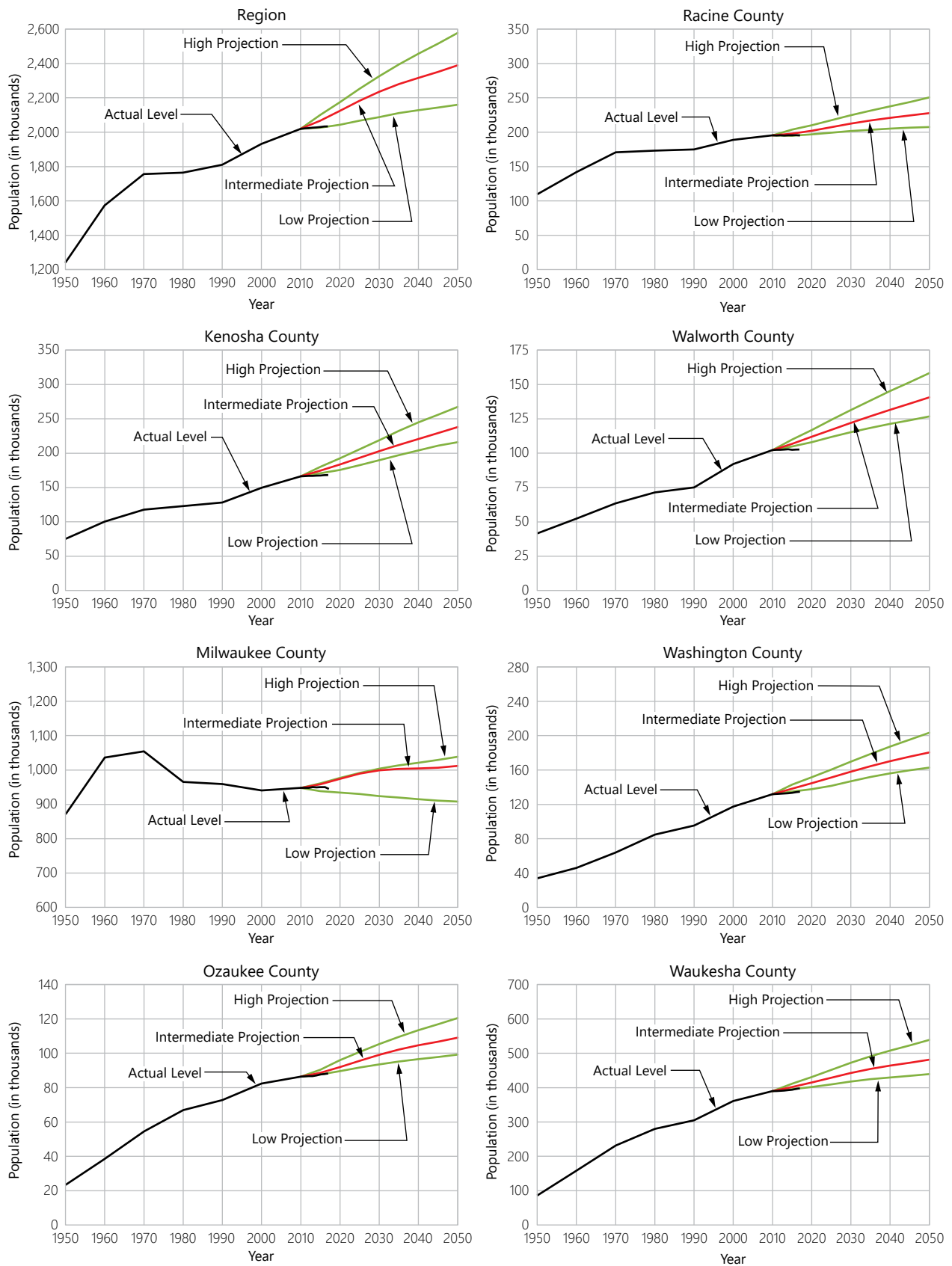
In addition to the employment level, the unemployment rate is another important measure of economic activity in the Region. The Region's unemployment rate (the unemployed labor force as a percent of the total resident labor force of the Region) increased dramatically during the late 2000s, rising to 9.2 percent in 2009 and 2010 (see Figure 3.4). The unemployment rate decreased over the next seven years, to a level of 3.6 percent in 2017.

## **3.2 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 Regional Land Use and Transportation Plan for Southeastern Wisconsin*.



**Figure 3.1**  
**Actual and Projected Regional and County Population Levels: 1950-2050**



**Table 3.3**  
**Households in Southeastern Wisconsin by County: 2000, 2010, and 2017**

County	Households			2000-2010 Change		2010-2017 Change	
	2000 Census	2010 Census	2017 Estimate	Number	Percent	Number	Percent
Kenosha	56,100	62,600	64,300	6,500	11.6	1,700	2.7
Milwaukee	377,700	383,600	387,300	5,900	1.6	3,700	1.0
Ozaukee	30,900	34,200	35,600	3,300	10.7	1,400	4.1
Racine	70,800	75,700	76,900	4,900	6.9	1,200	1.6
Walworth	34,500	39,700	40,500	5,200	15.1	800	2.0
Washington	43,800	51,600	53,900	7,800	17.8	2,300	4.5
Waukesha	135,200	152,700	159,600	17,500	12.9	6,900	4.5
Region	749,000	800,100	818,100	51,100	6.8	18,000	2.2

**Table 3.4**  
**Actual and Projected Household Levels in Southeastern Wisconsin by County: 2017**

County	2017 Households	Projected 2017 Households		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	64,300	70,500	67,900	65,800
Milwaukee	387,300	394,000	392,400	381,500
Ozaukee	35,600	36,900	35,800	35,200
Racine	76,900	80,700	78,100	76,500
Walworth	40,500	44,400	42,900	41,800
Washington	53,900	57,900	55,600	53,700
Waukesha	159,600	165,000	160,300	156,700
Region	818,100	849,400	833,000	811,200

## 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, 666 residential lots were created by subdivision plats in 2017 (see Figure 3.5). Over 60 percent of the new lots were created in Waukesha County. The location of the residential lots created in 2017 is shown on Map 3.1.

All but 99 of the lots created in 2017 were intended to be served by centralized public sanitary sewer service (see Table 3.8).

## Residential Housing Units

### *New Housing Construction*

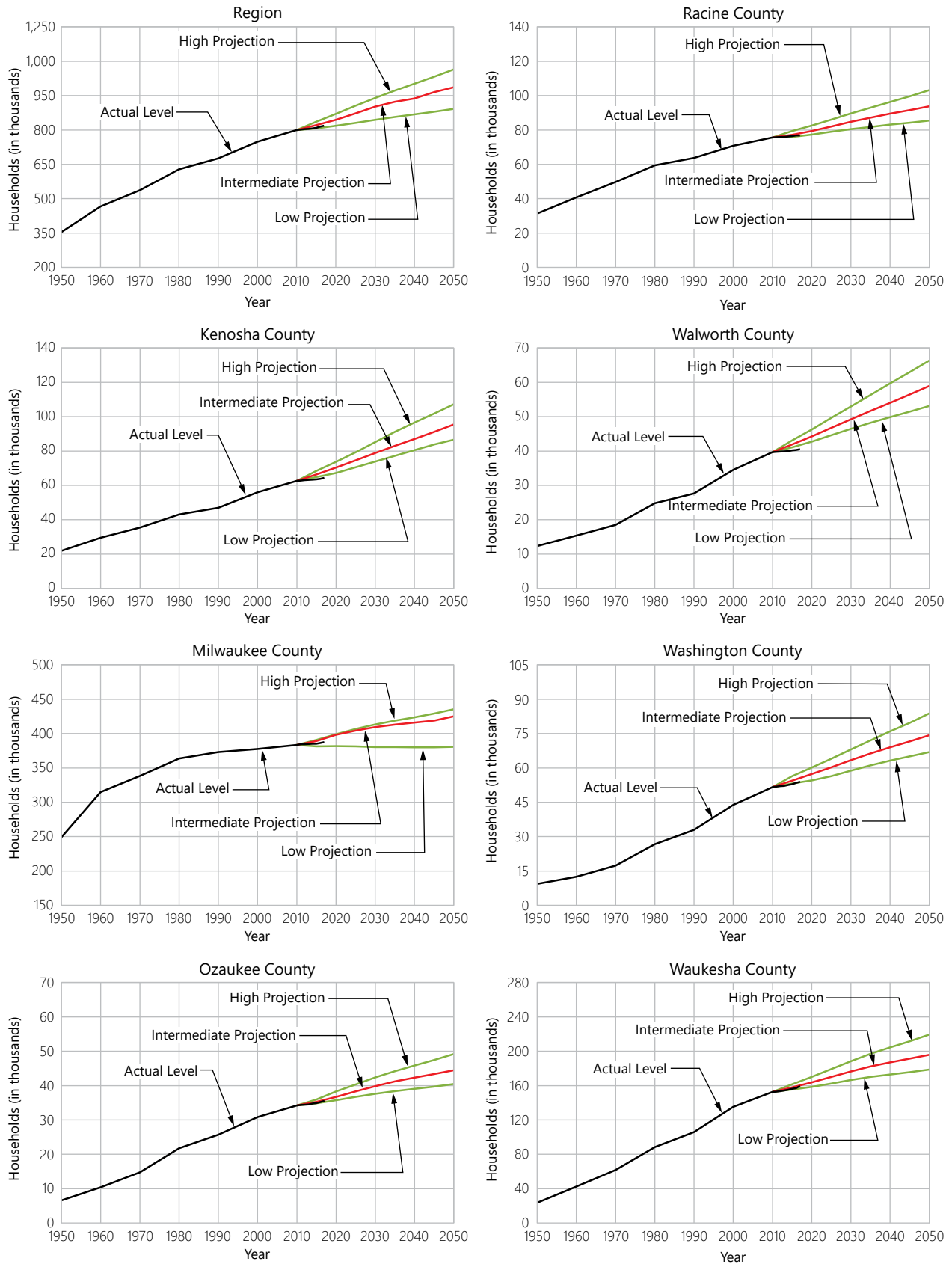
During the 1990s and early 2000s, the number of new housing units provided on an annual basis in the Region fluctuated between about 8,300 and 10,900 (see Figure 3.6). Housing construction decreased substantially—to less than 3,000 units per year—during the economic downturn of the late 2000s, but has been increasing in recent years.

About 5,440 new housing units were added in 2017, including about 2,280 single-family units, 250 units in two-unit structures, and 2,910 units in multi-family structures (see Table 3.9).

### *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 3.7). A total of about 630 housing units were lost in 2017, including 300 single-family units, 160 units in two-unit structures, and 170 units in multi-family structures. The net change in housing units in 2017 was a gain of about 4,810 (see Table 3.9).

**Figure 3.2**  
**Actual and Projected Regional and County Household Levels: 1950-2050**



**Table 3.5**  
**Employment in Southeastern Wisconsin by Category: 2000, 2010, and 2017**

General Industry Group	Employment (Jobs)			2000-2010 Change		2010-2017 Change	
	2000	2010	2017 Estimate	Number	Percent	Number	Percent
Agriculture	5,900	5,200	5,000	-700	-11.9	-200	-3.8
Construction	53,000	45,900	56,600	-7,100	-13.4	10,700	23.3
Manufacturing	214,500	148,100	158,800	-66,400	-31.0	10,700	7.2
Wholesale Trade	53,700	48,800	55,200	-4,900	-9.1	6,400	13.1
Retail	190,800	185,800	209,000	-5,000	-2.6	23,200	12.5
Services	531,900	584,400	649,100	52,500	9.9	64,700	11.1
Government	116,400	117,700	115,200	1,300	1.1	-2,500	-2.1
Other	43,600	40,700	39,800	-2,900	-6.7	-900	-2.2
Total Jobs	1,209,800	1,176,600	1,288,700	-33,200	-2.7	112,100	9.5

**Table 3.6**  
**Employment in Southeastern Wisconsin by County: 2000, 2010, and 2017**

County	Employment (Jobs)			2000-2010 Change		2010-2017 Change	
	2000	2010	2017 Estimate	Number	Percent	Number	Percent
Kenosha	67,900	74,900	85,300	7,000	10.3	10,400	13.9
Milwaukee	618,300	575,400	600,800	-42,900	-6.9	25,400	4.4
Ozaukee	50,400	52,500	60,400	2,100	4.2	7,900	15.0
Racine	93,800	88,300	96,300	-5,500	-5.9	8,000	9.1
Walworth	51,200	52,700	58,200	1,500	2.9	5,500	10.4
Washington	60,300	63,900	75,200	3,600	6.0	11,300	17.7
Waukesha	267,900	268,900	312,500	1,000	0.4	43,600	16.2
Region	1,209,800	1,176,600	1,288,700	-33,200	-2.7	112,100	9.5

**Table 3.7**  
**Actual and Projected Employment in Southeastern Wisconsin by County: 2017**

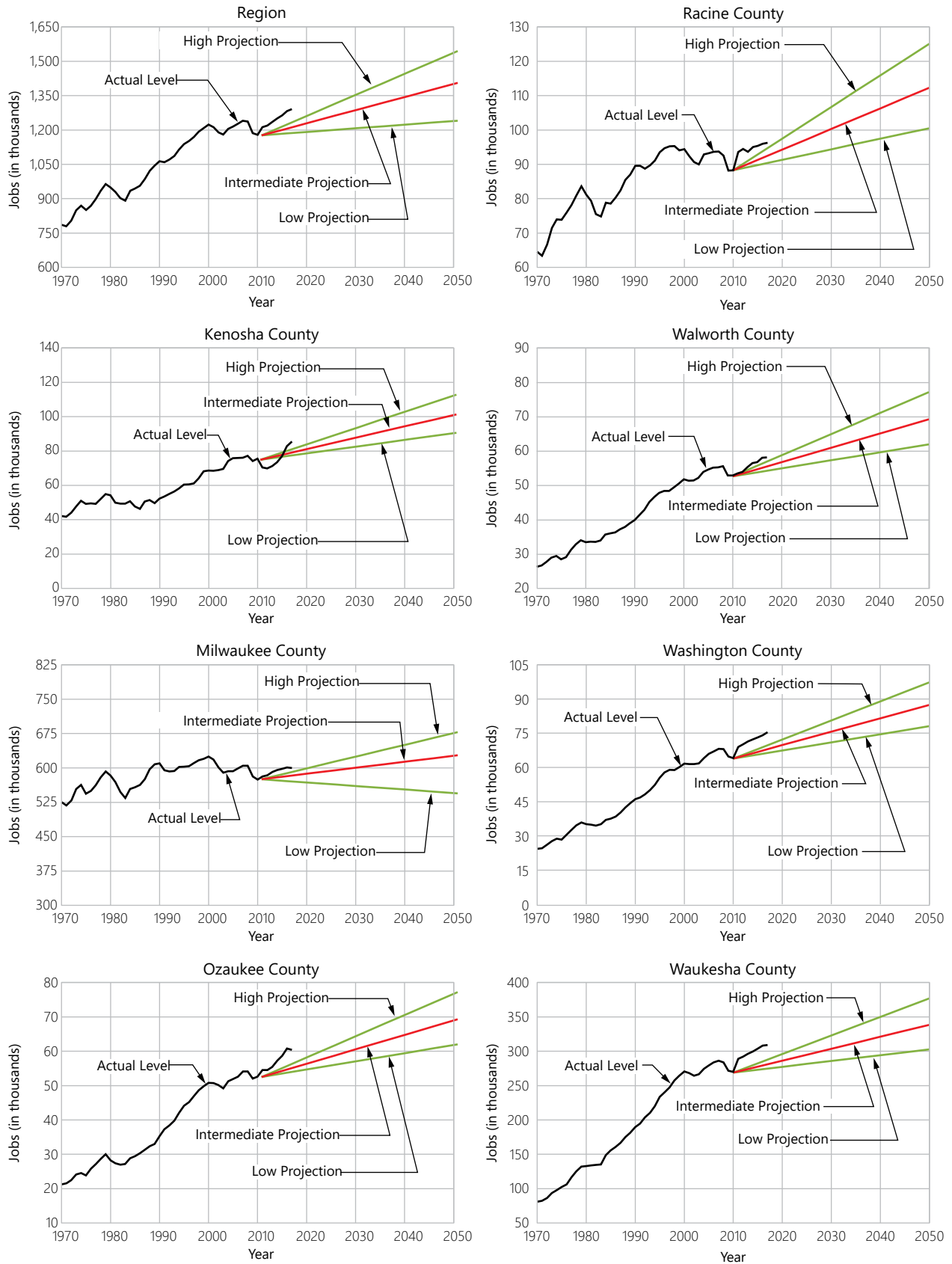
County	2017 Employment (Jobs)	Projected 2017 Employment (Jobs)		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha	85,300	81,500	79,500	77,600
Milwaukee	600,800	593,400	584,600	570,000
Ozaukee	60,400	56,800	55,400	54,200
Racine	96,300	94,700	92,500	90,400
Walworth	58,200	57,000	55,600	54,300
Washington	75,200	69,700	68,000	66,400
Waukesha	312,500	287,800	281,100	274,800
Region	1,288,700	1,240,900	1,216,700	1,187,700

### 3.3 NATURAL RESOURCE BASE PRESERVATION ACTIVITY

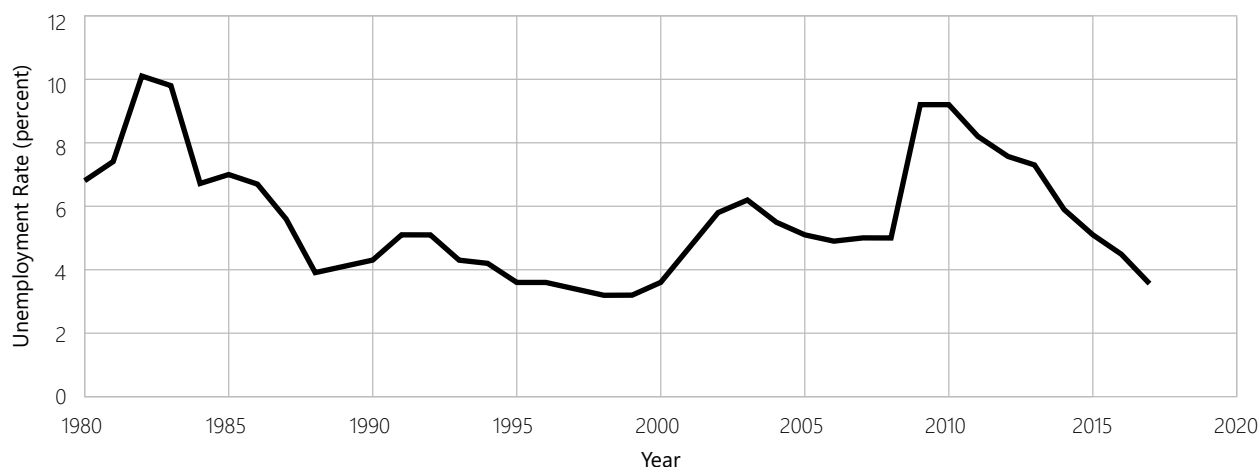
The Commission has monitored efforts by governmental agencies and private land trusts to ensure the long-term protection of open space lands through public interest ownership, including conservation easements, since 2006. This monitoring focuses on lands associated with Commission-identified environmental 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 3.8 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

**Figure 3.3**  
**Actual and Projected Regional and County Employment Levels: 1970-2050**



**Figure 3.4**  
**Unemployment Rate in Southeastern Wisconsin: 1980-2017**



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 2017, 854 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 3.2). This compares to an annual average of 1,100 acres of open space so protected over the five-year period 2013-2017.

#### **Area Protected by Public Agencies**

Public agency efforts resulted in the protection of 215 acres during 2017, and an annual average of 597 acres over the five-year period 2013-2017.

#### **Area Protected by Private Land Trusts**

Private land trust efforts resulted in the protection of 639 acres in 2017, and an annual average of 513 acres over the past five-year period 2013-2017. 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 2017 included 263 acres distributed among four natural areas as identified in the SEWRPC natural areas and critical species habitat management plan. Specifically, the Nature Conservancy acquired 75.8 acres in the Pickerel Lake Fen State Natural Area in Walworth County. The Milwaukee Metropolitan Sewerage District acquired 95.4 acres of the Kinnamon Conifer Swamp in Ozaukee County and 61.4 acres of the Milwaukee River Swamp in Washington County, as part of their Green Seams program. Finally, the Geneva Lake Conservancy acquired a total of nearly 31 acres of the Sugar Creek Wetlands in Walworth County.

### **3.4 REGIONAL TRANSPORTATION SYSTEM PERFORMANCE**

Each year the Commission gathers and analyzes available information relative to the performance of the regional transportation system. During 2017 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



**Figure 3.5**  
**Residential Lots Platted in Southeastern Wisconsin and its Counties: 1960-2017**

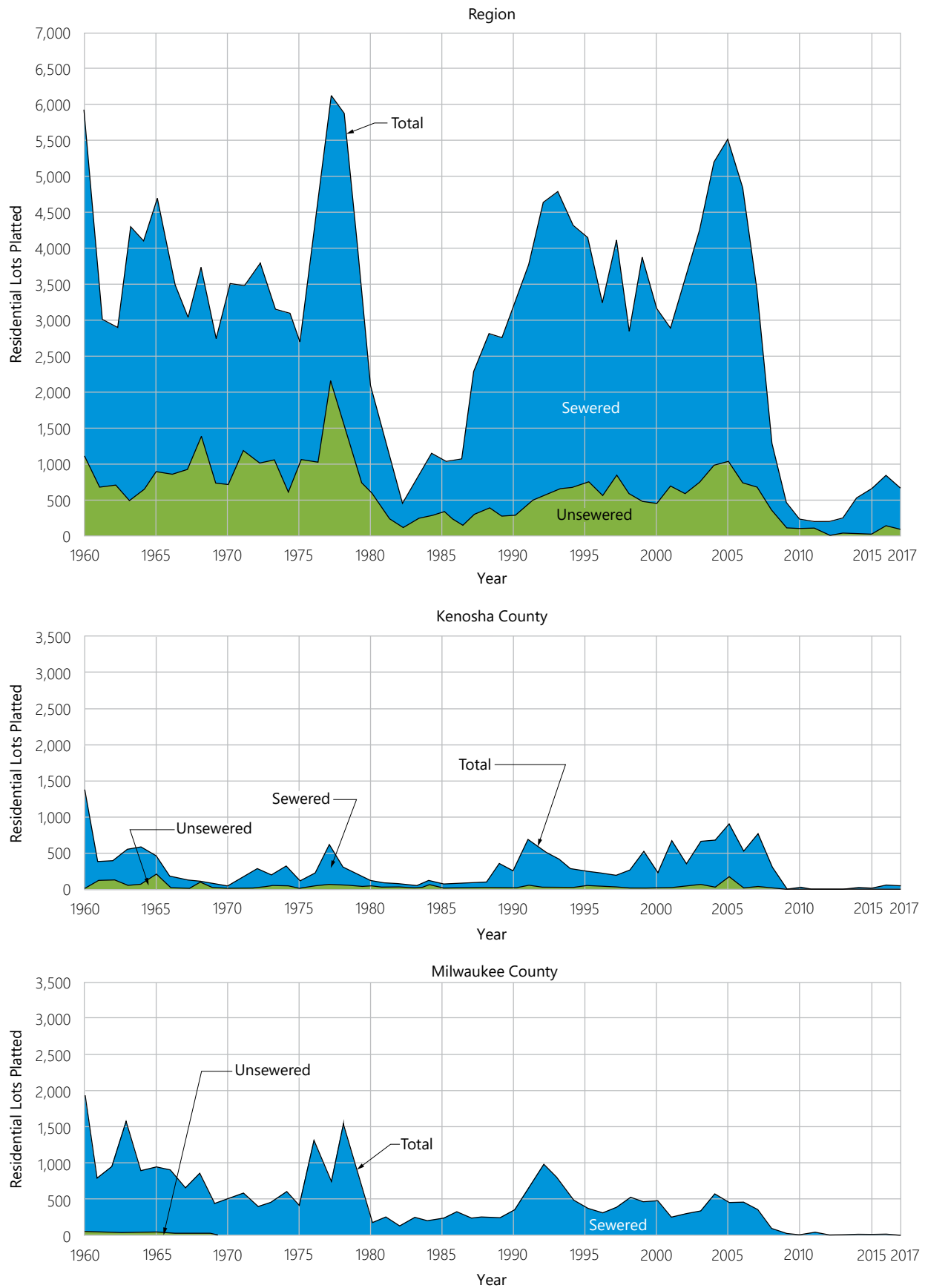
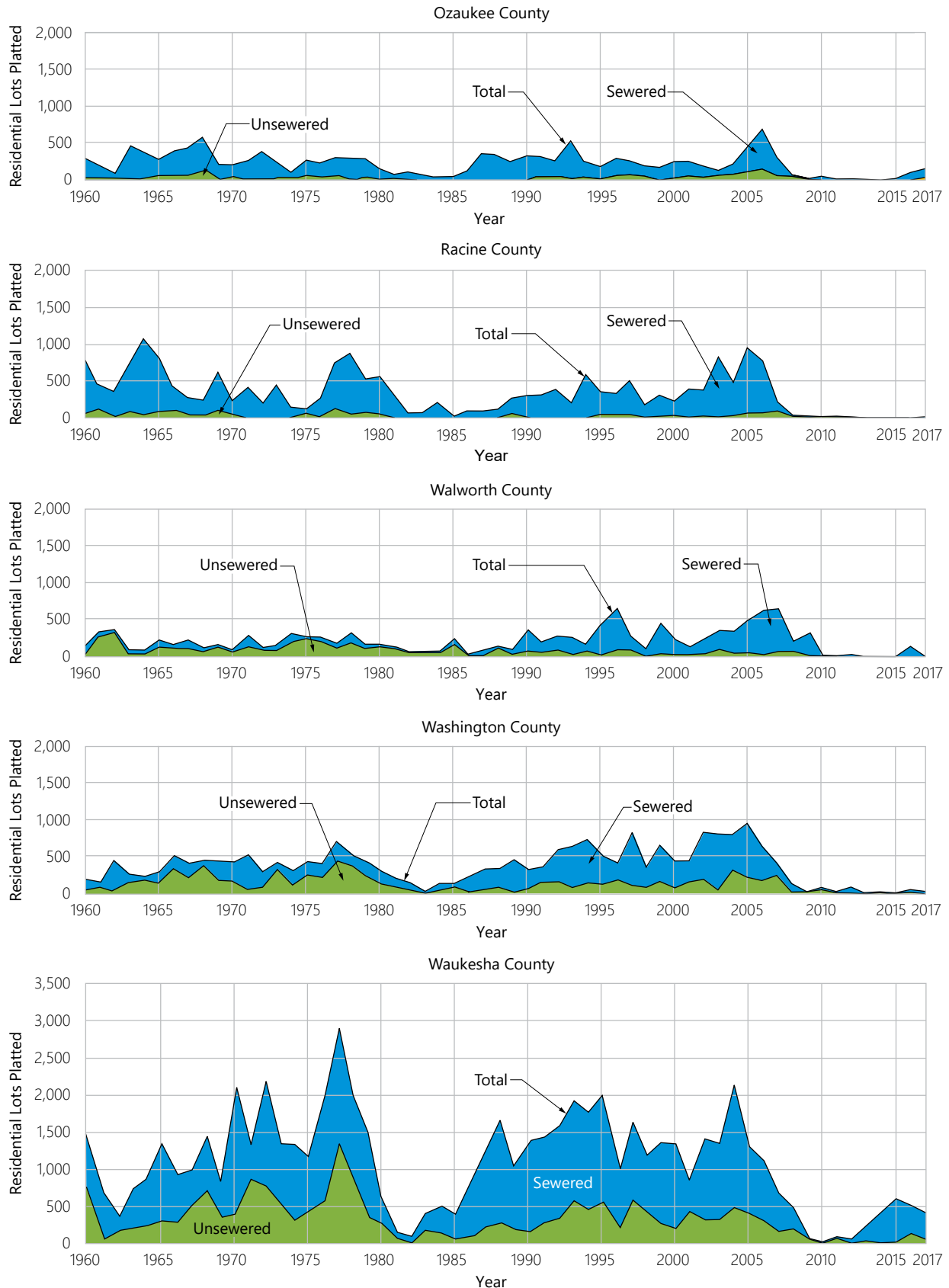
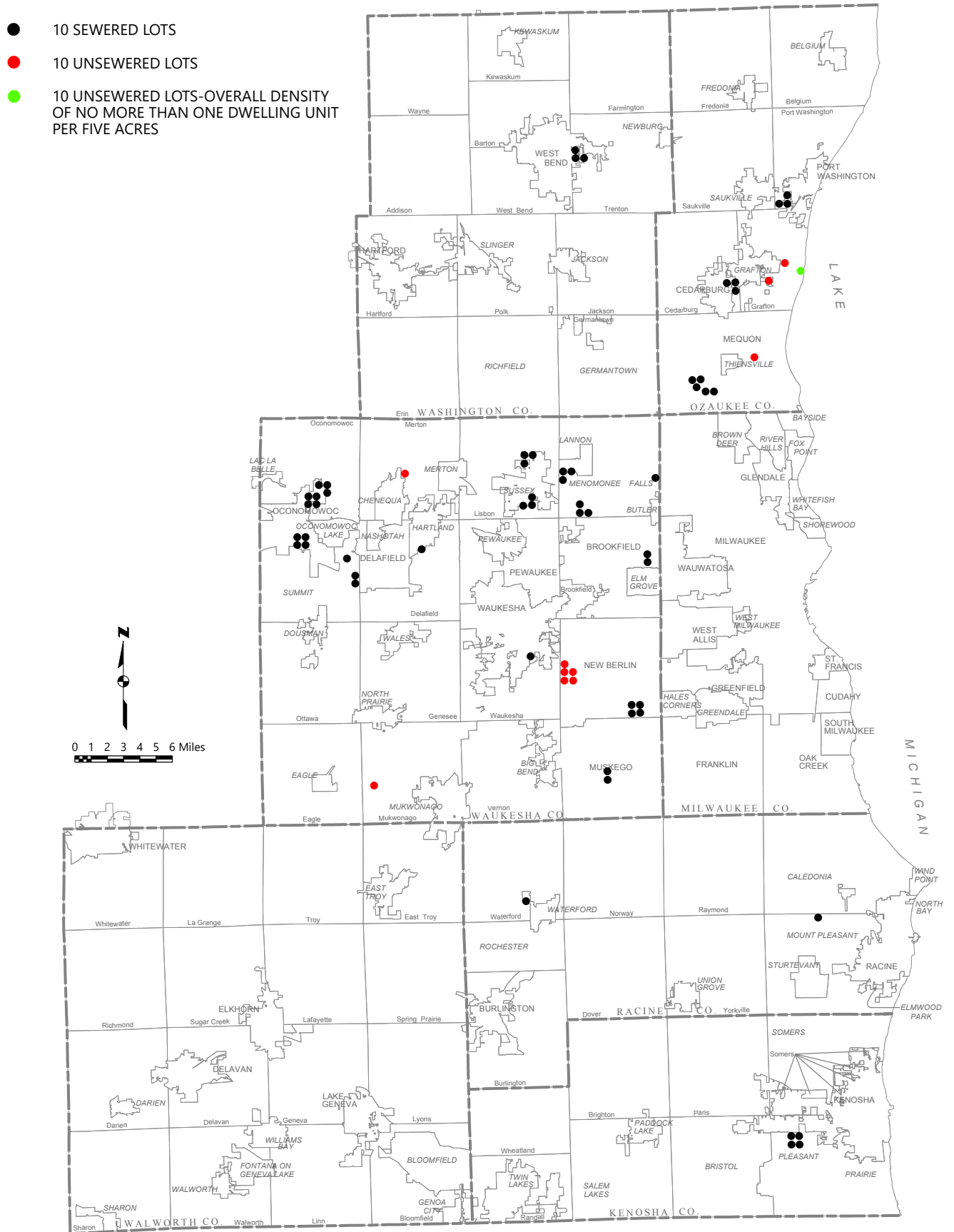


Figure 3.5 (continued)



## Residential Platting Activity in Southeastern Wisconsin: 2017



**Table 3.8**  
**Residential Subdivision Platting Activity in Southeastern Wisconsin: 2017**

County	Sewered Lots		Unsewered Lots		Total Lots	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Region
Kenosha	45	100.0	0	0.0	45	6.8
Milwaukee	0	0.0	0	0.0	0	0.0
Ozaukee	122	78.2	34	21.8	156	23.4
Racine	12	100.0	0	0.0	12	1.8
Walworth	0	0.0	0	0.0	0	0.0
Washington	30	100.0	0	0.0	30	4.5
Waukesha	358	84.6	65	15.4	423	63.5
Region	567	85.1	99	14.9	666	100.0

Note: This table indicates the number of lots created by residential subdivision plats in 2017.

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 Availability<sup>3</sup>

#### 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 1.39 million. While the average annual rate of growth in personal-use vehicle availability in the Region from 1963 to 2016 has been about 1.7 percent, that rate of growth has been decreasing and is expected to lessen further in the coming years under VISION 2050 (see Figure 3.9). The estimated 2017 level of personal-use vehicle availability was only slightly more—about 1.3 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 1.46 in 2017, a slight decrease from 2016 (see Figure 3.9). 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 129,920, which is 1,200 more than the 2016 estimate. Light commercial trucks account for about 53 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 3.10).

### Public Transit Operations

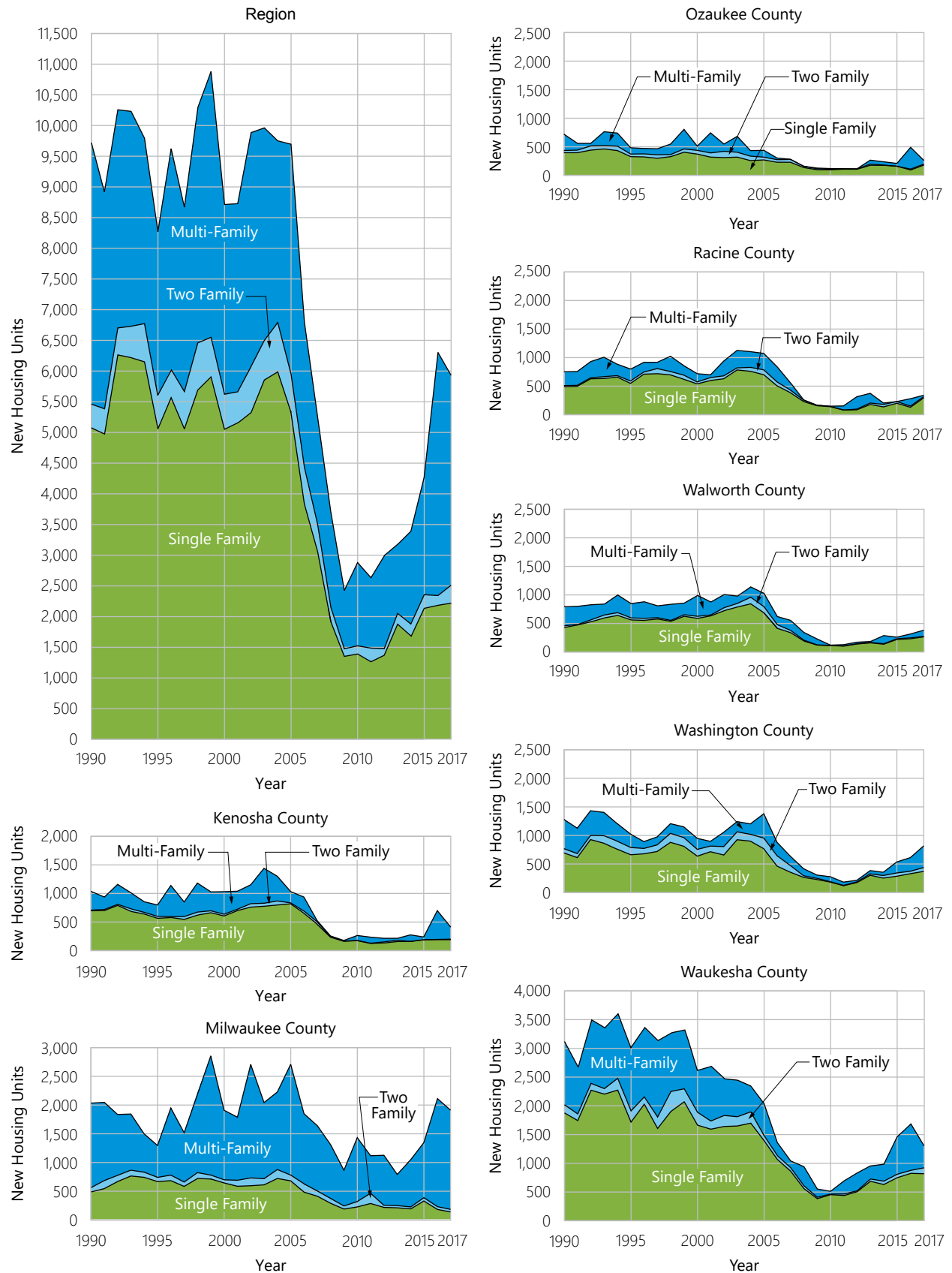
#### Transit Systems and Service Areas

The Southeastern Wisconsin Region was served by the following public transit systems during 2017 (see Map 3.3):

- 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.

<sup>3</sup> 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 3.6**  
**New Housing Units in Southeastern Wisconsin and its Counties: 1990-2017**

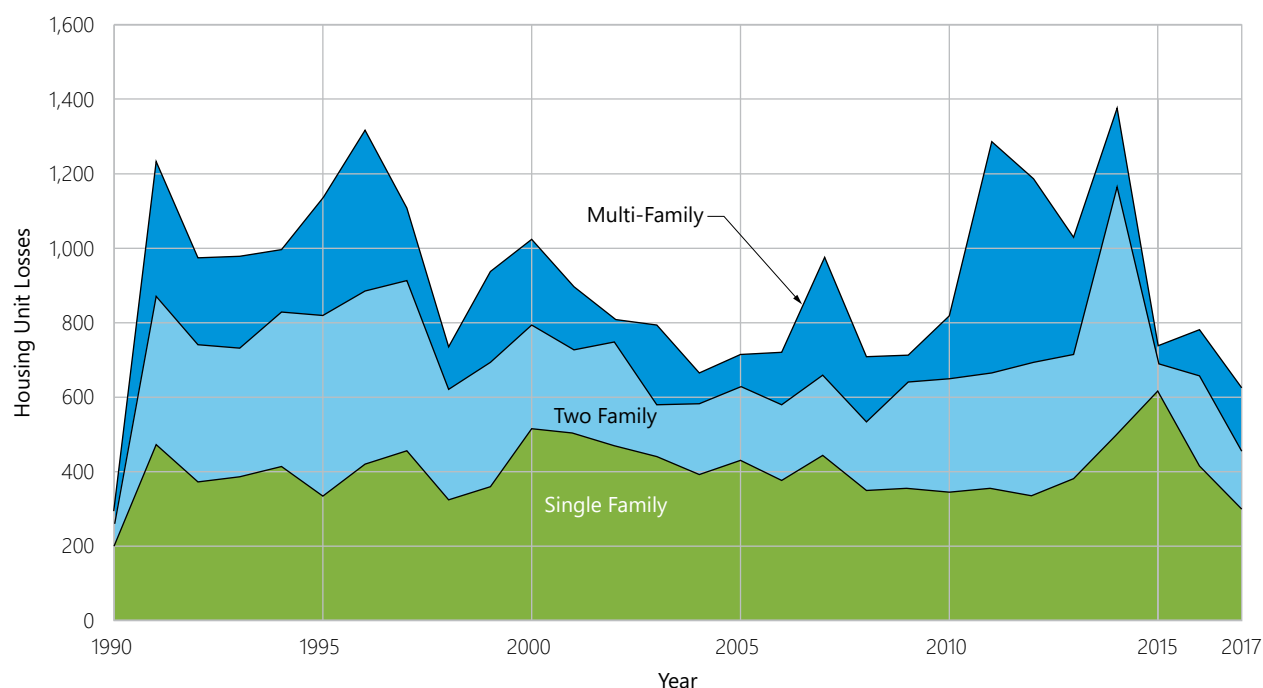


**Table 3.9**  
**Change in Housing Units by Structure Type in Southeastern Wisconsin: 2017**

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	189	4	224	417	26	8	24	58	163	-4	200	359
Milwaukee	140	46	1,722	1,908	127	130	120	377	13	-84	1,602	1,531
Ozaukee	188	6	65	259	5	0	0	5	183	6	65	254
Racine	296	18	24	338	30	9	22	61	266	9	2	277
Walworth	276	2	104	382	32	8	5	45	244	-6	99	337
Washington	369	68	381	818	21	0	0	21	348	68	381	797
Waukesha	821	102	390	1,313	60	0	0	60	761	102	390	1,253
Region	2,279	246	2,910	5,435	301	155	171	627	1,978	91	2,739	4,808

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 3.7**  
**Housing Units Losses in Southeastern Wisconsin by Structure Type: 1990-2017**

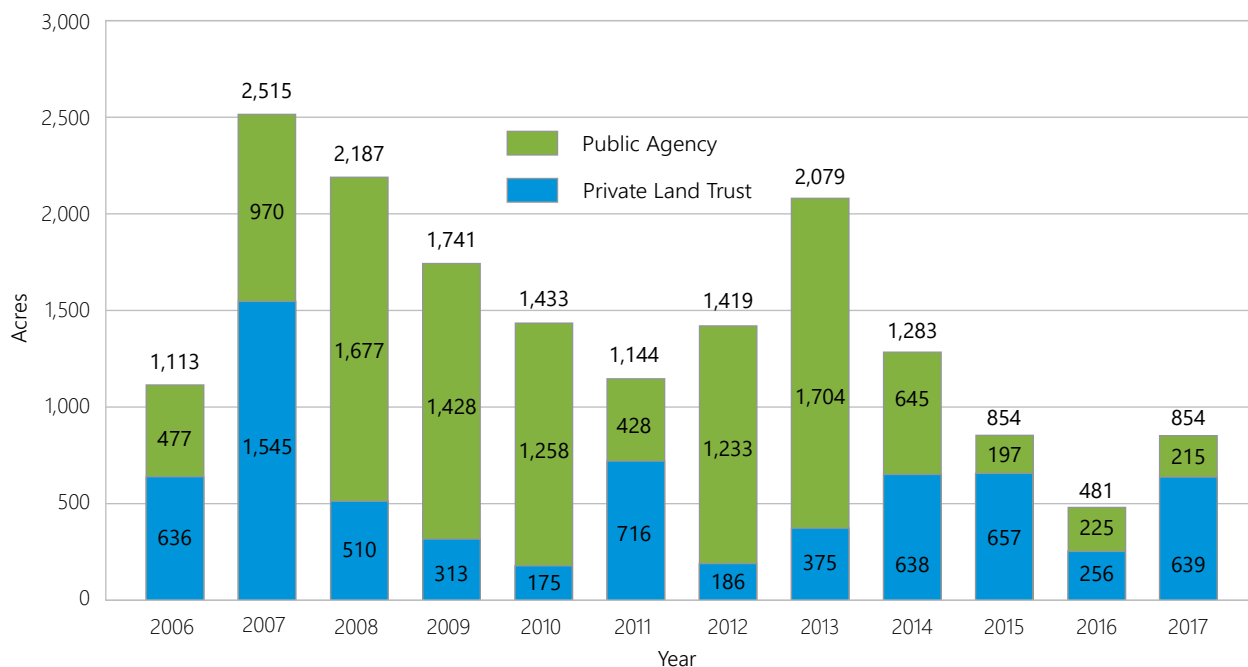


Note: Reported housing unit losses are due to demolition; destruction from fire, flood, or other event; or conversion to nonresidential uses.

- Shared-ride taxi service sponsored by Ozaukee, Walworth, 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.



**Figure 3.8**  
**Public Interest Acquisition of Environmental Corridors and**  
**Isolated Natural Resource Areas in Southeastern Wisconsin: 2006-2017**



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.

### **Notable Changes to Services**

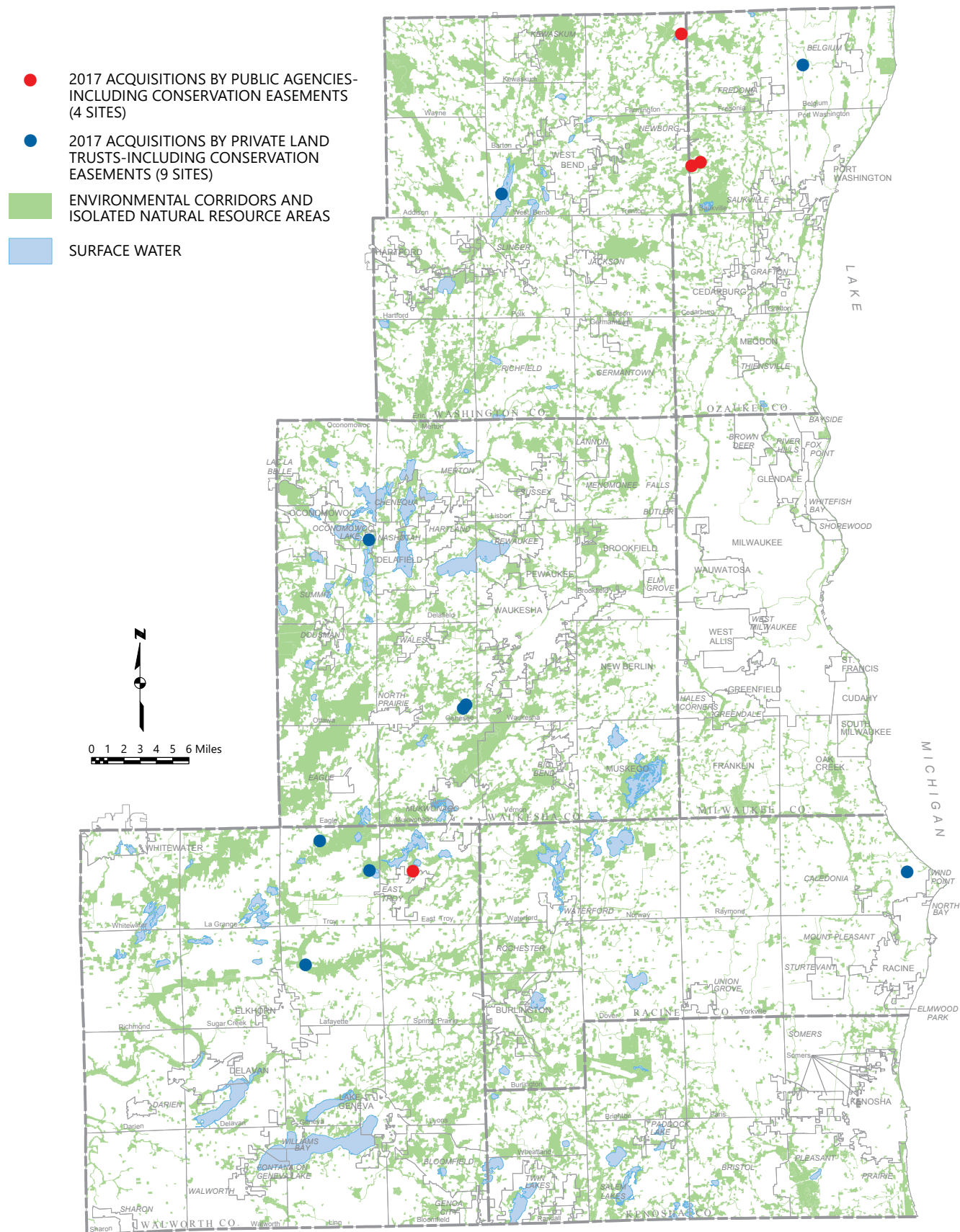
The following notable changes to transit services occurred in 2017:

- The City of Kenosha added new bus routes to serve Kenosha Beef in the Town of Paris, the Amazon Distribution Center, and LakeView Corporate Park in Pleasant Prairie. The City of Kenosha also expanded service hours and extended route lines for Routes 2, 4, 5, and 31.
- The Milwaukee County Transit System began charging GO Pass holders \$1 a day to ride after providing free rides for pass holders for the previous two years.
- The City of Racine's Belle Urban System was rebranded as RYDE.
- The Waukesha County Transit System eliminated the last southbound morning trip for Route 79 to Downtown Milwaukee in December.
- Walworth County introduced the Walworth County Dial-a-Ride taxi, providing a shared-ride taxi service to all of Walworth County with the exception of trips that begin and end in the City of Whitewater. Walworth County previously provided public transportation services only to residents 60 years and older, disabled adults, and veterans through a contract with VIP Services in the City of Elkhorn.

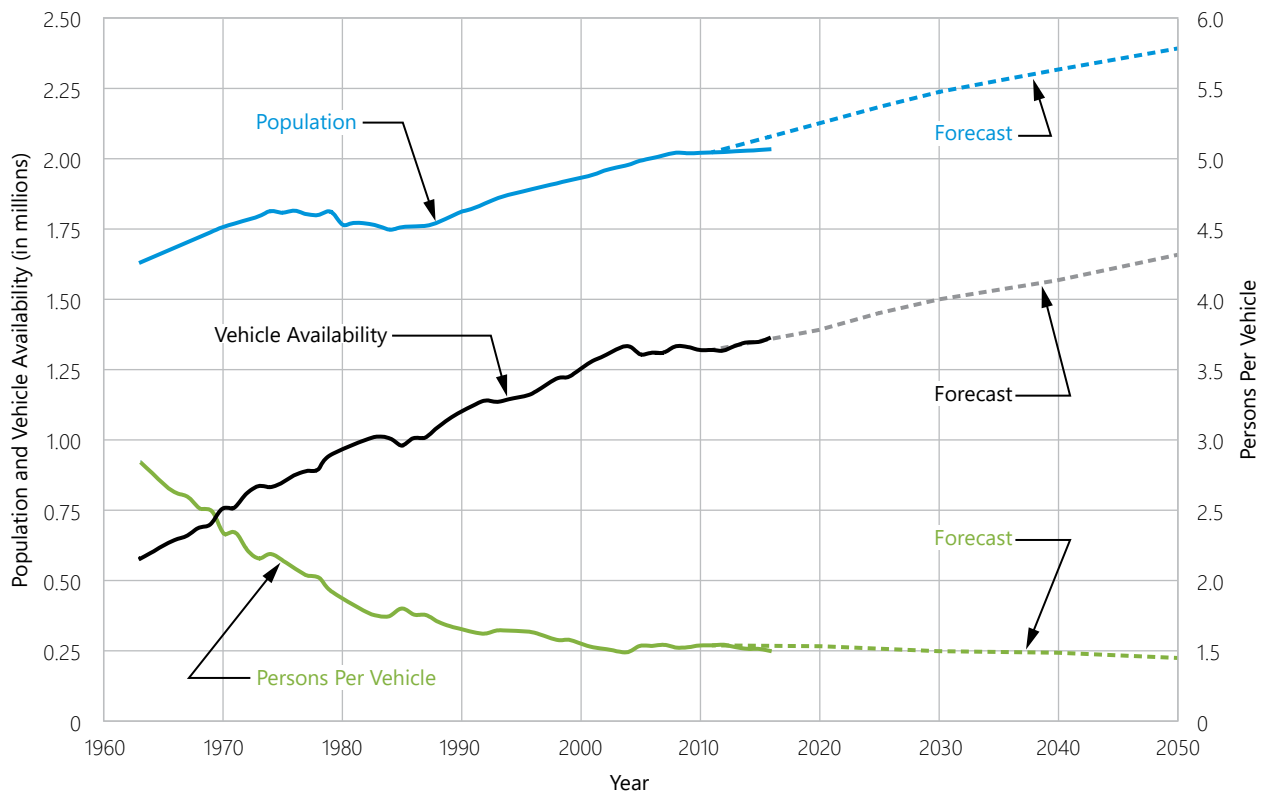
### **Fixed-Route Bus Ridership**

The total reported ridership on fixed-route public bus services declined from about 37.9 million boarding passengers in 2016 to 35.2 million boarding passengers in 2017, a decrease of about 7 percent (see Figure 3.11 for individual system data).

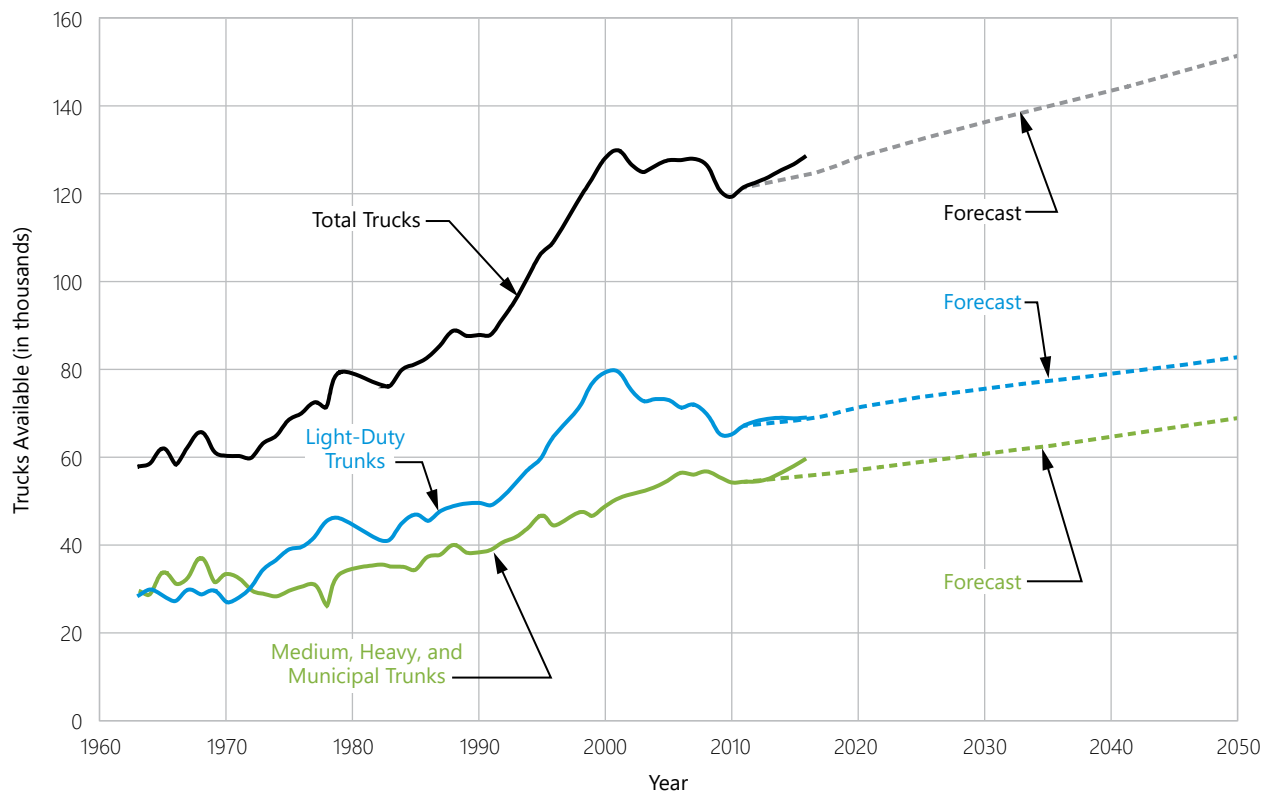
**Map 3.2**  
**Public Interest Acquisitions of Environmental Corridors and**  
**Isolated Natural Resource Areas in Southeastern Wisconsin: 2017**



**Figure 3.9**  
**Personal-Use Vehicle Availability**











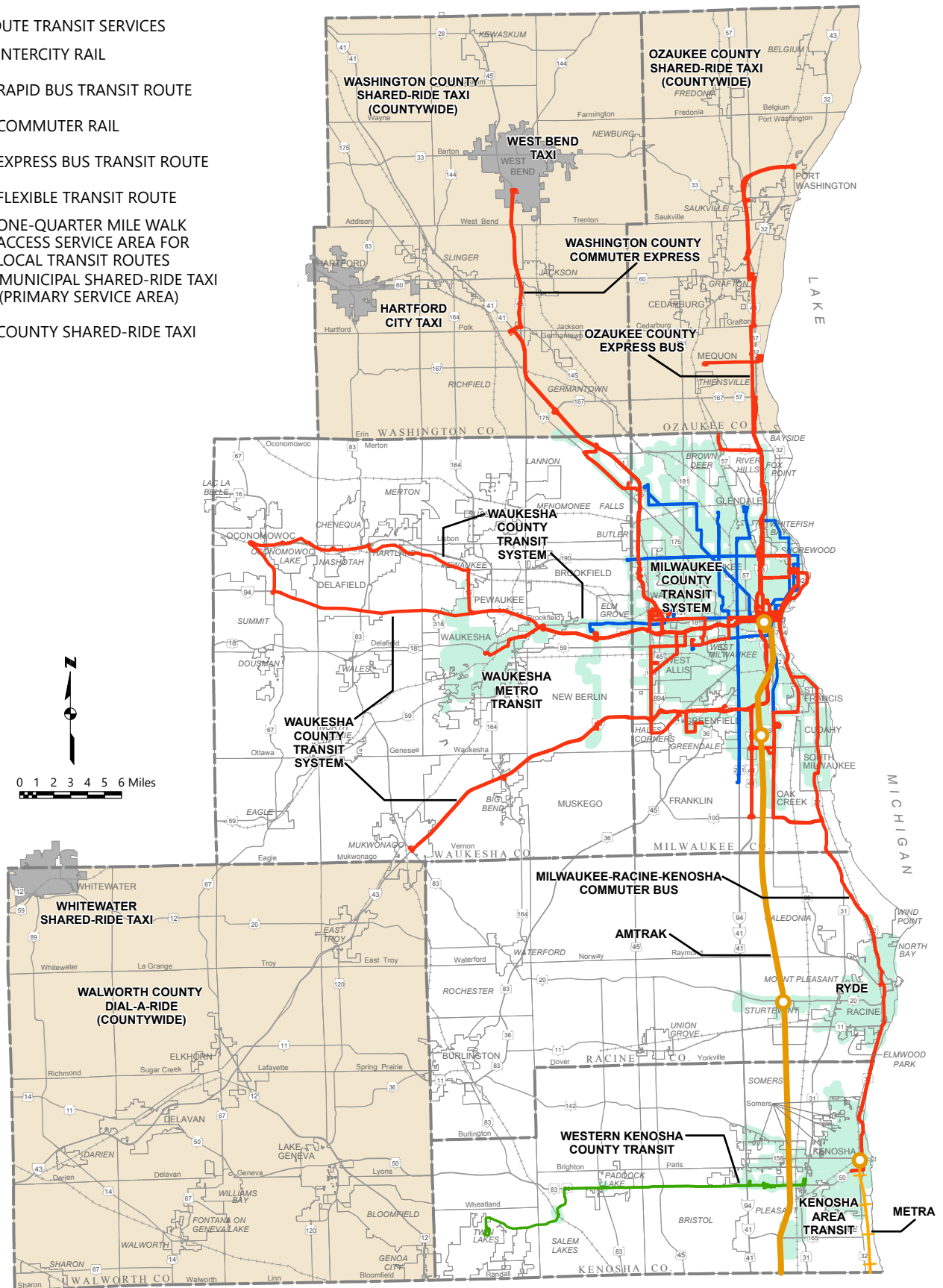
**Figure 3.10**  
**Commercial Truck Availability**



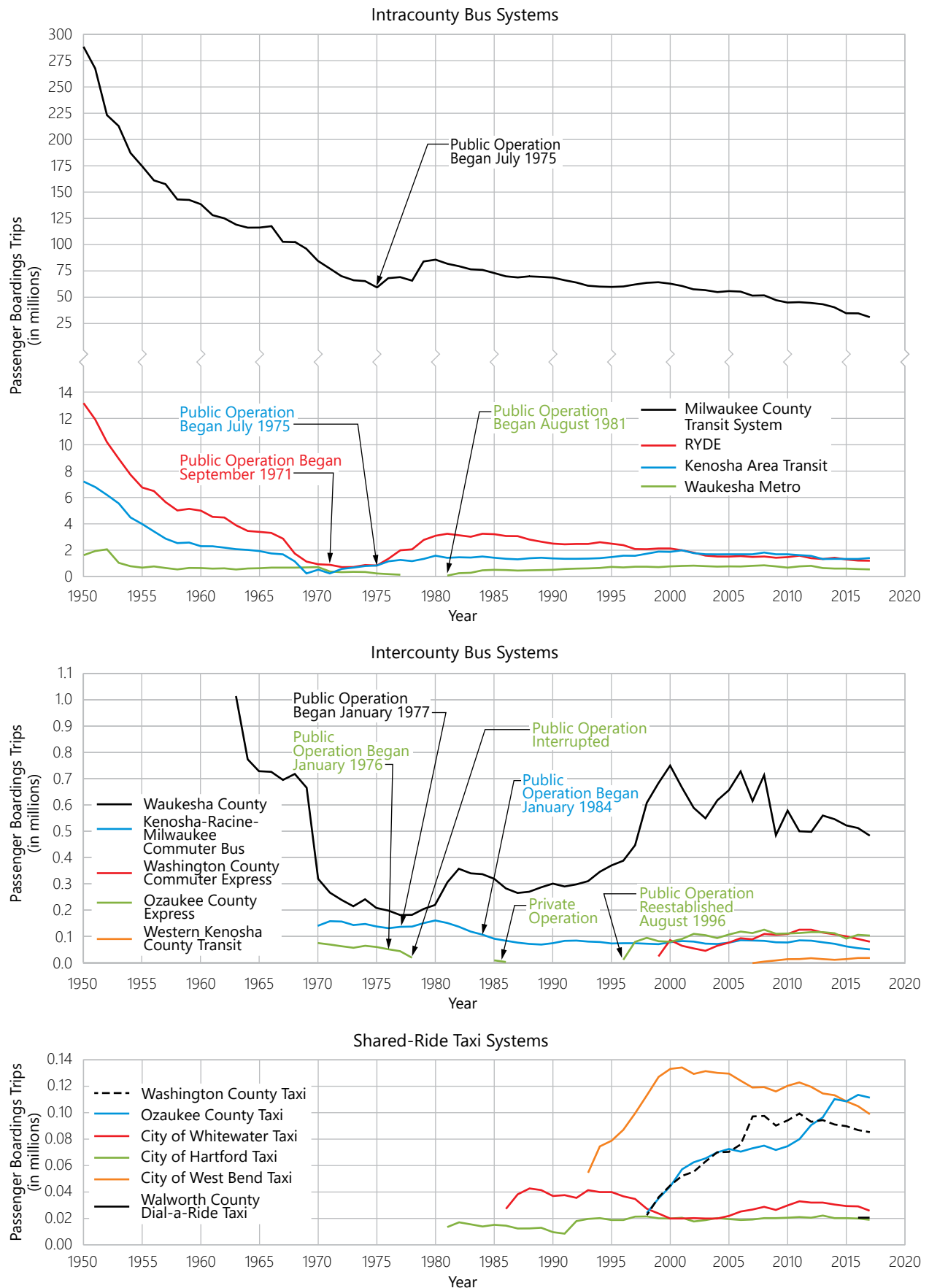
### Map 3.3 Public Transit Services in Southeastern Wisconsin: 2017

#### 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 3.11**  
**Historical Transit Passenger Boardings in Southeastern Wisconsin**





**Table 3.10**  
**Reported Paratransit Ridership for Fixed-Route Transit Systems in Southeastern Wisconsin**

Transit Operator	Paratransit Trips				Percent Change 2016-2017
	1991	2001	2016	2017	
City of Kenosha	13,100	17,200	27,500	28,500	3.6
Milwaukee County	388,200	1,027,000	531,000	526,400	-0.9
City of Racine	32,900	19,600	28,700	30,700	7.0
City of Waukesha	11,000	13,000	10,600	9,700	-8.5
Waukesha County	1,200	11,200	3,200	3,500	9.4
Region Total	446,400	1,088,000	601,000	598,800	-0.4

### ***Shared-Ride Taxi Ridership***

The total reported ridership on shared-ride public taxi services increased from about 354,300 in 2016 to about 366,800 in 2017, an increase of about 3.5 percent (see Figure 3.11 for individual system data). This increase includes the ridership of the Walworth County Dial-a-Ride taxi.

### ***Paratransit Vehicle Ridership***

Paratransit vehicles serve people with disabilities unable to use fixed-route bus services. During 2017, about 598,800 one-way trips were made on paratransit services in the Region, a decrease of less than one percent from the 601,000 one-way trips made during 2016 (see Table 3.10 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 Service Levels and Fares***

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 \$9.75. For regular riders who use the service 20 days per month, a \$278.00 monthly pass reduces the fare to \$6.95 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 2008-2017, annual ridership increased by about 8 percent to a level of about 828,300 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 \$4.9 million to support Hiawatha operating services in the 2017 State fiscal year.

### ***Bus and Shared-Ride Taxi Vehicle Miles of Service***

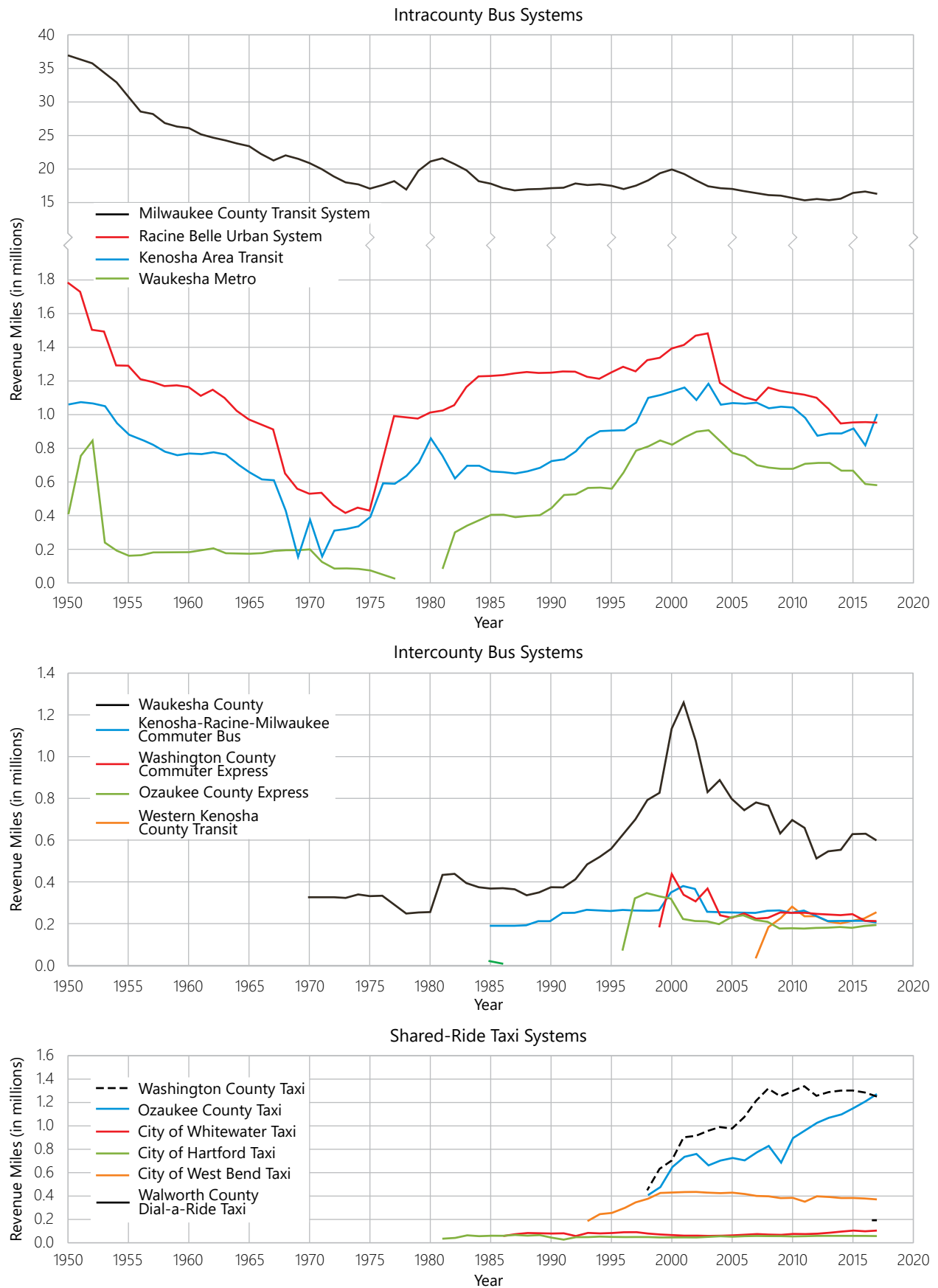
The number of vehicle-miles operated in revenue service by bus and taxi in the Region during 2017 totaled about 23.59 million, representing an increase of less than one percent from the 23.47 million vehicle-miles operated during 2016 (see Figure 3.12 for individual system data and Figure 3.13 for the historical trend).

### ***Bus Vehicle Age and Reliability***

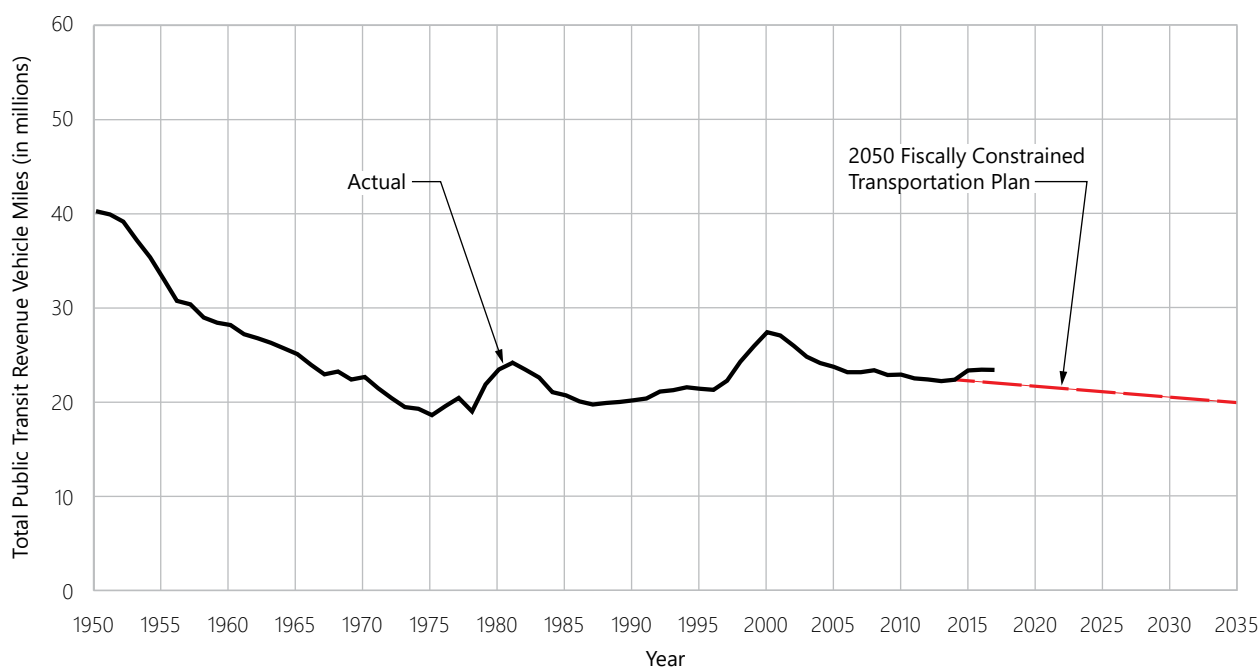
The average age of buses operated by transit operators in the Region was about 6.6 years in 2017, approximately the same average age as in 2016. The number of service calls for those buses increased over 100 percent, from 531 in 2016 to 1,103 in 2017. Over the same period, the average revenue vehicle-miles traveled between service calls decreased from 38,504 in 2016 to 18,986 in 2017. A service call is defined as



**Figure 3.12**  
**Historical Public Transit Revenue Miles in Southeastern Wisconsin**



**Figure 3.13**  
**Historical Trend in Annual Public Transit Vehicle-Miles of Service in Southeastern Wisconsin**



a failure of some mechanical element of the revenue vehicle 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 3.14. In, 2017, the City of Kenosha raised fares from \$1.75 to \$2.00, the City of West Bend raised the base adult cash fare from \$4.00 to \$4.50, and the City of Whitewater raised the base adult cash fare from \$3.00 to \$3.25.

### ***Operating Assistance***

Public transit operating assistance in the Region, exclusive of Metra and Amtrak services, totaled about \$145.9 million in 2017, about a two percent increase from 2016 (see Table 3.11 for individual system data). Table 3.11 also provides the public subsidy per ride for each system.

## **Park-Ride Facilities and Transit Stations**

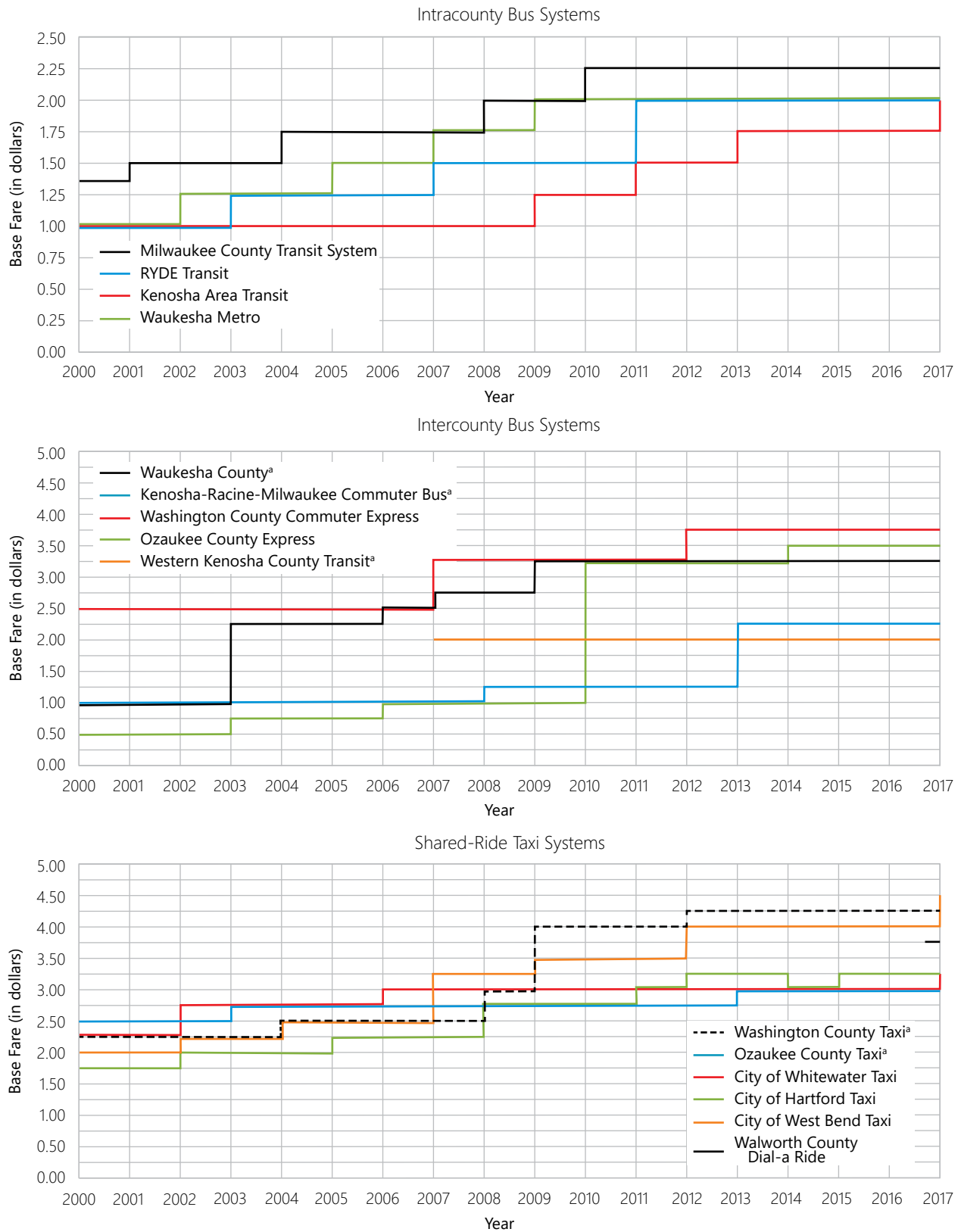
### ***Number and Location***

Progress in providing the 99 park-ride lots and transit stations recommended in the regional transportation plan is summarized on Map 3.4. In 2017, the Wisconsin Department of Transportation constructed a new park-ride lot near the intersection of CTH P and CTH DR in the Village of Summit, increasing the total number of park-ride lots and transit stations in the Region to 52. Of the 52 existing park-ride lots in 2017, 38 were served by transit service and 14 were used exclusively by carpoolers. Seven of the 52 park-ride lots 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 3.12 provides data on both the number of parking spaces available and the number of parking spaces used on an average weekday in 2017. Park-ride lot utilization is also shown on Map 3.4. The total number of spaces available at park-ride lots in the Region was 7,485 in 2017, including 6,570 at park-ride lots served by transit and 915 at the lots not served by transit. Of the 6,570 spaces available at the 38 park-ride lots served by transit, 2,135 spaces were used on an average weekday during 2017—a utilization rate of about 32 percent. Of the 915 spaces available at the lots not served by transit, 270 spaces were utilized during 2017—a utilization rate of about 30 percent.

**Figure 3.14**  
**Historical Base Adult Fares Charged by Public Transit Systems in Southeastern Wisconsin**



<sup>a</sup> The base adult fare is dependent on factors such as travel distance or bus route. This base adult fare represents the minimum fare charged.

**Table 3.11**  
**Public Transit Operating Assistance Within Southeastern Wisconsin: 2016-2017**

Transit Services	Public Transit Operating Assistance (\$)							
	2016 Actual/Estimated				2017 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
<b>Fixed Route Bus Systems</b>								
Intracounty								
City of Kenosha	2,135,100	1,600,000	1,811,000	5,546,100	2,560,100	1,704,800	2,040,900	6,305,800
Milwaukee County	24,246,400	69,921,400	22,951,500	117,119,300	19,357,000	70,127,500	28,324,000	117,808,500
City of Racine	2,303,300	1,857,500	1,772,400	5,933,200	2,299,200	1,877,200	1,803,900	5,980,300
City of Waukesha	486,200	2,420,700	1,101,000	4,007,900	526,800	2,356,400	1,195,400	4,078,600
Subtotal	29,171,000	75,799,600	27,635,900	132,606,500	24,743,100	76,065,900	33,364,200	134,173,200
Intercounty								
Kenosha-Racine-Milwaukee Counties	329,200	273,500	398,300	1,011,000	336,300	274,600	401,200	1,012,100
Ozaukee-Milwaukee Counties	470,600	395,000	174,500	1,040,100	480,600	382,100	192,700	1,055,400
Washington-Milwaukee Counties	466,900	384,200	183,400	1,034,500	453,100	372,200	266,400	1,091,700
Waukesha-Milwaukee Counties	467,700	2,075,700	747,400	3,290,800	513,000	1,930,400	930,300	3,373,700
Western Kenosha County	232,200	51,300	185,600	469,100	251,300	54,000	188,000	493,300
Subtotal	1,976,600	3,179,700	1,689,200	6,845,500	2,034,300	3,013,300	1,978,600	7,026,200
<b>Total Bus Systems</b>	<b>31,147,600</b>	<b>78,979,300</b>	<b>29,325,100</b>	<b>139,452,000</b>	<b>26,777,400</b>	<b>79,079,200</b>	<b>35,342,800</b>	<b>141,199,400</b>
<b>Shared-Ride Taxi Systems - Intracounty</b>								
City of Hartford	70,200	43,400	26,400	140,000	65,600	51,500	5,500	122,600
Ozaukee County	165,500	789,800	269,900	1,225,200	93,600	764,700	446,600	1,304,900
Washington County	715,400	919,700	215,900	1,851,000	721,900	914,200	251,900	1,888,000
City of West Bend	325,000	252,000	133,400	710,400	313,700	269,600	101,100	684,400
City of Whitewater	72,800	58,600	4,200	135,600	75,000	59,600	--	134,600
Walworth	--	--	--	--	225,100	163,900	163,300	552,300
Subtotal	1,348,900	2,063,500	649,800	4,062,200	1,494,900	2,223,500	968,400	4,686,800
<b>Region Total</b>	<b>32,496,500</b>	<b>81,042,800</b>	<b>29,974,900</b>	<b>143,514,200</b>	<b>28,272,300</b>	<b>81,302,700</b>	<b>36,311,200</b>	<b>145,886,200</b>









  

Transit Services	Public Transit Operating Assistance per Ride (\$)							
	2016 Actual/Estimated				2017 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
<b>Fixed Route Bus Systems</b>								
Intracounty								
City of Kenosha	1.61	1.21	1.37	4.18	1.91	1.27	1.52	4.70
Milwaukee County	0.70	2.01	0.66	3.36	0.60	2.19	0.88	3.67
City of Racine	1.92	1.55	1.48	4.94	1.98	1.62	1.56	5.16
City of Waukesha	0.89	4.41	2.01	7.30	0.99	4.43	2.25	7.66
Weighted Average	0.77	2.00	0.73	3.50	0.70	2.17	0.95	3.82
Intercounty								
Kenosha-Racine-Milwaukee Counties	5.94	4.79	6.98	17.71	6.42	5.24	7.66	19.31
Ozaukee-Milwaukee Counties	4.42	3.71	1.64	9.77	4.69	3.73	1.88	10.30
Washington-Milwaukee Counties	5.08	4.18	2.00	11.26	5.60	4.60	3.29	13.49
Waukesha-Milwaukee Counties	0.91	4.05	1.46	6.41	1.05	3.93	1.90	6.87
Western Kenosha County	11.97	2.64	9.57	24.18	14.70	3.16	10.99	28.85
Weighted Average	2.51	4.04	2.14	8.69	2.74	4.05	2.66	9.45
<b>Total Bus Systems</b>	<b>0.80</b>	<b>2.04</b>	<b>0.76</b>	<b>3.60</b>	<b>0.75</b>	<b>2.21</b>	<b>0.99</b>	<b>3.94</b>
<b>Shared-Ride Taxi Systems - Intracounty</b>								
City of Hartford	3.55	2.19	1.33	7.07	3.43	2.70	0.29	6.42
Ozaukee County	1.46	6.95	2.38	10.79	0.80	6.58	3.84	11.22
Washington County	8.23	10.58	2.48	21.30	8.47	10.73	2.96	22.16
City of West Bend	3.10	2.40	1.27	6.77	3.15	2.71	1.02	6.87
City of Whitewater	2.50	2.01	0.14	4.66	2.87	2.28	--	5.16
Walworth County	--	--	--	--	10.98	8.00	7.97	26.94
Weighted Average	3.81	5.82	1.83	11.47	4.08	6.06	2.64	12.78
<b>Region Weighted Average</b>	<b>0.83</b>	<b>2.07</b>	<b>0.77</b>	<b>3.67</b>	<b>0.78</b>	<b>2.25</b>	<b>1.00</b>	<b>4.03</b>





### Map 3.4

## Existing and Proposed Park-Ride Lots and Transit Stations Located in Southeastern Wisconsin

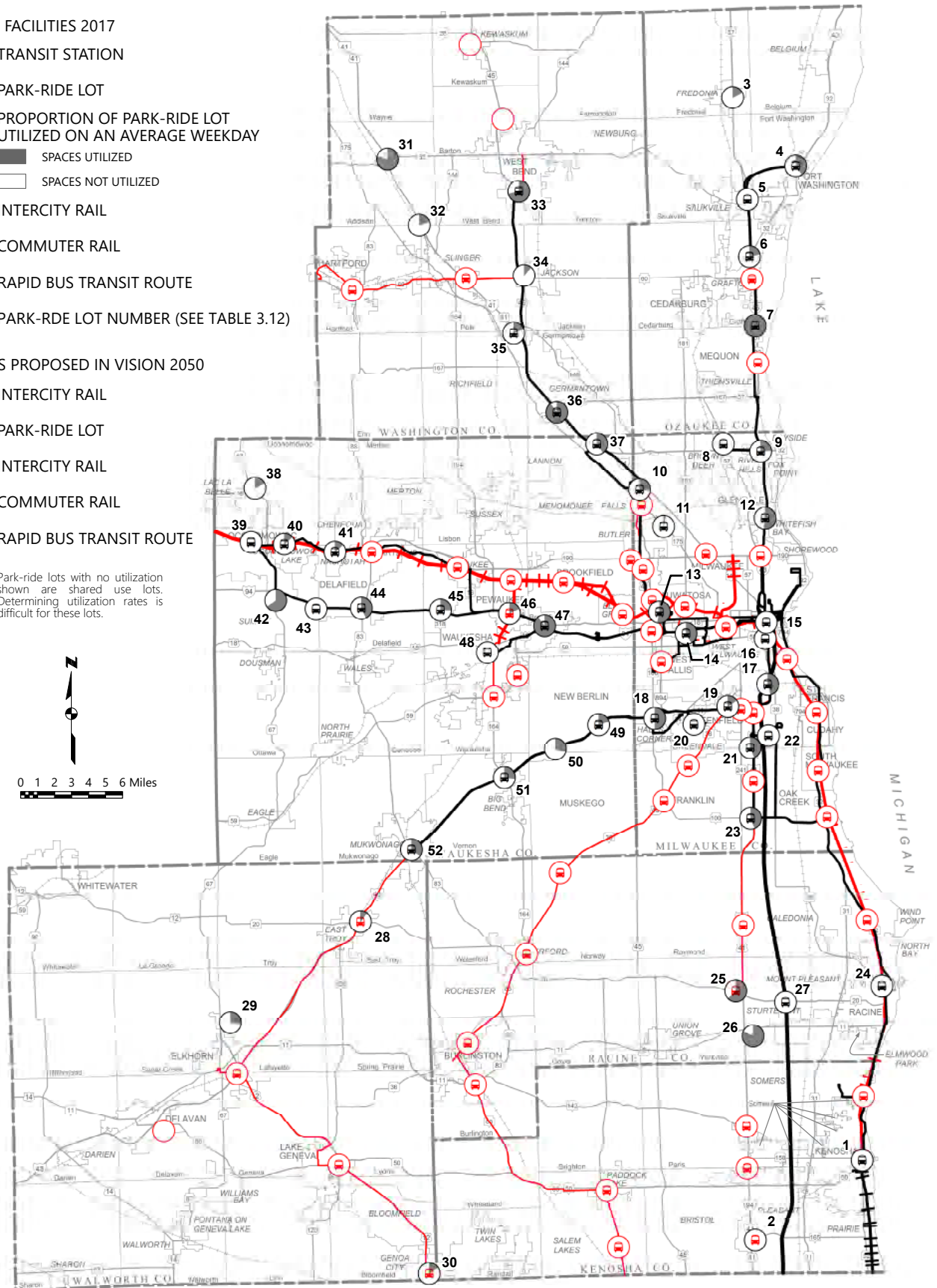
#### EXISTING FACILITIES 2017

-  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 3.12)

#### FACILITIES PROPOSED IN VISION 2050

-  INTERCITY RAIL
-  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 3.12**  
**Average Weekday Use of Park-Ride Lots and Transit Stations: 2017**

Number on Map 3.4	Location	Served by Transit	Not served by Transit	Shared Use	Available Parking Spaces	Autos Parked on an Average Weekday: 2017	Percent of Spaces Used
1	Kenosha County						
2	Metra Station (Kenosha)	X		X	145	-- <sup>a</sup>	-- <sup>a</sup>
	STH 165 and Terwall Terrace (Pleasant Prairie)		x		160	-- <sup>a</sup>	-- <sup>a</sup>
3	Ozaukee County						
4	STH 57 and CTH H (Fredonia)		x		60	11	18
5	IH 43 and STH 32-CTH H (Port Washington)	X			50	20	40
6	Wal-Mart (Saukville)	X		X	50	-- <sup>a</sup>	-- <sup>a</sup>
7	IH 43 and CTH V (Grafton)	X			85	18	21
	IH 43 and CTH C (Grafton)	X			65	72	111
8	Milwaukee County						
9	Kohl's (Brown Deer)	X		X	-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
10	Brown Deer (River Hills)	X			360	86	24
11	W. Good Hope Road (Milwaukee)	X			135	36	27
12	Timmerman Field (Milwaukee)	X			140	4	3
13	North Shore (Glendale)	X			195	102	52
14	W. Watertown Plank Road (Wauwatosa)	X			175	93	53
15	State Fair Park (Milwaukee)	X			285	119	42
16	Downtown Milwaukee Intermodal Amtrak Station	X			240	-- <sup>a</sup>	-- <sup>a</sup>
17	National Avenue and IH 43/94 (Milwaukee)	X		X	55	-- <sup>a</sup>	-- <sup>a</sup>
18	W. Holt Avenue (Milwaukee)	X			235	107	46
19	Whitnall (Hales Corners)	X			360	180	50
20	W. Loomis Road (Greenfield)	X			410	64	16
21	Southridge (Greendale)	X		X	-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
22	W. College Avenue (Milwaukee)	X			650	284	44
23	Mitchell Airport Amtrak Station (Milwaukee)	X			280	-- <sup>a</sup>	-- <sup>a</sup>
	W. Ryan Road (Oak Creek)	X			305	134	44
24	Racine County						
25	Racine Metro Transit Center (Racine)	X			120	-- <sup>a</sup>	-- <sup>a</sup>
26	IH 94 and STH 20 (Ives Grove)		X		75	47	63
27	IH 94 and STH 11 (Mount Pleasant)		X		60	49	82
	Sturtevant Amtrak Station (Sturtevant)	X			180	-- <sup>a</sup>	-- <sup>a</sup>
28	Walworth County						
29	East Troy Municipal Airport (East Troy)		X		30	3	10
30	USH 12 and STH 67 (Elkhorn)		X		40	11	28
	USH 12 and CTH P (Genoa City)		X		40	6	15
31	Washington County						
32	IH 41 and STH 33 (Allenton)		X		60	48	80
33	IH 41 and CTH K (Addison)		X		40	8	20
34	USH 45 and Paradise Drive (West Bend)	X			100	71	71
35	STH 60 and CTH P (Jackson)		X		125	14	11
36	Pioneer Road and Mayfield Road (Richfield)	X			280	51	18
	IH 41 and Lannon Road (Germantown)	X			100	90	90
37	Waukesha County						
38	Pilgrim Road (Menomonee Falls)	X			70	28	40
39	STH 67 and Lang Road (Oconomowoc)		X		35	6	17
40	Collins Street Parking Lot (Oconomowoc)	X			-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
41	STH 16 and CTH P (Oconomowoc)	X			45	7	16
42	STH 16 and CTH C (Nashotah)	X			60	8	13
43	STH 67 and CTH DR (Summit)		X		60	39	65
44	CTH P and Delafield Rd. (Summit)	X			150	-- <sup>a</sup>	-- <sup>a</sup>
45	IH 94 and STH 83 (Delafield)	X			200	86	43
46	IH 94 and CTH G/CTH SS (Pewaukee)	X			245	62	25
	IH 94 and CTH F (Pewaukee)		X		85	15	18

Table continued on next page.



**Table 3.12 (continued)**

Number on Map 3.4	Location	Served by Transit	Not served by Transit	Shared Use	Available Parking Spaces	Autos Parked on an Average Weekday: 2017	Percent of Spaces Used
	Waukesha County (continued)						
47	Goerke's Corners (Brookfield)	X			315	281	89
48	Waukesha Metro Transit Downtown Transit Center (Waukesha)	X		X	-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
49	IH 43 and Moorland Road (New Berlin)	X			175	35	20
50	IH 43 and CTH Y (New Berlin)		X		45	13	29
51	IH 43 and STH 164 (Big Bend)	X			145	39	27
52	IH 43 and STH 83 (Mukwonago)	X			165	58	35
Total		38	14	7	7,485	2,405	32

<sup>a</sup> Data not available.

<sup>b</sup> Parking available within larger public lot or structure.

## 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 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 3.5 shows the existing arterial streets and highways that have a pavement condition of good, fair, and poor for 2017. As shown in Table 3.13, over the last year, there has been a slight reduction of good and poor pavements and a slight increase in 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 2013, 2016, and 2017 are shown in Table 3.14, while the 2017 ratings for individual bridge structures in the Region are shown on Map 3.6. The number of bridges in the Region having a rating less than 50, and therefore in need of replacement, has decreased by about 23 percent over the past year. Similarly, the number of bridge structures with a rating from 50 to 79.9, indicating a need for rehabilitation, has decreased by about 12 percent.

### Volume of Travel

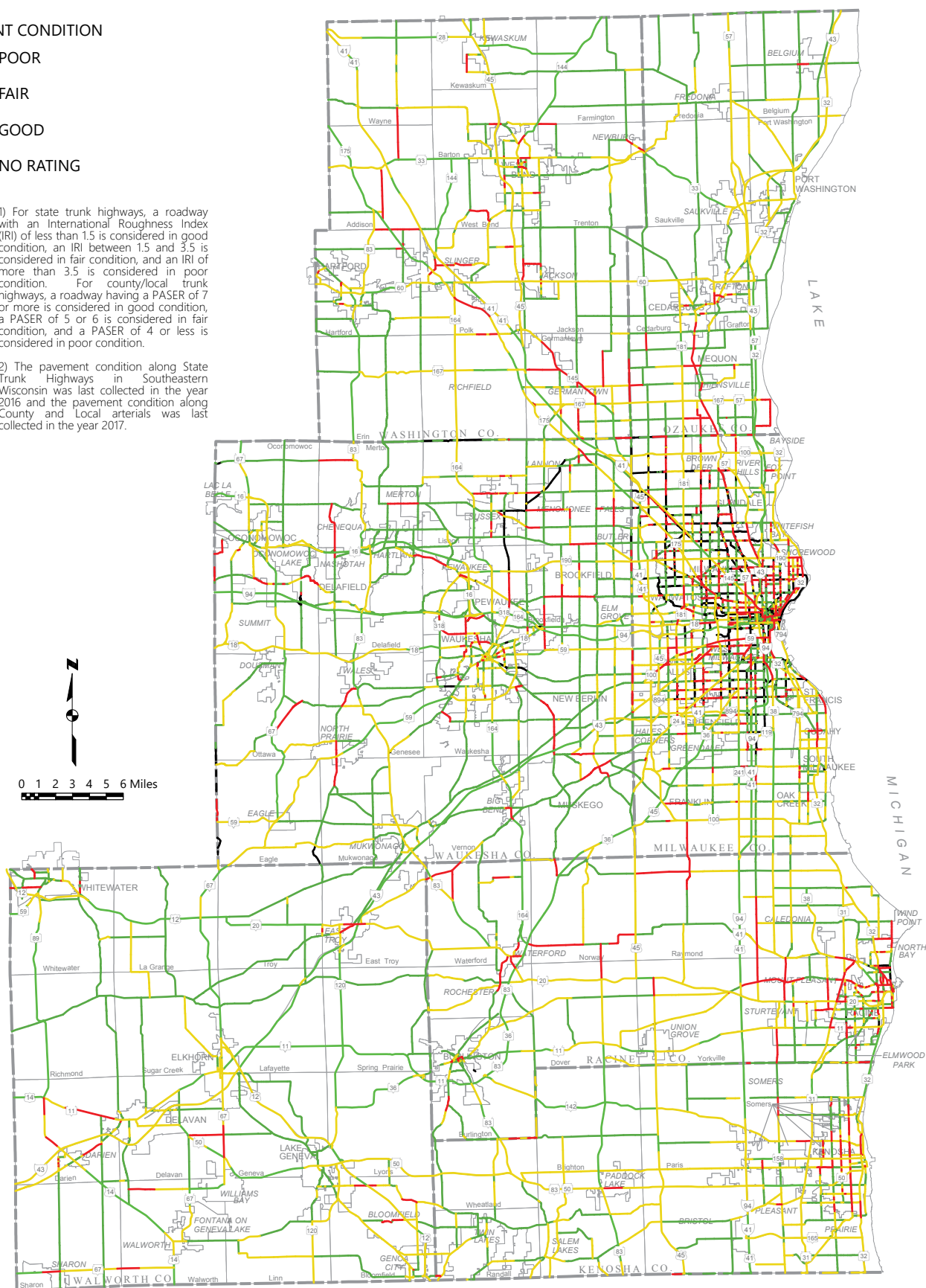
The amount of travel within the Region on the arterial street and highway system on an average weekday from 1963-2017 is shown in Figure 3.15. The regional freeway system of about 269 miles, while representing only about 8 percent of the total arterial street and highway system in the Region, carried about 39 percent of the approximately 44 million vehicle miles of travel (VMT) on an average weekday in the Region in 2017. 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.

## Pavement Condition on Arterial Streets and Highways in Southeastern Wisconsin: 2017

— POOR  
— FAIR  
— GOOD  
— NO RATING

Note:

- 1) For 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 in poor condition. For county/local trunk highways, a roadway having a PASER of 7 or more is considered in good condition, a PASER of 5 or 6 is considered in fair condition, and a PASER of 4 or less is considered in poor condition.
- 2) The pavement condition along State Trunk Highways in Southeastern Wisconsin was last collected in the year 2016 and the pavement condition along County and Local arterials was last collected in the year 2017.



**Table 3.13**  
**Pavement Condition of Arterial Streets and Highways: 2013, 2015/2016, and 2016/2017**

Pavement Rating		2013		2015/2016		2016/2017	
		Total Miles	Percent	Total Miles	Percent	Total Miles	Percent
Surface Arterials	Good	1,842	55.7	1,804	54.6	1,754	53.1
	Fair	1,084	32.8	1,132	34.3	1,209	36.5
	Poor	380	11.5	369	11.2	343	10.4
	Total	3,306	100.0	3,306	100.0	3,306	100.0
Freeways	Good	116	42.8	135	49.9	135	49.9
	Fair	155	57.2	136	50.1	136	50.1
	Poor	0	0.0	0	0.0	0	0.0
	Total	271	100.0	271	100.0	271	100.0
Total	Good	1,958	54.7	1,939	54.2	1,889	52.8
	Fair	1,239	34.6	1,269	35.5	1,345	37.6
	Poor	380	10.6	369	10.3	343	9.6
	Total	3,577	100.0	3,577	100.0	3,577	100.0

Note: For 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 in poor condition. For county/local trunk highways, a roadway having a PASER of 7 or more is considered in good condition, a PASER of 5 or 6 is considered in fair condition, and a PASER of 4 or less is considered in poor condition. The pavement condition along State Trunk Highways in Southeastern Wisconsin was last collected in the year 2016 and the pavement condition along County and Local arterials was last collected in the year 2017.

**Table 3.14**  
**Sufficiency Ratings for Bridge Structures in Southeastern Wisconsin: 2013, 2016, and 2017**

Sufficiency Rating <sup>a</sup>	Relationship to Federal Funding Eligibility for Rehabilitation or Replacement	Number of Bridges			Percent Change 2016-2017
		2013	2016	2017	
Less than 50.0	Eligible for replacement funding	81	80	62	-22.5
50.0 to 79.9	Eligible for rehabilitation funding	441	421	371	-11.9
80.0 to 100.0	Not eligible for funding	1,372	1,433	1,508	5.2
Total		1,894	1,934	1,941	0.4

<sup>a</sup> Each 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.

As shown in Figure 3.15, the volume of travel significantly increased through the year 2005. Though this period averaged 2.8 percent annual growth, the actual growth rate declined from approximately 4.9 percent in the 1960s to 0.8 percent in the mid 2000s. After the year 2005, VMT remained relatively flat through the year 2014. This lack of growth in VMT may be largely attributed to the economic downturn that occurred in the decade following the year 2005, 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 2015 and 2017, VMT estimates showed a possible return to historical increases observed in the past with a 2.3 percent annual increase over 2014 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

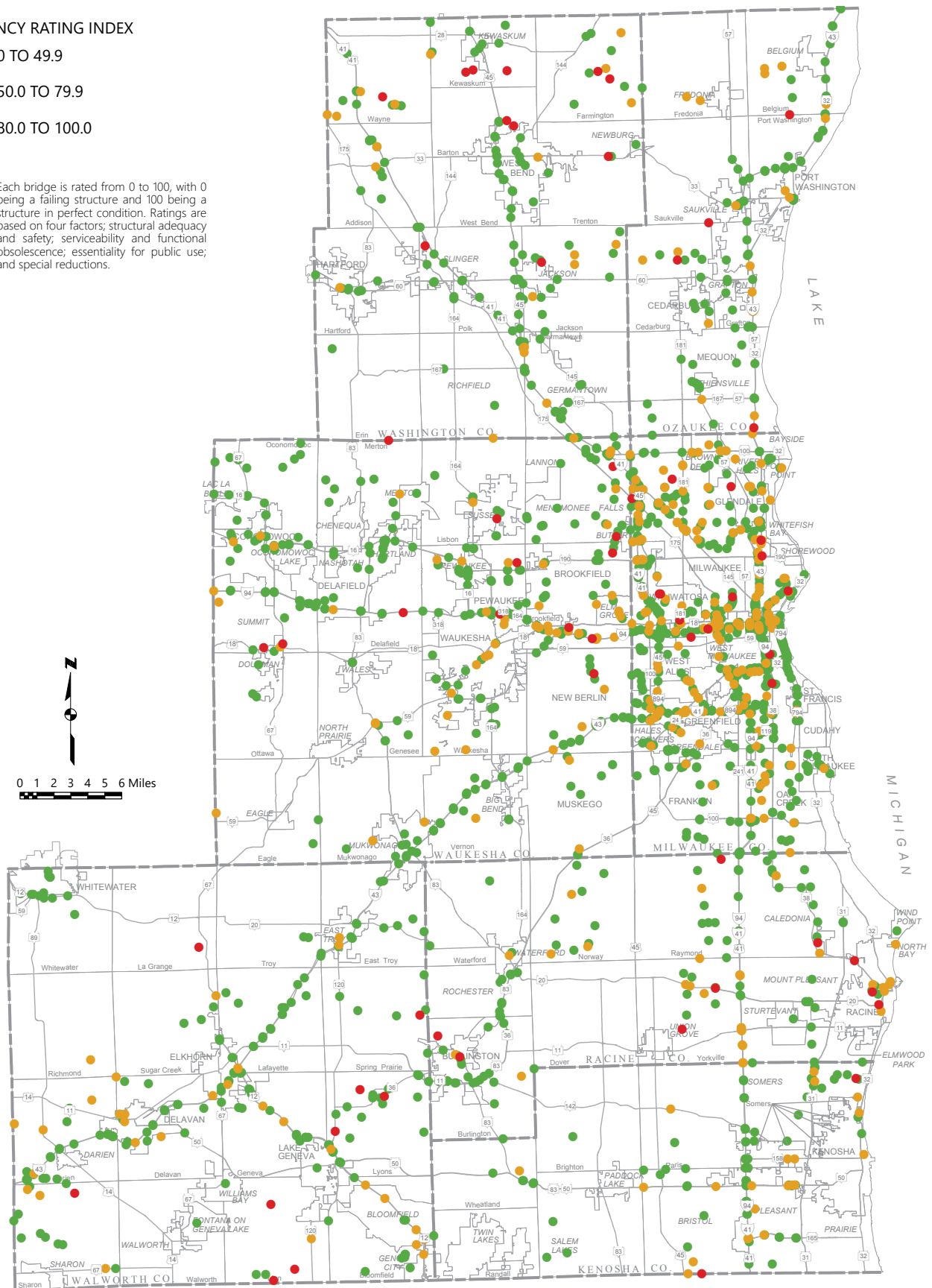
Traffic congestion on the arterial street and freeway system may be categorized as moderate, severe, or extreme, with each level characterized by travel speed, operating conditions, and level of service, (see Table 3.15). The freeway system represents only about 8 percent of total arterial system mileage, 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 2017 are set forth in Table 3.16 and shown on Map 3.7.

## Map 3.6 Bridge Structure Conditions in Southeastern Wisconsin: 2017

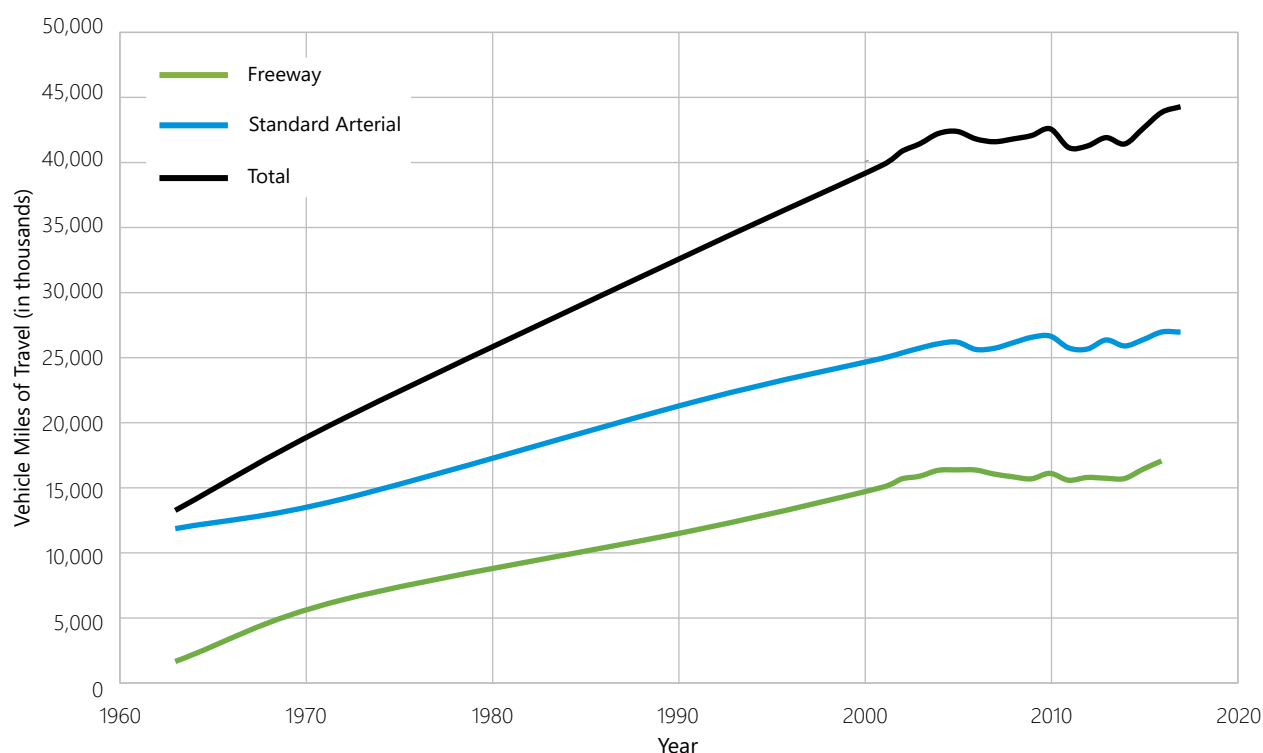
### SUFFICIENCY RATING INDEX

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

Note: Each 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 3.15**  
**Arterial Vehicle Miles of Travel Within Southeastern Wisconsin on an Average Weekday: 1963-2017**



The amount of traffic congestion on the arterial street and highway system for the years 1963 through 2017 is shown in Figure 3.16. 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 period. 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, regional employment and households increased by about 30 percent each, and 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 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. Between 2011 and 2017 the number of miles of congested facilities decreased to 268 miles.

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 historical 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 3.17 and Figure 3.17 and on Map 3.8.

### **Congestion on Designated Truck Routes and the National Highway System**

The levels of traffic congestion experienced on designated truck routes and the National Highway System (NHS) for the years 2011 and 2017 are presented in Table 3.18 and on Map 3.9. 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



**Table 3.15**  
**Freeway and Surface Arterial Traffic Congestion Levels**

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.

facilities carrying traffic volumes exceeding their design capacity has remained relatively stable since 2011, decreasing only 4.9 percent from 244 miles in 2011 to 232 miles in 2017, decreases in congestion on these roadways improve 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 3.10. Estimated peak-hour arterial street and highway travel time contours for 2001 and 2011 are shown on Map 3.11 for two locations: 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 3.12. 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 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



**Table 3.16**  
**Traffic Congestion on the Arterial Street and Highway System in**  
**Southeastern Wisconsin by County: 2001, 2011, and 2017**

County	Under or at Design Capacity		2001						Total Mileage
			Over Design Capacity						
	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

County	Under or at Design Capacity		2011						Total Mileage
			Over Design Capacity						
	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

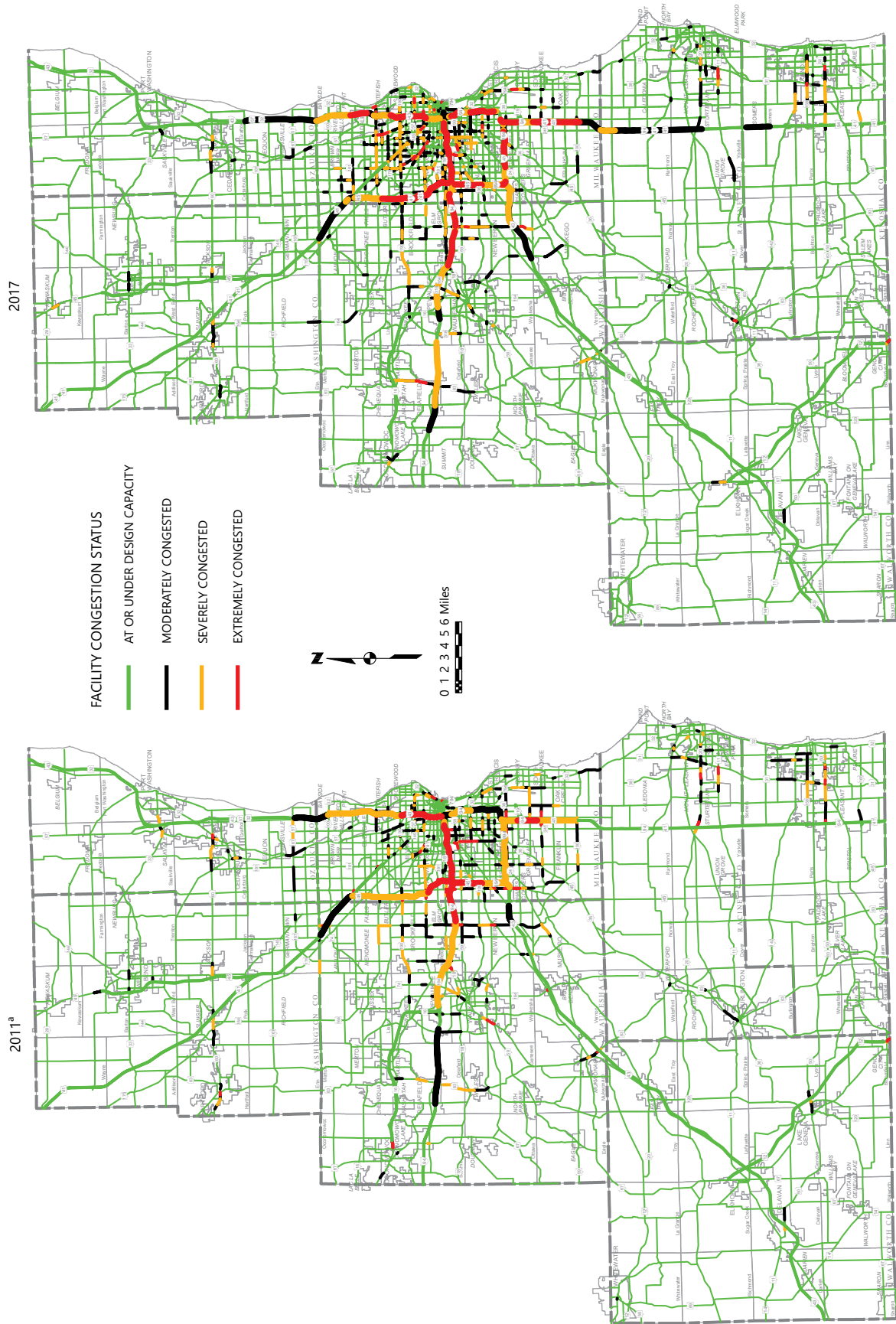
County	Under or at Design Capacity		2017						Total Mileage
			Over Design Capacity						
	Moderate Congestion		Severe Congestion		Extreme Congestion				
	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	Mileage	Percent of Total	
Kenosha	305.3	95.4	7.7	2.4	6.8	2.1	0.2	0.1	320.0
Milwaukee	639.4	81.1	71.3	19.8	49.4	13.7	28.3	7.8	788.4
Ozaukee	238.9	95.3	10.9	1.4	1.0	0.1	--	--	250.8
Racine	343.4	95.2	14.3	5.7	3.0	1.2	--	--	360.7
Walworth	445.4	99.5	1.7	0.4	0.5	0.1	0.2	--	447.8
Washington	399.4	98.3	6.3	1.5	0.8	0.2	--	--	406.5
Waukesha	688.0	91.3	36.2	4.8	25.4	3.4	3.7	0.5	753.3
Region	3,059.8	91.9	148.4	4.5	86.9	2.6	32.4	1.0	3,327.5

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

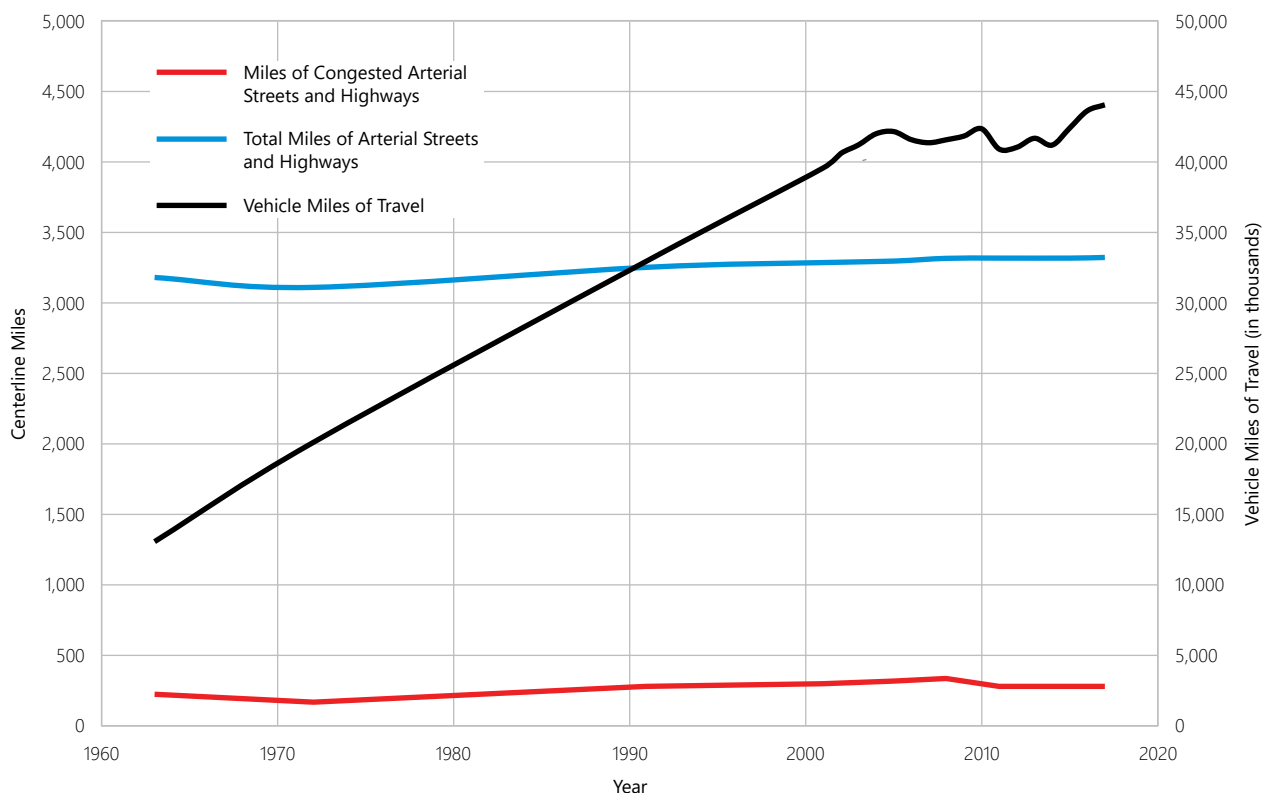
The estimated transportation system air pollutant emissions and motor fuel consumption within southeastern Wisconsin for the years 2001 and 2010 are shown in Table 3.19. Estimated air pollutant emissions have declined for all pollutants—particularly volatile organic compounds and nitrogen oxides—owing 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).

## Map 3.7 Congestion on the Arterial Street and Highway System in Southeastern Wisconsin: 2011 and 2017



<sup>a</sup> During 2017, 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. 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.

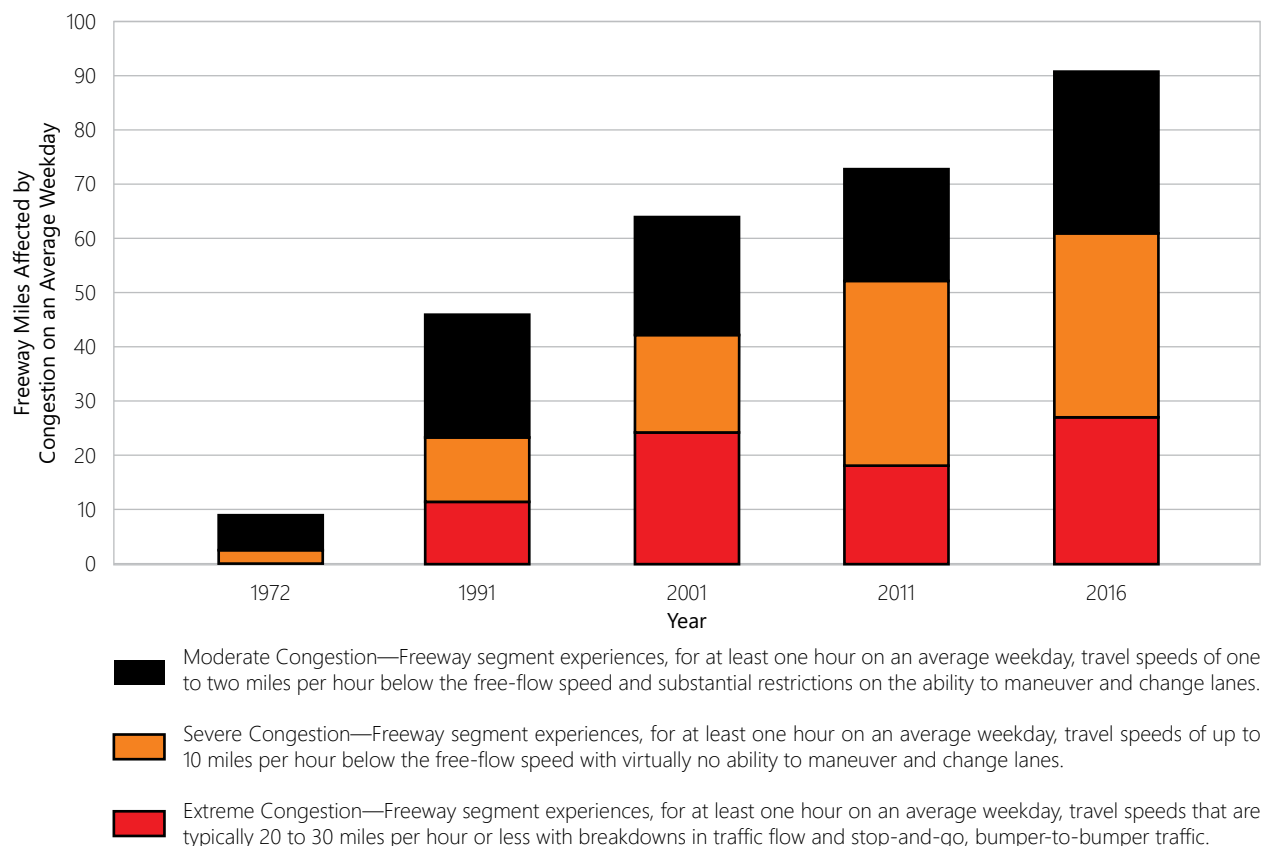
**Figure 3.16**  
**Historical Traffic Congestion on the Arterial Street and**  
**Highway System in Southeastern Wisconsin: 1963-2017**



**Table 3.17**  
**Estimated Existing Southeastern Wisconsin Freeway System Traffic Congestion**  
**of an Average Weekday: 1972, 1991 2001, 2011, and 2017**

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
2017	Extreme	27	10.0	1.3	2.9	3.9	8.1
	Severe	34	12.6	--	1.3	2.3	3.6
	Moderate	30	11.1	--	--	1.9	1.9
	Total	91	33.7	--	--	--	--
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	--	--	--	--

**Figure 3.17**  
**Estimated Existing Southeastern Wisconsin Freeway System Traffic Congestion**  
**on an Average Weekday: 1972, 1991, 2001, 2011, and 2016**



## 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 gradually increased by about 26 percent from 2012 to 2017 (see Figure 3.18). However, the total number of vehicular crashes declined from 44,968 in 2016 to 42,646 in 2017, representing about a 5 percent decrease. Crashes involving an injury or a fatality decreased slightly to 12,515 crashes in 2017, representing about 30 percent of all crashes. Over the period 1998-2017, crashes involving an injury or a fatality have decreased by about 24 percent. Property-damage-only crashes decreased over the past year by about 4 percent, to 30,131 crashes, representing the remaining 70 percent of all crashes.

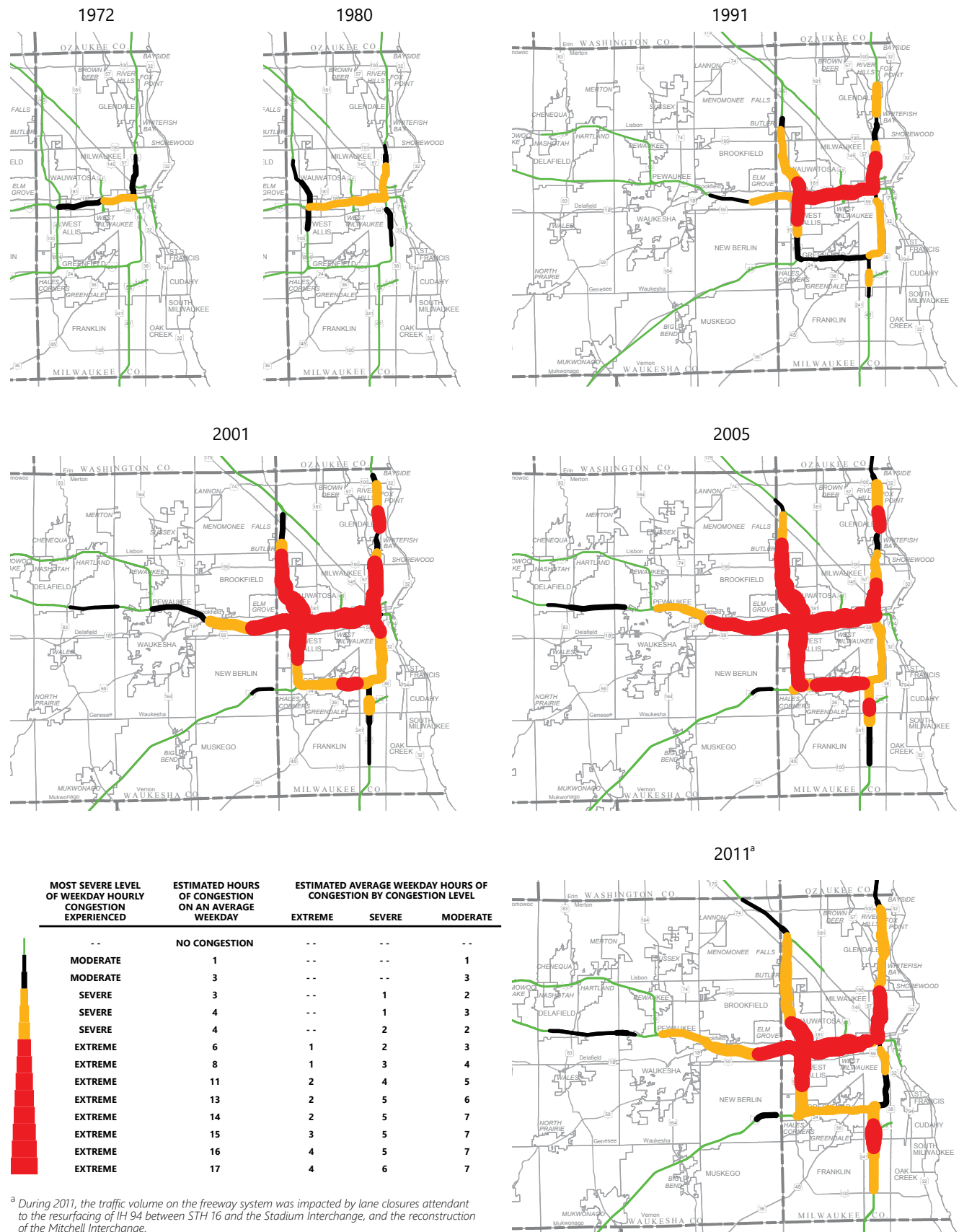
### Fatal Crashes

There were 159 vehicular crashes in the Region in 2017 that resulted in 170 fatalities. As shown in Figure 3.19, the number of fatalities has oscillated over the 20-year period from 1998-2017, 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 four years. Figure 3.20 presents selected characteristics of vehicle crash-related fatalities in the Region during 2017. About 23 percent of fatalities involved bicyclists and pedestrians and 16 percent involved motorcyclists. Alcohol was cited as a contributing factor in about 23 percent of all fatalities.

### Serious Injury Crashes

In 2017, there were 898 vehicle crashes in the Region that resulted in at least one serious injury, representing a 21 percent increase from 2016. However, as shown in Figure 3.21, over the period 1998-2017, the number of crashes resulting in serious injury has declined significantly, by about 42 percent.

# Map 3.8 Historical Traffic Congestion on the Southeastern Wisconsin Freeway System



**Table 3.18**  
**Traffic Congestion on Designated Truck Routes and the National Highway System in Southeastern Wisconsin: 2011 and 2017**

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
2017	1,419	123	77	32	1,651

### ***Bicycle and Pedestrian Crashes***

In 2017, there were 315 vehicular crashes involving bicycles and 661 vehicular crashes involving pedestrians. Over the past 20 years, the number of bicycle and pedestrian crashes has significantly decreased by nearly 49 percent and 34 percent, respectively (see Figure 3.22). In 2017, there were 34 bicycle crashes and 148 pedestrian crashes resulting in a fatality or serious injury. The number of bicycle and pedestrian crashes resulting in a fatality or serious injury have generally decreased, as seen in Figure 3.23. However, over the last 10 years, there has been only a slight decline in the number of bicycle crashes resulting in a fatality or serious injury and a slight increase in the number of such pedestrian crashes.

### ***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 3.20 for two time periods—2011-2015 and 2012-2016. 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 3.21 and Figure 3.24). However, passenger travel has steadily increased by about 6 percent since 2013.

#### ***Change in GMIA Major Aircraft Operations***

The number of scheduled air carrier and military aircraft operations (aircraft takeoffs and landings) at GMIA decreased in 2017 by about 3 percent relative to 2016, to a level of about 98,600 operations (see Table 3.22 and Figure 3.25). Over the 10-year period 2008-2017, scheduled air carrier and military aircraft operations at GMIA have declined about 41 percent.

#### ***Change in General Aviation Aircraft Operations***

Four airports in the Region have Federally sponsored control towers: GMIA, Waukesha County-Crites Field, Kenosha Regional Airport, and Lawrence J. Timmerman Airport. The annual numbers of general aviation aircraft operations at those four airports over the period 2008-2017 are shown in Table 3.23 and Figure 3.26. Over that 10-year period, general aviation aircraft operations at those airports have declined significantly, ranging from a decline of about 12 percent at Kenosha Regional Airport to a decline of about 46 percent at Waukesha County-Crites Field. However, general aviation aircraft operation activity at GMIA, Kenosha Regional Airport, and Lawrence J. Timmerman Airport increased slightly from 2016 to 2017.

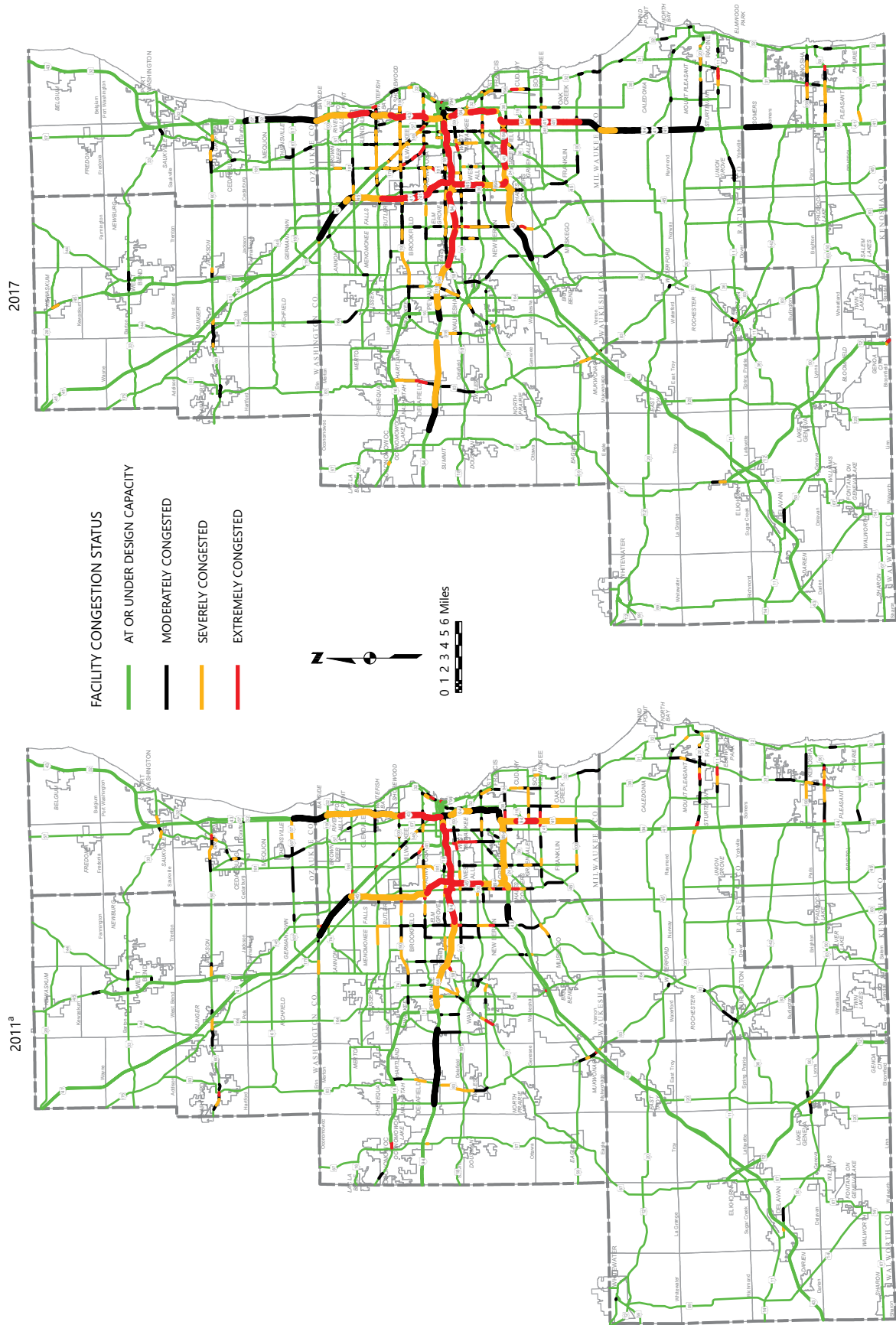
### ***Freight Rail Lines***

#### ***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 3.13). During 2017 there was no change to the number of miles of active freight rail lines.



**Map 3.9**  
**Congestion on the Regional Freight Network in Southeastern Wisconsin: 2011 and 2017**

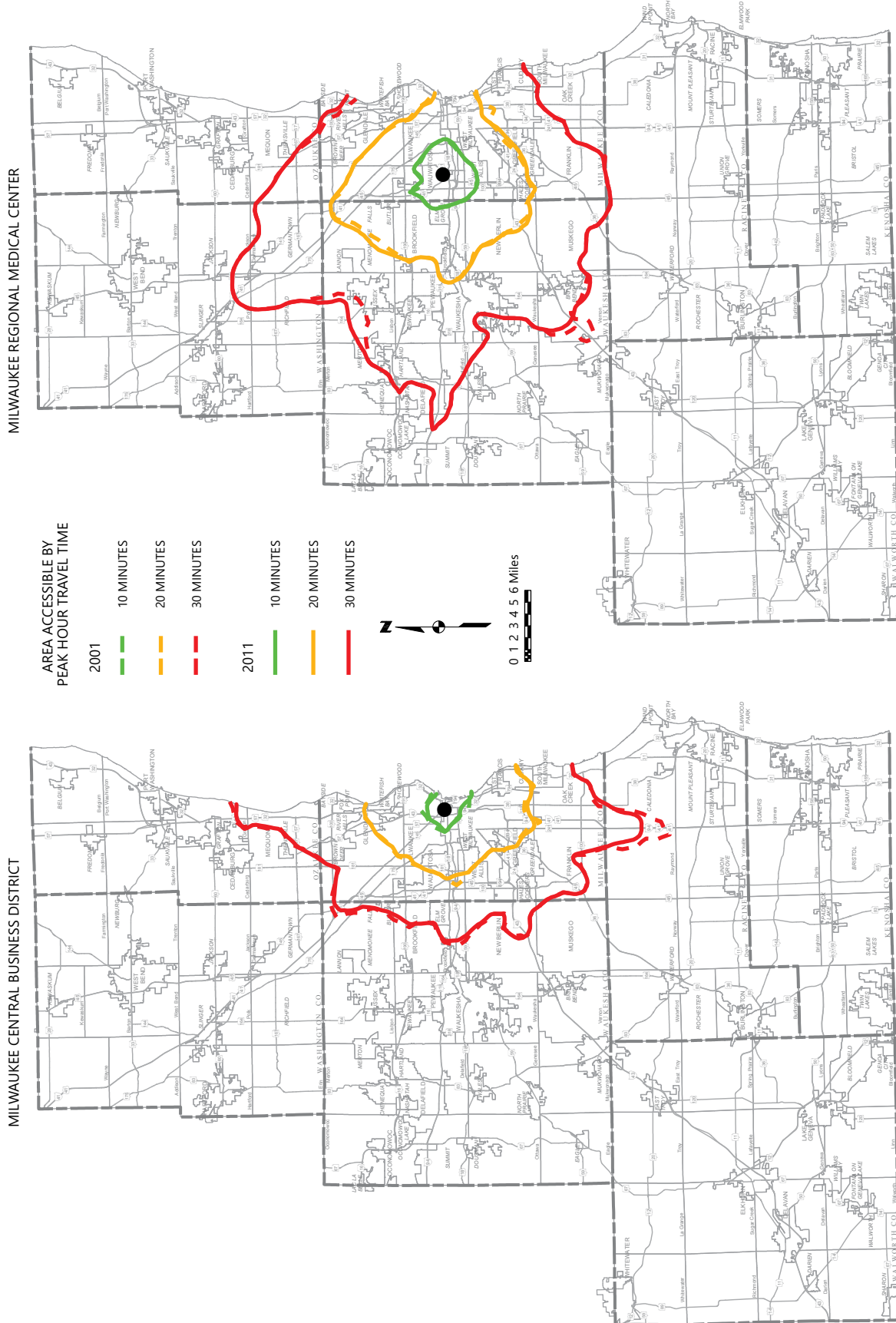


<sup>a</sup> During 2011, the traffic volume on the freeway system was impacted by lane closures attendant to the resurfacing of I-94 between I-54 and the Stadium Interchange, and the construction of the Milwaukee Interchange on the freeway system. In 2017, the traffic volume on the freeway system was impacted by lane and ramp closures primarily attendant to the reconstruction of the Zoo and Lake Interchanges.

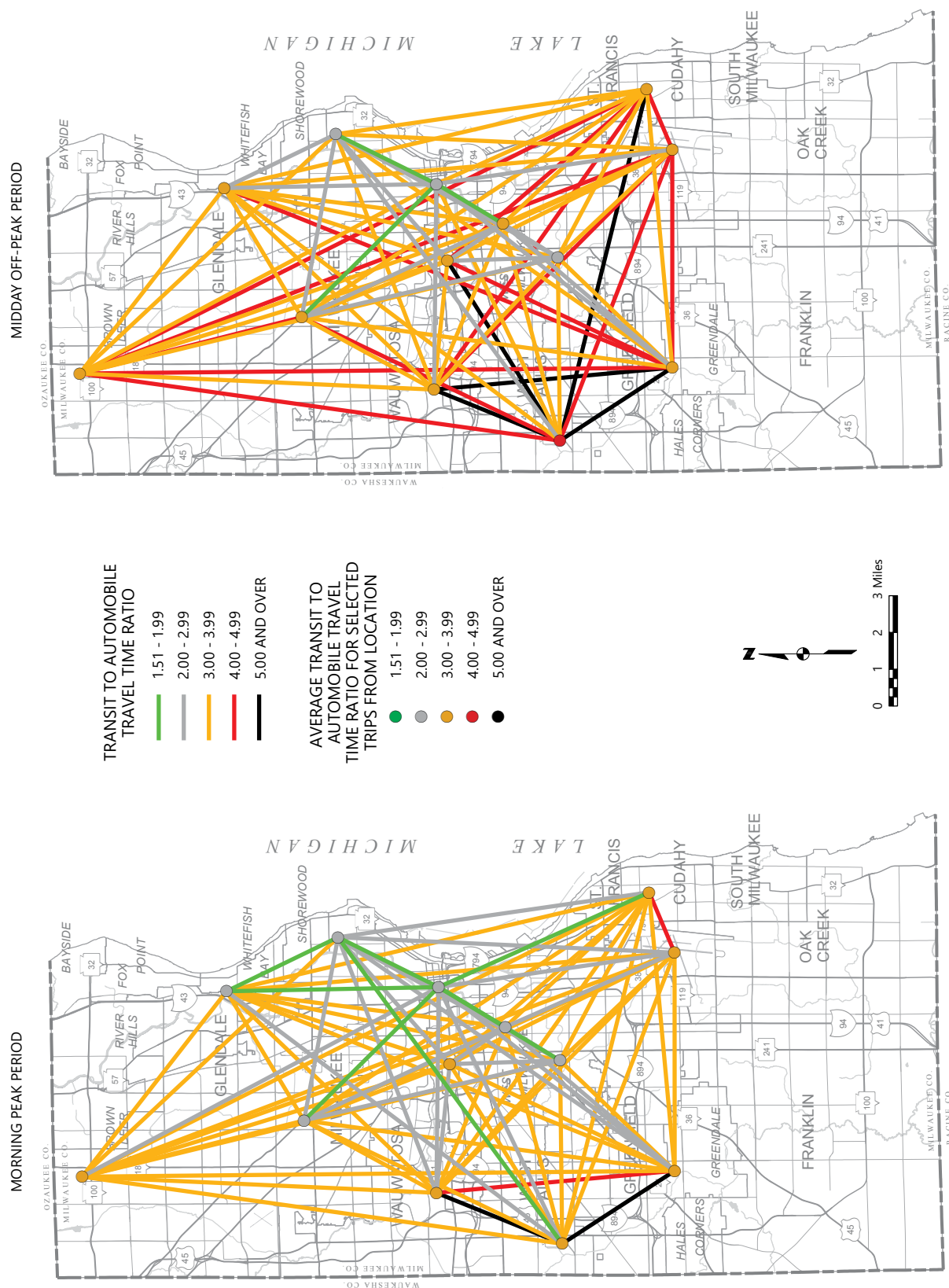


# Map 3.11

## Estimated Peak Hour Arterial Street and Highway Travel Time Contours: 2001 and 2011



**Map 3.12**  
**Ratios of Overall Transit Travel Times to Overall Automobile Travel Time Between**  
**Selected Locations in Milwaukee County for Weekday Peak and Off-Peak Periods: 2011**





**Table 3.19**  
**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 <sup>a</sup>	Nitrogen Oxides <sup>a</sup>	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

<sup>a</sup> Estimated 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.

### 3.5 REGIONAL HOUSING PLAN IMPLEMENTATION ACTIVITY

A regional housing plan was adopted by the Southeastern 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. Full Regional Housing Plan Implementation Reports are available on the Commission website at [www.sewrpc.org/housing](http://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, with additional information available in the 2017 Regional Housing Plan Implementation Report.

#### Housing Plan Presentations

During 2017, SEWRPC staff gave a presentation about the Regional Housing Plan to a class at UW-Milwaukee. Staff also hosted a discussion regarding the regional housing plan with the directors of the Habitat for Humanity Chapters throughout the Region.

#### Implementation of Housing Plan Recommendations

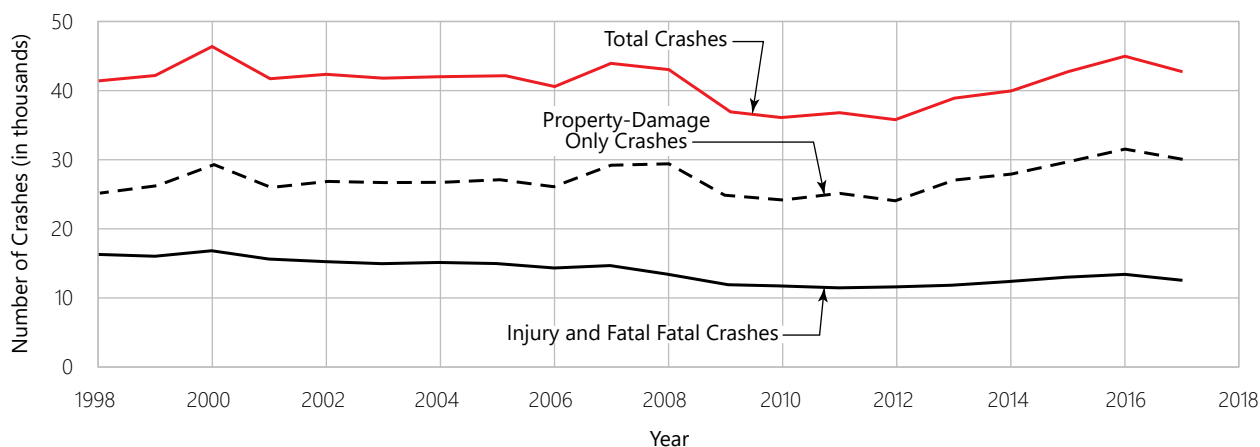
The following paragraphs describe activities undertaken by State and Federal agencies, county and local units of government, and SEWRPC to implement regional housing plan recommendations. Monitoring results are organized according to the six general topic areas addressed by housing plan recommendations. Those recommendations that were fully or partially implemented during 2017 are included. This section also includes information on past activities that have an ongoing impact on implementing regional housing plan recommendations.

#### Affordable Housing

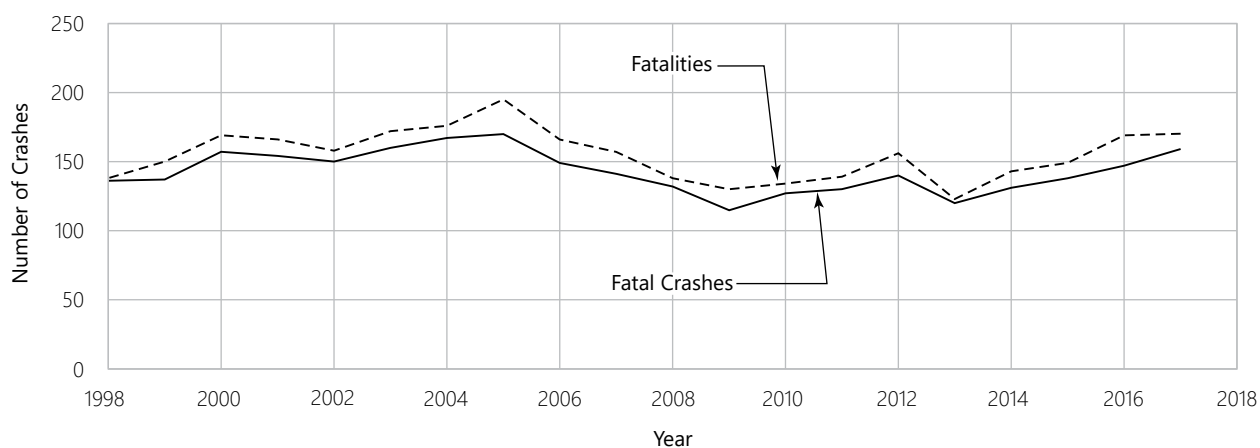
Most of the measures related to implementing affordable housing recommendations involve the extent to which sewered communities have incorporated housing plan recommendations into local regulations and plans, particularly zoning ordinances and comprehensive plans. A comprehensive review of local and 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. As of 2017, TID extension programs have been implemented by the Cities of Milwaukee, Racine, Wauwatosa, and West Allis.

**Figure 3.18**  
**Total, Property-Damage Only, and Injury and Fatal Vehicular Crashes**  
**Reported in Southeastern Wisconsin: 1998-2017**



**Figure 3.19**  
**Fatal Vehicular Crashes and Fatalities Reported in Southeastern Wisconsin: 1998-2017**



Also in 2017, Kenosha County received \$3.3 million in funding from the U.S. Department of Housing and Urban Development (HUD) Lead Based Paint Hazard Control Grant Program. The funding will help eliminate lead paint health hazards in privately owned housing units occupied by low-income households.

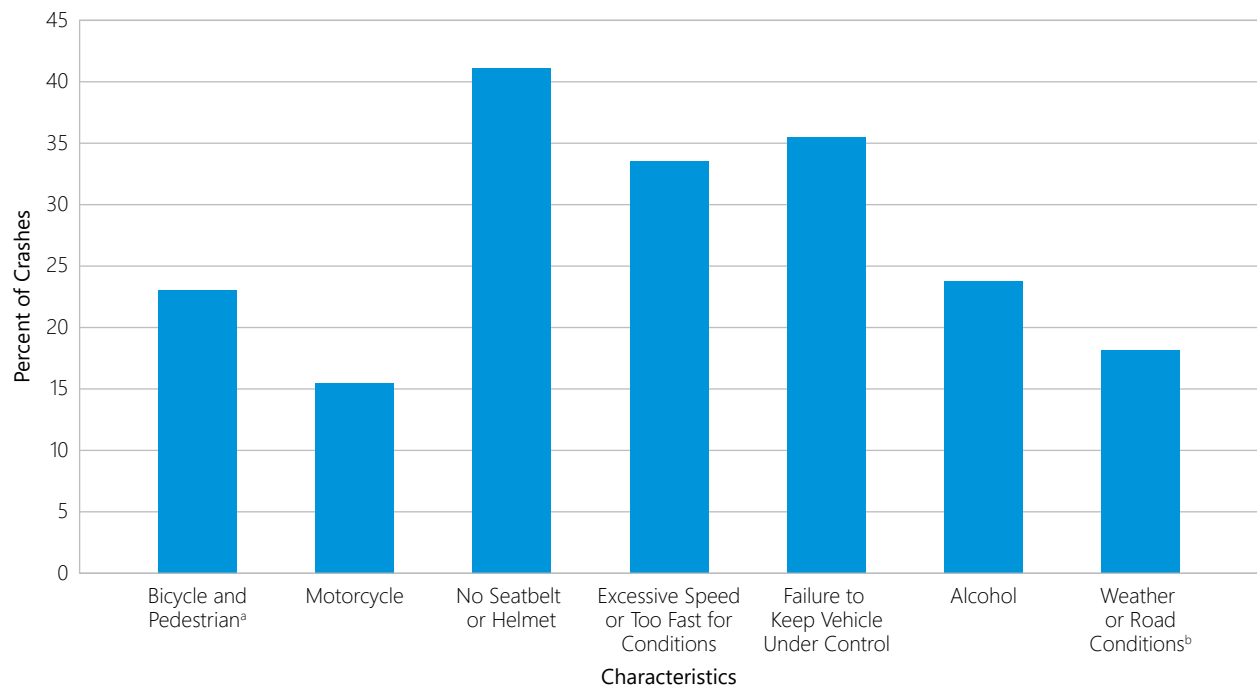
### **Fair Housing/Opportunity**

As described in Chapter VI of the regional housing plan report, States and entitlement jurisdictions<sup>4</sup> must prepare a Consolidated Plan every five years in order to receive Community Planning and Development (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.

<sup>4</sup> 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.



**Figure 3.20**  
**Selected Characteristics of Vehicular Crash-Related Fatalities in Southeastern Wisconsin: 2017**

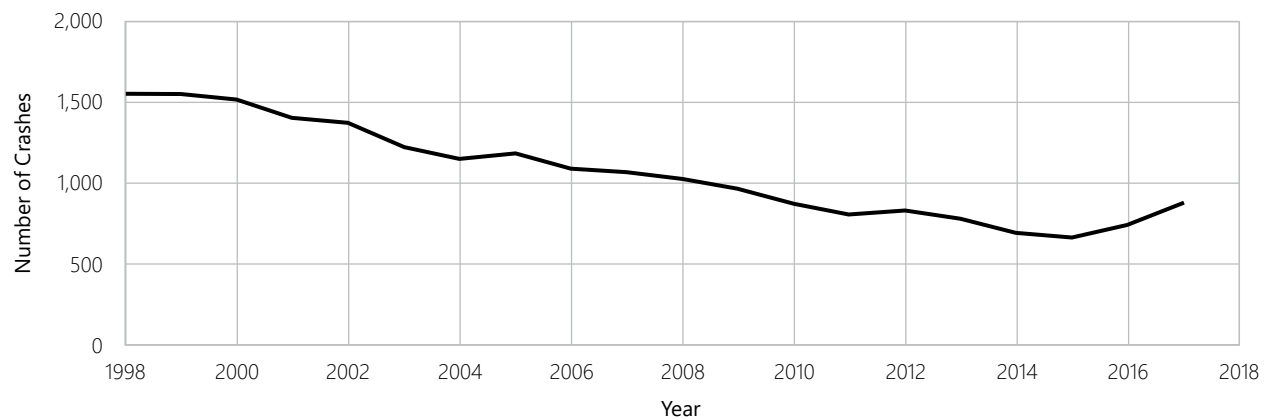


Note: Fatalities attributable to multiple categories are counted more than once.

<sup>a</sup> In 2017 there were five bicycle fatalities (3.1 percent of total fatal crashes) and 31 pedestrian fatalities (19.5 percent of total fatal crashes).

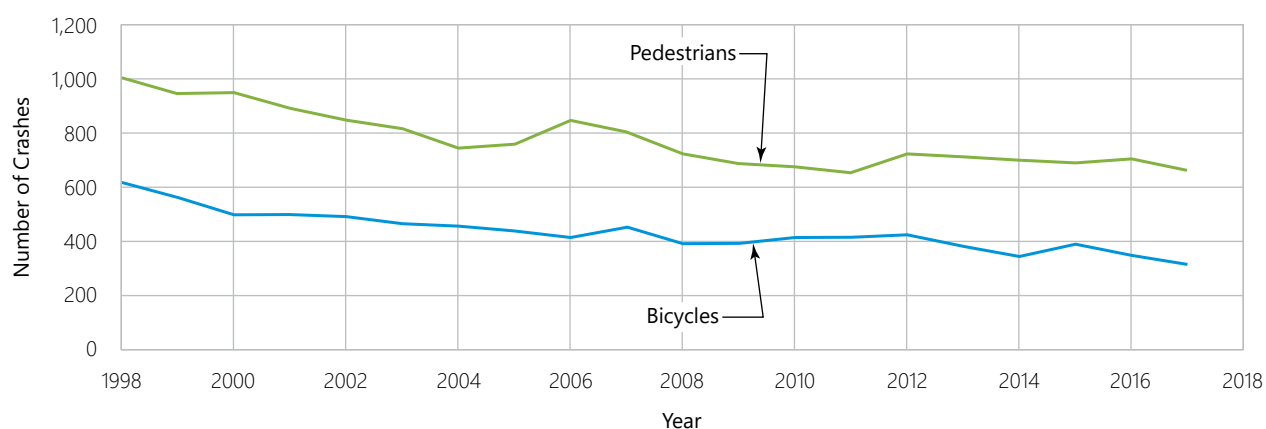
<sup>b</sup> This category includes snowy, rainy, and foggy conditions and snow-covered, icy or wet roads.

**Figure 3.21**  
**Number of Crashes Resulting in a Serious Injury Reported in Southeastern Wisconsin: 1998-2017**

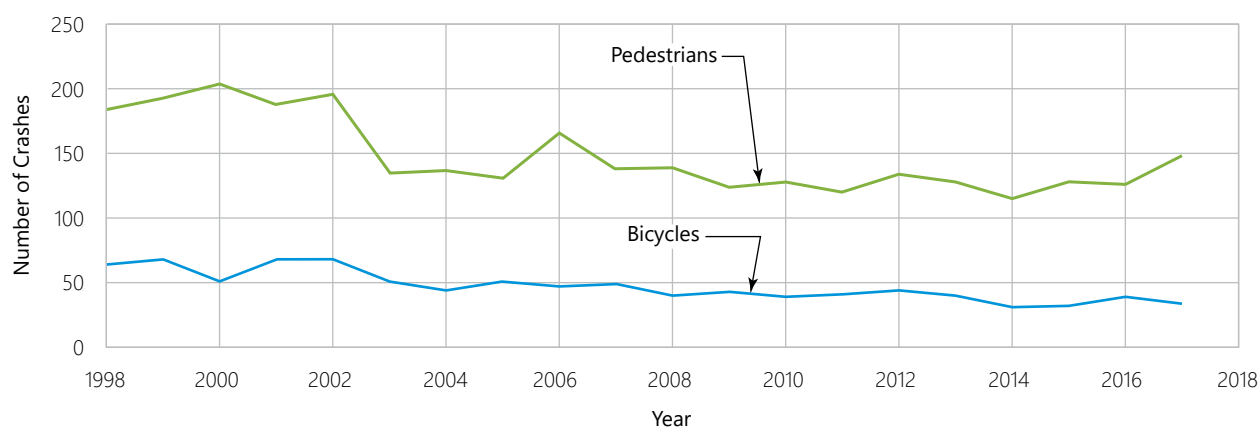


Milwaukee County updated its Consolidated Plan in 2013 and Waukesha County updated its Consolidated Plan in 2014. In 2014 and 2015, respectively, Milwaukee County and Waukesha County developed an agreement form for communities that receive pass-through CDBG and HOME program grant funds from the County. 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.

**Figure 3.22**  
**Number of Vehicular Crashes Involving Bicycles or Pedestrians in Southeastern Wisconsin: 1998-2017**



**Figure 3.23**  
**Number of Vehicular Crashes Resulting in a Fatality or Serious Injury Involving Bicycles or Pedestrians as Reported in Southeastern Wisconsin: 1998-2017**



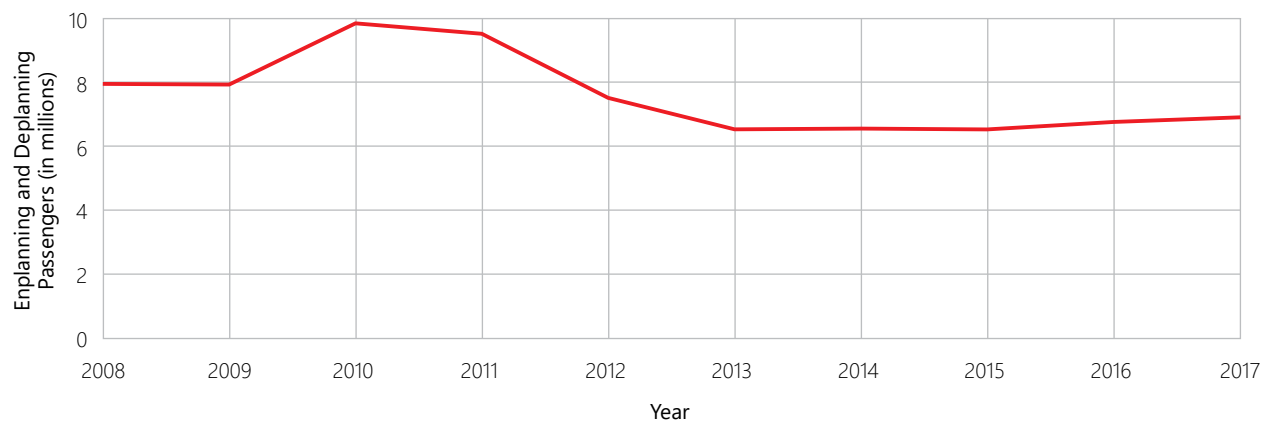
**Table 3.20**  
**Average Vehicular Crash Rate of State Trunk Highways by Arterial Type by County in Southeastern Wisconsin: 2011-2015 and 2012-2016**

County	Crash Rate per 100 Million Vehicle Miles			
	Freeways		Standard Arterials	
	2011-2015	2012-2016	2011-2015	2012-2016
Kenosha	46.5	46.8	242.3	249.7
Milwaukee	121.6	129.8	414.3	414.6
Ozaukee	44.6	45.9	143.6	154.0
Racine	40.5	46.3	248.7	250.4
Walworth	32.0	33.2	134.6	135.3
Washington	50.8	52.6	205.4	210.7
Waukesha	51.0	54.3	203.4	201.9
Region	76.8	81.2	268.3	271.0

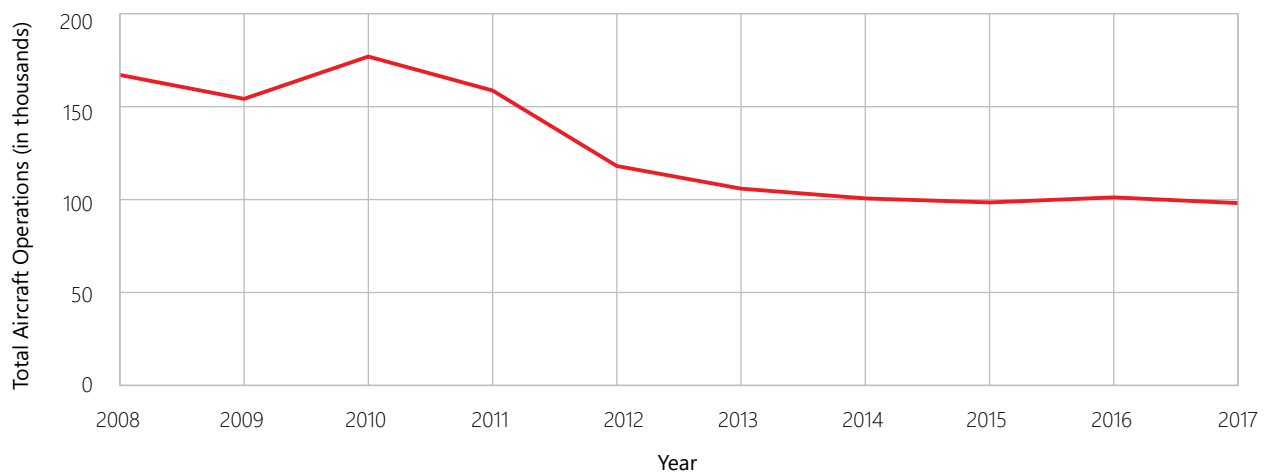
Note: Only crashes that have occurred in years since a roadway segment was last reconfigured are included in the crash rates above.

**Table 3.21****Air Carrier Enplaning and Deplaning Passengers at General Mitchell International Airport: 2008-2017**

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Percent Change: 2016-2017	Percent Change: 2008-2017
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	6,904,700	2.2	-13.2

**Figure 3.24****Air Carrier Enplaning and Deplaning Passengers at General Mitchell International Airport: 2008-2017****Table 3.22****Air Carrier and Military Aircraft Operations at General Mitchell International Airport: 2008-2017**

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Percent Change: 2016-2017	Percent Change: 2008-2017
166,900	154,000	176,600	158,600	118,400	105,900	100,400	98,300	101,100	98,600	-2.5	-40.9

**Figure 3.25****Air Carrier and Military Aircraft Operations at General Mitchell International Airport: 2008-2017**

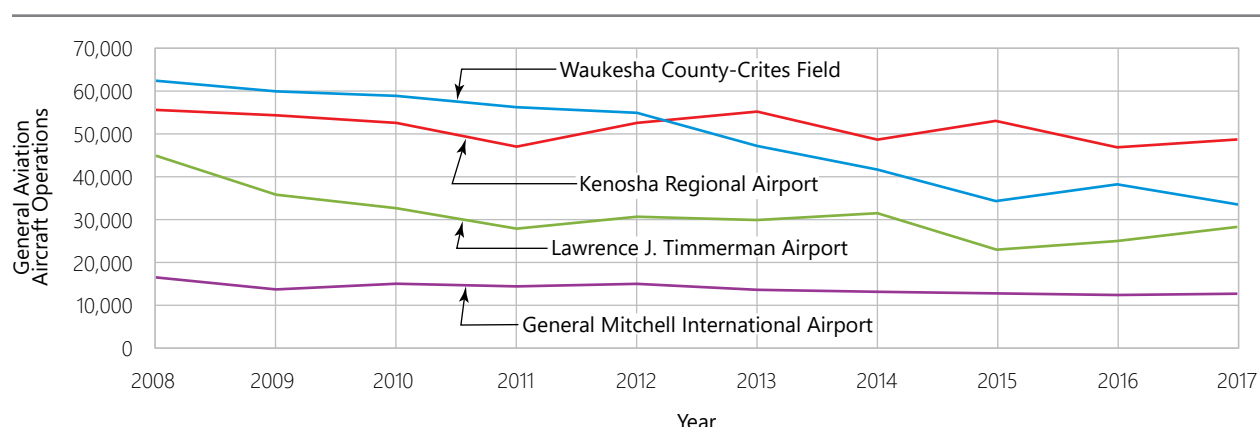
**Table 3.23**  
**General Aviation Aircraft Operations at Airports in**  
**Southeastern Wisconsin with Control Towers: 2008-2017**

Airport	2008	2009	2010	2011	2012	2013
Waukesha County-Crites Field	62,400	59,900	58,800	56,100	54,800	47,200
Kenosha Regional Airport	55,500	54,300	52,500	47,100	52,700	56,200
Lawrence J. Timmerman Airport	44,900	35,600	32,600	27,800	30,800	29,900
General Mitchell International Airport	16,400	13,700	15,000	14,400	15,000	13,600

Airport	2014	2015	2016	2017	Percent Change: 2016-2017	Percent Change: 2008-2017
Waukesha County-Crites Field	41,700	34,200	38,200	33,500	-12.3	-46.3
Kenosha Regional Airport	48,700	53,100	46,900	48,700	3.8	-12.3
Lawrence J. Timmerman Airport	31,500	22,900	25,000	28,200	12.8	-35.2
General Mitchell International Airport	12,900	13,200	12,400	12,600	1.6	-23.2

**Figure 3.26**  
**General Aviation Aircraft Operations at Airports in**  
**Southeastern Wisconsin with Control Towers: 2008-2017**



Also in 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. 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” on 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. The Supreme Court 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,

## Common Carrier Rail Freight Lines in Southeastern Wisconsin: 2017



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 2017.

SEWRPC did not receive any comprehensive plan updates from communities with sanitary sewer service in 2017. SEWRPC did receive 45 amendments to comprehensive plans adopted by 19 communities in the Region during 2017. Most of the amendments were related to changes to land use plan designations pertaining to one parcel or development site.

The housing plan also includes a recommendation related to employer assisted housing to encourage job/housing balance. In 2017, the Havenwoods Business Improvement District (BID) launched a program to help workers with down payments on homes in the Havenwoods area (located on the northwest side of the City of Milwaukee). The program will provide \$3,000 for a down payment to buy a house in the Havenwoods area and \$1,500 for a down payment to buy a house elsewhere in the City of Milwaukee. The down payment assistance is provided as a three year forgivable loan. One-third of the amount is forgiven for every year the recipient remains in the house and is employed at a Havenwoods area business.

### ***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 3.24, 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 2017, about half of the new units constructed (15,829 units) were in one- or two-family buildings and about half (15,660 units) were in multi-family buildings (see Table 3.25). Almost 54 percent of the new units constructed in 2017 were in multifamily buildings (see Table 3.9).

As shown by comparison of Tables 3.24 and 3.26, the percentage of multifamily units in the Region increased slightly, by 0.8 percent, between 2010 and the end of 2017. The increase in the number and percentage of multifamily units in the Region helps increase the supply of accessible housing units, because many new multifamily units must be accessible to people with mobility disabilities under Fair Housing Act requirements.

### ***Subsidized and Tax Credit Housing***

#### ***Housing Vouchers***

Table 3.26 provides information on the number and type of housing vouchers allotted to Public Housing Agencies (PHAs) in the Region in 2017. The number of vouchers allotted in the Region increased by about 11 percent between 2011<sup>5</sup> and 2017, from 13,061 to 14,560, an increase of 1,499 vouchers. The number of vouchers increased by 207 from 2016 to 2017, and included increases in vouchers allotted to the Housing Authority of the City of Milwaukee, Milwaukee County Housing Division, West Allis Housing Authority, and Housing Authority of Racine County. Table 3.27 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.

Table 3.28 provides information on the number of public housing units managed by PHAs in the Region. There were, 190 public housing units in the Region in 2017,<sup>6</sup> with 85 percent of the units located in, and

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<sup>5</sup> Data from 2011 is included in the *Regional Housing Plan* report.

<sup>6</sup> Updated data for 2017 was not provide for the Housing Authority of the City of Milwaukee by the publication deadline for this report. Updated data for 2017 will be included in the *2017 Regional Housing Plan Implementation Report*.



**Table 3.24**  
**Housing Units by Structure Type in Southeastern Wisconsin: 2010**

County	Single-Family <sup>a</sup>		Two-Family		Multi-Family		Total <sup>b</sup>	
	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

<sup>a</sup>Includes mobile homes.

<sup>b</sup>Totals are based on all housing units, including occupied and vacant units.

**Table 3.25**  
**Change in Housing Units by Structure Type in Southeastern Wisconsin: 2010-2017**

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	1,323	46	1,200	2,569	289	46	91	426	1,034	0	1,109	2,143
Milwaukee	1,808	536	8,561	10,905	1,482	2,311	1,447	5,240	326	-1,775	7,114	5,665
Ozaukee	1,207	62	546	1,815	89	6	0	95	1,118	56	546	1,720
Racine	1,352	154	630	2,136	240	53	494	787	1,112	101	136	1,349
Walworth	1,396	56	417	1,869	404	18	35	457	992	38	382	1,412
Washington	2,014	268	1,097	3,379	126	8	0	134	1,888	260	1,097	3,245
Waukesha	5,233	374	3,209	8,816	618	6	79	703	4,615	368	3,130	8,113
Region	14,333	1,496	15,660	31,489	3,248	2,448	2,146	7,842	11,085	-952	13,514	23,647

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, 2017.

**Table 3.26**  
**Housing Units by Structure Type in Southeastern Wisconsin: 2017**

County	Single-Family <sup>a</sup>		Two-Family		Multi-Family		Total <sup>b</sup>	
	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total
Kenosha	50,980	71.3	5,341	7.5	15,120	21.2	71,441	100.0
Milwaukee	216,373	51.1	70,257	16.6	137,048	32.3	423,678	100.0
Ozaukee	30,132	79.3	1,987	5.2	5,893	15.5	38,012	100.0
Racine	61,912	74.1	5,172	6.2	16,474	19.7	83,558	100.0
Walworth	40,459	76.4	2,178	4.1	10,331	19.5	52,968	100.0
Washington	44,060	76.0	2,929	5.0	10,994	19.0	57,983	100.0
Waukesha	128,827	76.2	4,327	2.6	35,908	21.2	169,062	100.0
Region	572,743	63.9	92,191	10.3	231,768	25.8	896,702	100.0

<sup>a</sup>Includes mobile homes.

<sup>b</sup>Totals are based on all housing units, including occupied and vacant units.

**Table 3.27**  
**Section 8 Housing Vouchers Allotted in Southeastern Wisconsin: 2017**

Public Housing Agency <sup>a</sup>	Housing Choice Vouchers		Project-Based Vouchers		Total Vouchers	
	Number	Percent	Number	Percent	Number	Percent
Kenosha County						
City of Kenosha Housing Authority	1,181 <sup>b</sup>	8.7	0	0.0	1,181	8.1
Kenosha County Housing Authority <sup>c</sup>	100	0.7	0	0.0	100	0.7
County Total	1,281	9.4	0	0.0	1,281	8.8
Milwaukee County						
Housing Authority of the City of Milwaukee	6,042 <sup>d</sup>	44.5	548	56.1	6,590	45.3
Milwaukee County Housing Division	1,742	12.8	329	33.7	2,071	14.2
West Allis Housing Authority	502 <sup>e</sup>	3.7	100 <sup>f</sup>	10.2	602	4.1
County Total	8,286	61.0	977	100.0	9,263	63.6
Ozaukee County						
WHEDA	125	0.9	0	0.0	125	0.9
County Total	125	0.9	0	0.0	125	0.9
Racine County						
The Housing Authority of Racine County	1,656 <sup>g</sup>	12.2	0	0.0	1,656	11.4
County Total	1,656	12.2	0	0.0	1,656	11.4
Walworth County						
Walworth County Housing Authority	410	3.0	0	0.0	410	2.8
County Total	410	3.0	0	0.0	410	2.8
Washington County						
Hartford Community Development Authority <sup>h</sup>	148	1.1	0	0.0	148	1.0
West Bend Housing Authority <sup>h</sup>	244	1.8	0	0.0	244	1.7
WHEDA	102	0.8	0	0.0	102	0.7
County Total	494	3.7	0	0.0	494	3.4
Waukesha County <sup>i</sup>						
New Berlin Housing Authority	88	0.6	0	0.0	88	0.6
Housing Authorities of the City and County of Waukesha	1,243	9.2	0	0.0	1,243	8.5
County Total	1,331	10.0	0	0.0	1,331	9.1
Region Total	13,583	100.0	977	100.0	14,560	100.0

<sup>a</sup> Includes only public housing agencies that administer housing vouchers.

<sup>b</sup> Includes 41 family-unification vouchers, 89 vouchers for people with disabilities, and two vouchers for Veterans Affairs Supportive Housing (VASH).

<sup>c</sup> Kenosha County Housing Authority vouchers are administered by the City of Kenosha Housing Authority.

<sup>d</sup> Includes 100 vouchers for people with disabilities and 258 vouchers for VASH.

<sup>e</sup> Includes 100 vouchers for VASH.

<sup>f</sup> All 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.

<sup>g</sup> Includes 14 vouchers for VASH.

<sup>h</sup> All PHA voucher programs in Washington County are administered by WHEDA.

<sup>i</sup> The voucher programs for all PHAs in Waukesha County are administered by the Housing Authorities of the City and County of Waukesha.

managed by, the Housing Authority of the City of Milwaukee. About 41 percent of PHA housing units were designated for families and the remaining 59 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 16,610 LIHTC units in service in the Region as of 2017, including 3,587 units placed in service between 2011, when data were collected for the regional housing

**Table 3.28**  
**Public Housing Units Managed by Public Housing Agencies (PHA) in Southeastern Wisconsin: 2017**

Public Housing Agency <sup>a</sup>	Family Units		Elderly/Other Units		Total Units	
	Number	Percent	Number	Percent	Number	Percent
Milwaukee County						
Housing Authority of the City of Milwaukee <sup>b,c</sup>	1,519	87.7	2,022	82.3	3,541	84.5
South Milwaukee Housing Authority	52	3.0	8	0.3	60	1.4
West Allis Housing Authority	0	0.0	104 <sup>d</sup>	4.2	104 <sup>d</sup>	2.5
County total	1,571	90.7	2,134	86.8	3,705	88.4
Racine County						
Housing Authority of Racine County	0	0.0	24	1.0	24	0.6
County total	0	0.0	24	1.0	24	0.6
Washington County						
Slinger Housing Authority	8	0.5	41	1.7	49	1.2
West Bend Housing Authority	0	0.0	146	5.9	146	3.5
County total	8	0.5	187	7.6	195	4.7
Waukesha County						
Housing Authorities of the City and County of Waukesha	152	8.8	114	4.6	266	6.3
County total	152	8.8	114	4.6	266	6.3
Region	1,731	100.0 <sup>e</sup>	2,459	100.0 <sup>e</sup>	4,190	100.0

<sup>a</sup> Includes 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.

<sup>b</sup> Totals published in previous annual reports and Regional Housing Plan implementation reports included non-subsidized units in the Northlawn, Southlawn, and Berryland developments. These units have been removed from this report.

<sup>c</sup> As of December 31, 2017, the entire west side of the Westlawn development in the City of Milwaukee had been demolished but not yet rebuilt, resulting in a reduced number of subsidized family units from previous years.

<sup>d</sup> The 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.

<sup>e</sup> About 41 percent of public housing units are designated to be occupied by families. The remaining 59 percent are designated for occupancy by the elderly or people with disabilities, or are supportive housing units.

plan, and the end of 2017. Ten projects in the Region were awarded tax credits in 2017. Eight projects are intended to provide a total of 415 units to low-income families and two projects are intended to provide 186 units for 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 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 3.29 and Map 3.14).

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: [milwaukeeecoc.org/wp-content/uploads/2014/11/Mid-Course-Revisions-10-Year-Plan-Final.pdf](http://milwaukeeecoc.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 Milwaukee County Housing First program has leveraged the Section 8 voucher program and changed the County voucher application process to give preference to homeless individuals. County funding for the program is about \$1.5 million per year and in 2017 the City of Milwaukee provided \$600,000 in funding. The program was credited with reducing the number of people experiencing homelessness in Milwaukee County from 1,521 in 2015 to 900 in 2017. More information is available on the Milwaukee County website: [www.housingfirstmilwaukee.com](http://www.housingfirstmilwaukee.com).

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.

### ***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.

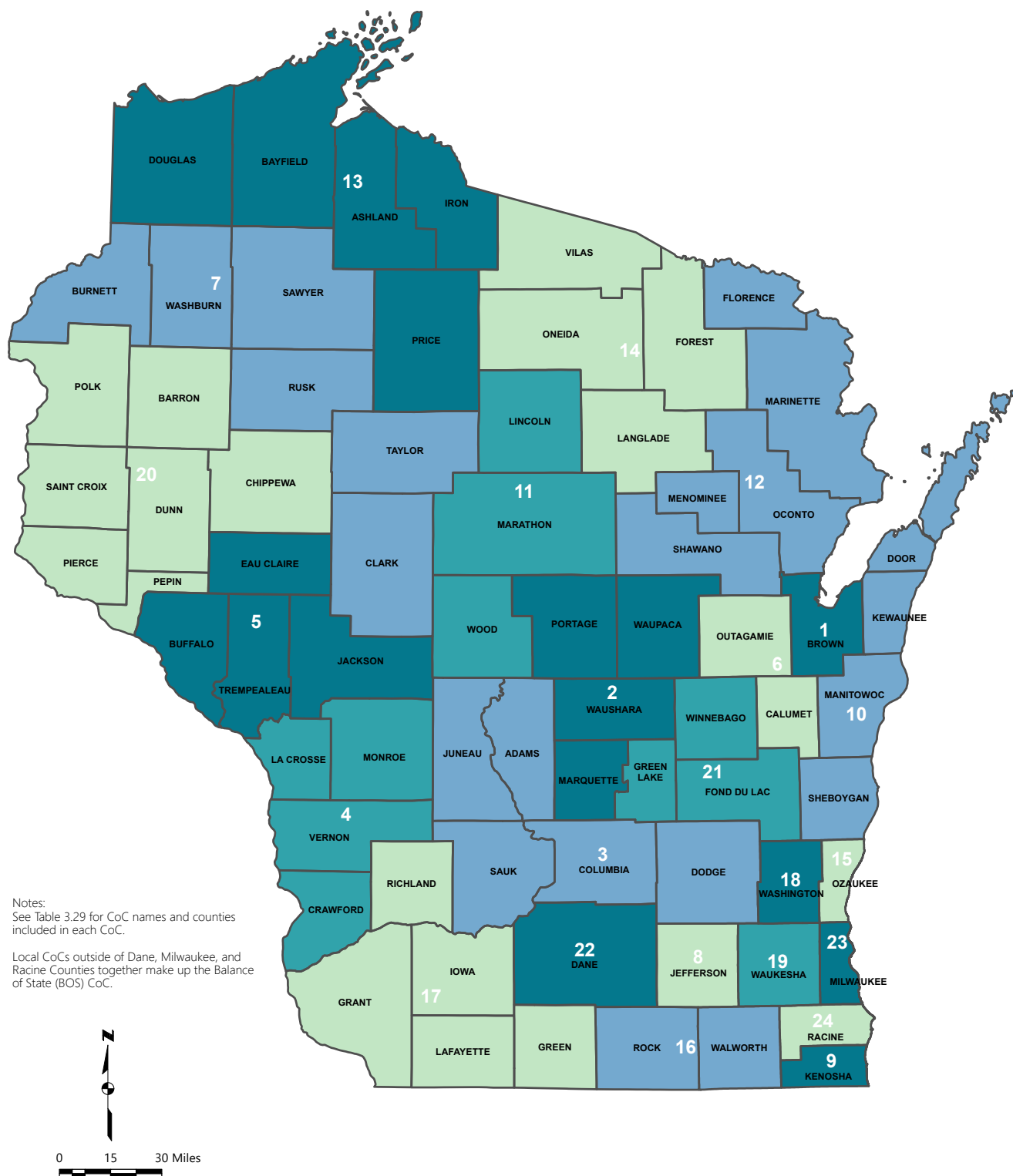
An example includes a housing needs analysis initiated by the City of Wauwatosa in 2015 to help plan for the housing needs of current and potential residents. The study is intended to address the extent to

**Table 3.29**  
**Wisconsin Continuum of Care (CoC) Organizations for Homelessness Assistance: 2017**

Number on Map 3.14	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 Land 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

which current housing stock meets the needs of current residents and people 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.

**Map 3.14**  
**Continuum of Care Organizations (CoC) in the State of Wisconsin: 2017**





# APPENDICES



**SEWRPC COMMISSIONERS  
AND COMMITTEES – DECEMBER 2017  
APPENDIX A**



## COMMISSIONERS

Term Expires

### Kenosha County

* Steve Bostrom.....	2022
** Aloysius Nelson.....	2022
*** Robert W. Pitts.....	2018

### Milwaukee County

*** William R. Drew, <i>Treasurer</i> .....	2020
* Brian R. Dranzik.....	2020
** Theodore Lipscomb, Sr.....	2022

### Ozaukee County

* Jennifer K. Rothstein.....	2020
*** Thomas H. Buestrin.....	2018
** Gustav W. Wirth, Jr., <i>Secretary</i> .....	2020

### Racine County

* Mike Dawson.....	2020
*** James A. Ladwig.....	2022
** Peggy L. Shumway.....	2018

### Walworth County

** Charles L. Colman, <i>Chairman</i> .....	2018
* Nancy L. Russell.....	2018
*** Vacant.....	2020

### Washington County

** Daniel S. Schmidt.....	2022
* Jeffrey D. Schleif.....	2020
*** David L. Stroik,.....	2018

### Waukesha County

** Michael A. Crowley, <i>Vice-Chairman</i> .....	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

Charles L. Colman, *Chairman*  
 Michael A. Crowley, *Vice Chairman*  
 Thomas H. Buestrin  
 Mike Dawson  
 William R. Drew  
 James T. Dwyer  
 Aloysius Nelson  
 Robert W. Pitts  
 Nancy L. Russell  
 Daniel S. Schmidt  
 David L. Stroik  
 Gustav W. Wirth, Jr.

### Administrative Committee

James T. Dwyer, *Chairman*  
 Nancy L. Russell, *Vice Chairman*  
 Thomas H. Buestrin  
 Charles L. Colman  
 Michael A. Crowley  
 Mike Dawson  
 William R. Drew  
 Aloysius Nelson  
 Robert W. Pitts  
 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  
 Gustav W. Wirth, Jr.

### Planning and Research Committee

Daniel S. Schmidt, *Chairman*  
 Jose M. Delgado, *Vice Chairman*  
 Steve Bostrom  
 Charles L. Colman  
 Michael A. Crowley  
 Brian R. Dranzik  
 William R. Drew  
 James A. Ladwig  
 Theodore Lipscomb, Sr  
 Aloysius Nelson  
 Robert W. Pitts  
 Jennifer K. Rothstein  
 Nancy L. Russell  
 Jeffrey D. Schleif  
 Peggy Shumway  
 David L. Stroik





**SOUTHEASTERN WISCONSIN REGIONAL PLANNING  
COMMISSION ADVISORY COMMITTEES  
APPENDIX B**



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**

[www.sewrpc.org/RWSPCommittee](http://www.sewrpc.org/RWSPCommittee)

### **Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds**

[www.sewrpc.org/RegWaterQualityMgmt](http://www.sewrpc.org/RegWaterQualityMgmt)

### **Technical Advisory Committee for the Protection and Management of Natural Areas in Southeastern Wisconsin**

[www.sewrpc.org/NAProtectionMgmt](http://www.sewrpc.org/NAProtectionMgmt)

## **LAND USE AND COMMUNITY ASSISTANCE**

### **Advisory Committee on Regional Land Use Planning**

[www.sewrpc.org/RegLandUsePlanning](http://www.sewrpc.org/RegLandUsePlanning)

### **Advisory Committee on Regional Population and Economic Forecasts**

[www.sewrpc.org/PopEconForecasts](http://www.sewrpc.org/PopEconForecasts)

### **Regional Housing Plan Advisory Committee**

[www.sewrpc.org/RegHousingPlan](http://www.sewrpc.org/RegHousingPlan)

## **TRANSPORTATION**

### **Advisory Committee on Transportation System Planning and Programming for the Kenosha Urbanized Area**

[www.sewrpc.org/TSPPKenoUrbanArea](http://www.sewrpc.org/TSPPKenoUrbanArea)

### **Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area**

[www.sewrpc.org/TSPPMilwUrbanArea](http://www.sewrpc.org/TSPPMilwUrbanArea)

### **Advisory Committee on Transportation System Planning and Programming for the Racine Urbanized Area**

[www.sewrpc.org/TSPPRaciUrbanArea](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)**

[www.sewrpc.org/TSPP-RLMGUrbanArea](http://www.sewrpc.org/TSPP-RLMGUrbanArea)

### **Advisory Committee on Transportation System Planning and Programming for the West Bend Urbanized Area**

[www.sewrpc.org/TSPPWBUrbanArea](http://www.sewrpc.org/TSPPWBUrbanArea)

### **Advisory Committee on Regional Transportation Planning**

[www.sewrpc.org/RTSPCommittee](http://www.sewrpc.org/RTSPCommittee)

## **JURISDICTIONAL HIGHWAY PLANNING**

### **Kenosha County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/KenoCoJHPC](http://www.sewrpc.org/KenoCoJHPC)

### **Milwaukee County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/MilwCoJHPC](http://www.sewrpc.org/MilwCoJHPC)

### **Ozaukee County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/OzauCoJHPC](http://www.sewrpc.org/OzauCoJHPC)

### **Racine County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/RaciCoJHPC](http://www.sewrpc.org/RaciCoJHPC)

### **Walworth County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/WalwCoJHPC](http://www.sewrpc.org/WalwCoJHPC)

### **Washington County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/WashCoJHPC](http://www.sewrpc.org/WashCoJHPC)

### **Waukesha County Jurisdictional Highway Planning Committee**

[www.sewrpc.org/WaukCoJHPC](http://www.sewrpc.org/WaukCoJHPC)

## **OTHER SEWRPC COMMITTEES**

### **Environmental Justice Task Force**

[www.sewrpc.org/EJTF](http://www.sewrpc.org/EJTF)

### **Technical Advisory Committee on the Review and Reevaluation of the Regional Control Survey Program**

[www.sewrpc.org/RegionalSurveyProgram](http://www.sewrpc.org/RegionalSurveyProgram)

### **Technical Advisory Committee on the 2010 Regional Orthophotography Product Evaluation**

[www.sewrpc.org/RegionalOrthoReview](http://www.sewrpc.org/RegionalOrthoReview)

**SOUTHEASTERN WISCONSIN REGIONAL  
PLANNING COMMISSION STAFF: 2017  
APPENDIX C**





## **EXECUTIVE DIVISION**

Michael G. Hahn, PE, PH  
Executive Director

Kevin J. Muhs, AICP  
Deputy Director

Debra D'Amico  
Executive Secretary

Dr. Kurt W. Bauer, PE, PLS, AICP  
Executive Director Emeritus

### **ADMINISTRATIVE SERVICES DIVISION**

Elizabeth A. Larsen, SPHR,  
SHRM-SCP

Assistant Director-  
Administration

Megan I. Deau  
Graphic Designer

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

Kathryn E. Sobottke  
Principal Specialist

Frank G. Fierek, Jr.  
Senior Specialist

Rochelle M. Brien  
Laurie B. Miller  
James P. Siegler  
Planners

Leroy Mims, Jr.  
Land Use Mapping  
Specialist

Joyce A. Gramz  
Senior GIS Specialist

### **COMMUNITY ASSISTANCE PLANNING DIVISION**

Benjamin R. McKay, AICP  
Chief Community  
Assistance Planner

Richard R. Kania, AICP, RLA  
Principal Planner

John R. Meland  
Principal Specialist

Christopher D. Parisey  
Robbie L. Robinson  
Planners

### **SURVEYING & GIS DIVISION**

Robert W. Merry, PLS  
Chief Surveyor

Michael G. Gosetti  
GIS Manager

Paul J. Clavette  
Principal Systems  
Analyst

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. Gorseger  
GIS Specialists

Matthew R. Lunde  
Benjamin O. Johnson  
Land Survey  
Assistants

### **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. Orłowski  
Engineers

Shane T. Heyel  
Zofia Noe  
Specialists

Aaron W. Owens  
Planner

Megan A. Beauchaine  
Michael A. Borst  
Research Analysts

### **SPECIAL PROJECTS DIVISION**

Eric D. Lynde  
Chief Special  
Projects Planner

Kaleb W. Kutz  
Planner

### **TRANSPORTATION PLANNING DIVISION**

Christopher T. Hiebert, PE  
Chief Transportation  
Engineer

Ryan W. Hoel, PE  
Deputy Chief  
Transportation  
Engineer

Dr. Gom B. Ale  
Robert E. Beglinger  
Jennifer B. Sarnecki  
Principal Planners

Joshua W. Depies  
Nicholas A. Koncz  
Senior Engineers

Joseph M. Delmagori  
Victor Helin  
Ethan S. Johnson  
Senior Planners

Xylia N. Rueda  
Planner

Reginald L. Mason  
Research Analyst

Jeffrey Cross  
Gabriel A. Rosenwald  
Engineering  
Technicians

### **PUBLIC INVOLVEMENT AND OUTREACH DIVISION**

Stephen P. Adams  
Public Involvement and  
Outreach Manager

Nakeisha Payne  
Gary K. Korb  
Public Involvement and  
Outreach Specialists



**REPORT OF AUDIT EXAMINATION  
FOR YEAR ENDING 2017  
APPENDIX D**



## 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, 2017, 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, 2017, 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 and the Schedule of Member Contributions is presented for purposes of additional analysis and is not a required part of the basic financial statements.

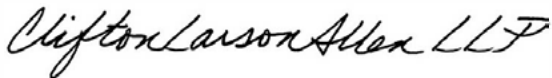


Board of Commissioners  
Southeastern Wisconsin Regional Planning Commission

The Statement of Revenues, Expenses, and Changes in Net Position - Budget to Actual and the Schedule of Member Contributions 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 August 16, 2018, 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 solely 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 the effectiveness of the Southeastern Wisconsin Regional Planning Commission's 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 the Southeastern Wisconsin Regional Planning Commission's internal control over financial reporting and compliance.



**CliftonLarsonAllen LLP**

Milwaukee, Wisconsin  
August 16, 2018

## **BASIC FINANCIAL STATEMENTS**

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**STATEMENT OF NET POSITION**  
December 31, 2017

**ASSETS**

**CURRENT ASSETS**

Cash and investments	\$ 4,986,331
Receivables	2,190,752
Prepaid expenses	187,759
Total current assets	<u>7,364,842</u>

**NONCURRENT ASSETS**

Capital assets, not being depreciated	335,300
Capital assets, net of accumulated depreciation	<u>2,144,599</u>
Total noncurrent assets	<u>2,479,899</u>
Total assets	<u>9,844,741</u>

**DEFERRED OUTFLOWS OF RESOURCES**

Pension activity	<u>1,798,009</u>
Total deferred outflows of resources	<u>1,798,009</u>

Total assets and deferred outflows of resources	<u>\$ 11,642,750</u>
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**LIABILITIES**

**CURRENT LIABILITIES**

Accounts payable	\$ 56,128
Accrued liabilities	147,588
Deposits	1,332
Unearned revenues	<u>422,174</u>
Total current liabilities	<u>627,222</u>

**NONCURRENT LIABILITIES**

Compensated absences	594,661
Net pension liability	<u>236,841</u>
Total noncurrent liabilities	<u>831,502</u>
Total liabilities	<u>1,458,724</u>

**DEFERRED INFLOWS OF RESOURCES**

Pension activity	
Total deferred inflows of resources	<u>773,956</u>

**NET POSITION**

Net investment in capital assets	2,479,899
Unrestricted	<u>6,930,171</u>
Total net position	<u>9,410,070</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$ 11,642,750</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, 2017**

**OPERATING REVENUES**

Intergovernmental:	
Charges for services	\$ 1,156,525
Grants:	
Federal	3,369,439
State	323,731
Local	291,745
Contributions	2,370,245
Miscellaneous	544
Total operating revenues	<u>7,512,229</u>

**OPERATING EXPENSES**

Salaries and fringe benefits	6,096,394
Technical consultants	298,399
Office supplies	26,975
Insurance, audit, legal fees	46,618
Library acquisition and dues	35,216
Printing and graphic supplies	63,894
Postage expenses	11,287
Travel expenses	68,829
Telephone expenses	24,851
Building usage	25,730
Building maintenance	140,346
Other operating expenses	16,399
Software and equipment maintenance	62,062
Other equipment outlays	56,744
Depreciation	152,259
Total operating expenses	<u>7,126,003</u>

Operating income	<u>386,226</u>
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**NONOPERATING REVENUES**

Rental income	71,518
Investment income	44,298
Total nonoperating revenues	<u>115,816</u>

Change in net position	502,042
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Net position - beginning	<u>8,908,028</u>
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Net position - ending	<u>\$ 9,410,070</u>
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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, 2017

**CASH FLOWS FROM OPERATING ACTIVITIES**

Collection from intergovernmental activities and other sources	\$ 6,993,311
Payments made to suppliers	(926,837)
Payments made to employees	(5,929,724)
Net cash provided by operating activities	<u>136,750</u>

**CASH FLOWS FROM CAPITAL AND RELATED FINANCING**

Acquisition and construction of capital assets	<u>(14,989)</u>
Net cash used by capital and related financing activities	<u>(14,989)</u>

**CASH FLOWS FROM INVESTING ACTIVITIES**

Collection of rents	71,518
Interest on investments	<u>44,298</u>
Net cash provided by investing activities	<u>115,816</u>

**NET INCREASE IN CASH AND CASH EQUIVALENTS** 237,577

**CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR** 4,748,754

**CASH AND CASH EQUIVALENTS, END OF YEAR** \$ 4,986,331

**RECONCILIATION OF OPERATING INCOME TO NET  
CASH PROVIDED BY OPERATING ACTIVITIES**

Operating income	\$ 386,226
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	152,259
Effects on changes in operating assets and liabilities:	
Receivables	(608,993)
Prepaid expenses	(68,213)
Pension activities	316,040
Accounts payable and other liabilities	19,975
Unearned revenues	90,075
Compensated absences	(150,619)
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<u>\$ 136,750</u>

The accompanying notes are an integral part of the basic financial statements.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**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 Commission was established in 1960 as the official area-wide planning agency for the southeastern region of the state of Wisconsin. The Commission 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.

The Commission's board of commissioners consists of twenty-one 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, 2017**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)**

**C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position**

*1. Deposits and investments*

The Commission's deposits consist of cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition. Investments consist of certificates of deposit with original maturities exceeding three months and the Local Government Investment Pool (LGIP). Certificates of deposits are stated at fair value, which is the amount at which an investment could be exchanged in a current transaction between willing parties. Fair values are based on quoted market prices. The Local Government Investment Pool (LGIP) is reported at amortized cost. Adjustments necessary to record investments at fair value are recorded in the operating statement as increases or decreases in investment income. The difference between the bank statement balance and carrying value is due to outstanding checks and/or deposits in transit.

The Wisconsin LGIP is part of the State Investment Fund (SIF), and is managed by the state of Wisconsin Investment Board. The SIF is not registered with the Securities and Exchange Commission, but operates under the statutory authority of Wisconsin Chapter 25. The SIF reports the value of its underlying assets annually. Participants in the LGIP have the right to withdraw their funds in total on a one day's notice.

*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.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES** (continued)

**C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position** (continued)

*4. Capital Assets* (continued)

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	15 - 40 years
Office furniture	7 years
Computers and related equipment	3 years
Office equipment	5 years
Automobiles	5 years
Field equipment	5 years

*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 will not be recognized as an outflow of resources (expense) until then. The Commission only has one item that qualifies for this 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, 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. Investments are reported at fair value.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES** (continued)

**C. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position** (continued)

*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. Net investment in capital assets – Consists of capital assets including restricted capital assets, net of accumulated depreciation.
- b. Restricted net position – Consists of net position with constraints placed on their use either by 1) external groups such as creditors, grantors, contributors, or laws or regulations of other governments or 2) law through constitutional provisions or enabling legislation.
- 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. Receivables, 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. Receivables are recorded when funding is earned in accordance with grants and service agreements.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
December 31, 2017

**NOTE 2 – CASH AND CASH EQUIVALENTS**

The Commission had the following deposits as of December 31, 2017:

	<u>Carrying Value</u>	<u>Financial Institution Balances</u>	<u>Associated Risks</u>
Petty cash	\$ 100	\$ -	N/A
Deposits:			
Demand deposits	329,042	404,247	Custodial Credit
Time and savings deposits	316,421	316,421	Custodial Credit
Certificates of deposit	1,024,525	1,026,892	Custodial Credit
Investments:			
Local Government Investment Pool (LGIP)	<u>3,316,243</u>	<u>3,316,243</u>	Credit, Interest Rate
Total deposits and investments	<u>\$ 4,986,331</u>	<u>\$ 5,063,803</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, 2017, \$185,537 of the Commission's total bank balance of \$1,747,560 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 35 days as of December 31, 2017.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 2 – CASH AND CASH EQUIVALENTS (continued)**

*Credit Risk*

Credit risk is the risk that an issuer or other counter party 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 Commission uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures.

The Commission 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 Commission 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, 2017.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
December 31, 2017

**NOTE 3 – RECEIVABLES**

The Commission has the following receivables outstanding as of December 31, 2017:

	<u><b>Federal Grants</b></u>	<u><b>State Grants</b></u>	<u><b>Other Sources</b></u>	<u><b>Total</b></u>
State of Wisconsin	\$ 1,701,879	\$ 118,353	\$ 146,158	\$ 1,966,390
Local governments	-	-	208,340	208,340
Other receivables	-	-	16,022	16,022
Total receivables	<u>\$ 1,701,879</u>	<u>\$ 118,353</u>	<u>\$ 370,520</u>	<u>\$ 2,190,752</u>

All receivables are expected to be collected within one year; as such, no long-term receivables have been recorded as of December 31, 2017.

As of December 31, 2017, the Commission has not established an allowance for doubtful accounts. During the year 2017, the Commission did not record any bad debt related to the outstanding receivables.



**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 4 – CAPITAL ASSETS**

Capital assets activity for the year ended December 31, 2017, 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	14,989	-	3,430,979
Computers and related equipment	111,182	-	-	111,182
Office equipment	206,337	-	72,714	133,623
Automobiles	137,310	-	18,154	119,156
Field equipment	62,139	-	-	62,139
Total capital assets being depreciated	<u>4,146,613</u>	<u>14,989</u>	<u>90,868</u>	<u>4,070,734</u>
Accumulated depreciation				
Land improvements	165,586	10,683	-	176,269
Buildings and improvements	1,323,700	85,899	-	1,409,599
Computers and related equipment	55,356	15,897	-	71,253
Office equipment	178,439	18,925	72,714	124,650
Automobiles	96,852	16,472	18,154	95,170
Field equipment	44,811	4,383	-	49,194
Total accumulated depreciation	<u>1,864,744</u>	<u>152,259</u>	<u>90,868</u>	<u>1,926,135</u>
Net capital assets being depreciated	<u>2,281,869</u>	<u>(137,270)</u>	<u>-</u>	<u>2,144,599</u>
Total capital assets, net of accumulated depreciation	<u>\$ 2,617,169</u>	<u>\$ (137,270)</u>	<u>\$ -</u>	<u>\$ 2,479,899</u>

**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 1,200 hours a year and expected to be employed for at least one year from employee's date of hire are eligible to participate in the WRS.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
December 31, 2017

**NOTE 5 – DEFINED BENEFIT PENSION PLAN** (continued)

**General Information about the Pension Plan** (continued)

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.

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>
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
2016	0.5	(5.0)

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)**

**General Information about the Pension Plan (continued)**

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 \$281,159 in contributions from the employer.

Contribution rates as of December 31, 2017 are:

<u>Employee Category</u>	<u>Employee</u>	<u>Employer</u>
General	6.8%	6.8%
Executives & Elected Officials	6.8%	6.8%
Protective with Social Security	6.8%	10.6%
Protective without Social Security	6.8%	14.9%

At December 31, 2017, the Commission reported a liability of \$236,841 for its proportional share of the net pension liability. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2015 rolled forward to December 31, 2016. 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, 2016, the Commission's proportion was 0.02873447%, which was an increase of 0.00057928% from its proportion measured as of December 31, 2015.

For the year ended December 31, 2017, the Commission recognized pension expense of \$599,772.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)**

**General Information about the Pension Plan (continued)**

At December 31, 2017, 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	\$ 90,307	\$ 744,843
Changes in assumptions	247,626	-
Net differences between projected and actual earnings on pension plan investments	1,178,917	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	29,113
Employer contributions subsequent to the measurement date	<u>281,159</u>	<u>-</u>
	<u>\$ 1,798,009</u>	<u>\$ 773,956</u>

\$281,159 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, 2018. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

<u>Year Ending December 31,</u>	<u>Deferred Outflows and Deferred Inflows of Resources</u>
2018	\$ 304,415
2019	304,415
2020	207,454
2021	(73,680)
2022	290

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**NOTE 5 – DEFINED BENEFIT PENSION PLAN (continued)**

**General Information about the Pension Plan (continued)**

Actuarial assumptions – The total pension liability in the December 31, 2016, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Valuation Date:	December 31, 2015
Measurement Date of Net Pension Liability (Asset):	December 31, 2016
Actuarial Cost Method:	Entry Age
Asset Valuation Method:	Fair 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. Starting with 2015, this item includes the impact of known Market Recognition Account deferred gains/losses on the liability for dividend payments.

Actuarial assumptions are based upon an experience study conducted in 2015 using experience from 2012 – 2014. The total pension liability for December 31, 2016 is based upon a roll-forward of the liability calculated from the December 31, 2015 actuarial valuation.

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
December 31, 2017

**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>	Current Asset Allocation %	Destination Target Asset Allocation%	Long-Term Expected Nominal Rate of Return %	Long-Term Expected Real Rate of Return %
Global Equities	50.00%	45.00%	8.30%	5.40%
Fixed Income	24.50%	37.00%	4.20%	1.40%
Inflation Sensitive Assets	15.50%	20.00%	4.30%	1.50%
Real Estate	8.00%	7.00%	6.50%	3.60%
Private Equity/Debt	8.00%	7.00%	9.40%	6.50%
Multi-Asset	4.00%	4.00%	6.60%	3.70%
Total Core Fund	<u>110.00%</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	30.00%	30.00%	8.50%	5.60%
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 3.78%. 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, 2017**

**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%, 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%) or 1-percentage-point higher (8.20%) 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)	\$3,115,790	\$236,841	(\$1,980,081)

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/>.

**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>2,144,599</u>
Total net investment in capital assets	<u>2,479,899</u>
Unrestricted	<u>6,930,171</u>
Total net position	<u>\$ 9,410,070</u>

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**NOTES TO THE FINANCIAL STATEMENTS**  
**December 31, 2017**

**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, 2017**

**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\***

	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>
The Commission's proportion of the net pension liability (asset)	0.02873447%	0.02811519%	0.02759216%
The Commission's proportionate share of the net pension liability (asset)	236,841	457,516	(677,739)
The Commission's covered-employee payroll	4,224,619	4,150,992	3,886,202
Plan fiduciary net position as a percentage of the total pension liability (asset)	99.12%	98.20%	102.74%

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION**  
**SCHEDULE OF THE COMMISSION'S PENSION CONTRIBUTIONS**  
**Wisconsin Retirement System**  
**Last 10 Fiscal Years\***

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Contractually required contributions	\$ 281,159	\$ 278,825	\$ 282,268	\$ 272,178
Contributions in relation to the contractually required contributions	<u>(281,159)</u>	<u>(278,825)</u>	<u>(282,268)</u>	<u>(272,178)</u>
Contribution deficiency (excess)	-	-	-	-
The Commission's covered-employee payroll	4,134,693	4,224,619	4,150,992	3,886,202
Contributions as a percentage of covered-employee payroll	6.80%	6.60%	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**  
**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN**  
**NET POSITION – BUDGET TO ACTUAL**  
**December 31, 2017**

	<u>Original and Final Budget</u>	<u>Actual</u>	<u>Variance with Final Budget</u>
<b>OPERATING REVENUES</b>			
Intergovernmental:			
Charges for services	\$ 1,720,719	\$ 1,156,525	\$ (564,194)
Grants:			
Federal	3,038,866	3,369,439	330,573
State	378,901	323,731	(55,170)
Local	-	291,745	291,745
Contributions	2,370,245	2,370,245	-
Miscellaneous	-	544	544
Total operating revenues	<u>7,508,731</u>	<u>7,512,229</u>	<u>3,498</u>
<b>OPERATING EXPENSES</b>			
Salaries	6,283,739	6,096,394	187,345
Technical consultants	104,500	298,399	(193,899)
Office supplies	60,000	26,975	33,025
Insurance, audit, legal fees	121,250	46,618	74,632
Library acquisition and dues	40,000	35,216	4,784
Printing and graphic supplies	35,000	63,894	(28,894)
Postage expenses	25,000	11,287	13,713
Travel expenses	60,000	68,829	(8,829)
Telephone expenses	30,000	24,851	5,149
Building usage	24,000	25,730	(1,730)
Building maintenance	174,500	140,346	34,154
Other operating expenses	25,000	16,399	8,601
Software and equipment maintenance	170,000	62,062	107,938
Other equipment outlays	255,000	56,744	198,256
Depreciation	172,260	152,259	20,001
Total operating expenses	<u>7,580,249</u>	<u>7,126,003</u>	<u>454,246</u>
Operating income (loss)	<u>(71,518)</u>	<u>386,226</u>	<u>457,744</u>
<b>NONOPERATING REVENUES</b>			
Rental income	71,518	71,518	-
Investment income	-	44,298	44,298
Total nonoperating revenues	<u>71,518</u>	<u>115,816</u>	<u>44,298</u>
<b>Change in net position</b>	<u>\$ -</u>	<u>502,042</u>	<u>\$ 502,042</u>
Net position - beginning		<u>8,908,028</u>	
Net position - ending		<u>\$ 9,410,070</u>	



**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION  
SCHEDULE OF MEMBER CONTRIBUTIONS  
LAST 10 FISCAL YEARS**

<b><u>Year</u></b>	<b><u>Member Contributions</u></b>	<b><u>Dollar Change in Levied Amounts from the Preceeding Year</u></b>	<b><u>Percentage Change in Levied Amounts from the Preceeding Year</u></b>
2008	\$ 2,370,245		
2009	2,370,245	\$ -	0.00%
2010	2,370,245	-	0.00%
2011	2,370,245	-	0.00%
2012	2,370,245	-	0.00%
2013	2,370,245	-	0.00%
2014	2,370,245	-	0.00%
2015	2,370,245	-	0.00%
2016	2,370,245	-	0.00%
2017	2,370,245	-	0.00%



**SOUTHEASTERN WISCONSIN REGIONAL PLANNING  
COMMISSION PUBLICATIONS: 2012-2017**

**APPENDIX E**



Publications that have been completed and published within the last five years are listed under each report type. Publications issued before 2012 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  
Overall Work Program—2018

## **STUDY DESIGNS**

The most recent Study Design was completed in September 1995

## **PLANNING REPORTS**

No. 17 2nd Edition, A Jurisdictional Highway System Plan for Ozaukee County, December 2017  
No. 54 A Regional Housing Plan for Southeastern Wisconsin: 2035, March 2013  
No. 55 A Regional Land Use and Transportation Plan for Southeastern Wisconsin  
Vision 2050 Volume I: Groundwork for Vision and Plan Development  
Vision 2050 Volume II: Developing the Vision and Plan  
Part I – Visioning and Scenarios  
Part II – Alternative Plans  
Part III – Preliminary Recommended Plan  
Vision 2050 Volume III: Recommended Regional Land Use and Transportation Plan, July 2017

## **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  
No. 50 Conversion of Horizontal Survey Control Network in Kenosha County from Legacy Datum to New Federal Datum, March 2017  
No. 52 Conversion of Horizontal Survey Control Network in Racine County from Legacy Datum to New Federal Datum, April 2017  
No. 53 Conversion of Horizontal Survey Control Network in Milwaukee County from Legacy Datum to New Federal Datum, September 2017  
No. 59 Report on the Possibility of Substitution of Coordinates for Monuments in Control Survey Preservation, November 2017

## **COMMUNITY ASSISTANCE PLANNING REPORTS**

No. 46 2nd Edition, A Farmland Preservation Plan for Racine County, Wisconsin, December 2013  
No. 87 2nd Edition, A Farmland Preservation Plan for Ozaukee County, Wisconsin, December 2013  
No. 131 2nd Edition, A Park and Open Space Plan for Kenosha County, April 2012  
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. 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

## **COMMUNITY ASSISTANCE PLANNING REPORTS – CONTINUED**

- No. 266 3rd Edition, Racine County Hazard Mitigation Plan Update: 2017-2022, December 2017
- No. 278 3rd Edition, Kenosha County Hazard Mitigation Plan Update: 2017-2022, November 2017
- 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. 297 2nd Edition, A Comprehensive Plan Update for the Town of Wayne: 2050, Washington County, June 2017
- No. 311 Waukesha Metro Transit Development Plan: 2013-2017, December 2012
- 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. 320 Jackson Creek Watershed Protection Plan, June 2017
- No. 322 A Lake Protection Plan for Pike Lake, Washington County, Wisconsin, August 2017
- No. 323 A Lake Protection and Aquatic Plant Management Plan for Rock Lake, Kenosha County, Wisconsin, June 2015
- No. 324 A Lake Management Plan for Lake Denoon, Racine and Waukesha Counties, Wisconsin, December 2017
- No. 327 A Lake Protection and Aquatic Plan Management Plan for Pleasant Lake, Walworth County, Wisconsin, March 2016
- No. 328 A Lake Protection Plan for Hooker Lake, Kenosha County, Wisconsin, March 2017

## **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. 177 2nd Edition, An Aquatic Plant Management Plan for Whitewater and Rice Lakes, Walworth County, Wisconsin, April 2017
- No. 201 Study of a Lake Parkway (STH 794) Extension from Edgerton Avenue to STH 100 in Milwaukee County, April 2012
- No. 202 Regional Transportation Operations Plan for Southeastern Wisconsin: 2012-2016, May 2012
- No. 203 Congestion Management Process in Southeastern Wisconsin, April 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



## **MEMORANDUM REPORTS – CONTINUED**

- 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. 222 Lake and Stream Resources Classification Project for Kenosha County, Wisconsin: 2017, October 2017
- No. 223 Assessment of Conformity of the Recommended Year 2050 Fiscally Constrained Transportation Plan and the Year 2015-2018 Transportation Improvement Program, July 2016
- No. 224 MKE Aerotropolis Development Plan, a Shared Vision for the Communities Around the Airport, February 2017
- No. 225 A Comprehensive Plan Update for the Town of Lyons: 2035, Walworth County, August 2016
- No. 226 STH 60 Northern Reliever Route Feasibility Study, March 2017
- No. 227 Waukesha County Industrial/Business Park Land Absorption Study, April 2017
- No. 228 Public Transit-Human Services Transportation Coordination Plan for Kenosha County: 2016, April 2017
- No. 229 Public Transit-Human Services Transportation Coordination Plan for Milwaukee County: 2016, April 2017
- No. 230 Public Transit-Human Services Transportation Coordination Plan for Ozaukee County: 2016, April 2017
- No. 231 Public Transit-Human Services Transportation Coordination Plan for Racine County: 2016, April 2017
- No. 232 Public Transit-Human Services Transportation Coordination Plan for Walworth County: 2016, April 2017
- No. 233 Public Transit-Human Services Transportation Coordination Plan for Washington County: 2016, April 2017
- No. 234 Public Transit-Human Services Transportation Coordination Plan for Waukesha County: 2016, April 2017
- No. 237 Traffic Study for the Intersection of S. 51st Street and W. Drexel Avenue in the City of Franklin, Milwaukee County, Wisconsin, August 2017

## **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, 2015, and 2016

## **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 [www.sewrpc.org/SEWRPC/DataResources/E-Newsletter.htm](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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