

# 2014 ANNUAL REPORT

SOUTHEASTERN  
WISCONSIN  
REGIONAL  
PLANNING  
COMMISSION

SOUTHEASTERN  
WISCONSIN  
REGIONAL  
PLANNING  
COMMISSION

SERVING THE COUNTIES OF  
KENOSHA • MILWAUKEE • OZAUKEE • RACINE • WALWORTH • WASHINGTON • WAUKESHA

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## **FIFTY-FOURTH ANNUAL REPORT**

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**July 2015**



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



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

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*Serving the Counties of:*

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WAUKESHA



August 1, 2015

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 54<sup>th</sup> annual report not only summarizes our work in 2014, but it also contains a certified statement of our financial position as determined by an independent auditor.

The 2014 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 2014. Part Three documents the results of Commission monitoring efforts carried out during 2014 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,

David L. Stroik  
Chairman

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# PART ONE: REGIONAL PLANNING IN SOUTHEASTERN WISCONSIN

This section of the 2014 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. Included also is a brief description of each of the elements of that plan, including the regional land use plan, the regional park and open space plan, the regional natural areas and critical species habitat plan, the regional housing plan, the regional transportation

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 documents Commission work activities undertaken during 2014 and begins on page 39. Part Three documents the results of Commission monitoring efforts during the year and begins on page 91.



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## ABOUT THE COMMISSION

### Authority

The Southeastern Wisconsin Regional Planning Commission (SEWRPC) was established in 1960 under Section 66.0309 of the *Wisconsin Statutes* as the official areawide planning agency for the highly urbanized southeastern region of the State. The Commission was created to provide the basic information and planning services necessary to solve problems that transcend the corporate boundaries and fiscal capabilities of the local units of government comprising the Southeastern Wisconsin Region. Those problems include traffic congestion, flooding, and water quality, among others. The Wisconsin regional planning enabling legislation can be found at [www.sewrpc.org/about](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). 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 persons, or about 35 percent of the total population of the State, and contain about 1.2 million jobs, or about 35 percent of the total employment of the State. The Region contains real property worth about \$170.3 billion, or about 36 percent of all the tangible wealth of the State as measured by equalized valuation. There are 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 has become recognized as a necessary governmental function in the large metropolitan areas of the United States. This recognition stems from an awareness that problems of physical and economic development and of environmental deterioration transcend the geographic limits and fiscal capabilities of the local units of government comprising such large areas, and that sound resolution of these problems requires the cooperation of all units and agencies of government and of private interests as well.

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

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

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

Map 1

THE SOUTHEASTERN WISCONSIN REGION

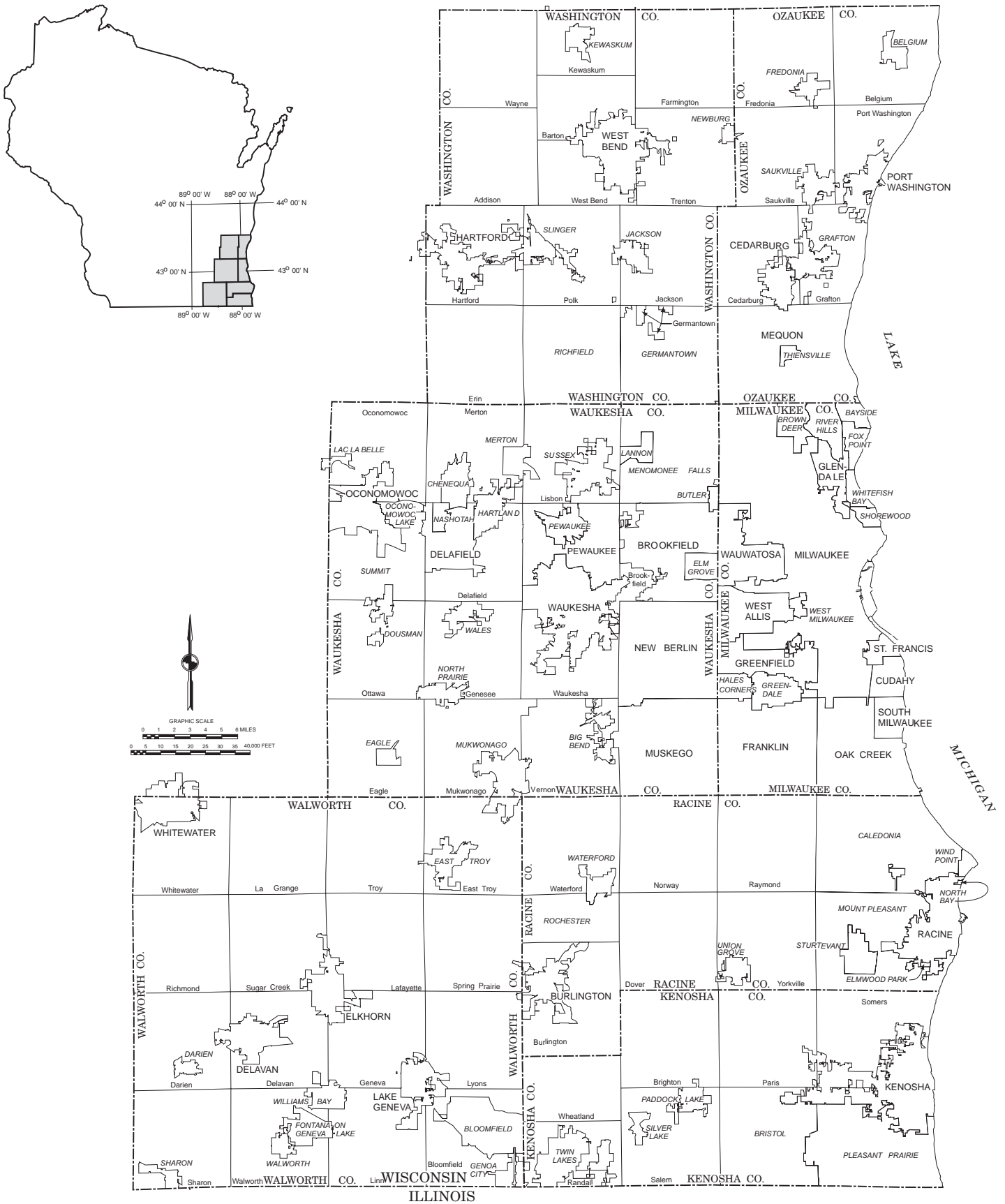
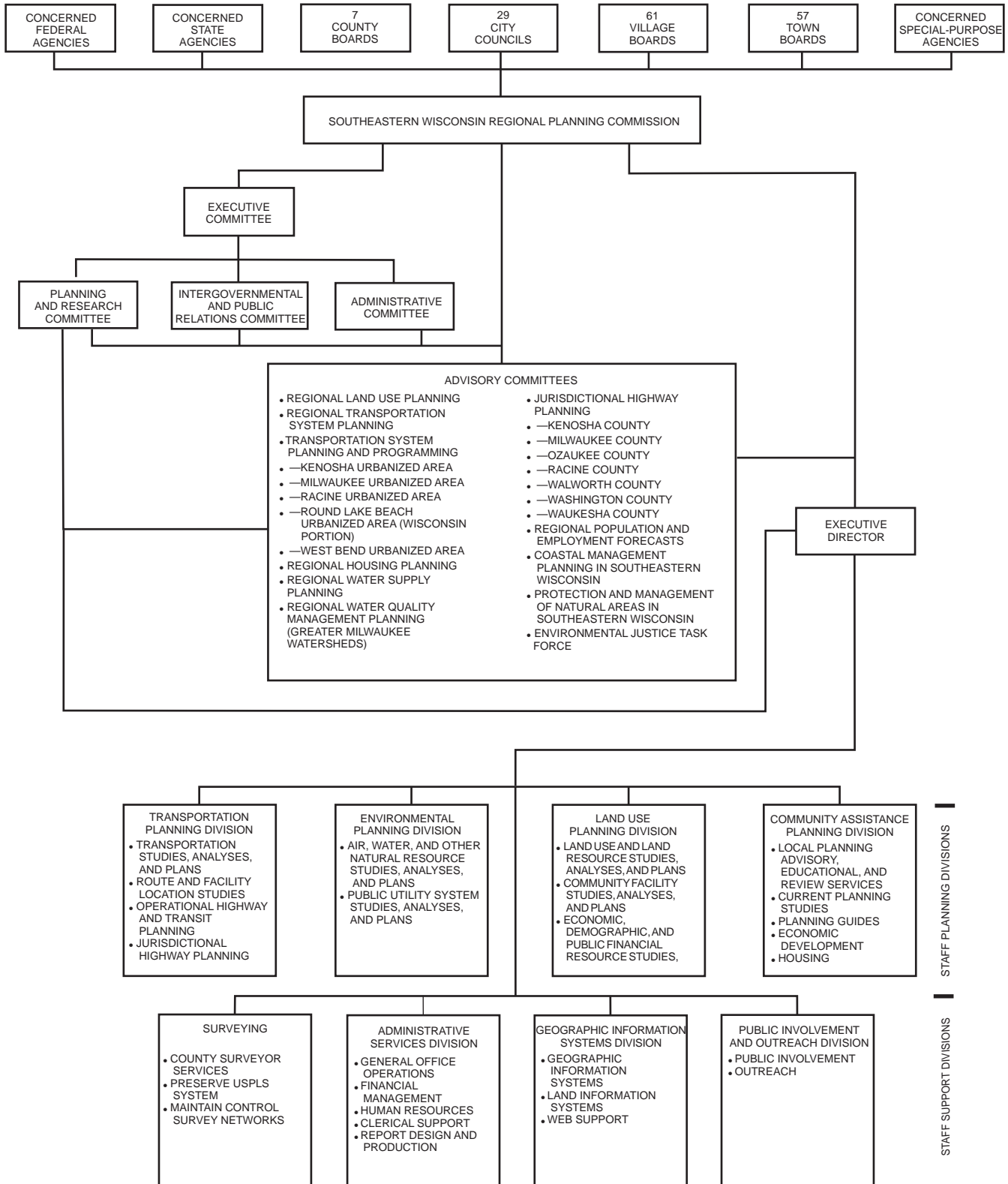




Figure 1

SEWRPC ORGANIZATIONAL STRUCTURE: 2014



## **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, area-wide 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 a framework 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 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 2014 are set forth in Appendix A.

The Commission is assisted greatly in its work by Advisory Committees. These committees include both elected and appointed public officials and interested citizens with knowledge in the Commission work program areas. The committees perform a significant function in both the formulation and the execution of those work programs. Advisory Committee rosters for 2014 are set forth in Appendix B.

## **Staffing**

The Commission prepares an annual work program which 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 2014, the Commission staff totaled 77, including 68 full-time and nine part-time employees. An organizational chart is shown on Figure 1. A list of Commission staff members for 2014 can be found in Appendix C.

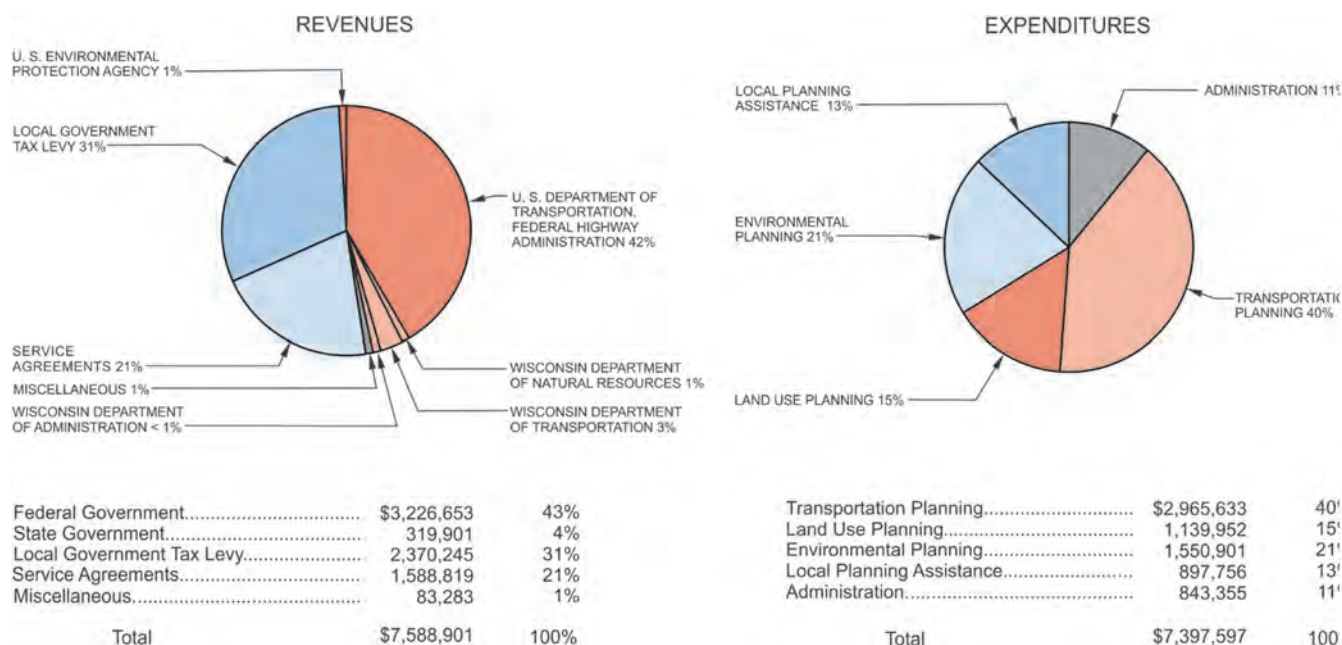
## **Funding**

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 2014 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 2014 is presented in Figure 2.

The Commission has a complete financial audit performed each year by a certified public accountant. Under the Federal Single Audit Act of 1984, the Commission's audit is subject to the review and approval of the Commission's Federal cognizant agency, the Federal Highway Administration. The 2014 audit report is set forth in Appendix D.

Figure 2

### SEWRPC REVENUES AND EXPENDITURES: 2014



### Documentation

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

The Commission has established the following series of published reports:

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

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

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

## THE REGIONAL COMPREHENSIVE PLAN 2014: 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 highway, transit, and bicycle and pedestrian system plans; 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.

## REGIONAL LAND USE PLAN

The regional land use plan, graphically shown on Map 2 and most recently documented in SEWRPC Planning Report No. 48, *A Regional Land Use Plan for Southeastern Wisconsin 2035*, June 2006, constitutes a long-range guide to both land use development and open space preservation in the Region. The plan provides underlying data used as the basis for preparing the other elements of the regional plan, and is also intended to serve as the framework for detailed county and local land use planning in the Region. Drawn from a series of alternative plan designs put forth for evaluation in the late 1960s, and confirmed and updated to new design years about every decade, the plan now has a design target year of 2035 and includes key recommendations that follow.

### Urban Land Development

Under the plan, urban lands—including land devoted to high, medium, and low density residential uses as well as commercial, industrial, governmental, institutional, recreational, and transportation, communication, and utility uses—would increase by 93 square miles, or 13 percent, from 732 square miles in 2000 to 825 square miles in 2035. Urban development would occur within urban service areas served by public sanitary sewers and other public utilities and services. New urban development would be provided both through the infilling and renewal of existing urban service areas and through the orderly expansion of such areas. Urban residential development and redevelopment would occur in a variety of residential neighborhood types and in mixed-use settings. About 88 percent of all new housing would occur at a medium density, averaging about four dwelling units per acre. Growth and change in the economic base would be accommodated through the development and redevelopment of major economic activity centers (shown on Map 2) as well as community-level and neighborhood-level centers.

### Sub-Urban Density Residential Land

The regional plan discourages sub-urban density residential development, defined as a density of 0.2 to 0.6 dwelling unit per acre, with a typical lot size of two to three acres. Such development is neither truly urban nor rural in character. Development at this density generally precludes the provision of centralized sanitary sewer and water supply services.

Additional sub-urban density residential development should be confined to areas that have already been committed to such use through subdivision plats and certified surveys.

### Environmentally Significant Lands

Under the regional plan, the land development needs of the Region would be met while preserving the best remaining elements of the natural resource base—most of which are located within environmental corridors and isolated natural resource areas. The plan recommends the preservation of primary environmental corridors—large, elongated areas in the landscape encompassing many of the best remaining woodlands, wetlands, prairies, wildlife habitat, and surface water and associated shorelands and floodplains, along with many related historic, scenic, and recreational sites. The plan recommends that these corridors be preserved in essentially natural, open use, recognizing, however, that certain limited development may be accommodated in upland corridor areas without jeopardizing their overall integrity; guidelines in this respect are included in the plan. The planned primary environmental corridors encompass 18 percent of the Region.

In addition to primary environmental corridors, other smaller concentrations of natural resources—referred to as secondary environmental corridors and isolated natural resource areas—have been identified as warranting strong consideration for preservation. The planned secondary environmental corridors encompass 3 percent of the Region, while the planned isolated natural resource areas encompass 2 percent. The regional plan recommends that these areas be retained in natural, open use as determined in county and local plans.













### Prime Agricultural Lands and Other Rural Lands

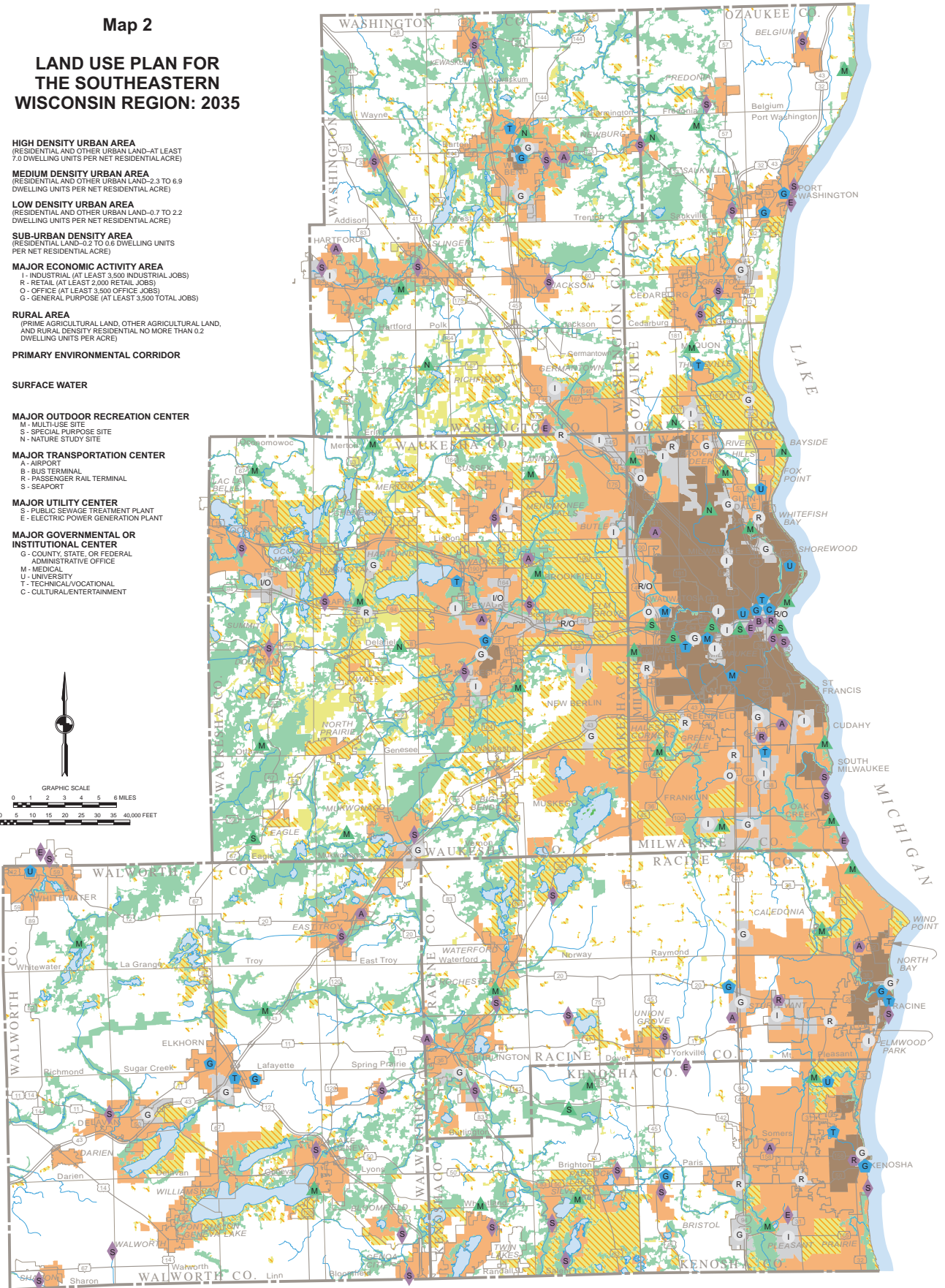
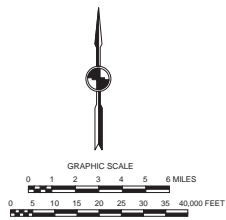
The area shown in white on Map 2 is recommended to remain in essentially rural use—primarily agriculture and rural density residential use. Prime agricultural land in this area—the land best suited for agriculture—is recommended to be preserved for farming, with residential development generally limited to no more than one dwelling unit per 35 acres. The regional plan recommends that counties in the Region, in cooperation with the concerned local units of government, carry out planning programs to specifically identify prime agricultural



Map 2

# LAND USE PLAN FOR THE SOUTHEASTERN WISCONSIN REGION: 2035

-  **HIGH DENSITY URBAN AREA**  
(RESIDENTIAL AND OTHER URBAN LAND-AT LEAST  
7.0 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **MEDIUM DENSITY URBAN AREA**  
(RESIDENTIAL AND OTHER URBAN LAND-2.3 TO 6.9  
DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **LOW DENSITY URBAN AREA**  
(RESIDENTIAL AND OTHER URBAN LAND-0.7 TO 2.2  
DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  **SUB-URBAN DENSITY AREA**  
(RESIDENTIAL LAND-0.2 TO 0.6 DWELLING UNITS  
PER NET RESIDENTIAL ACRE)
-  **MAJOR ECONOMIC ACTIVITY AREA**  
I - INDUSTRIAL (AT LEAST 3,500 INDUSTRIAL JOBS)  
R - RETAIL (AT LEAST 2,000 RETAIL JOBS)  
O - OFFICE (AT LEAST 3,500 OFFICE JOBS)  
G - GENERAL PURPOSE (AT LEAST 3,500 TOTAL JOBS)
-  **RURAL AREA**  
(PRIME AGRICULTURAL LAND, OTHER AGRICULTURAL LAND,  
AND RURAL DENSITY RESIDENTIAL NO MORE THAN 0.2  
DWELLING UNITS PER ACRE)
-  **PRIMARY ENVIRONMENTAL CORRIDOR**
-  **SURFACE WATER**
-  **MAJOR OUTDOOR RECREATION CENTER**  
M - MULTI-USE SITE  
S - SPECIAL PURPOSE SITE  
N - NATURE STUDY SITE
-  **MAJOR TRANSPORTATION CENTER**  
A - AIRPORT  
B - BUS TERMINAL  
R - PASSENGER RAIL TERMINAL  
S - SEAPORT
-  **MAJOR UTILITY CENTER**  
S - PUBLIC SEWAGE TREATMENT PLANT  
E - ELECTRIC POWER GENERATION PLANT
-  **MAJOR GOVERNMENTAL OR  
INSTITUTIONAL CENTER**  
G - COUNTY, STATE, OR FEDERAL  
ADMINISTRATIVE OFFICE  
M - MEDICAL  
U - UNIVERSITY  
T - TECHNICAL/VOCATIONAL  
C - CULTURAL/ENTERTAINMENT



land. The regional plan holds out the preservation of the most productive soils—soils in U.S. Natural Resources Conservation Service Agricultural Capability Class I and Class II—as a key consideration in the identification of prime farmland, recognizing that other factors, such as farm size and the overall size of the farming area, may also be considered.

The regional plan also encourages the preservation of nonprime farmland for agricultural use. This could be in the form of traditional agriculture or alternative agricultural uses such as smaller hobby farms or specialty farms including community supported agricultural operations. The plan recognizes the potential for limited residential development on nonprime farmland in planned rural areas, recommending that any such development be limited to a density of no more than one dwelling unit per five acres. Where such development is accommodated, the plan encourages the use of cluster or open space subdivision designs.

More information about the regional land use plan can be found at [www.sewrpc.org/regionallanduseplan](http://www.sewrpc.org/regionallanduseplan).

## **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 3. The key recommendations of the plan are:

### **Open Space Preservation**

The plan provides recommendations for the preservation of environmentally significant open space lands throughout the Region, focusing on the environmental corridors and isolated natural

resource areas identified as part of the regional land use plan, and incorporating as well the findings and recommendations of the regional natural areas protection and management plan. Like the regional land use plan, the regional park and open space plan recommends 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 as well as by the Wisconsin Department of Natural Resources.



Map 3

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

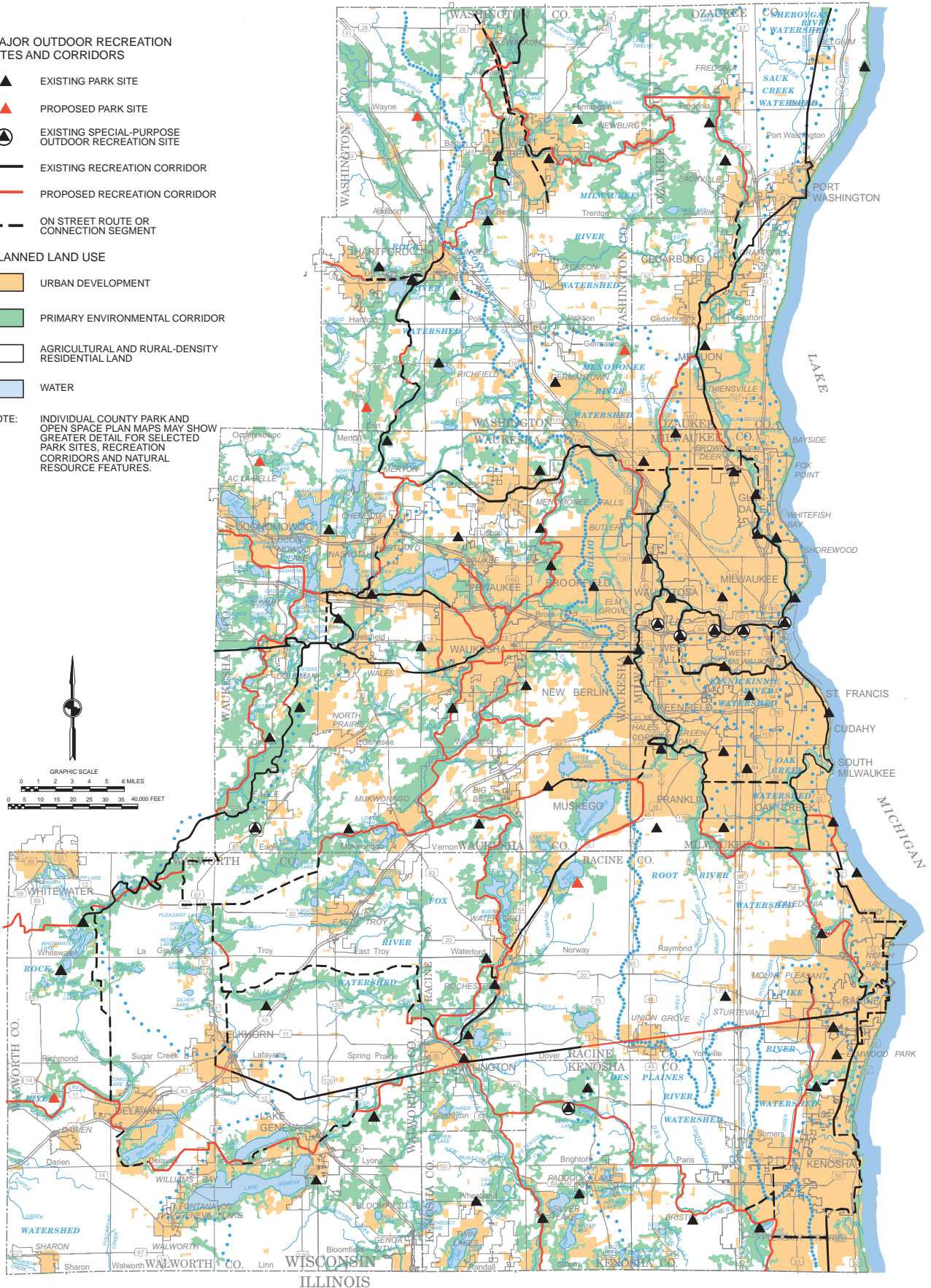
MAJOR OUTDOOR RECREATION  
SITES AND CORRIDORS

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

PLANNED LAND USE

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

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





### **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 Wisconsin Department of Natural Resources.

### **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 Wisconsin Department of Natural Resources. 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 nonresource-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).

## **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 4. The plan stands as an important supplement to the open space preservation recommendations of the regional land use and park and open space plans.

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, providing benchmarks for restoration efforts elsewhere); 2) ecosystem services (e.g., converting sunlight to energy, moderation of climate extremes, 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, 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 Wisconsin Department of Natural Resources (WDNR), to re-establish and manage about 29 square miles of suitable nesting habitat for such grassland nesting birds at four sites in the Region.

### **Forest Interior Re-establishment Sites**

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

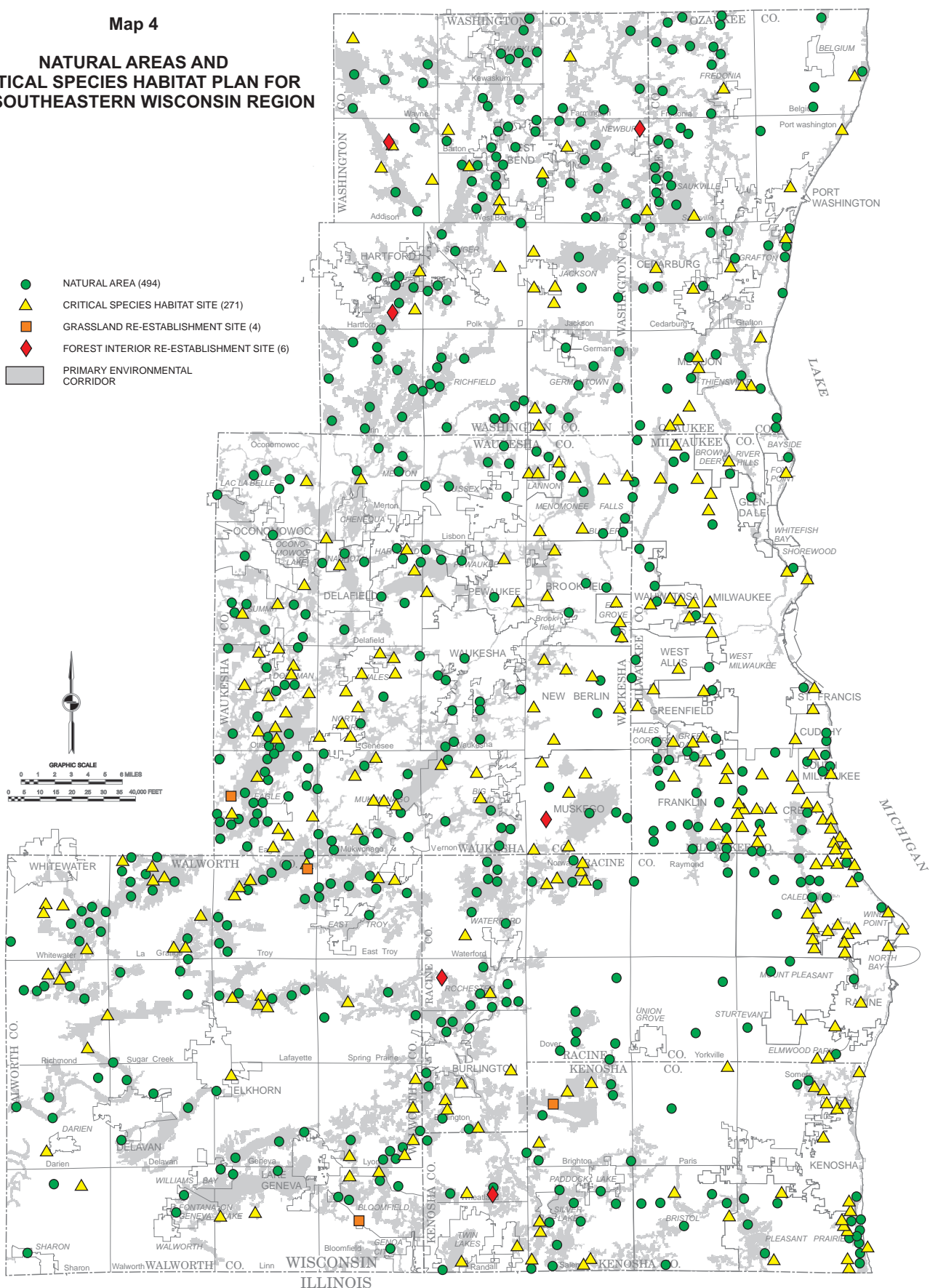
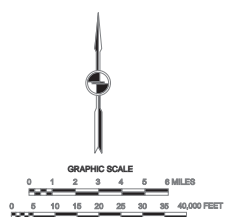
The regional natural areas plan also includes ancillary elements attendant to 14 archaeological and 87 geological sites. Such sites are of significance in terms of their cultural, scientific, and educational values and are recommended to be preserved and protected to the greatest extent possible.

More information about the regional natural areas plan can be found on the SEWRPC website at [www.sewrpc.org/naturalareasplan](http://www.sewrpc.org/naturalareasplan).

Map 4

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

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



## REGIONAL HOUSING PLAN

A new 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 refines the recommendations for residential development included in the Regional Land Use Plan, with a vision of providing financially sustainable housing for persons 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 persons with disabilities, fair housing, and housing development practices.

### Housing Affordability

Housing affordability is closely related to the type and density of housing. Multi-family housing and smaller single-family homes on smaller lots tend to be more affordable to a wide range of households than larger single-family homes on large lots. The development of housing in the Region is greatly influenced by community comprehensive plans and by zoning, subdivision, and other ordinances that regulate land uses.

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

1,200 square feet, to accommodate market-rate housing affordable to households with incomes between 80 and 135 percent of the Region median income. This income category includes about 24 percent of Region households.

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

### Job/Housing Balance

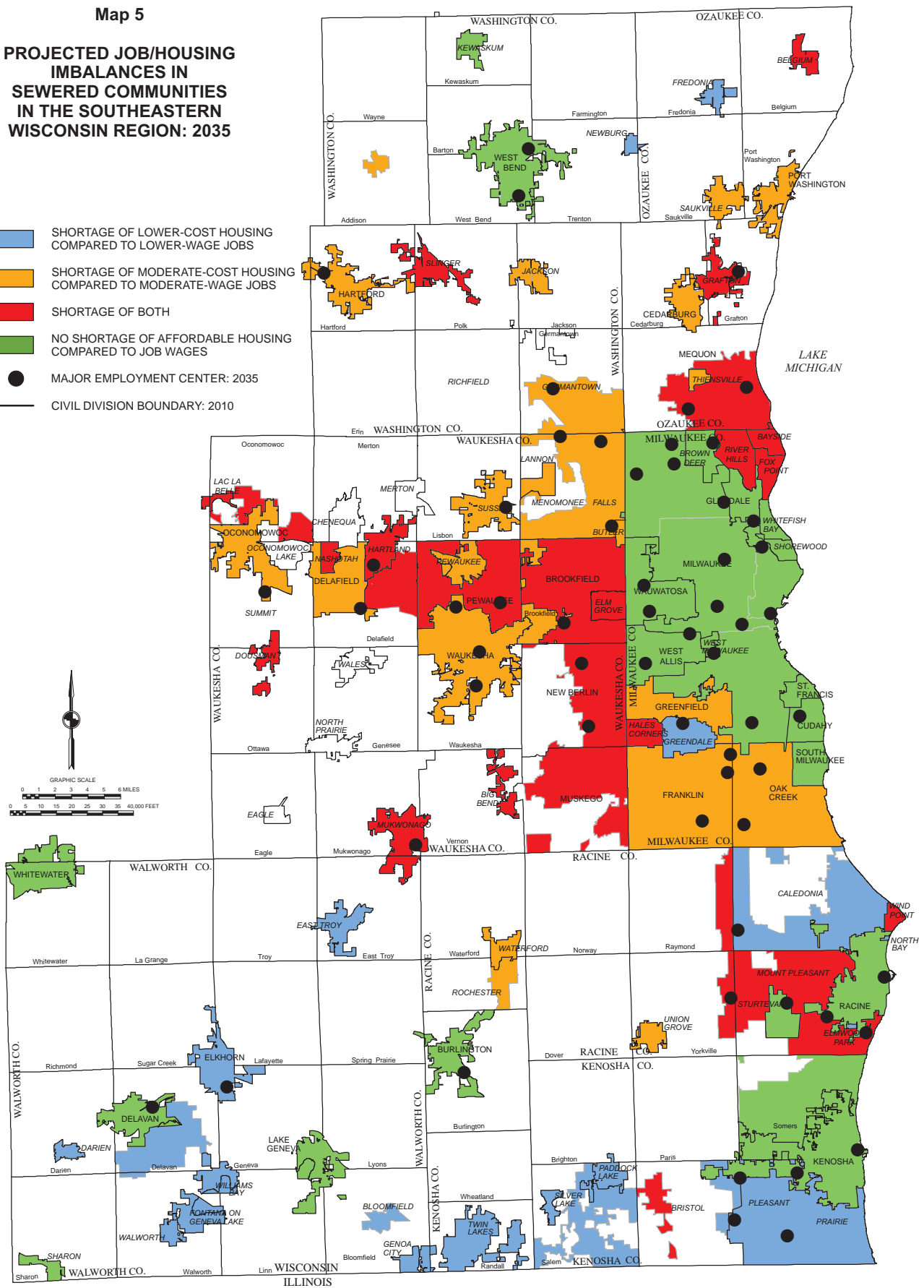
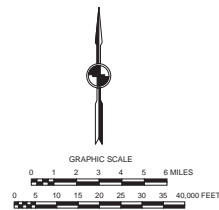
An analysis was conducted as part of the housing plan to help determine the balance between job wages and housing costs. The job/housing balance analysis was based on a review of comprehensive plans adopted by communities with sanitary sewer service to determine the number and type of jobs and housing units that could be expected to be developed by the year 2035. Job wages, based on median incomes for various job categories in 2009, and housing costs, based on planned residential densities, were projected to the year 2035. The percentages of projected lower- and moderate-wage jobs were compared to the projected percentages of lower- and moderate-cost housing, respectively. Map 5 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 includes groups of nearby communities when reporting the results of the analysis.

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

Map 5

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

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





existing or future job/housing imbalance, it is recommended that the local government consider changes to the comprehensive plan that would provide housing appropriate for people holding jobs in the community, thereby supporting the availability of a workforce for the community's businesses and industries. Additional modest multi-family housing is recommended in communities where the local analysis indicates a shortage of lower-cost housing in relation to lower-wage jobs. Additional modest single-family housing is recommended in communities where the local analysis indicates a shortage of moderate-cost housing in relation to moderate-wage jobs.

The housing plan also recommends improving transit connections between areas of existing affordable housing and job locations. The Region's central cities have substantial concentrations of unemployed and under-employed individuals and low-income households. There are significant job concentrations in many communities surrounding these central cities. A portion of these jobs pay moderate and lower wages, and many of these communities lack the modest single-family and multi-family housing affordable to people who earn moderate and lower wages. Many of these communities also lack public transit service, even though in many instances they are immediately adjacent to the Region's public transit systems. Expansion of public transit service to these communities, in accordance with the recommendations of the regional transportation plan, will assist in providing employers with the necessary workforce, and will link moderate- and lower-income individuals with jobs in communities that have limited supplies of affordable housing.

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

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

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

The plan recommends additional Federal funding for housing vouchers, but also recognizes that public funding for the development of subsidized and tax credit housing and for housing vouchers is limited. The plan therefore recommends that the development of new subsidized and tax credit housing and the allocation of vouchers be targeted to areas with the greatest need. These areas include areas with high percentages of low-income households and areas with a major employment center and a shortage of lower-cost housing compared to lower-wage jobs.

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

### **Accessible Housing for Persons with Disabilities**

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

It is estimated that there are as many as 61,640 multi-family housing units in the Region constructed since 1991 that may be accessible to persons 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 persons with disabilities, whose median annual earnings are about half those of persons without disabilities.

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

### **Fair Housing**

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

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

### **Housing Development Practices**

Multi-family housing and higher-density single-family housing, as recommended in the housing plan, can help increase the supply of affordable housing for lower- and moderate-income households

and, at the same time, provide for a more compact urban development pattern. Compact development allows housing to be located closer to jobs and services, such as shopping and schools, which minimizes vehicle travel and provides increased opportunities for walking and bicycling. Compact development also minimizes the cost of providing new roads and extending public sewer and water to serve new development, and can be served more efficiently and economically by public transit. More compact urban development also helps to preserve farmland by minimizing the amount of land consumed by residential subdivisions and other urban development.

More information about the regional housing plan can be found on the Commission website at [www.sewrpc.org/housing](http://www.sewrpc.org/housing).

## **REGIONAL TRANSPORTATION PLAN**

As the Federally recognized metropolitan planning organization (MPO) for the Census-defined urbanized areas in Southeastern Wisconsin, the Commission prepares and maintains current a multi-modal regional transportation plan. The regional transportation planning process carried out by the Commission addresses the Federally specified planning and programming requirements and, as such, ensures that Federal transportation funds routinely flow to the transportation agencies that provide the infrastructure so 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 regional transportation plan is prepared and adopted approximately every 10 years in conjunction with the update of the regional land use plan, and was most recently updated, as fully documented in SEWRPC Planning Report No. 49, *A Regional Transportation System Plan for Southeastern Wisconsin: 2035*, and adopted by the Commission in 2006. That plan—in order to meet Federal requirements—is subject to review, update, and reaffirmation every four years, with the most recent such action taken in 2014. The regional transportation plan is designed to serve the planned development pattern of the regional land use plan.

That development pattern seeks to preserve the Region's prime farmland and best natural areas, and accommodate new urban development through the infilling and renewal of existing urban service areas and the orderly expansion of such areas. Each time the regional transportation plan is developed, elements of the plan that can help reduce the need for investments in the improvement and expansion of the arterial street and highway network are first considered. These elements include public transit facilities and services, bicycle and pedestrian facilities, transportation systems management, and travel demand management. The process concludes with consideration of arterial street and highway improvement and expansion projects to address the residual highway traffic volumes and attendant traffic congestion expected in the design year of the plan.

The year 2035 regional transportation plan was reviewed and updated in 2010 and 2014. As part of these updates, the Commission reviewed the plan implementation of all the elements of the plan, the plan forecasts, system performance, and plan costs and available revenues. Potential amendments to the plan were also considered as part of the plan updates.

As part of the 2014 review and update of the year 2035 regional transportation plan, it was identified that the existing, and outlook for future, available revenue in 2014 was far more constrained than it was in 2005 during development of the year 2035 regional transportation plan and in 2010 during its first update. As a result, it was no longer possible to conclude with the 2014 plan update that the plan was reasonably consistent with existing and reasonably expected revenues and the current limitations of those revenues. As such, it was necessary to consider the year 2035 plan as a "vision" plan, outlining the desirable transportation plan to address the current and future needs of the Region. It was further necessary to identify a "fiscally constrained" year 2035 regional transportation plan that includes those elements of the 2035 plan that can be achieved within the restrictions of the amounts and limitations of existing and reasonably expected revenues.

A summary of the five plan elements—public transit facilities and services, bicycle and pedestrian facilities, transportation systems management, and travel demand management—as updated in 2014 for the year 2035 "vision" plan follows. A summary of the fiscally constrained year 2035 regional transportation plan is subsequently provided.

## **Public Transit**

Public transit is considered a vital element of the regional transportation plan, providing an alternative mode of travel in heavily travelled corridors within and between the Region's urban areas and in the Region's densely developed urban communities and activity centers. The plan recommends a near doubling of transit services by the year 2035, with implementation dependent upon the State's continued commitment to funding transit facilities and services, and upon attaining dedicated local funding for public transit. A regional transit authority, if created, could also greatly aid in implementation. The public transit element of the regional transportation plan is graphically summarized on Map 6 and includes the following aspects:

### **Rapid Transit**

Recommended rapid transit services would principally consist of buses operating over freeways that connect the Milwaukee central business district, the urbanized areas of the Region, and the urban centers and outlying counties of the Region. Under the plan, rapid transit services would operate in both directions during all periods of the day and evening, thereby providing both traditional and reverse commuting services. The frequency of service provided would be every 10 to 30 minutes in weekday peak travel periods, and every 30 to 60 minutes in weekday off-peak periods and on weekends. Commuter rail rapid transit services are recommended to be provided between Milwaukee, Racine, and Kenosha, connecting to the Chicago area through the existing Chicago-Kenosha Metra commuter rail service, providing traditional and reverse commuting services in this travel corridor. The plan also identifies providing traditional and reverse commuting services in this travel corridor. The plan also identifies conceptual commuter rail alignments in heavily travelled corridors of the Region that should be further studied for potential implementation.

### **Express Transit**

Recommended express transit services would consist of a grid of limited-stop, higher-speed bus routes located largely within Milwaukee County that would connect major employment centers, shopping centers, and other major activity centers. These express transit services would operate in both directions during all periods of the day and evening to serve both traditional and reverse commuters. The frequency of service would be about every 10



Map 6

**PUBLIC TRANSIT ELEMENT  
OF THE TRANSPORTATION VISION  
PLAN FOR THE SOUTHEASTERN  
WISCONSIN REGION: 2035**

**RAPID/EXPRESS BUS ROUTE**

- RAPID BUS ROUTE - FREEWAY PORTION
- - - RAPID BUS ROUTE - NONFREEWAY PORTION
- EXPRESS BUS ROUTE

**FIXED GUIDEWAY ROUTE**

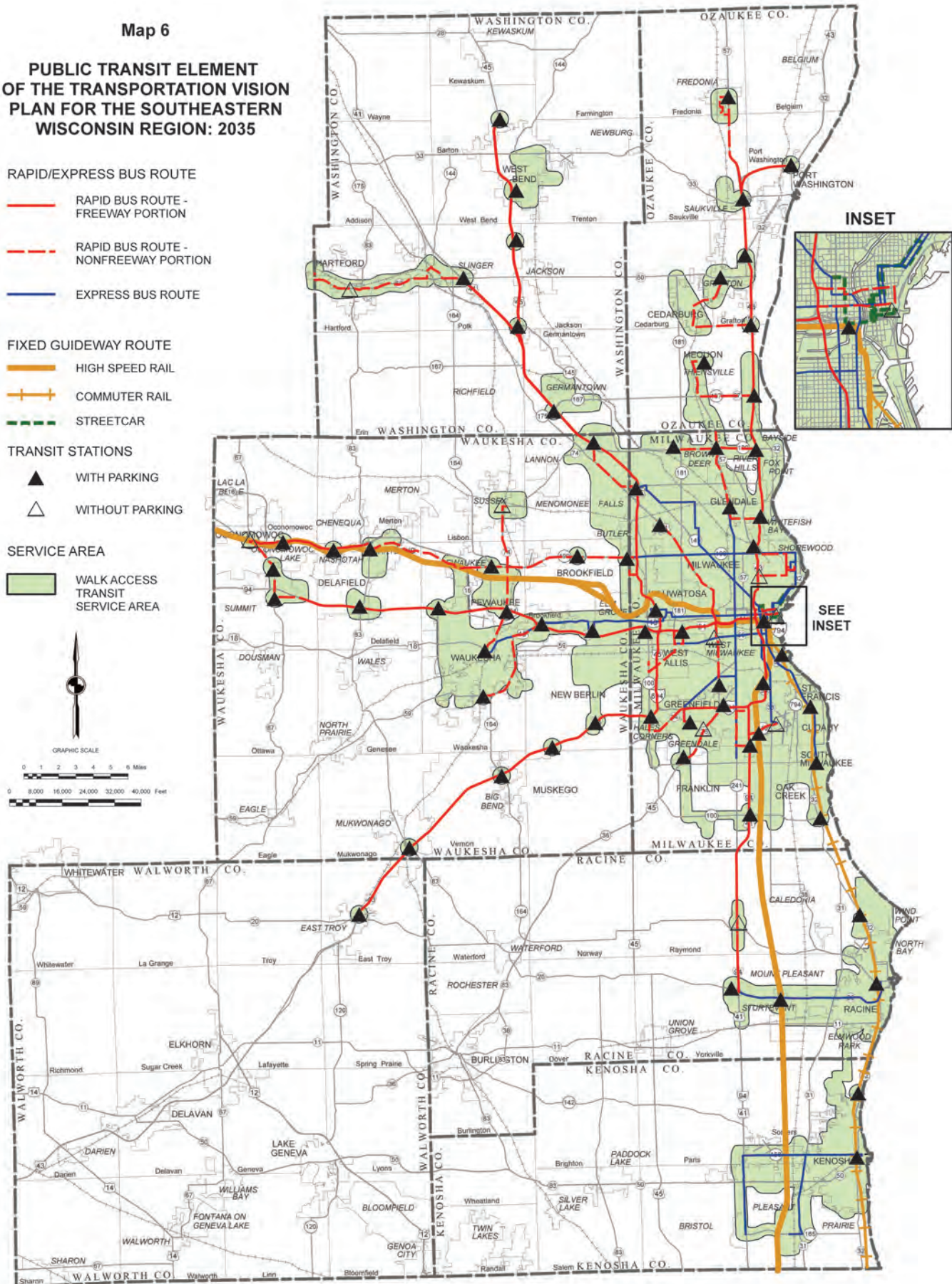
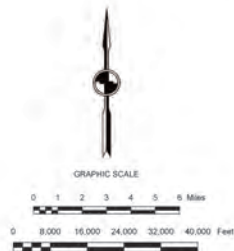
- HIGH SPEED RAIL
- + + + COMMUTER RAIL
- - - STREETCAR

**TRANSIT STATIONS**

- ▲ WITH PARKING
- △ WITHOUT PARKING

**SERVICE AREA**

- WALK ACCESS  
TRANSIT  
SERVICE AREA



minutes during weekday peak travel periods, and about every 20 to 30 minutes during weekday off-peak periods and on weekends. The plan also proposes that the eventual upgrading of these routes to fixed guideways—including the construction of bus guideways and/or light rail/streetcar lines—be considered on a corridor-by-corridor basis.

#### **Local Transit**

Significant improvements and expansion in local bus transit services over arterial and connector streets throughout the Kenosha, Milwaukee, and Racine urbanized areas are also recommended in the plan. These recommendations include expansion of service areas and hours, and significant improvements in the frequency of local service, particularly on major routes.

#### **Paratransit**

Consistent with the Federal Americans with Disabilities Act of 1990, the plan recommends that complementary paratransit services be provided to serve people with disabilities who are unable to access and use fixed-route transit services.

#### **Intercity Rail**

The plan includes improvements to the existing Hiawatha Amtrak train service between Milwaukee and Chicago and the extension of similar service to Minneapolis-St. Paul, with trains reaching maximum speeds of 110 miles per hour.

#### **Bicycle and Pedestrian Facilities**

The regional transportation plan proposes the safe accommodation of bicycle and pedestrian travel on streets and highways, while encouraging such travel as an alternative to personal vehicle travel. The plan recommends that, as each segment of the surface arterial street system in the Region is resurfaced, reconstructed, or newly constructed, bicycle accommodations be considered and—if feasible—implemented through bicycle lanes, widened outside travel lanes, widened shoulders, or separate bicycle paths. This element of the regional transportation plan also recommends that a 548-mile system of off-street bicycle paths be provided to serve the urbanized areas and larger cities and villages throughout the Region. About 250 miles of this planned off-street system exist today. The pedestrian facilities recommendation consists of a set of policies and a series of recommendations and guidelines proposed to be followed in implementing such policies. Map 7 shows the off-street bicycle

paths and surface arterial street and highway system bicycle accommodation under the year 2035 regional transportation plan.

#### **Transportation Systems Management**

The regional transportation plan includes a series of measures aimed at managing and operating existing transportation facilities to their maximum carrying capacity and travel efficiency. The transportation systems management plan element includes the following aspects:

##### **Operational Control**

The plan specifies a number of measures to improve freeway operations by monitoring operating conditions and controlling freeway traffic. These measures include embedded traffic detectors, freeway on-ramp meters, and a set of ramp meter control strategies.

##### **Advisory Information**

Providing updated information to motorists helps achieve the efficient use of the freeway system. The plan includes the provision of permanent variable message signs; the maintenance of a website identifying current travel times and delays and views of traffic congestion maps; and the extensive provision of traffic information to the media and through automated messages available to the dial-in public.

##### **Incident Management**

Incident management measures set forth in the plan are aimed at the timely detection, confirmation, and removal of freeway incidents. Such measures include closed-circuit television cameras providing live video images to system management and law enforcement personnel, a relatively dense system of reference markers allowing motorists to specify incident locations, the provision of off-line crash investigation sites, the provision of automated ramp closure devices, and the provision of freeway service patrols to rapidly remove disabled vehicles and aid disabled motorists.

##### **Surface Arterial Street and Highway Traffic Management**

A number of recommendations are included in the regional transportation plan to improve the operation of the regional surface arterial street and highway network. These recommendations attempt to maximize the efficient use of that network and, where possible, avoid significant capital expenditures. The



Map 7

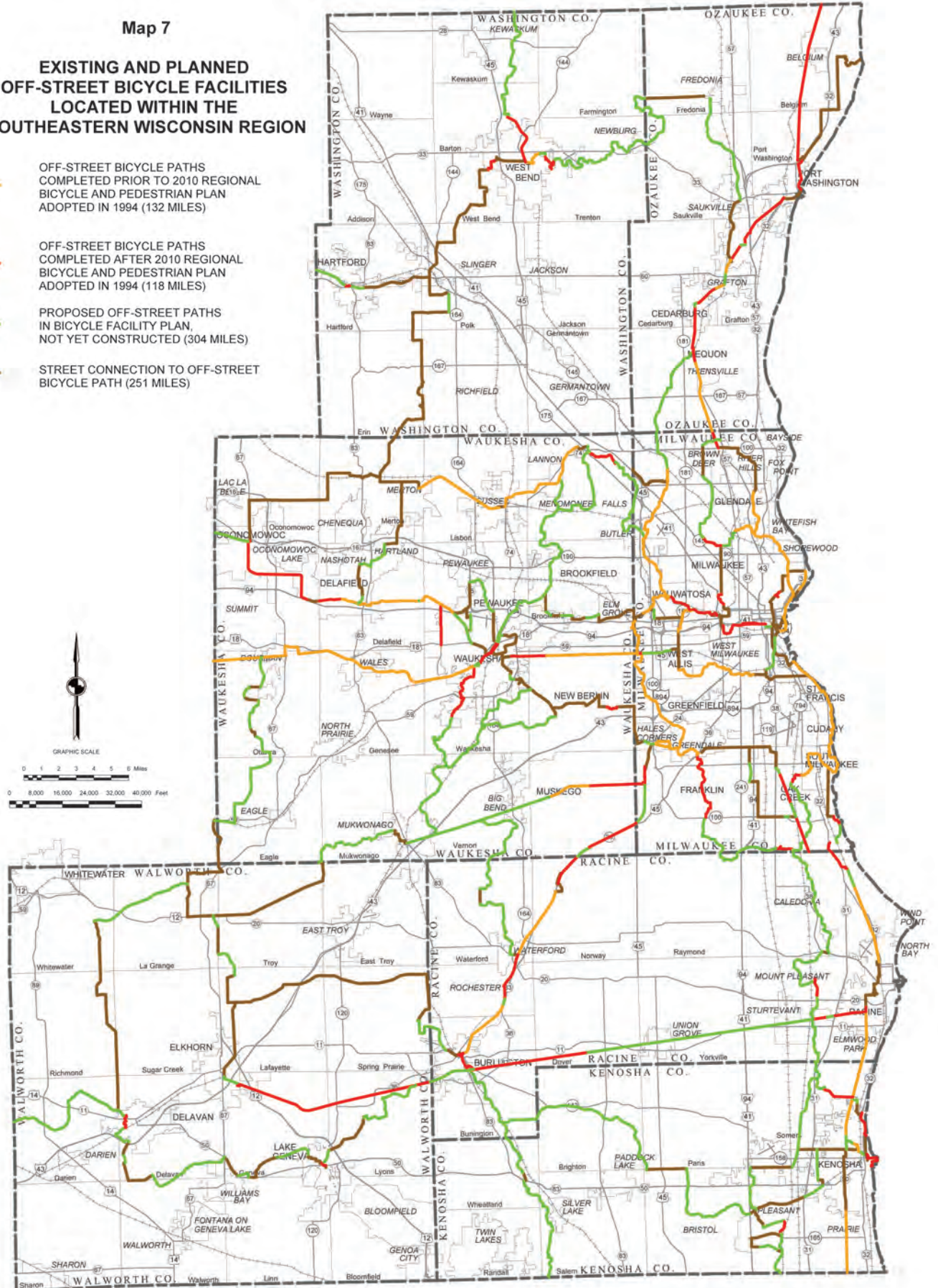
**EXISTING AND PLANNED  
OFF-STREET BICYCLE FACILITIES  
LOCATED WITHIN THE  
SOUTHEASTERN WISCONSIN REGION**

OFF-STREET BICYCLE PATHS  
COMPLETED PRIOR TO 2010 REGIONAL  
BICYCLE AND PEDESTRIAN PLAN  
ADOPTED IN 1994 (132 MILES)

OFF-STREET BICYCLE PATHS  
COMPLETED AFTER 2010 REGIONAL  
BICYCLE AND PEDESTRIAN PLAN  
ADOPTED IN 1994 (118 MILES)

PROPOSED OFF-STREET PATHS  
IN BICYCLE FACILITY PLAN,  
NOT YET CONSTRUCTED (304 MILES)

STREET CONNECTION TO OFF-STREET  
BICYCLE PATH (251 MILES)



recommendations include coordinated traffic signal systems to provide for the efficient progression of traffic; intersection improvements, including adding right- and/or left-turn lanes and intersection traffic control improvements; implementation of curb-lane parking restrictions to provide additional peak period traffic carrying capacity; improved management of access to arterial streets from adjacent parcels; and enhanced advisory information for motorists along key routes.

#### **Major Activity Center Parking Management and Guidance**

The plan recommends that traffic operation conditions at major activity centers, such as the Milwaukee central business district, be improved by reducing the traffic circulation of motorists seeking parking spaces. Recommended measures relate to providing motorists with real-time information about available parking through strategically located message signs and Internet updates.

#### **Travel Demand Management**

The plan identifies measures that could be taken to reduce personal and vehicular travel or to shift such travel to alternative times and routes, thereby allowing for more efficient use of the existing capacity of the transportation system. In addition to the public transit and pedestrian and bicycle plan element recommendations noted above, this element of the plan includes preferential treatment of high-occupancy vehicles, the provision of park-ride lots, transit pricing measures, the provision of real-time transit information, and personal vehicle pricing, among other measures.

#### **Arterial Street and Highway Element**

The arterial street and highway element of the year 2035 regional transportation plan as amended, and adjusted to account for plan implementation through 2014, totals 3,662 route-miles. The plan recommends that approximately 89 percent, or 3,274 of these route-miles, be resurfaced and reconstructed with no additional capacity. Approximately 310 route-miles, or 9 percent of the total system, are recommended for widening upon reconstruction to provide additional through traffic lanes, including 114 miles of freeways. The remaining 78 route-miles, or about 2 percent of the total arterial street mileage, are proposed new arterial facilities. Thus, the plan recommends over the next 20 years a capacity expansion of 11 percent of the total arterial system, and—viewed in terms of added lane-miles

of arterials—about a 9 percent expansion over the next 20 years. Map 8 shows the functional improvements to the arterial street and highway system in Southeastern Wisconsin under the year 2035 regional transportation plan.

The 114 miles of freeway widening proposed in the plan, and in particular the 18 miles of widening in the City of Milwaukee (IH 94 between the Zoo and Marquette interchanges and IH 43 between the Mitchell and Silver Spring interchanges), would undergo preliminary engineering and environmental impact statement preparation by the Wisconsin Department of Transportation. During preliminary engineering, alternatives would be considered, including rebuild-as-is, various options of rebuilding to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of the preliminary engineering process would a determination be made as to how a freeway segment would be reconstructed.

#### **Fiscally Constrained Regional Transportation Plan**

The gap in funding between the vision plan and fiscally constrained plan affects implementation of both highway and transit projects identified in the vision plan. The implications of the funding gap for the highway element differ from the transit element as highway expenditures are largely capital expenditures and transit expenditures are largely operating expenditures. The effect on the highway element is a deferral or delay in capital projects being implemented, specifically a reduction in the amount of freeway that can be reconstructed and the amount of surface arterials that can be reconstructed with additional traffic lanes or newly constructed by the year 2035. The principal effect on the transit element is a lack of the transit improvement and expansion identified under the vision plan, and as well reductions in current transit service and an increase in transit fares above inflation.

Under the fiscally constrained plan, 90 miles of freeway reconstruction recommended under the vision plan, including 87 miles of freeway widening, would be expected to be implemented by the year 2035 based on the cost of these improvements compared to existing and reasonably expected revenues (see Map 9). All of the surface arterial capacity expansion recommended in the vision plan

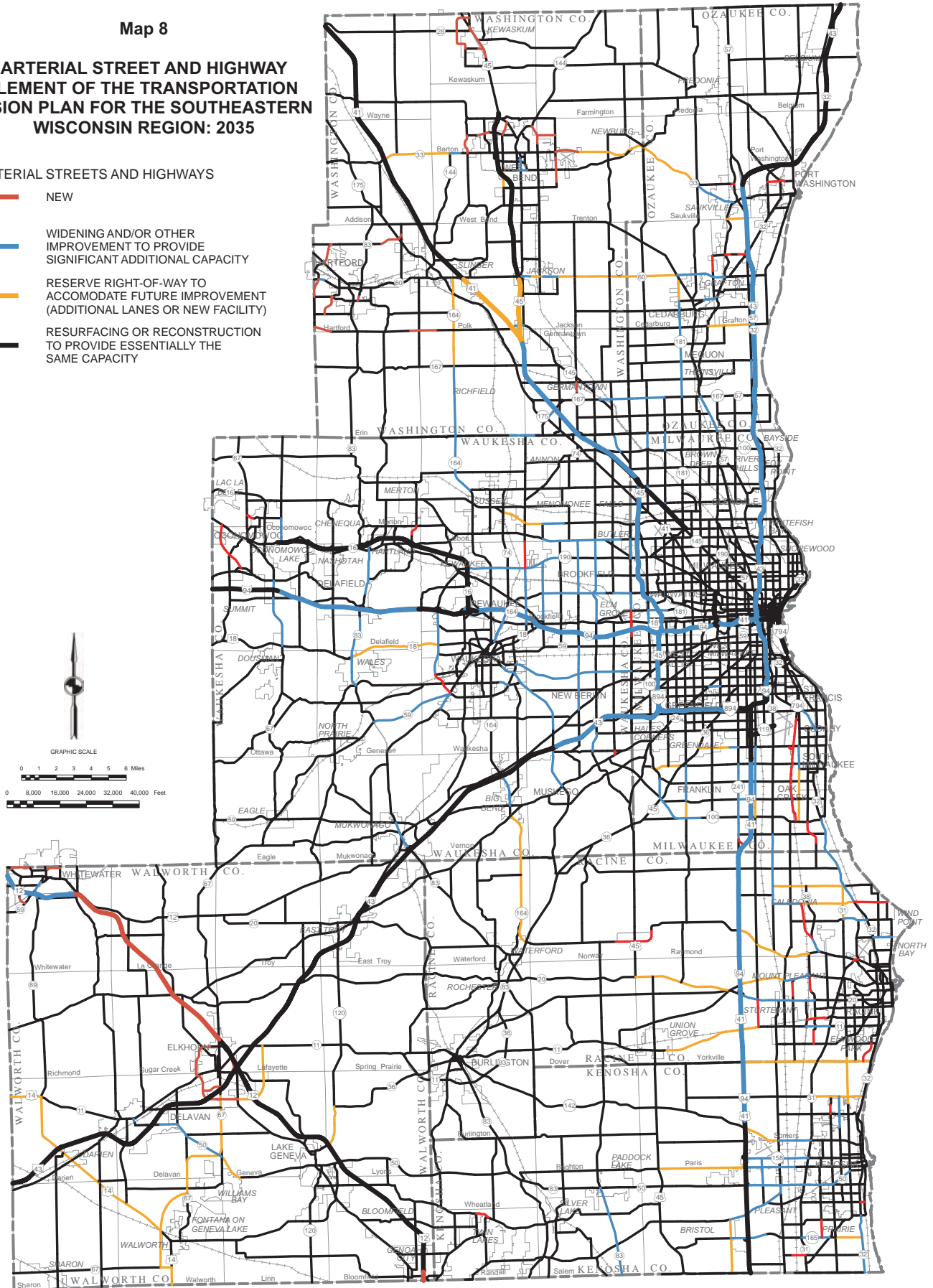


Map 8

**ARTERIAL STREET AND HIGHWAY  
ELEMENT OF THE TRANSPORTATION  
VISION PLAN FOR THE SOUTHEASTERN  
WISCONSIN REGION: 2035**

ARTERIAL STREETS AND HIGHWAYS

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



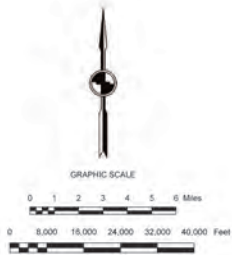
Map 9

**ESTIMATED TIME FRAME FOR  
COMPLETION OF FREEWAY  
RECONSTRUCTION UNDER THE  
YEAR 2035 REGIONAL TRANSPORTATION  
PLAN: FISCALLY CONSTRAINED**

**FREEWAY**

- COMPLETED PRIOR TO 2015
- PLANNED TO BE COMPLETED BETWEEN 2015 AND 2035
- TO BE COMPLETED BEYOND 2035

- EXISTING
- - - NEW





is included in the fiscally constrained plan, with the exception of the planned extension of the Lake Parkway between Edgerton Avenue and STH 100 in Milwaukee County. These reductions would result in approximately 90 percent, or 3,301 of the total 3,656 route-miles, of the planned arterial street and highway system being recommended to be resurfaced and reconstructed to their same capacity under the fiscally constrained year 2035 plan. Approximately 283 route-miles, or 8 percent of the total year 2035 arterial street and highway system, are recommended for widening as part of their reconstruction to provide additional through traffic lanes. The remaining 72 route-miles, or about 2 percent of the total arterial system mileage, are proposed new arterial facilities. The proposed arterial street and highway capacity improvements—both freeway and surface arterial—under the recommended fiscally constrained regional transportation plan are shown on Map 10.

The principal effect on the transit element is a lack of the transit improvement and expansion identified under the 2035 plan, with the exception of the implementation of the City of Milwaukee and City of Kenosha streetcar projects, along with about an 11 percent reduction from current transit service levels and an estimated average annual increase in transit fares above the rate of inflation. The 11 percent reduction in transit service levels from existing service levels would be expected to be achieved through reductions in service frequency. Map 11 shows the transit system in the fiscally constrained year 2035 regional transportation plan, which essentially reflects the existing routes and service areas for the Region's public transit systems.

#### **Jurisdictional Responsibility Recommendation**

The regional transportation plan 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 street and highway system. This would help to ensure that public resources are effectively invested in the provision of highway transportation, and that the costs associated with plan implementation are equitably borne among the levels and agencies of government concerned. More information relative to the jurisdictional highway system planning process can be found at [www.sewrpc.org/jhp](http://www.sewrpc.org/jhp).

More information about the regional transportation plan, including county maps of recommendations attendant to the arterial street and highway system, can be found at [www.sewrpc.org/rtp](http://www.sewrpc.org/rtp).

## **REGIONAL WATER QUALITY MANAGEMENT PLAN**

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

#### **Wastewater Treatment and Conveyance Facilities**

This element of the plan seeks to abate water pollution from point sources consisting of public and private wastewater treatment facilities and points of wastewater overflow discharge in sewerage systems, including the combined sanitary/storm sewer system found in a significant portion of east central Milwaukee County. Toward this end, the plan over the years made many recommendations to improve the Region's system of wastewater treatment facilities, including upgrading and improvement of selected existing facilities, the construction of new facilities, and the abandonment of a series of relatively small and inefficient facilities. As shown

Map 10

**RECOMMENDED ARTERIAL STREET  
AND HIGHWAY CAPACITY  
IMPROVEMENT PROJECTS UNDER  
THE YEAR 2035 REGIONAL  
TRANSPORTATION PLAN:  
FISCALLY CONSTRAINED**

**ARTERIAL STREETS AND HIGHWAYS**

- PROPOSED NEW ARTERIAL
- ARTERIAL PROPOSED TO BE WIDENED  
WITH ADDITIONAL TRAFFIC LANES
- OTHER ARTERIALS

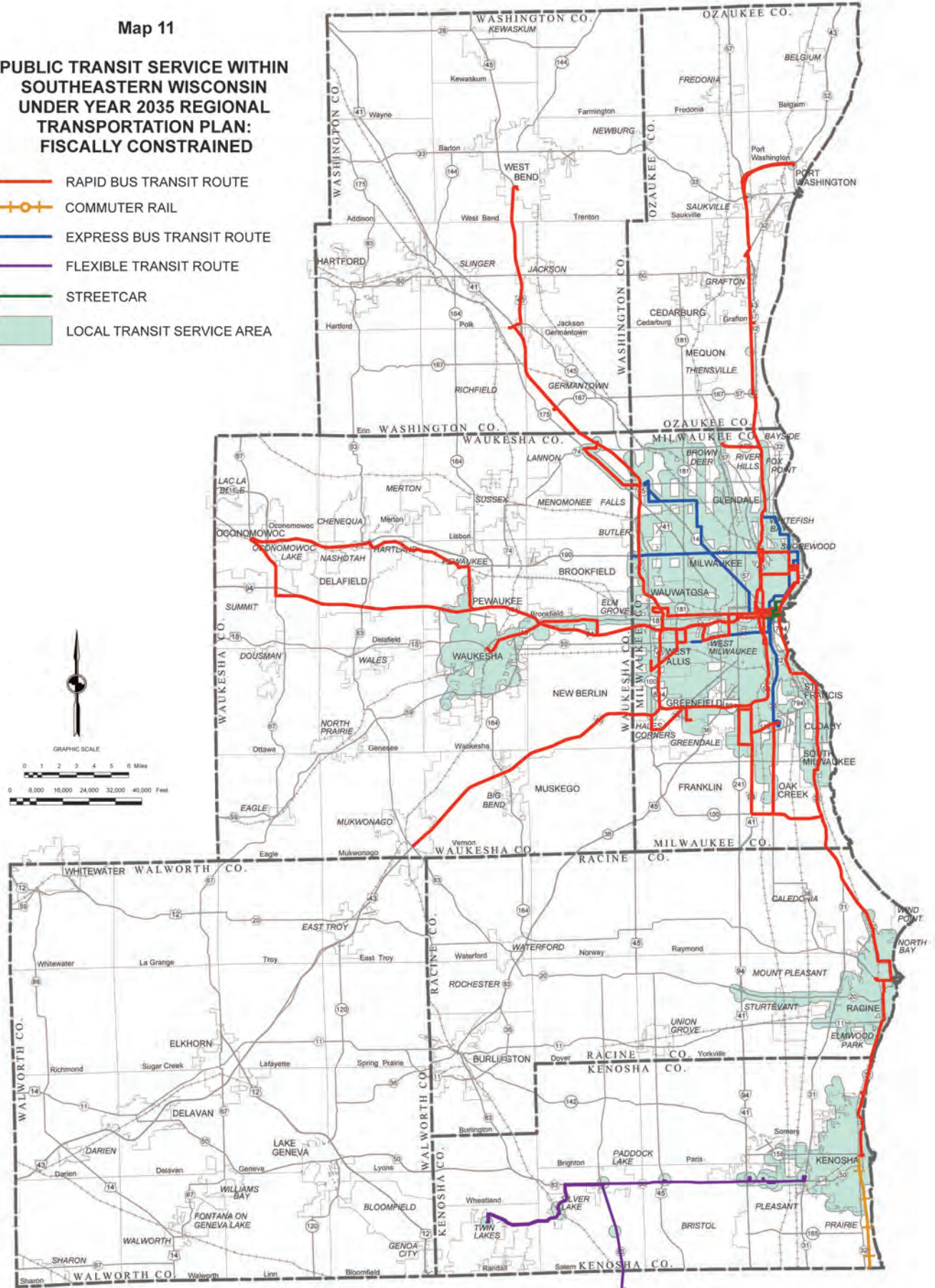




Map 11

**PUBLIC TRANSIT SERVICE WITHIN  
SOUTHEASTERN WISCONSIN  
UNDER YEAR 2035 REGIONAL  
TRANSPORTATION PLAN:  
FISCALLY CONSTRAINED**

- RAPID BUS TRANSIT ROUTE
- + + + COMMUTER RAIL
- EXPRESS BUS TRANSIT ROUTE
- FLEXIBLE TRANSIT ROUTE
- STREETCAR
- LOCAL TRANSIT SERVICE AREA



on Map 12, 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 12 identifies 26 facilities that have been abandoned in accordance with plan recommendations. At present, the plan proposes the construction of one new wastewater treatment facility, for the Village of Big Bend in Waukesha County. Over the years, carrying out these plan recommendations has also led to the construction of numerous major recommended intercommunity sewers to convey wastewater to the appropriate treatment facility. In addition, plan recommendations with respect to the very substantial abatement of overflows from the combined sewer system have been implemented by the Milwaukee Metropolitan Sewerage District through upgrades to its conveyance system and construction of an inline storage system (deep tunnel).

#### **Planned Sanitary Sewer Service Areas**

Under State law, the Commission has a responsibility to work with local governments and wastewater treatment plant operators in identifying planned sanitary sewer service areas. Shown on Map 13 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 from the Commission offices 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.

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 concerned in both rural and urban environments. These rules in rural areas relate to such control measures as reducing soil erosion from cropland, properly managing manure storage and the land application of manure, reducing barnyard runoff, and restricting livestock access to streams, among others. In rural areas, implementation of certain best management practices to abate runoff pollution is only required if cost-share funding is available to the land owner. In urban areas, such rules address the control of construction site erosion, the control of stormwater pollution, and the infiltration of stormwater runoff, among other considerations.

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

#### **Instream Water Quality Measures**

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

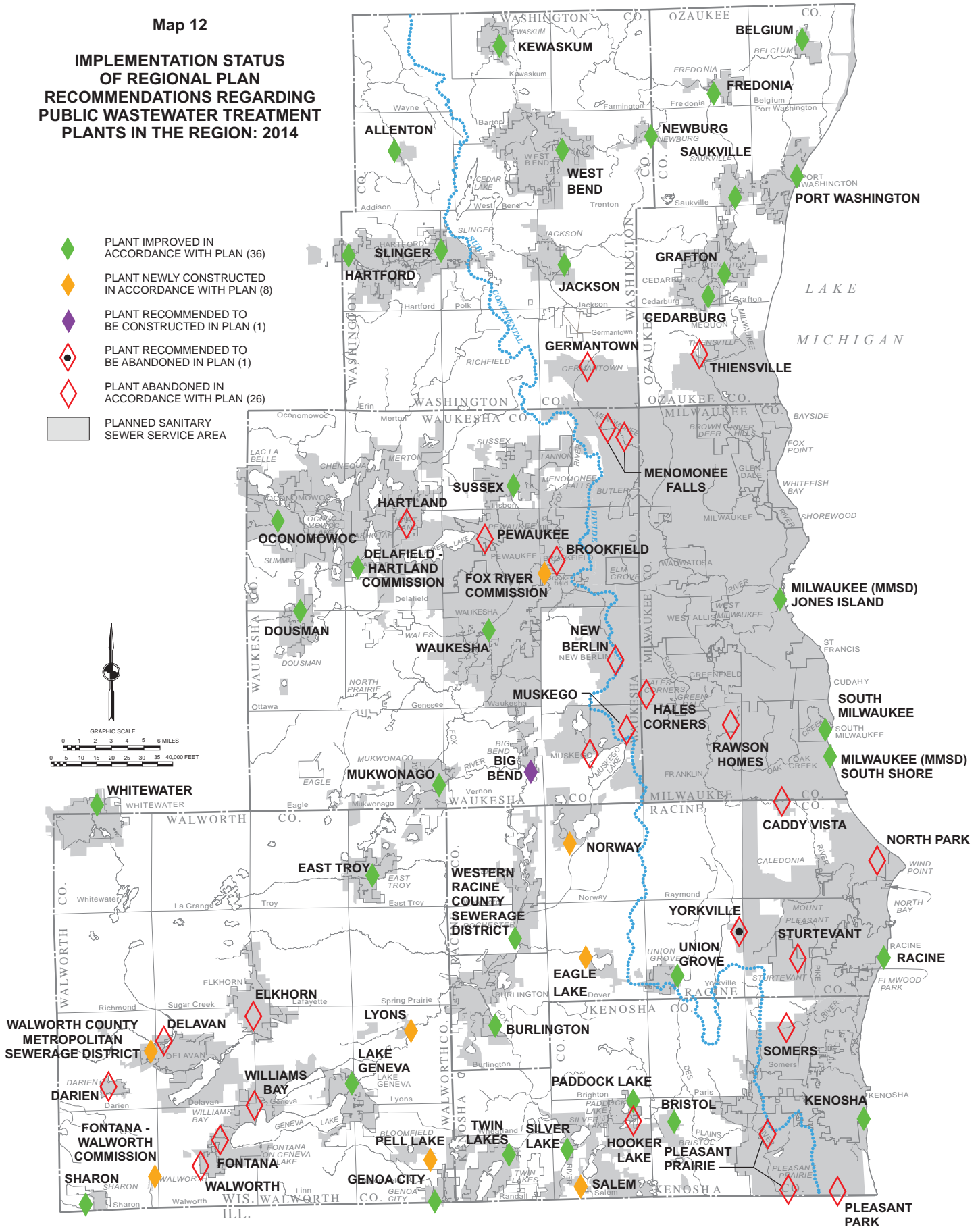
#### **Inland Lake Water Quality Measures**

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

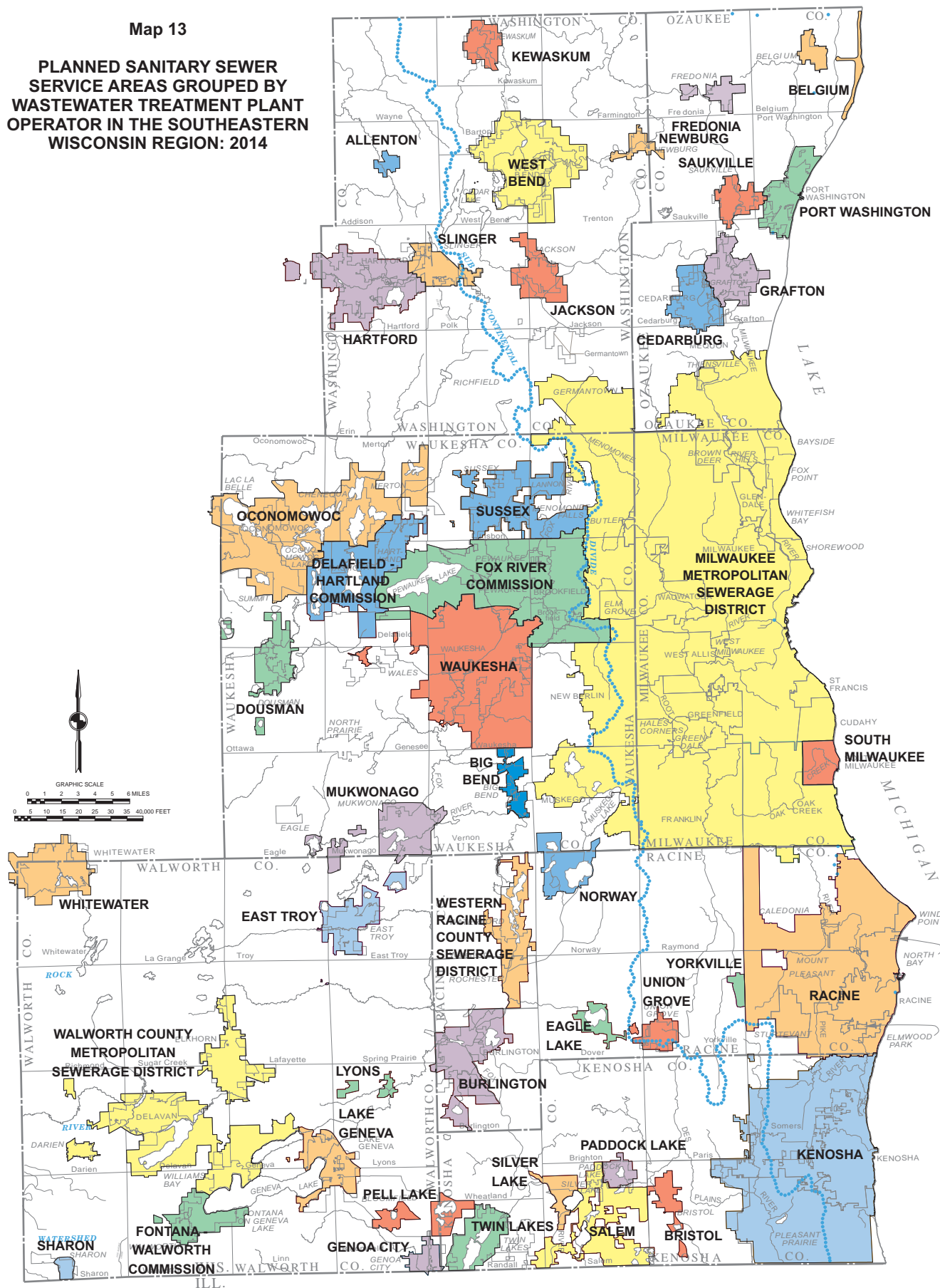


Map 12

**IMPLEMENTATION STATUS  
OF REGIONAL PLAN  
RECOMMENDATIONS REGARDING  
PUBLIC WASTEWATER TREATMENT  
PLANTS IN THE REGION: 2014**



**PLANNED SANITARY SEWER  
SERVICE AREAS GROUPED BY  
WASTEWATER TREATMENT PLANT  
OPERATOR IN THE SOUTHEASTERN  
WISCONSIN REGION: 2014**



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 Wisconsin Department of Natural Resources, 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 hazard 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).

## **REGIONAL WATER SUPPLY PLAN**

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

### **Sources of Supply**

The 2,689-square-mile southeastern Wisconsin region is bisected by a subcontinental divide separating the Great Lakes-St. Lawrence River Basin from the Mississippi River Basin. This divide has important natural resource and legal implications for water supply—implications that have long been recognized, most recently in the international Great Lakes-St. Lawrence River Basin Water Resources Compact ratified in 2008. From a land area perspective, about 1,011 square miles, or 38 percent of the Region, lies within the Great Lakes Basin. The remaining 1,678 square miles, or 62 percent, lies within the Mississippi River Basin. About 73

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

The areas proposed to be served by public water utilities in the Region by 2035, and the sources of supply recommended in each case, are shown on Map 14. The plan recommends that nine water utilities that currently utilize ground water 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. 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 15. These facilities include municipal wells, both in the deep and shallow aquifers; reservoir storage facilities; new, expanded, or upgraded municipal water treatment plants; new or modified pump or metering stations; elevated tanks; repump reservoirs; and water transmission mains.

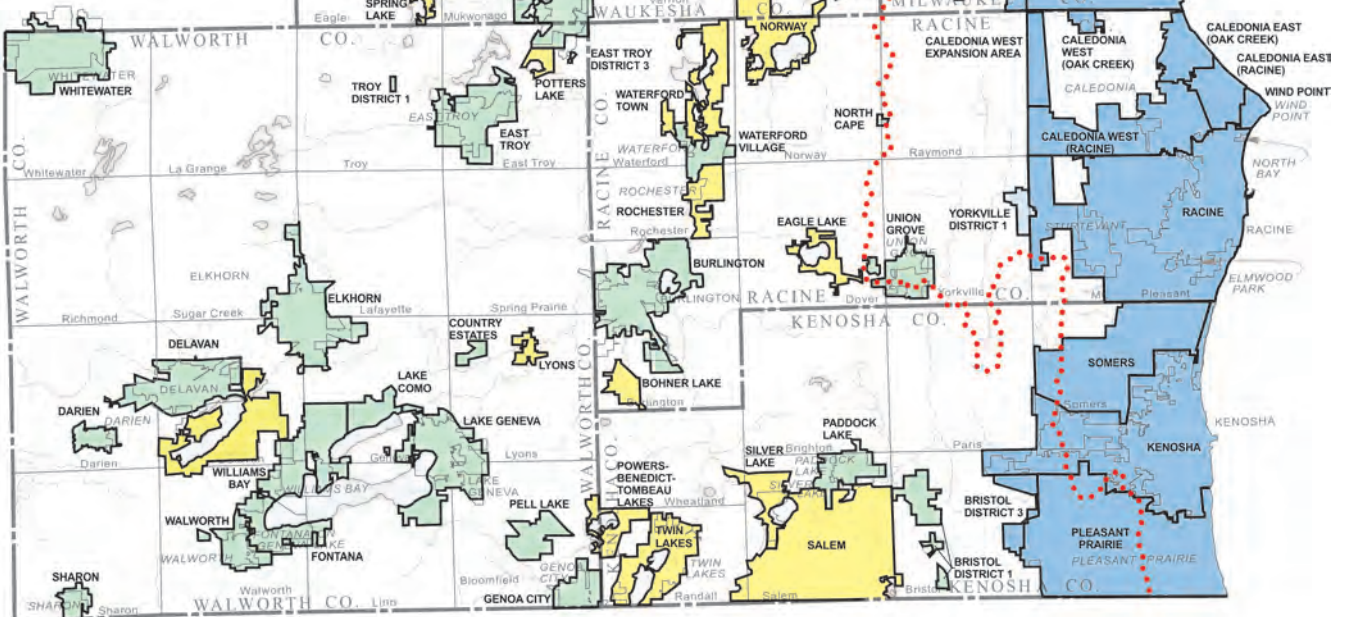
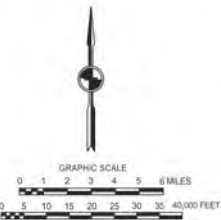


Map 14

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

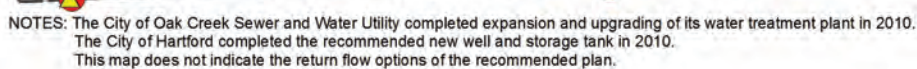
- PLANNED SERVICE AREA FOR EXISTING UTILITY TO REMAIN ON LAKE MICHIGAN SUPPLY (27)
- NEW UTILITY SERVICE AREAS TO UTILIZE LAKE MICHIGAN SUPPLY (1)
- PLANNED SERVICE AREA FOR EXISTING UTILITY TO REMAIN ON GROUNDWATER SUPPLY (42)
- PLANNED SERVICE AREA FOR EXISTING UTILITY TO BE CONVERTED FROM GROUNDWATER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

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





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



### **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 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 16). 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).

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

### **Regional Elderly-Handicapped Transportation Plan**

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

### **Transportation Systems Management Plan**

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




### **Regional Bicycle and Pedestrian Facilities Plan**

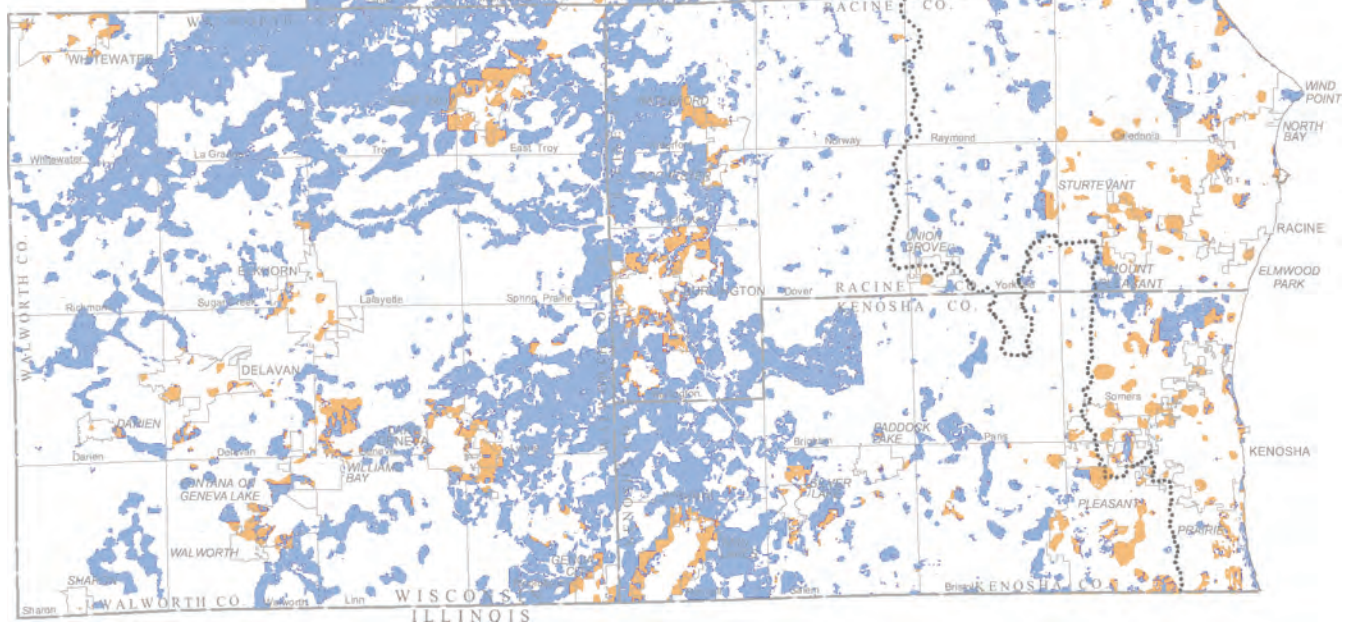
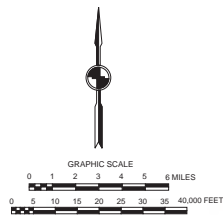
This plan, adopted in 1995 and updated and extended in 2001, includes both system and policy recommendations relative to the accommodation of



Map 16

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

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



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 system plan.

#### **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 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 ad-

dressed 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 fore mentioned plans are available from Commission offices and on the website at [www.sewrpc.org/legacyregionalplans](http://www.sewrpc.org/legacyregionalplans).

## PART TWO: THE YEAR IN REVIEW

This section of the 2014 SEWRPC Annual Report briefly documents the regional planning work activities undertaken during the year. The section is organized by the following regional planning work program categories: land use planning for development and preservation; transportation planning; environmental planning; housing planning; local planning assistance; surveying, mapping, and land information; and public involvement and outreach.

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

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



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## LAND USE PLANNING FOR DEVELOPMENT AND PRESERVATION

In 2014, 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 land use plan and other 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. In order to prepare and update these plans, since the 1960s the Commission has made long-range projections of population, household, and employment levels and characteristics. 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 3 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 2014, these 2010 inventory data sets were used in the development of alternative

year 2050 land use plans for the Region as part of the new "VISION 2050" regional land use plan and companion regional transportation plan under development.

### 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 the regional land use plan. The Commission updates the inventory of environmental corridors in conjunction with the update of the regional land use inventory—taking into account changes in wetlands, woodlands, and surface water identified in the land use inventory update. In 2013, the Commission completed the process of updating the environmental corridor inventory to 2010. In 2014, the Commission continued the work involved in the preparation of the planned environmental corridor file for the Region. This involves the delineation of proposed changes to the environmental corridor inventory to reflect floodplain additions and other changes to the existing corridors identified in local sewer service area plans and other plans. Work on the planned environmental corridor file is scheduled to be completed in 2015 and will constitute an element of the 2050 land use plan.

During 2014, in an effort to evaluate changes to environmental corridors over time, work was initiated on the preparation of a digital file of environmental corridors in the Region for the year 1963. Work on the 1963 environmental corridor file is scheduled to be completed in 2015.

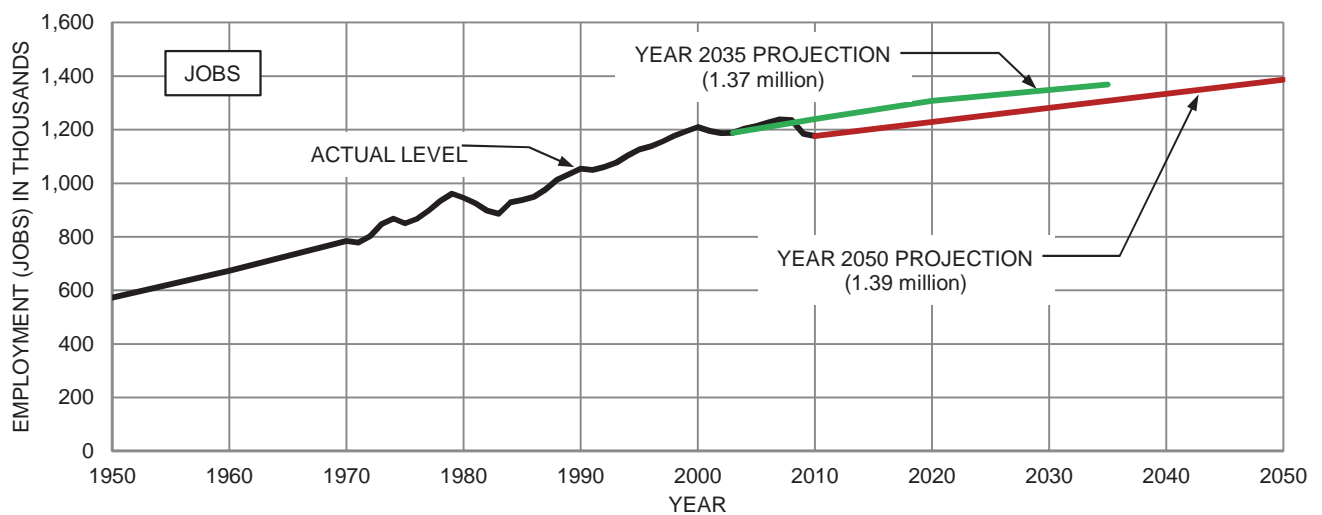
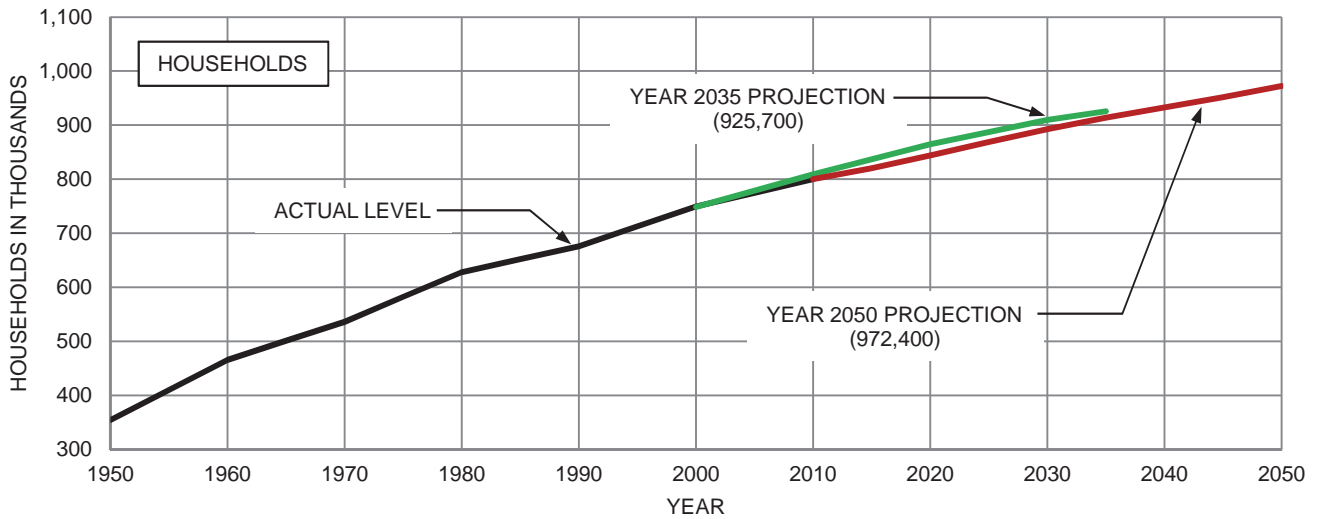
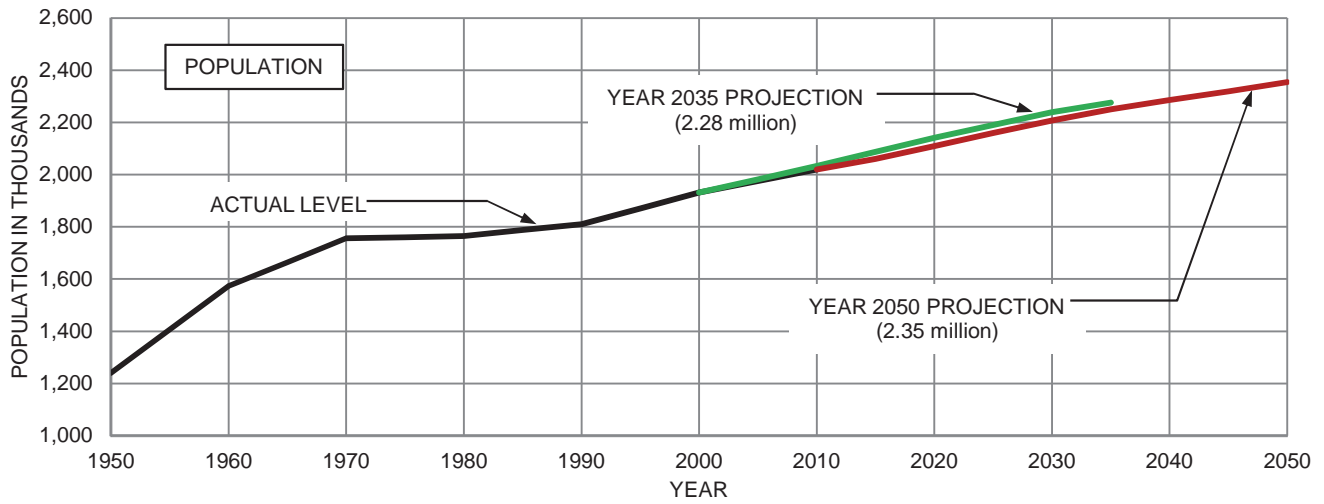
### VISION 2050: Updated Regional Land Use and Transportation System Plans

The new year 2050 companion regional land use and transportation plans have been labelled "VISION 2050," as noted. A summary of Commission work on the land use component of VISION 2050 in 2014 follows.

- Completed an effort to meet with planners from each "urban" community to inform them of the regional land use plan update effort and to obtain information regarding recent development or commitments to development

Figure 3

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



in their communities, as well as information regarding where in their communities new development is most likely to occur in the years ahead. This information will be taken into account in the preparation of the VISION 2050 land use plan.

- Completed the inventory and analysis work necessary to assess the implementation status of the year 2035 regional land use plan.
- Completed work on the preliminary drafts of a number of chapters and associated appendices for Volume I and Volume II of SEWRPC Planning Report No. 55, which will document VISION 2050 (see the transportation planning section for chapter details).
- Assisted in organizing ongoing visioning activities as part of the Commission's visioning and scenario planning process being conducted for VISION 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. In 2014, the Commission continued to assist counties in updating their park and open space plans, as follows.

#### **Walworth County Park and Open Space Plan**

Work on a new park and open space plan for Walworth County was completed in 2014 and was adopted by the Walworth County Board and also by the Commission as an amendment to the regional park and open space plan in 2014. The plan recommends that 79,964 acres (about 22 percent of the County) of environmental corridors and other natural resource-related areas be protected. Additional significant plan recommendations include a 125-mile countywide system of off-street and on-street recreational trails and routes, as well as increased access to waterways for recreation

purposes. The plan is documented in SEWRPC Community Assistance Planning Report No. 135, 3rd Edition, *A Park and Open Space Plan for Walworth County*.

### **Natural Areas Planning**

The Commission adopted a regional natural areas and critical species habitat protection and management plan in 1997 and has amended the plan several times since, most recently in December 2010 (SEWRPC Planning Report No. 42). The plan identifies, and includes recommendations for the preservation of, 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.

During 2014, a total of 50 designated or proposed natural areas and critical species habitat sites were inspected in the field (Map 17). These areas and sites were either selected by SEWRPC staff to inform natural areas planning or identified at the request of units, departments, or agencies of government or conservation nonprofit organizations.

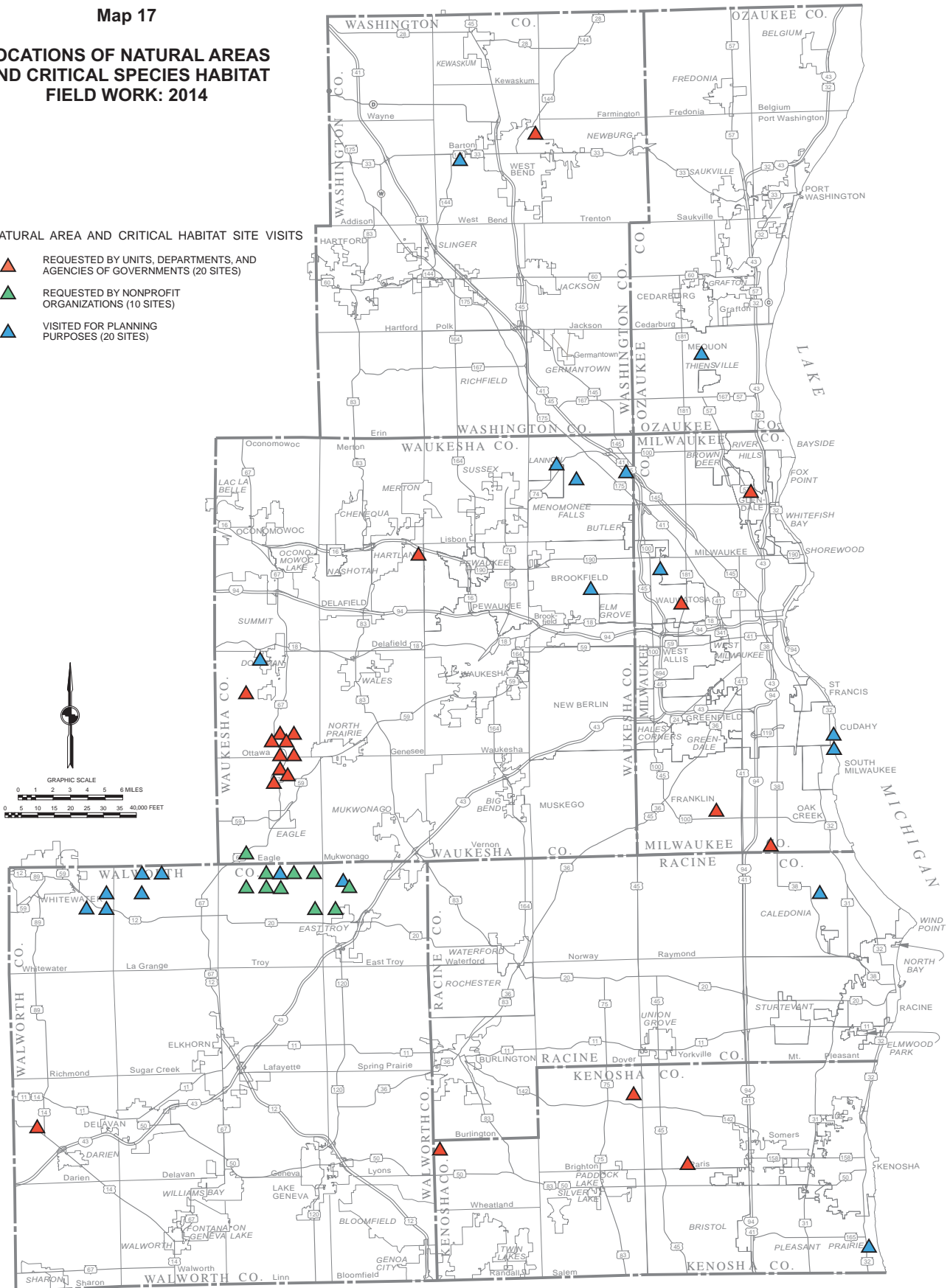
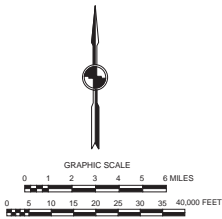
While no formal amendments were made to the regional natural areas plan in 2014, five new natural areas and critical species habitats were identified as a result of Commission staff field work (Table 1). In addition, the Commission staff determined that the Utica Lake Tamaracks site in the Village of Dousman and Town of Ottawa be upgraded from a critical species habitat to a natural area of local significance because of the discovery of plant species that are rare and/or have northern affinities. Rare species records from the Department of Natural Resources Natural Heritage Inventory also led to the designation of 25 new critical species habitat sites (Table 2). Due to the past delisting of a number of rare species by the State of Wisconsin, 33 formerly designated sites were found to no longer meet the definition of critical species habitat set forth in SEWRPC Planning Report No. 42 (Table 3). The formal classification of new critical species habitats and natural areas and the declassification of critical species habitats will occur in future revisions to relevant park and open space plans and in an amendment to the regional natural areas and critical species habitat plan.

Map 17

**LOCATIONS OF NATURAL AREAS  
AND CRITICAL SPECIES HABITAT  
FIELD WORK: 2014**

**NATURAL AREA AND CRITICAL HABITAT SITE VISITS**

- ▲ REQUESTED BY UNITS, DEPARTMENTS, AND AGENCIES OF GOVERNMENTS (20 SITES)
- ▲ REQUESTED BY NONPROFIT ORGANIZATIONS (10 SITES)
- ▲ VISITED FOR PLANNING PURPOSES (20 SITES)





**Table 1**

**NEWLY IDENTIFIED NATURAL AREAS AND CRITICAL SPECIES HABITAT SITES  
BASED ON SEWRPC STAFF FIELD WORK**

County	Civil Division	Name	Designation	Reason
Kenosha	C/Kenosha	STH 158 Railroad Prairie	Critical Species Habitat	Rare plant species
	V/Pleasant Prairie	Carol Beach Recovering Prairie and Wetlands	Critical Species Habitat	Rare plant species
Milwaukee	C/Franklin	Scott Woodsa	Critical Species Habitat	Two rare plant species
Walworth	T/Troy	Scout Road Tract	Critical Species Habitat	Rare plant species
	T/East Troy	Camp Charles Allis Oak Woodland and Tamaracks	Natural Area of Local Significance	Presence of several rare oak woodland and oak opening species and healthy tamarack stand
Waukesha	T/Eagle	Town Road X Kettle	Critical Species Habitat	Rare plant species
	V/Menomonee Falls	River's Edge Park Woods	Critical Species Habitat	Three rare plant species, one of which is found nowhere else on public land in the Region

<sup>a</sup> Proposed natural area / critical species habitat was visited in 2013.

**Table 2**

**NEWLY IDENTIFIED CRITICAL SPECIES HABITAT SITES BASED ON REPORTS OF ONE OR  
MORE STATE ENDANGERED, THREATENED, OR SPECIAL CONCERN PLANT OR ANIMAL SPECIES**

County	Civil Division	Name	Reason for Designation
Milwaukee	C/Oak Creek	Oak Creek Habitat Area	Rare animal species
		Falk Park Habitat Area	Rare animal species
	C/Greenfield	Root River Habitat Area	Rare animal species
Ozaukee	C/Mequon	Mequon Beach Habitat Area	Rare animal species
		Mequon Wetland Habitat Area	Rare animal species
	T/Cedarburg	Decker Corner Habitat Area	Rare animal species
	T/Saukville	Cedarburg Wetlands and Meadows Habitat Area	Rare animal species
Racine	V/Rochester	Honey Creek Wildlife Area	Two rare animal and one rare plant species
		Maple Road Wetland	Rare animal species
Walworth	T/East Troy	Lake Beulah Woodland	Rare plant species
	T/Lyons	Lyons Wildlife Area	Rare animal species
	T/Whitewater	Clover Valley State Wildlife Area	Rare animal species
	T/Darien	Mallard Habitat Area	Rare animal species
Waukesha	T/Ottawa	Ottawa Oak Woods and Pine Plantations	Rare animal species
		Ice Age Trail Riparian Habitat	Rare animal species
	T/Summit	Indian Mound Camp	Rare animal species
	T/Waukesha	Bypass Wetlands and Meadows	Rare animal species
	T/Genesee	Genesee Habitat Area	Rare animal species
	T/Delafield	Highland View Habitat Area	Rare animal species
	T/Brookfield	Steinaker Woods and Wetlands	Rare animal species
	C/Brookfield	Lilly Heights Park Habitat Area	Rare animal species
		Deer Creek Habitat Area	Rare animal species
	C/Pewaukee	Busse Habitat Area	Rare animal species
	T/Lisbon	Bugline Habitat Area	Rare animal species
	V/Pewaukee	Pewaukee Habitat Area	Rare animal species

Table 3

## EXISTING CRITICAL SPECIES HABITAT SITES FOUND TO NO LONGER MEET SITE DESIGNATION CRITERIA

County	Civil Division	Name	Species no longer listed
Kenosha	T/Salem	Fox River Park Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Trevor Creek Wet Prairie	Ohio goldenrod ( <i>Solidago ohioensis</i> )
	V/Pleasant Prairie	Carol Beach Oak Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	T/Brighton	Peterson Creek Wetland	Ohio goldenrod ( <i>Solidago ohioensis</i> )
	T/Paris	Poisl Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	T/Somers	Parkside Ski Trail Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Parkside Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Bradford School Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Poerio Park Woods	Red Trillium ( <i>Trillium recurvatum</i> )
Ozaukee	T/Cedarburg	Bike Path Island	Sweet Indian-plantain ( <i>Hasteola suaveolens</i> )
Racine	T/Caledonia	Wind Point Ravine Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Four Mile Road Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Hoods Creek Swamp	Red Trillium ( <i>Trillium recurvatum</i> )
		River Meadow Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	T/Norway	Landon Wetland	Ohio goldenrod ( <i>Solidago ohioensis</i> )
		Patzke Fen	Ohio goldenrod ( <i>Solidago ohioensis</i> )
		Erwin wetlands	Ohio goldenrod ( <i>Solidago ohioensis</i> )
	V/Mt. Pleasant	Willow woods	Red Trillium ( <i>Trillium recurvatum</i> )
Walworth	T/Mt. Pleasant	Pritchard Park Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	T/Sharon	Railroad Lowland	<i>Gentianopsis procera</i>
	T/Lyons	Radio Station Wetland	<i>Gentianopsis procera</i>
	T/Richmond	Island Road Shrub-Carr	Lesser fringed gentian ( <i>Gentianopsis procera</i> and Ohio goldenrod ( <i>Solidago ohioensis</i> ))
	T/Lafayette	Abells Corners Fen	Lesser fringed gentian ( <i>Gentianopsis procera</i> )
	T/Spring Prairie	Hargraves Road Sedge Meadow	Lesser fringed gentian ( <i>Gentianopsis procera</i> )
Washington	T/Polk	Cedar Creek Fen	Ohio goldenrod ( <i>Solidago ohioensis</i> )
Waukesha	T/Mukwonago	Romanowski Fen	Lesser fringed gentian ( <i>Gentianopsis procera</i> and Ohio goldenrod ( <i>Solidago ohioensis</i> ))
		Mill Brook Fen	Ohio goldenrod ( <i>Solidago ohioensis</i> )
	T/Vernon	Pleasant Hill Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Shroeder Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	C/Muskego	Janesville Road Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Swartz Woods	Red Trillium ( <i>Trillium recurvatum</i> )
	C/New Berlin	Schkeryantz Woods	Red Trillium ( <i>Trillium recurvatum</i> )
		Massaro Woods	Red Trillium ( <i>Trillium recurvatum</i> )

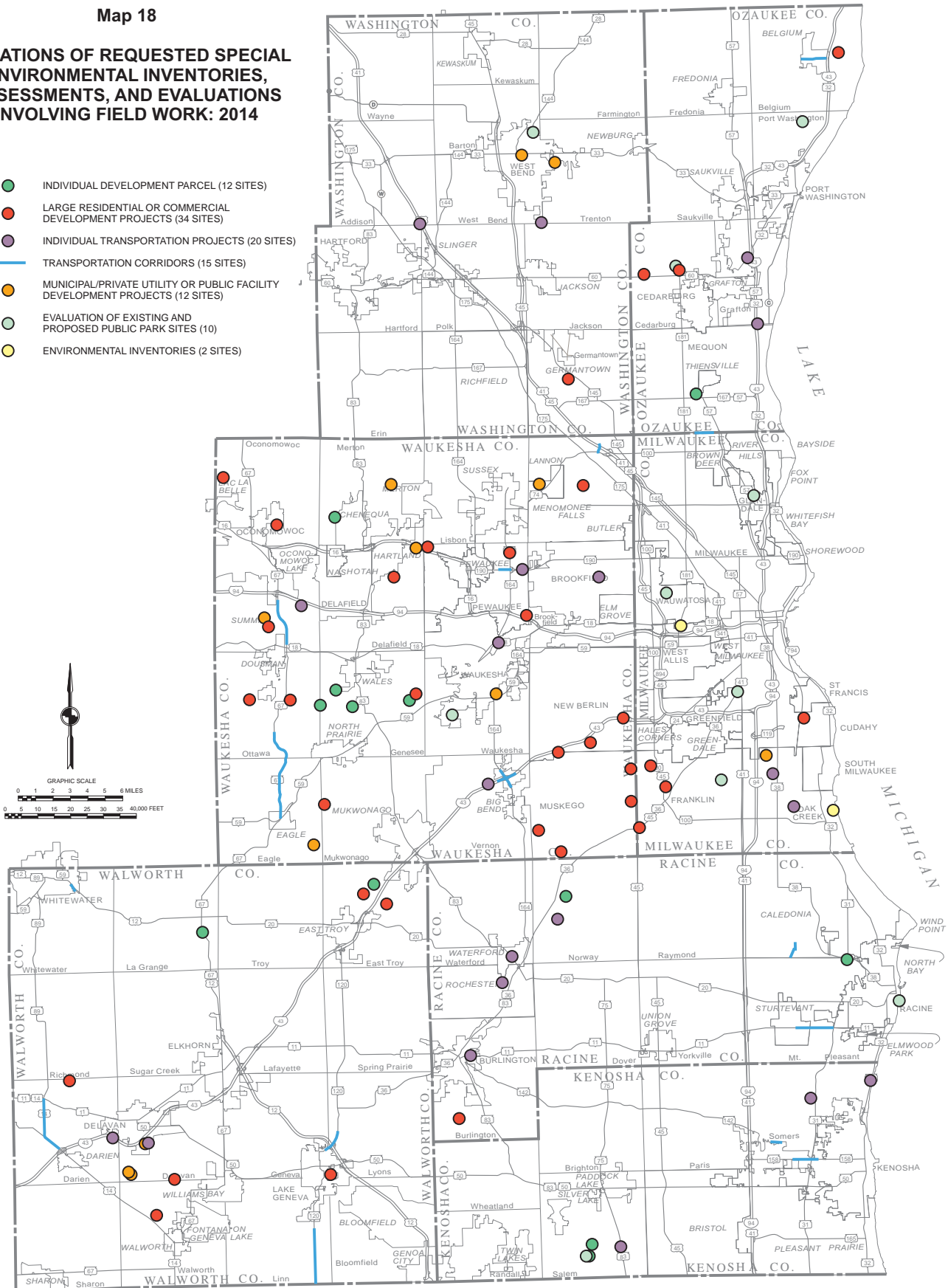
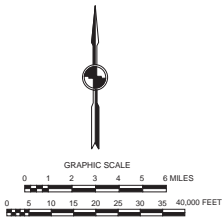
### Special Environmental Inventories, Assessments, and Evaluations

A continuing demand is placed upon the Commission to help Federal, State, and local units and agencies of government in evaluating and assessing the environmental significance and quality of specific development and preservation sites throughout the Region. Each of these evaluations involves field inspection work and requires that a report be prepared and transmitted to the requesting party. The Commission fulfilled a total of 105 requests for such information in 2014; these requests follow (see Map 18).

### Private Development Parcels

During 2014, 12 requests were fulfilled for the field identification and staking of wetland and primary environmental corridor boundaries on individual parcels in order to facilitate consideration by local governments of private development proposals. Each of these requests was made by a county or local planner or engineer who needed detailed field information in order 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

## LOCATIONS OF REQUESTED SPECIAL ENVIRONMENTAL INVENTORIES, ASSESSMENTS, AND EVALUATIONS INVOLVING FIELD WORK: 2014



retained by the local unit of government or landowner concerned and the results of the survey were placed on land subdivision plats, certified survey maps, and plats of survey.

#### **Large Private Development Sites**

During 2014, 34 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 2014, 35 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, Racine, Washington, and Waukesha Counties; the Cities of Burlington, Delavan, Oak Creek, and Waukesha; the Village of Brown Deer; and the Town of Norway.

#### **Utility and Public Facility Sites**

During 2014, 12 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 Milwaukee, Walworth, Washington, and Waukesha Counties.

#### **Public Park Sites**

During 2014, 10 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 in order to assist in the development, redevelopment, or disposal of such sites. These requests came from

park agencies in Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties.

#### **Other Sites**

During 2014, two requests were fulfilled that consisted of specialized field evaluations. The Milwaukee County Parks Department requested a primary environmental corridor evaluation and vegetation survey of a portion of the Honey Creek Parkway adjacent to the Wisconsin Lutheran High School campus. The second site involved a critical species survey and primary environmental corridor evaluation of the City of Oak Creek Lakefront Development Property.

#### **Summary of 2014 Field Work**

In the course of 2014 field work, a total of 7,439 plant species records were made: 598 from Kenosha County, 1,097 from Milwaukee County, 359 from Ozaukee County, 210 from Racine County, 2,402 from Walworth County, 278 from Washington County, and 2,495 from Waukesha County. Eight plant species never previously recorded in the Region were discovered in the course of 2014 field work. These included two new rare native plant species: October lady's tresses orchid (*Spiranthes ovalis* var. *erostellata*, State Special Concern) in Waukesha County and great white lettuce (*Nabalus crepidineus*, State Endangered) in Milwaukee County. Other new species in the Region were little barley (*Hordeum pusillum*, exotic) in Waukesha County, coltsfoot (*Tussilago farfara*, exotic) in Milwaukee County, strawberry clover (*Trifolium fragiferum*, exotic) in Racine County, climbing prairie rose (*Rosa setigera*, possibly native) in Waukesha county, Java waterdropwort (*Oenanthe javanica*, exotic) in Waukesha County, and Nanking cherry (*Prunus tomentosa*, exotic) in Waukesha County. A total of 67 records of State Endangered (three records), Threatened (26 records), and Special Concern (38 records) plant species were made: one from Kenosha County, eight from Milwaukee County, one from Ozaukee County, one from Racine County, 24 from Walworth County, and 32 from Waukesha County. One State Endangered species, heart-leaved plantain (*Plantago cordata*), is now believed to be extirpated from its only known locality in Milwaukee County. Runoff from surrounding developed lands has seriously degraded the stream channel habitat where it formerly occurred.

## 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 multi-modal transportation planning since its inception in the early 1960s. In its efforts, the Commission works cooperatively with the U.S. Department of Transportation, Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), U.S. Environmental Protection Agency (USEPA), Wisconsin Department of Transportation (WisDOT), Wisconsin Department of Natural Resources (WDNR), transit operators, and county and local units of government in the Region. As the Region's Federally recognized Metropolitan Planning Organization (MPO), the Commission is responsible for conducting a continuing, cooperative, and comprehensive transportation planning process as prescribed in Federal laws and regulations. In 2012, the U.S. Department of Transportation (USDOT) conducted a quadrennial certification review of that process. The results of that review, as provided to the Commission in May 2014, were that the Commission's metropolitan planning process was certified as meeting Federal transportation planning requirements.

The Commission undertook a wide range of transportation planning activities in 2014. 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 2014 these activities consisted of a review and update of the four-year transportation improvement program and preparation of short-range (five-year) transit development plans for individual public transit operators.

### **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 maintenance 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 19).




During 2014, the Commission initiated and completed an updated 2015-2018 TIP, which was adopted in November 2014 by the Commission, as set forth in *A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018*. The 2015-2018 TIP contains 434 projects within the Region for the four-year programming period of 2015 through 2018. The TIP represents a total potential investment in transportation improvements and services of \$2.64 billion. Of this total, \$1.16 billion, or about 43.8 percent, is proposed to be provided through Federal aids; \$1.19 billion, or about 45 percent, through State funds; and \$295 million, or about 11.2 percent, through county and local monies.

About \$989 million is programmed in 2015, the first year of the TIP. As derived from the data shown in Figure 4:

- About \$445.6 million, or 45.1 percent of all expenditures, is devoted to the preservation of existing transportation facilities and services in 2015, including \$284.0 million for highways and \$161.6 million for transit, with 51.9 percent being programmed for transit service and highway facility improvement and expansion projects. (It should be noted that much of the cost of a highway improvement project is

Map 19

**NONATTAINMENT AND MAINTENANCE  
AREAS WITHIN THE SOUTHEASTERN  
WISCONSIN REGION WITH RESPECT  
TO NATIONAL AMBIENT AIR QUALITY  
STANDARDS (NAAQS)**

-  THREE-COUNTY 2006 24-HOUR  
FINE PARTICULATE (PM<sub>2.5</sub>)  
NAAQS NONATTAINMENT AREA
-  WISCONSIN PORTION OF THE  
CHICAGO-NAPERVILLE, IL-IN-WI  
MARGINAL 2008 EIGHT-HOUR OZONE  
NAAQS NONATTAINMENT AREA
-  SIX-COUNTY 1997 EIGHT-HOUR OZONE  
NAAQS MAINTENANCE AREA

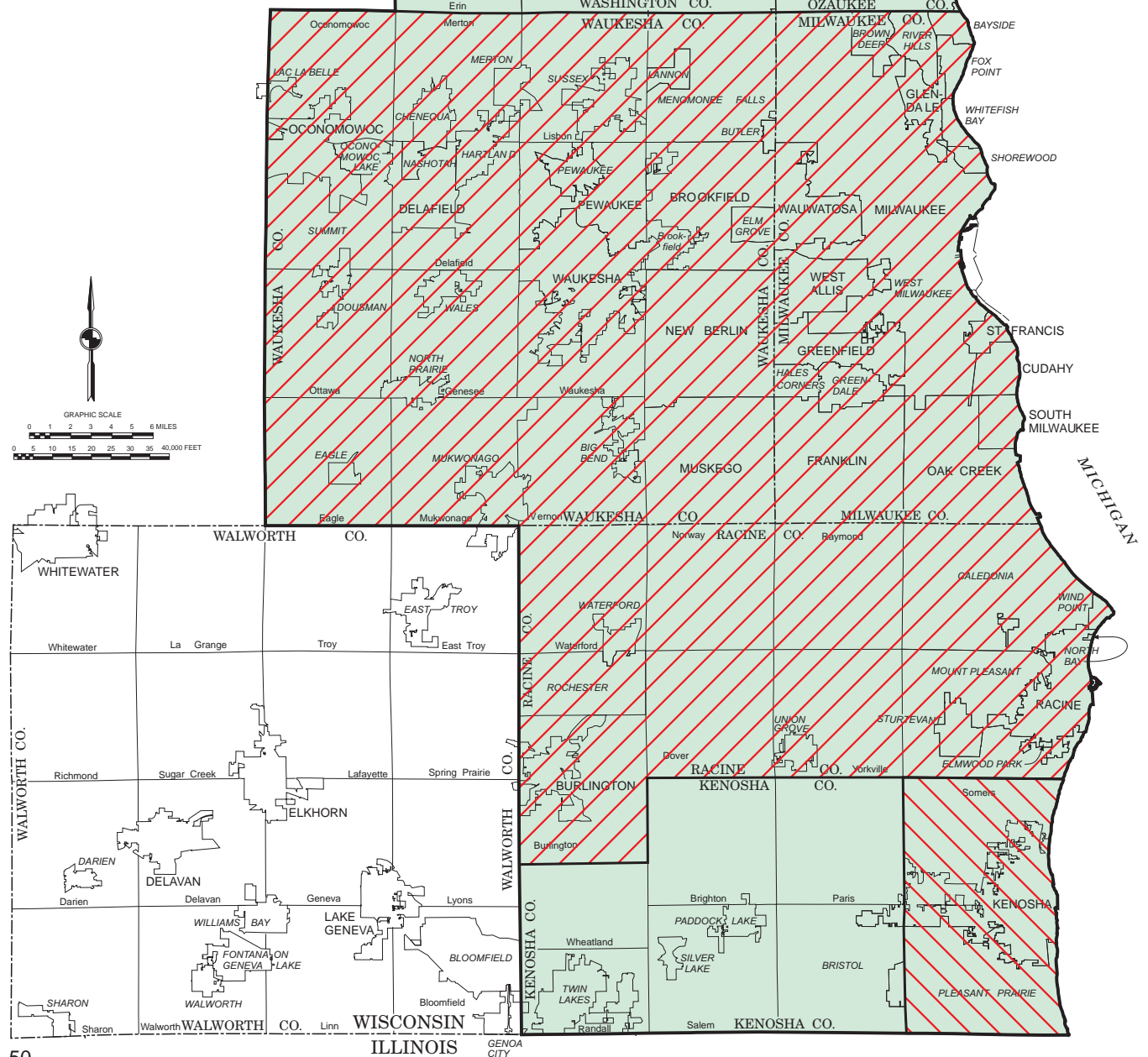
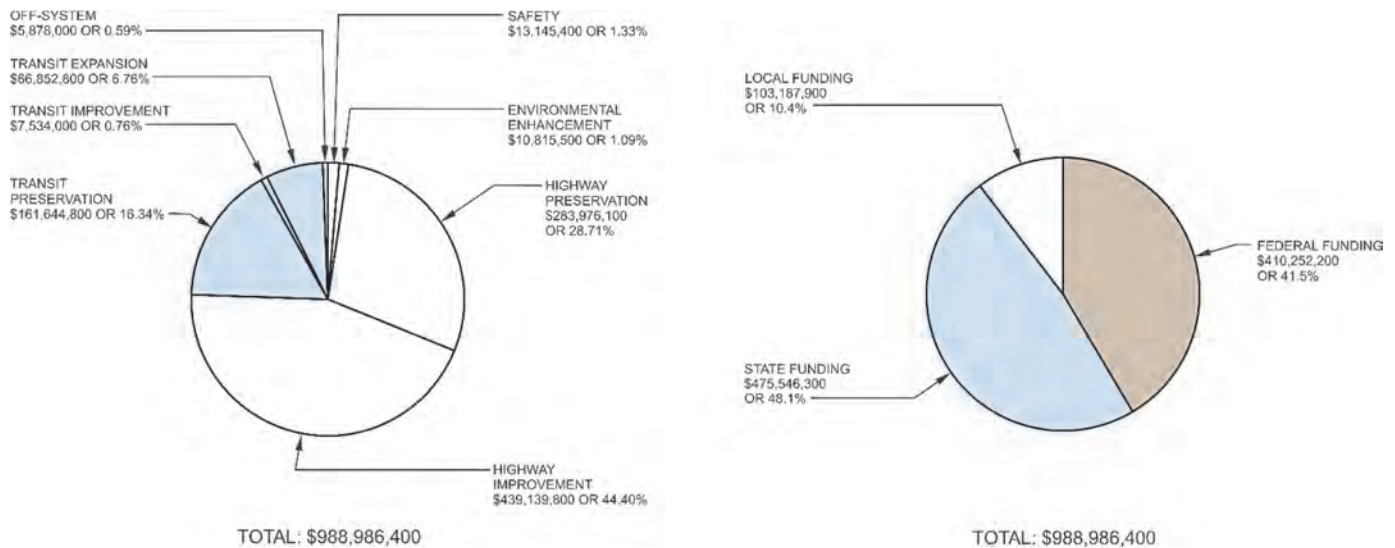


Figure 4

**PROGRAMED EXPENDITURES AND FUNDING SOURCES FOR TRANSPORTATION FACILITIES AND SERVICES IN THE SOUTHEASTERN WISCONSIN REGION: 2015**



attendant to reconstruction of the existing highway facility. The cost of additional traffic lanes provided may only represent 10 to 20 percent of the total costs of a highway improvement project.)

- In total, including the service and facility preservation, improvement, and expansion categories of projects, public transit systems—which serve about 2 percent of the approximately 6.6 million person trips made in the Region on an average weekday—are slated to receive about \$236 million in 2015, or 23.9 percent of total expenditures.
- In total, including the facility preservation, improvement, and expansion categories of arterial projects, highways are slated to receive about \$739 million in 2015, or 73.1 percent of total expenditures.
- The remaining \$30 million in expenditures, or 3.0 percent of the total, would be expended on 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).

The following three additional work activities during 2014 were related to project selection and implementation activities drawn from the TIP:

- **Congestion Mitigation and Air Quality**  
In 2014, the Commission staff completed work with the TIP Committees, WisDOT, and WDNR to recommend 24 projects for \$38.9 million in years 2015-2018 Federal Highway Administration Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, based on procedures previously developed and applied to evaluate and recommend projects for CMAQ funds.
- **Obligated Project Listing**  
The Commission, in accordance with Federal law, completes and makes available for public access a listing of projects each year for which the FHWA and FTA have obligated funds, drawing such projects listed in the preceding year of the TIP. The lists of obligated highway



and transit projects for 2014 are available from the Commission offices and can be accessed at [www.sewrpc.org/2014highwaylist](http://www.sewrpc.org/2014highwaylist) and [www.sewrpc.org/2014transitlist](http://www.sewrpc.org/2014transitlist), respectively.

### **Public Transit Plans**

Transit system development plans refine and detail the recommendations for transit services set forth in the regional transportation plan. These plans are prepared at the request of transit service providers in the Region. The plans evaluate the performance of an existing transit system, identify the transit service needs of residents not being met by the system, design and evaluate transit system improvement alternatives for addressing the identified unmet needs, and recommend a five-year plan of operating and capital improvements. The Commission was actively involved during 2014 in producing the following transit system development plans.

#### ***Kenosha County Public Transit Plan***

Work on the Kenosha County Public Transit Plan continued in 2014. The plan will include a full review of the Kenosha Area Transit system operated by the City of Kenosha, which was last evaluated in a short-range transit plan for the years 1998-2002. In addition, the plan is also examining for the first time the operations of the Western Kenosha County Transit System, a rural fixed-route service that Kenosha County began operating in 2007. The plan will include recommendations for transit service and capital improvements for both the City and County transit systems over the period 2015 through 2019. More information can be found at [www.sewrpc.org/kenoshatdp](http://www.sewrpc.org/kenoshatdp).

#### ***Washington County Transit Development Plan***

Work on the Washington County Transit Development Plan was completed in 2014. The plan includes recommendations for transit service and capital improvements for the County transit system over the period 2015 through 2019. The plan proposes a set of recommended service changes for the transit system and identifies the forecasted ridership, service levels, and operating and capital expenses that would be expected from implementing the changes. The final plan, set forth in Community Assistance Planning Report No. 317, *Washington County Transit System Development Plan*, was expected to be completed and approved by the

Advisory Committee in early 2015. More information can be found at [www.sewrpc.org/washingtontdp](http://www.sewrpc.org/washingtontdp).

### **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 at all times 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. In 2014 this work included:

#### **Adopted Year 2035 Regional Transportation System Plan**

The adopted year 2035 regional transportation plan was summarized in Part One of this Annual Report. The plan was most recently fully documented in SEWRPC Planning Report No. 49, *A Regional Transportation System Plan for Southeastern Wisconsin: 2035*, adopted by the Commission in 2006. The first interim review, update, and reaffirmation of the plan was adopted in June 2010.

In 2014, the Commission completed work on the second interim review and update to the adopted year 2035 plan. This work included an assessment of the implementation to date of the regional transportation plan, a review of the forecasts underlying the plan, and a monitoring of transportation system performance. The review as well examined whether it remains reasonable for the recommendations in the year 2035 plan to be accomplished over the next 20 years, given implementation of the plan to date and available and anticipated funding.

In 2014, existing funding, and the outlook for future funding, was far more constrained than it was in 2005 during development of the year 2035 regional transportation plan and in 2010 during its first update. As a result, it was no longer possible to conclude that the plan could be implemented by the year 2035 in light of existing and reasonably expected future revenue. Specifically, it was Con-

cluded that 164 miles of the 254 miles of necessary freeway reconstruction and the six-mile Lake Parkway extension between Edgerton Avenue and STH 100 in Milwaukee County could not be expected to be implemented by the year 2035. With respect to transit, it was concluded that the constraints of existing and reasonably expected available revenues would result in a lack of implementation of any of the improvement and expansion of transit proposed in the plan.

The 2014 plan update document, Memorandum Report No. 215, *Review and Update of the Year 2035 Regional Transportation Plan*, is available at the Commission's offices and can be accessed at [www.sewrpc.org/2035transplanupdate](http://www.sewrpc.org/2035transplanupdate).

The interim review and update was done concurrently with, but separate from, the next major update of the regional land use and transportation plans—VISION 2050—which is described in the following section of this report. While separate from the VISION 2050 effort, the review and update of the year 2035 regional transportation plan will inform the VISION 2050 planning work.

#### **VISION 2050: An Updated Regional Land Use and Transportation System Plan**

In addition to the interim review and update to the adopted year 2035 regional transportation system plan, the Commission continued work in 2014 on a major review, reevaluation, and update of the regional transportation system plan, which is being prepared in conjunction with an updated regional land use plan. The new year 2050 companion regional plans—expected to be completed in 2015—have been titled “VISION 2050.”

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

To prepare the VISION 2050 plan, the Commission initiated a visioning and scenario planning process in

2013 to identify a long-range future vision for land use and transportation for the Region. Initial visioning activities—designed to engage and involve the public at the very beginning of the process in order to develop a consensus vision for the plan—lead into a scenario planning effort, which will consider and evaluate a range of potential future scenarios relative to regional land use and transportation system development. The visioning and scenario planning results form the basis for the preparation of alternative land use and transportation plans. Those alternative plans will be compared and evaluated based on how well they meet established objectives for regional development. Ultimately, a final recommended year 2050 land use and transportation plan will be developed, representing a preferred comprehensive vision for the Region.

The Commission launched the initial visioning activities for VISION 2050 in fall 2013 and held two series of interactive public visioning workshops in 2013 and a third series in 2014 in each county of the Region. 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 results of the 2013 visioning activities were used to develop a series of guiding statements, which express a preliminary vision for land use and transportation in the Region and will guide the VISION 2050 process.

The 2014 public engagement activities provided an opportunity for residents to compare the long-term consequences of alternative future development patterns and transportation system development through “sketch” scenarios.

Visioning activities were also made available online. More information can be found in the Public Involvement and Outreach section of this chapter and at [www.vision2050sewis.org](http://www.vision2050sewis.org).

Preparation of VISION 2050 is being guided by the Commission Advisory Committees on Regional Land Use Planning and Regional Transportation System Planning. During 2014, these Committees reviewed and approved preliminary drafts of the following chapters of Volumes I and II of SEWRPC *Planning Report No. 55*:

- Volume I, Chapter II, “Existing Conditions and Trends: Population, Employment, and Land Use;”
- Volume I, Chapter III, “Review of Currently Adopted Regional Land Use and Transportation System Plans;”
- Volume I, Chapter IV, “Inventory of Transportation Facilities and Services;”
- Volume I, Chapter V, “Travel Habits and Patterns;”
- Volume II, Chapter I, “Visioning for the Region’s Future;” and
- Volume II, Chapter II, “Sketch Land Use and Transportation System Scenarios.”

### **Travel Inventory Survey and Results**

A comprehensive travel survey was completed in 2014 and included in the VISION 2050 plan Volume I, Chapter V, “Travel Habits and Patterns.” Key findings from the travel survey follow.

### ***Tripmaking Activities***

- **Total Tripmaking**  
About 6.6 million person trips were made within the Region on an average weekday in 2011, 60 percent more than were made in 1963. This increase reflects similar rates of change in the number of households and jobs, but is substantially greater than the 23 percent increase in population. Between 2001 and 2011, tripmaking declined by 2 percent, a change that may be largely attributed to employment and income declines associated with the national economic recession during that period.
- **Household Tripmaking**  
The number of internal person trips per household in the Region remained relatively constant at about eight trips per weekday over the 1972 to 2001 period. During the 2001 to 2011 decade that number declined to about seven trips per household per day. Again, the employment and income declines associated with the national economic recession likely contributed to this change. The relative stability in household trip rates over the long term has occurred despite substantial social, economic,

land use, and transportation changes in the Region over the last 50 years, including the increasing participation of women in the labor force, the change in age composition, the change in household size, and the increase in vehicle ownership in the Region.

- **Resident Tripmaking**  
Nearly 95 percent of trips made within the Region on an average weekday are made by the Region’s residents, a figure that has remained relatively stable over a long period of time. Accordingly, the Region does not have a significant number of interregional trips that would substantially impact transportation system needs.
- **Generational Tripmaking Patterns**  
There are some differences in tripmaking based on the age of the head of a household. These differences were observed not only in the 2011 survey, but also in the 2001 and 1991 surveys. Household tripmaking peaks in the 27 to 46 years of age category, and is lower both for households with heads of household that are younger and older. Also, households with heads of household of 16 to 26 years of age use walking, biking, and transit significantly more than older households.

### ***Vehicular Travel***

- **Vehicle Availability**  
In 2011, there were about 1.37 million vehicles available in the Region. This represents an average of 1.71 vehicles per household, down slightly from 1.73 vehicles per household in 2001. By comparison, there were 1.07 vehicles per household in 1963. In 2011, there were 71,800 households in the Region with zero vehicles available, representing about 9 percent of all households.
- **Vehicle Tripmaking**  
In 2011, there were nearly 4.15 million vehicle trips made on an average weekday by residents of the Region, nearly double the 1963 level. The number of vehicle trips has increased somewhat more than the increase in person trips owing to a decline in the average vehicle occupancy. The average vehicle occupancy in 2011 was 1.20 persons, as compared to 1.42 persons per vehicle in 1963.

## ***Travel Mode***

- **Automobile Travel**

Travel by automobile is by far the most dominant mode of travel within the Region. In 1963 automobile travel represented 80 percent of all internal personal travel, increasing to a level of 89 percent in 2001 before declining in 2011 to 86 percent.

- **Transit Travel**

Travel by public transit has declined sharply over the last 50-plus years, from a level of 8 percent of total travel in 1963 to a low of 2 percent of total travel in 2001 and 2011. Such decline has been accompanied by, and to some extent caused by, significant reductions in transit service together with—in recent years—increases in transit fares at an amount greater than general price inflation.

- **Bicycle and Pedestrian Travel**

In 1963 and 1972 about 9 percent of all internal personal trips were made by walking or bicycling. By 1991 only about 4 percent of all trips were made by walking and bicycling. In the 20 years since 1991, trips made by walking or bicycling have increased by over 50 percent and now represent about 8 percent of all trips.

## ***Travel Characteristics***

- **Trip Purpose**

The relative distributions of internal person trips with regard to trip purpose have remained very stable for the past 50 years. Trips between home and work account for 22 to 25 percent of all trips; between home and shopping for 11 to 15 percent of all trips; between home and school for 9 to 13 percent of all trips; between home and social, recreational, and personal business destinations for 30 to 34 percent of all trips; and trips between non-home origins and destinations for 18 to 23 percent of all trips.

- **Trip Length**

The average trip length for trips made within the Region on an average weekday measured in terms of distance traveled increased between 2001 to 2011 by about 4 percent. The average trip length in 2011 was 7.1 miles, representing about a 55 percent increase from 4.7 miles in

1963. The relative increase in the length of trips to work has been even greater. The average length of work trips was 6.1 miles in 1963 and 11.0 miles in 2011.

## **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 2014, the Commission continued working with the Ozaukee County Jurisdictional Highway Planning Committee to review and update report materials as part of the update to the jurisdictional highway system plan for Ozaukee County. Also in 2014, the Commission continued preparation of the documents that will summarize the findings and recommendations of the updated plans for the remaining four counties—Kenosha, Milwaukee, Racine, and Waukesha Counties—within Southeastern Wisconsin. More information on the jurisdictional highway planning process can be found at [www.sewrpc.org/jhp](http://www.sewrpc.org/jhp).

## **Adjustments to 2010 U.S. Census-defined**

### **Urbanized Area Boundaries**

After each decennial U.S. Census, urbanized areas are delineated by the U.S. Bureau of the Census based on resident population and population density, and are intended to represent the intensively developed urban cores of metropolitan areas. Because the Census-defined urbanized areas are defined primarily by residential development, adjustments to the urbanized area boundary are necessary to include non-residential urban development—such as commercial and industrial areas—and to include segments of arterial facilities which would otherwise have irregular urban and rural segments. Work to identify adjustments to the 2010 Census-defined boundaries for the long-established urbanized areas is done in cooperation with local officials and WisDOT staff. In 2013, the Commission approved the adjusted boundaries for the Milwaukee and Round Lake Beach urbanized areas. In 2014, the Commission approved the adjusted boundaries for the Kenosha, Racine, and West Bend urbanized areas.

### **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 2014 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 within the context of the year 2035 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 2014, numerous forecasts were prepared or under way for WisDOT and other agencies. Some of the projects for which forecasts have been developed were:

- Zoo Interchange reconstruction;
- IH 94 east-west corridor study;
- IH 43 north-south corridor study; and
- STH 100 corridor study.

#### **Technical Assistance for Transportation Projects**

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

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

Some of the projects or studies that Commission staff provided technical assistance to in 2014 included:

- Kenosha streetcar extension;
- Milwaukee streetcar project;
- Zoo Interchange reconstruction;
- IH 94 east-west corridor study;
- IH 43 north-south corridor study; and
- STH 100 corridor study.

#### **Other Activities**

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

The Commission also conducts traffic engineering studies for local governments within the Region. In 2014, the Commission completed work on a traffic study for N. Lincoln Street in the City of Elkhorn to assess the traffic operations of the segment of roadway between N. Wisconsin Street and E. Geneva Street, and to evaluate potential new street extensions adjacent to N. Lincoln Street, along with alternative traffic engineering measures, to divert traffic from the study segment.

#### **Regional Transportation Consultation Activities**

The following summarizes regional transportation consultation activities conducted by the Commission pursuant to its Regional Transportation Consultation Process during 2014.



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

The Committee met on eight occasions in 2014:

- At the February 19 and April 2 meetings, the Committee was asked to guide the review and update of the year 2035 regional transportation plan.
- At seven of the meetings (January 15, March 12, April 23, July 30, October 15, November 19, and December 17), the Committee was asked, along with the Advisory Committee on Regional Land Use Planning, to guide the development of the major update to the year 2050 regional land use and transportation plans—called VISION 2050. This included providing input on the visioning activities, and providing guidance on the development of guiding statements used to develop the VISION 2050 plan and of sketch-level land use and transportation scenarios.

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

The five TIP Committees jointly met on two occasions in 2014:

- On March 26, the Committees met to review and approve candidate projects for FY 2015-2018 Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding and to amend the 2013-2016 transportation improvement program; and
- On November 10, the Committees met to review and approve the 2015-2018 TIP.

The Kenosha TIP Committee met on April 28, 2014, to approve adjustments to the boundary for the Kenosha Urbanized Area.

The Milwaukee TIP Committee met on three occasions in 2014:

- On February 20, the Committee met to review and approve an amendment to the 2013-2016 TIP;

- On May 23, the Committee met to review and approve projects for year 2015-2018 FHWA Transportation Alternatives Program (TAP) funding; and
- On August 20, the Committee met to review and approve the reallocation of 2015-2018 Surface Transportation Program—Milwaukee urbanized area funding (STP-M) and amendments to the 2013-2016 TIP.

The Racine TIP Committee met on April 29, 2014, to approve adjustments to the boundary for the Racine Urbanized Area.

The West Bend TIP Committee met on May 7, 2014, to approve adjustments to the boundary for the West Bend Urbanized Area.

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

The Committee met on January 21, 2014, to guide the development of a new Ozaukee County jurisdictional highway system plan.

### **Washington County Transit Advisory Committee**

The Committee met on three occasions in 2014 (January 8, July 2, and October 8) to guide the development of a 2015-2019 Washington County transit development plan.

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

The EJTF met on three occasions in 2014 (March 4, May 6, and October 7) to provide input on the development of the VISION 2050 plan. At the October 7 meeting, the EJTF as well was asked to provide input on the 2015-2018 TIP.

### **VISION 2050 – Major Update of the Regional Land Use and Transportation Plans**

In addition to the guidance from the two Advisory Committees, a number of consultation efforts were conducted during 2014 as part of the development of the VISION 2050 plan:

- The Commission convened two series of meetings for eight of the task forces established to examine specific issues related to land use and transportation as part of the VISION 2050 plan development during 2014—the first series

during the summer prior to the development of sketch-level plan scenarios and the second series during the fall prior to the development of detailed plan alternatives. The task forces that met are comprised of individuals with knowledge about the following issues: natural resources; land use; freight transportation; public transit; human services transportation needs; non-motorized transportation; women's land use and transportation issues; and business, industry, workforce development, and higher education.

- Corresponding with the VISION 2050 workshops held for the general public, the Commission concluded a second series of workshops begun at the end of 2013 and also completed a third series of workshops in the fall with eight community partner organizations. These workshops were specifically targeted at reaching and engaging minority and low-income populations and people with disabilities. The eight organizations include the Ethnically Diverse Business Coalition, the Hmong American Friendship Association, IndependenceFirst, the Milwaukee Urban League, the Southside Organizing Committee, the Urban Economic Development Association, the Urban League of Racine and Kenosha, and Common Ground. The winter series of workshops was held to solicit input on guiding statements developed, based on previous public input activities, to guide the development of the VISION 2050 plan and to solicit input on the development of sketch-level land use and transportation scenarios. The fall series of workshops was held to solicit input from the participants on the results of the development and evaluation of five land use and transportation scenarios.
- The Commission staff has contacted numerous minority and low-income population groups during 2014 through letters and phone calls to arrange meetings throughout the VISION 2050 planning effort to provide information, identify transportation needs, and obtain comment and input into the planning process. Upon request, Commission staff gave presentations on VISION 2050 and transportation issues.

#### **Public Outreach**

Also during 2014, Commission staff conducted extensive public outreach and consultation efforts with groups, organizations, and officials repre-

senting minority and low-income populations, in addition to the outreach conducted for VISION 2050. More information is provided in the Public Involvement and Outreach section of this report.

## **ENVIRONMENTAL PLANNING**

During 2014, 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 2014 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 and the Policy, Science, and Strategic Planning Committees. More information about SWWT can be found at <http://www.swwtwater.org/>.

#### ***Southeast Fox River Partnership***

The Southeast Fox River Partnership (SFRP), Inc. represents a wide range of Federal, state, county and local agencies, nonprofit organizations, and private sector interests. The partnership gives citizens,

environmental and conservation groups, businesses, and local governments the ability to share resources while working toward common goals associated with the protection, restoration, and enhancement of the natural resources in the Fox River watershed. The Commission staff is active in this effort, and helped organize and host the 2nd Annual Fox River Summit conference in 2014 in Burlington, Wisconsin. The major goals of this summit follow:

- Share new tools and practices being developed to protect the Fox River watershed among communities in Wisconsin and Illinois.
- Continue a dialogue on shared challenges concerning recreation, economics, sustainable flows, surface water/groundwater interactions, sediment retention, and ecosystem services, such as runoff pollution reduction and recreational opportunities.
- Build trust among stakeholders and identify commonalities, project successes, and future challenges.

More information about SFRP can be found at <http://fyi.uwex.edu/southeastfox/about/>.

#### ***Root River Watershed Restoration Plan***

Work was completed in 2014 on a restoration plan for the Root River watershed in partnership with the municipalities and counties of the watershed, the Milwaukee Metropolitan Sewerage District (MMSD), Wisconsin Department of Natural Resources (WDNR), Root-Pike Watershed Initiative Network, and SWWT. The plan, set forth in Community Assistance Planning Report No. 316, *A Restoration Plan for the Root River Watershed*, was developed within the framework of the regional water quality management plan update for the greater Milwaukee watersheds. The plan also addressed the U.S. Environmental Protection Agency's (USEPA) nine elements for a watershed plan that USEPA considers critical for achieving improvements in water quality. Incorporating the nine elements is essential for future Federal grant eligibility during the plan implementation phase, thus the plan was submitted to the USEPA in 2014 to assess its consistency with the nine elements.

The plan focuses on strategies to reduce pollution from urban runoff and rural runoff, recommend-

ations for increased recreational use and access, the protection of habitat, wildlife, open spaces, and environmental corridors, as well as flood mitigation in Racine County and water quality monitoring. Also included in the plan is an evaluation of the status of Racine County's Horlick dam, with a recommendation that the dam be removed as determined by Racine County and the WDNR. The report and additional information related to the planning process can be found on the Commission website at [www.sewrpc.org/rwrwr](http://www.sewrpc.org/rwrwr).

#### ***Pewaukee River Watershed Protection Plan***

The Commission completed a watershed protection plan for the Pewaukee River in 2014. The plan provides a framework to enable communities in the area to work together in order to protect and improve the land and water resources of the Pewaukee River watershed. It focuses on the protection of wildlife, land, surface water, and groundwater resources; minimizing the impacts of land development by controlling rural and urban runoff and urban flooding; and building partnerships to inform the public about the protection and safe recreational use of natural resources. The plan is documented in Community Assistance Planning Report No. 313, *Pewaukee River Watershed Protection Plan*.

#### ***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 2014 in this category follow.

#### ***Wastewater Treatment Plants***

During 2014, 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. A 2035 wastewater treatment facilities plan was reviewed for the City of Brookfield, which operates an areawide treatment facility serving the City, the Cities of New Berlin and Pewaukee, the Villages of Menomonee Falls and Pewaukee, the Town of Brookfield, and the Lake Pewaukee Sanitary District. The Caledonia Utility District IH 94 regional interceptor sewer facility plan was also reviewed.

### ***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 avoidance of the creation of 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 2014, the Commission adopted amendments to the sanitary sewer service area plans for the Cities of Burlington, Kenosha, and Mequon; the Villages of Menomonee Falls and Hartland; and the Lake Pewaukee Sanitary District. 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 [www.sewrpc.org/sewerserviceplanstatus](http://www.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

**Table 4**

### **COMMISSION SANITARY SEWER EXTENSION REVIEWS: 2014**

County	Public Sanitary Sewer Extensions	Private Main Sewer or Building Sewer Extensions	Total
Kenosha.....	6	7	13
Milwaukee.....	4	14	18
Ozaukee .....	2	5	7
Racine.....	4	4	8
Walworth.....	2	6	8
Washington.....	2	10	12
Waukesha.....	24	21	45
Total	44	67	111

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 2014, review comments were provided on 44 proposed public sanitary sewer extensions and 67 proposed private main sewer or building sewer extensions, distributed by county as shown in Table 4.

### ***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 2014 follow.

#### ***Watershed-Based Permitting Framework***

During 2014, the Commission staff served as a member of the Menomonee River Watershed-based Permit Partners Groups working to meet the permit conditions.

#### ***Root River Watershed***

The Commission incorporated runoff pollution abatement considerations in development of the Root River watershed restoration plan.

#### ***Root-Pike Watershed Initiative Network***

The Commission continued service on the Root-Pike Watershed Initiative Network Agriculture and Urban Pollution Task Group and the Resource Group that approves funding for water-quality-based projects. The Commission staff also worked with Root-Pike WIN to finalize a 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 for 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 which 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 2014 follow.

#### ***Lake Management Planning***

In 2014 the Commission completed and published: 1) lake management plans for Bark Lake (Washington County) and School Section Lake (Waukesha County), 2) a water resources management plan for the Chenequa area lakes (Beaver, Cornell, North, and Pine Lakes) in Waukesha County, and 3) an aquatic plant management plan for Saratoga Lake (Waukesha County). Additionally, the Commission completed a topical Staff Memorandum for Silver Lake (Waukesha County) summarizing a pollution source evaluation and targeted water quality management recommendations.

The Commission also continued to work on planning efforts for Rock and Hooker Lakes (Kenosha County); Pike and Gilbert Lakes (Washington County); Denoon, Little Muskego, and Pewaukee Lakes (Waukesha County); and Pleasant and Whitewater-Rice Lakes (Walworth County).

Finally, the Commission drafted two grant narratives for potential lake protection planning projects for Silver Lake, (Washington County) and Nagawicka Lake (Waukesha County).

#### ***Other Lake Planning Efforts***

The Commission also continued work on two topic-specific planning efforts, including: a groundwater study focused on Gilbert Lake (Washington County), which is being conducted in collaboration with the U.S. Geological Survey; and a pollution source evaluation for Silver Lake (Waukesha County), which will help identify future planning and management needs. In addition, the Commission began work on a Kenosha County Lake Classification project designed to inform the County's shoreland ordinance development efforts.

#### ***Stream Management Planning***

The Commission works with local units of government and the WDNR and Department of Transportation (WisDOT) to develop local stream system management plans and provide technical assistance for stream protection and restoration,



including rehabilitation of impaired streams and re-creation of streams that have historically been subjected to ditching or channelization. The stream management planning activities conducted by the Commission during 2014 follow.

### ***Stream Protection Planning***

During 2014, the Commission worked toward completing stream protection plans for Jackson Creek (Walworth County), in cooperation with the Kettle Moraine Land Trust, the Delavan Lake Initiative Network, the Delavan Lake Sanitary District, and UW-Extension; and Mason Creek (Washington and Waukesha Counties), in cooperation with the North Lake Management District, the Tall Pines Land Conservancy, Carroll University, and the University of Wisconsin-Milwaukee (UWM). Each of these projects was primarily funded by obtaining an NR 195 River Planning and Management Grant from the WDNR. The planning projects are consistent with the recommendations set forth in the regional water quality management plan and the county land and water resource management plans. The plans will address the U.S. Environmental Protection Agency's nine elements for a watershed plan, which is required for future Federal grant eligibility. Accomplishment of the goals for each plan will result in the development of frameworks to protect and maintain the long-term health of these vital stream ecosystems and to benefit the surrounding communities through preservation of these resources.

### ***Bridge and Culvert Replacement and Stream Relocation Projects***

The Commission provides ongoing technical assistance relating to stream system management to the WDNR, WisDOT, municipalities, 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 2014 such assistance was provided relative to the projects that follow.

- IH 94 North-South Freeway Ryan Road to Rawson Avenue roadway improvement project, tributaries to Oak Creek (Milwaukee County).

This project included assessment, design, construction, and restoration techniques to improve aquatic organism passage and protect streambed and streambank stability upstream and downstream of three box culvert structures.

- STH 158 roadway improvement project, Pike River (Kenosha County). This project included assessment, design, construction and restoration techniques to improve aquatic organism passage and protect streambed and streambank stability upstream and downstream of a new culvert.
- USH 45 roadway improvement project, Des Plaines River tributaries (Kenosha County). This project included construction and restoration of more than 2,000 linear feet of stream channel and adjacent wetland mitigation within an agricultural dominated landscape. In addition, it included specialized fish passage design for low- and high-flow considerations due to 13 new culverts beneath USH 45.
- STH 167/Granville Road stream relocation, Little Menomonee River (Ozaukee County). This project included construction and restoration of more than 1,000 linear feet of stream channel, reconnection, and recreation of floodplain, as well as wetland mitigation within a confined corridor.
- STH 190 and Brookfield Road stream relocation on the Fox River (Waukesha County). This project included construction and restoration of more than 1,500 linear feet of a tributary stream to the Fox River, reconnection and recreation of floodplain, as well as wetland mitigation within a confined corridor.
- Donges Bay Road and Fond Du Lac Avenue roadway improvement project (Washington County). This project included stream relocation of an unnamed tributary to the Menomonee River and associated wetland mitigation.

### ***Lake and Stream Management***

#### ***Educational and Advisory Services***

The Commission provides a wide range of educational and advisory services relative to lake management planning. Such efforts in 2014 follow.

- A study was completed in 2013 of the potential effects of climate change on water quality

conditions within the streams and rivers of the greater Milwaukee watersheds under a range of projected mid-century climate change conditions. The study was a collaborative effort with the UWM School of Freshwater Sciences, the UWM Civil and Environmental Engineering Department, the University of Wisconsin-Madison Center for Climatic Research in the Nelson Institute for Environmental Studies, and Tetra Tech engineers. This study applied the watershed water quality models developed under the 2007 MMSD/SEWRPC Water Quality Initiative. In 2014, the project team presented the study findings during a plenary session at the Southeastern Wisconsin Watersheds Trust's Clean Rivers, Clean Lake conference. This report can be found at [www.sewrpc.org/rainfallreport](http://www.sewrpc.org/rainfallreport).

- 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 meetings relative to the Mukwonago River/Lulu Lake Master Planning project of the WDNR.
- Participated in the annual meetings for the Bark Lake Association, and the Lake Management Districts for Whitewater-Rice Lake, Hooker Lake, and School Section Lake, which included formal presentations by the Commission staff.

### ***Lake and Stream Management Technical Advisory Services***

The Commission also provides a wide range of technical services relative to lake management planning. Such efforts in 2014 follow.

- Assisted Milwaukee County in preparation of an environmental assessment of the Estabrook dam on the Milwaukee River. This effort included a hydraulic analysis of the alternatives for the assessment for determining the effect of the dam alternatives on water surface profiles of the Milwaukee River main stem under both normal and flood flow conditions.
- Participated in meetings to discuss an implementation strategy to improve water quality in Delavan Lake. This effort included representatives from the Town of Delavan, Delavan Lake Sanitary District, Kettle Moraine Land Trust, WDNR, and U.S. Geological Survey.
- The Commission continued to serve as a technical advisor to the Southeastern Wisconsin Fox River Commission (SEWFRC) and provided five presentations about boundary expansion to municipalities. 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.sewfrf.org](http://www.sewfrf.org).
- Served as Co-Primary Investigator along with the WDNR to provide technical assistance for the Gateway to Improved Long-term Spawning (GILS) project for Groundwork Milwaukee, Inc. The purpose of this project was to improve fish habitat within the sheet-piling-lined reaches of the Menomonee River, Kinnickinnic River, and Milwaukee River portions of the Milwaukee Harbor estuary by installing habitat underwater baskets. These devices are floating structures designed to introduce quality habitat for fish and to provide resting areas to facilitate fish passage from Lake Michigan to the upstream areas of these river systems. More information can be found on the Groundwork Milwaukee website at <http://groundworkmke.org/programs.html>.
- Served as a guest lecturer on environmental planning and natural resources management issues for the Biological Sciences and Conservation and Environmental Sciences Departments at UWM and Wisconsin Lutheran College.

- 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 project 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 Silver Lake Protection and Rehabilitation District in Walworth County in developing an application for a large-scale WDNR lake management planning grant to partially fund preparation of a Silver Lake Protection plan.
- Continued to serve on the statewide Wisconsin Wetlands Association's Land Use and Wetlands Advisory Group.
- Continued to serve on the statewide Technical Review Committee for the Revision of NRCS Code 393 Filter Strip Standard for the Wisconsin Standards Oversight Council (SOC).
- Assisted the City of Delafield Lake Welfare Committee in developing an application for a large-scale WDNR lake management planning grant to partially fund preparation of a Comprehensive Lake Management plan.
- Gave formal presentations of lake management related topics to two nonprofit organizations including the "Wild Ones" Kettle Moraine Chapter and the Friends of the Mukwonago River.
- Served as a member of the Menomonee River Watershed-based Permit Partners Group working to meet the permit conditions.

## **Regional Water Supply Planning**

The Commission's water supply planning program includes three elements. The first element was completed in 2002 and consisted of basic groundwater resource inventories. The second element was completed in 2004 and consisted of the development of a groundwater simulation model for the Region. The third element was completed in 2010 and consisted 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 2014, the Commission staff: 1) incorporated in the Root River and Pewaukee River watershed restoration plans and the Bark Lake and School Section Lake management plans, the regional water supply plan recommendations related to preservation of groundwater recharge areas; 2) coordinated with the WDNR staff on issues related to the Waukesha water supply service areas; 3) gave a presentation on regional water supply demand forecasting at the Annual WDNR Water Supply Regulatory Seminar; and 4) participated in the activities of the Wisconsin Water Conservation Coalition.

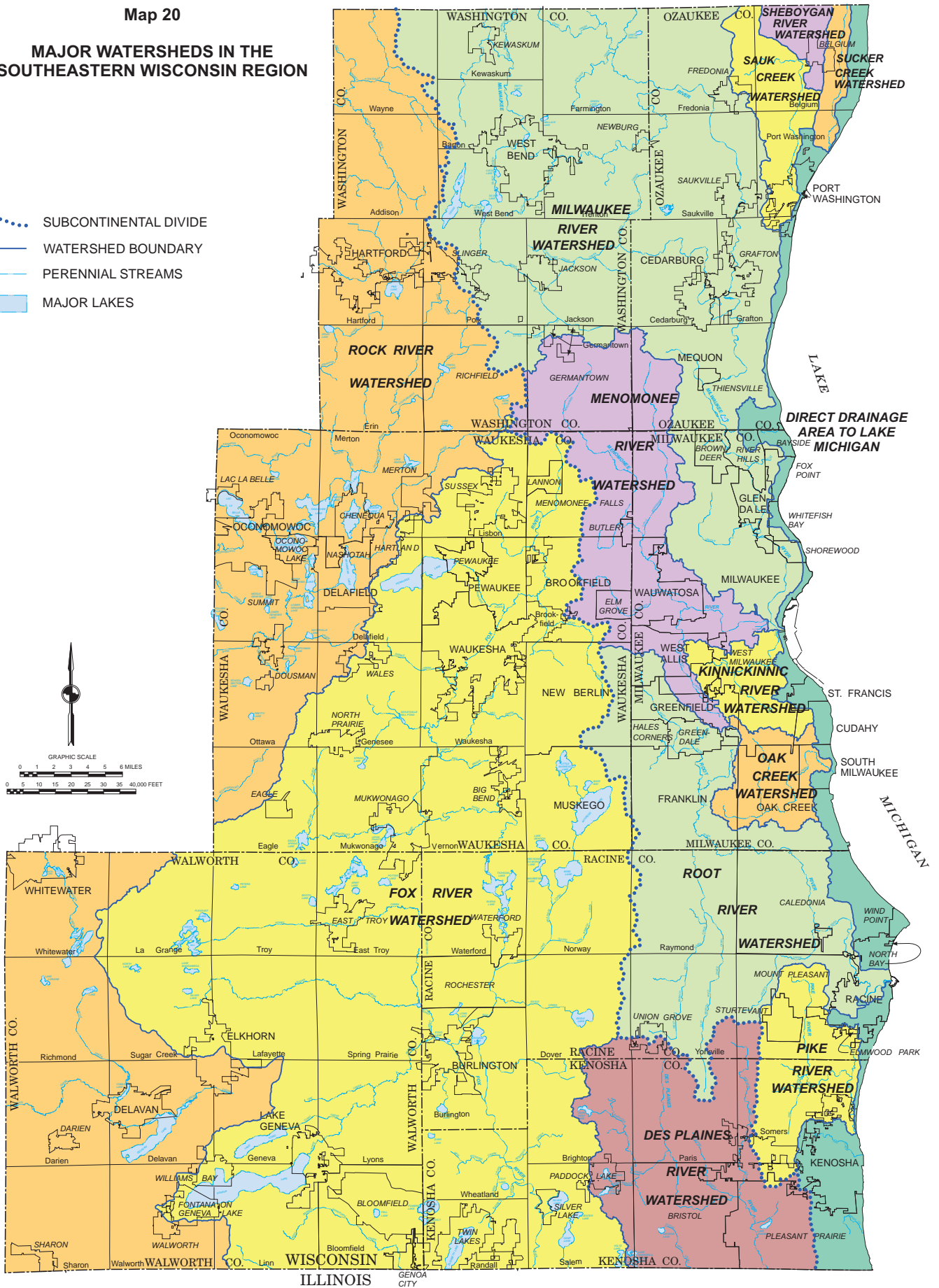
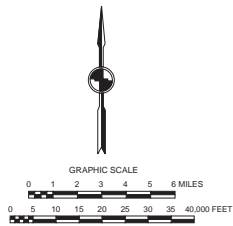
## **Floodplain and Stormwater Management Planning**

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

Map 20

# MAJOR WATERSHEDS IN THE SOUTHEASTERN WISCONSIN REGION

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



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 2014 follow.

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

Received final approval from the WDNR regarding a conditional letter of map revision (CLOMR) application for the floodplain along the main stem of the Menomonee River in the approximately 8.4-mile-long reach extending from the confluence with Underwood Creek near W. North Avenue, downstream to the River's mouth at its confluence with the Milwaukee River in the Milwaukee Harbor estuary. In 2010, the Commission staff created a hydraulic model of the River that incorporated numerous flood mitigation projects implemented over the past decade by MMSD and/or the Cities of Milwaukee and Wauwatosa, along with projects committed to be implemented in the near future. The incorporation of those projects—representing over a decade of progress in flood mitigation—in a single hydraulic model is a major achievement that will greatly assist the cities in administering floodplain zoning and MMSD in completing additional flood mitigation projects. WDNR approval is the first step in the CLOMR process, with review and approval by the Federal Emergency Management Agency (FEMA) also being required. Subsequent to the WDNR approval in 2014, an updated CLOMR request that reflected changes made as part of the WDNR review was submitted to FEMA.

#### **Milwaukee Area Floodplain Mapping Updates**

The following work in 2014 was performed under the floodplain mapping program for the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee and the Metropolitan Milwaukee Sewerage District (MMSD):

- Continued work on developing the hydrologic and hydraulic models for the Root River watershed. The project involves mapping the 10-, 4-, 2-, 1-, and 0.2 percent annual-probability (10-, 25-, 50-, 100-, and 500-year recurrence interval) floodplains along 28 streams in the watershed, including the main stem of the Root River. This project involves lands in Milwaukee

County parks; the Cities of Franklin, Greenfield, Milwaukee, Muskego, New Berlin, Oak Creek, and West Allis; and the Villages of Greendale and Hales Corners. Work on the hydrologic model included updating meteorological data, preparing land use data by subbasin for planned year 2035 conditions, and developing flow-routing information for all of the 28 streams, including the entire Root River main stem.

- Began developing hydraulic models using the U.S. Army Corps of Engineers HEC-GeoRAS model for Oakwood Road Tributary in the City of Franklin; Dale Creek, Scout Lake Creek, and three unnamed tributaries in the Village of Greendale; and 104th Street Tributary in the City of Greenfield. Continued developing HEC-GeoRAS models for 10 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 mapping the floodplain along the Little Menomonee River and Little Menomonee Creek in the City of Mequon. This is a continuation of the previously completed mapping effort for this stream in the City of Milwaukee.
- Initiated an update of the hydraulic model for the Menomonee River main stem upstream of W. North Avenue in the Cities of Milwaukee and Wauwatosa. This effort also encompasses the entire Menomonee River upstream into Waukesha and Washington Counties.
- Completed mapping the floodplain along Fish Creek in the Village of Bayside.

#### **FEMA RiskMAP Program**

Work performed in 2014 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 Fox River Watershed in Kenosha, Racine, and Waukesha Counties, and the Milwaukee River Basin (Menomonee and Milwaukee River watersheds) in Milwaukee, Ozaukee, Washington, and Waukesha Counties.
- Coordinated with the FEMA study contractor regarding the Great Lakes Coastal Flood Hazard Study being conducted under the RiskMap Program.

### **Stream Gaging Program**

Streamflow data are essential to the sound management of the water resources of the Region. When the Commission began its regional planning program in 1960, only two continuous-recording streamflow gages were in operation within the Region. Since that time, the Commission has been instrumental in establishing, through cooperative, voluntary, intergovernmental action, a more adequate streamflow-gaging program (see Map 21).

The USGS assists in the funding of the stream gages, operates the gages, and annually publishes the data collected under the streamflow-monitoring program. In 2014, there were 39 continuous-recording streamflow gages in operation on stream reaches entering, lying within, or originating within the Region. Of the 39 gages, 15 were financially supported by the Waukesha County Board of Supervisors, 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 24 gages, the cooperating agencies with the USGS are indicated on Map 21. In addition, in 2014 there were two gages at which water levels, but not streamflow, were continuously recorded. These included one at Geneva Lake in the City of Lake Geneva and one at Wind Lake in the Town of Norway.

### **Floodplain and Stormwater Management Educational and Technical Advisory Services**

The Commission provides a wide range of educational and technical advisory services relative to floodplain and stormwater management planning. Such efforts in 2014 follow.

In Milwaukee County, the Commission staff:

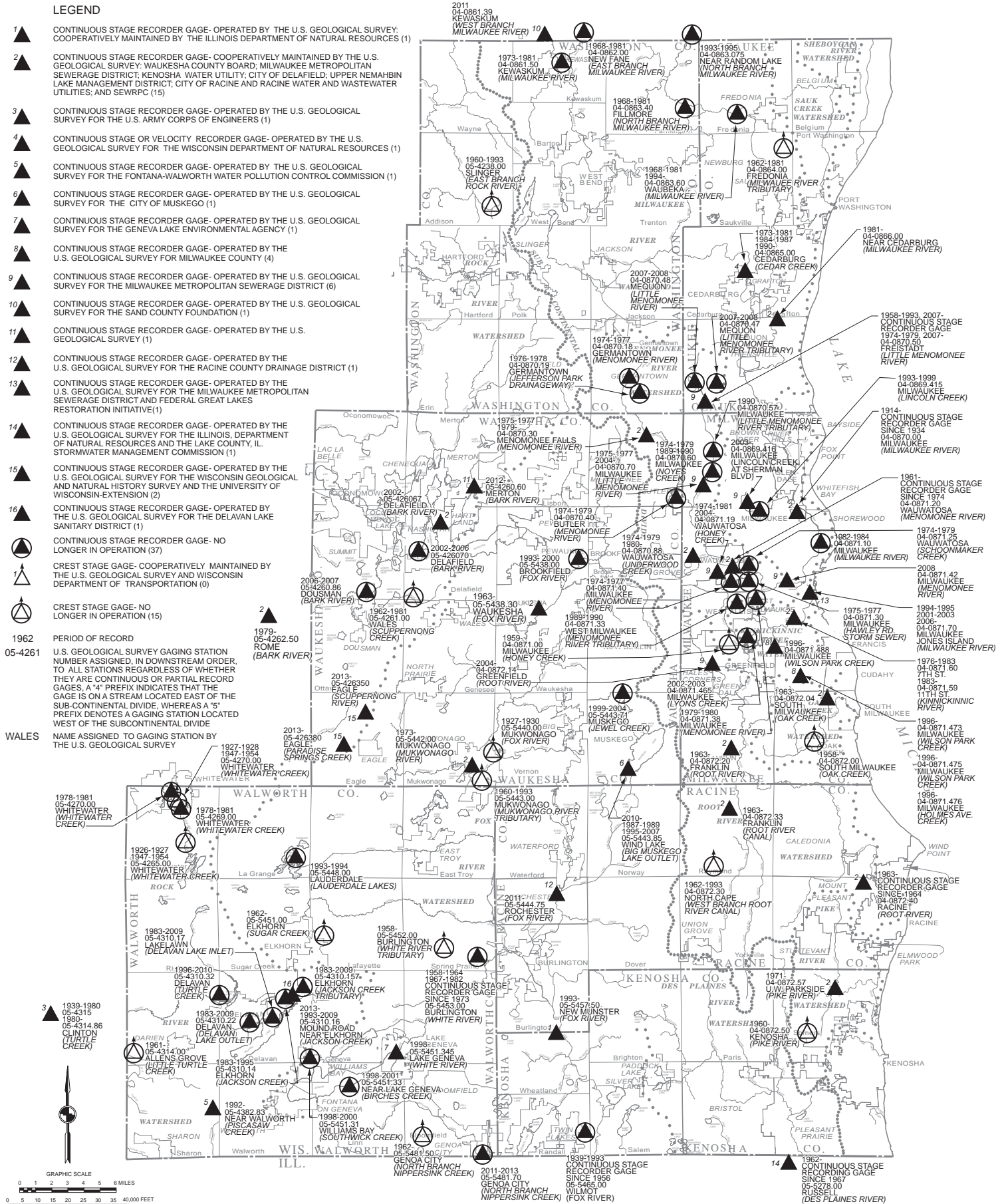
- Revised the hydrologic analysis for the Kinnickinnic River watershed that was previously developed under the MCAMLIS/MMSD floodplain mapping program. The revision was made to address concerns raised by the WDNR as part of its review of that analysis and incorporated consideration of recent flood events that occurred over the watershed subsequent to the initial MCAMLIS/MMSD analysis. The revised hydrologic analysis was approved by the WDNR. Work also commenced on revising the hydraulic analyses and floodplain mapping for the watershed in order to reflect the changes in hydrology.
- Continued work on a Honey Creek watercourse system plan for MMSD. The plan will address flooding mitigation and stream rehabilitation in the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis.
- Began 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.
- Received approval from the WDNR for the hydrologic model information requested by WDNR for its review of the Beaver Creek floodplain mapping project in the City of Milwaukee and the Village of Brown Deer. Continued work on the hydraulic modeling and floodplain mapping of Beaver Creek.
- Performed hydraulic analyses for the City of Milwaukee for the proposed Milwaukee River Estuary spawning reef rehabilitation and proposed modifications to the S. 1st Street bridge over the Kinnickinnic River.

Staff also responded to 32 requests for hydrologic and hydraulic data for 16 streams, rivers, and lakes throughout the Region.

### **Coastal Management Planning**

During 2014, the Commission continued to provide assistance to the Wisconsin Department of Administration in the conduct of the Wisconsin Coastal Management Program. This program is intended to coordinate governmental activities in the management of the Lake Michigan and Lake

## LOCATIONS OF U.S. GEOLOGICAL SURVEY STREAM-GAGING STATIONS: 2014



Superior coastal zones of the State. The program is being carried out by the State pursuant to the Federal Coastal Zone Management Act of 1972 through the Wisconsin Coastal Management Council.

Under an agreement with the Wisconsin Department of Administration, the Commission maintains a Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin. This Committee represents a variety of interests, including local elected and appointed officials, the university community, and recreational, navigational, and environmental interest groups. The primary function of this Committee is the review of State coastal studies and reports as they are proposed and produced.

One of the continuing functions of the Commission under the coastal management program is to assist the Wisconsin Coastal Management Program in the designation of special coastal areas (see Map 22).

These special areas have natural, scientific, economic, cultural, or historical importance. Designation by the Wisconsin Coastal Management Council as a special coastal area ensures eligibility for financial or technical assistance for special coastal area management activities through the Wisconsin Coastal Management Program and focuses attention on a valuable coastal resource.

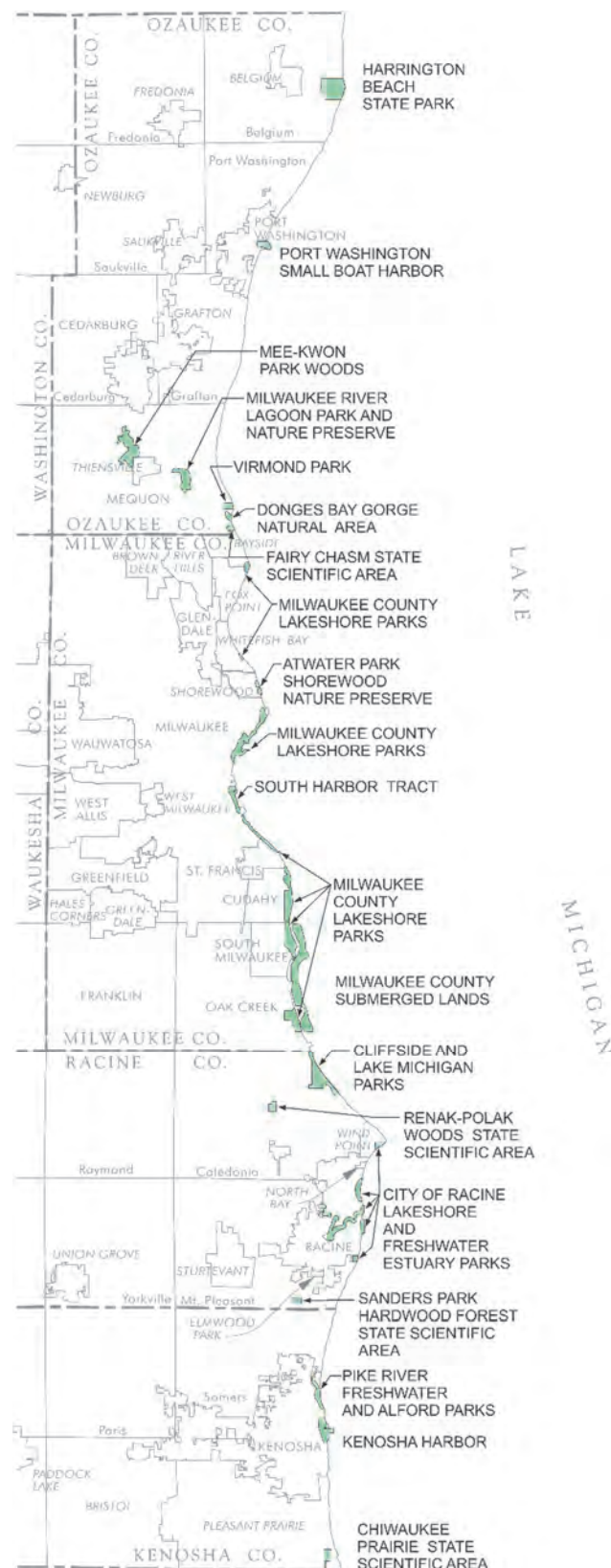
During 2014, Commission activities were focused on providing technical reviews of coastal management program grant applications for projects to be undertaken in the coastal management area over the 2014-15 time period, conducting field investigations attendant to wetlands and other sensitive lands in the coastal management area, reviewing proposed sanitary sewer extensions in the coastal management area, and briefing the Wisconsin Coastal Council on Commission planning activities under the coastal zone management program.

## HOUSING PLANNING

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

Map 22

### DESIGNATED COASTAL AREAS IN SOUTHEASTERN WISCONSIN: 2014



## LOCAL PLANNING ASSISTANCE

While the Commission's core mission involves the preparation and adoption of 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 the implementation of 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 2014 follow.

### County and Local Plans

- During 2014, following completion of a new park and open space plan for Walworth County, work was initiated on an amendment to the County plan. The amendment consists of a master plan for the development of a new County park. Work on the amendment is scheduled to be completed in 2015.
- Completed work on a draft park and open space plan for the Village of Mount Pleasant. The plan refines and details regional plan recommendations regarding the provision of local recreational sites and facilities and recommendations for the preservation of environmental corridors, natural areas, and other natural resources. The plan also incorporates watershed and floodplain management plan recommendations developed by the Village and the Root-Pike Watershed Initiative Network. The plan is expected to be adopted by the Village in early 2015.
- Completed work on a memorandum report relating to industrial land development trends in Racine County. The report analyzes the historic rate of industrial land development at selected industrial/business parks in the County and projects the time frame within which existing industrial/business parks may be expected to be

fully committed or developed for industrial uses. The report is intended to help Racine County and local units of government in assessing future industrial land development needs.

- Prepared an update to the Town of Germantown comprehensive plan (Appendix K of the Washington County multi-jurisdictional comprehensive plan) to reflect the County Farmland Preservation Plan as it pertains to the Town.

### Local Ordinances

- Completed work on a comprehensive update to the Town of Belgium zoning ordinance and zoning map, which includes revisions to be consistent with the Ozaukee County Farmland Preservation Plan. Conservancy zoning districts were also updated to reflect 2010 primary and secondary environmental corridors and isolated natural resource areas, and nonfarmed wetlands identified in the 2010 Wisconsin Wetland Inventory. The draft zoning ordinance and map will be reviewed and considered for conceptual approval by the Town Board and Plan Commission in early 2015, and then sent to the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) for recertification as a farmland preservation zoning ordinance and map. Work was initiated on a companion amendment to the Town comprehensive plan to maintain consistency between the plan and the new zoning ordinance and map. Adoption of the comprehensive plan amendment and updated zoning ordinance and map will be considered by the Town Board following certification of the ordinance by DATCP.

### Review and Advisory Services

- Reviewed comments from DATCP on proposed amendments to the Walworth County zoning ordinance to implement the new farmland preservation zoning requirements in Chapter 91 of the Wisconsin Statutes and Chapter ATCP 49 of the Administrative Code. Commission staff offered suggestions to Walworth County staff to address a number of the comments, and participated in a teleconference with County and DATCP staff to help resolve issues of concern to the County.



- Reviewed and prepared extensive comments on comprehensive plan updates prepared by the Villages of Newburg and Richfield for consideration by their respective Plan Commissions and Boards.
- Provided information to the Town of Polk on regulations to protect upland conservancy areas and reviewed and commented on proposed Town zoning regulations regarding lot area measurements and accessory buildings.
- Made a presentation at a public meeting in the Town of Hartford to discuss potential amendments to the Town comprehensive plan and zoning ordinance to incorporate the farmland preservation areas identified in the Washington County Farmland Preservation Plan into the Town plan and ordinance. Commission staff also presented a summary of State requirements for farmland preservation zoning during the meeting and prepared a series of display maps for public review.
- Provided information on amending a comprehensive plan, including model resolutions, ordinances, and public participation procedures for plan amendments, to the Village of Belgium. SEWRPC staff also attended a Village Plan Commission meeting to provide an overview to new Village officials and staff on the requirements of the State comprehensive planning law, the key recommendations of the Village comprehensive plan, and the consistency requirements between the plan and Village zoning, subdivision, and official mapping regulations.
- Reviewed and commented on nine proposed subdivision plats and certified survey maps (CSMs) for Kenosha, Racine, and Walworth Counties, as well as a number of cities and villages. Plats and CSMs are reviewed against all regional plan elements, including the highway improvement recommendations of the regional transportation system plan.

#### **Data Provision-Local Planning and Zoning**

- Provided detailed review of environmental corridor delineations for specific parcels in

Waukesha County to the Waukesha County Department of Parks and Land Use for ongoing planning work.

- Provided GIS files and tables of updated natural areas and critical species habitat sites, and suggestions on incorporating the information into an update of the County Park and Open Space Plan, to Washington County.
- Provided GIS files of 2010 environmental corridors for Kenosha and Racine Counties to the Wisconsin Department of Administration for use in evaluating the Town of Somers incorporation petition.
- Provided GIS files of planned 2035 land use data for the Town of Paris (planned land use data was taken from the Kenosha County multi-jurisdictional comprehensive plan) to a consultant preparing an update of the Town's comprehensive plan.
- Provided an evaluation of the environmental and recreational significance of O'Donnell Park to the Milwaukee County Parks Department.
- Provided data on publicly owned park and open space sites in Milwaukee County to the Milwaukee County Parks Department for use in ongoing facility planning work.
- Provided updated plant selection guides and information on landscape installation, maintenance, and surety (guaranties) to the Village of Hartland.
- Provided GIS files of 2010 land use data and planned 2035 land use data for the City of Port Washington (planned land use data was taken from the Ozaukee County multi-jurisdictional comprehensive plan) to a consultant preparing an update of the City's park and open space plan.
- Provided 2010 land use data by civil division for Ozaukee County to the Town of Grafton for use in updating the Town park and open space plan.
- Provided land use data for the Village of Waterford and adjacent communities to the Village of Waterford for use in updating the Village park plan.



- Provided data on park and open space sites and bicycle and pedestrian trails for Milwaukee, Ozaukee, Washington, and Waukesha Counties to the East Central Wisconsin Regional Planning Commission to be used for comparison to other urban areas with respect to attracting and retaining young professionals.
- Developed and provided updated information and guides on landscaping, plant selection, and invasive species eradication in Southeastern Wisconsin to the Wisconsin Department of Natural Resources (WDNR) and the University of Wisconsin-Extension for distribution to the public. The information and guides were also posted on the Commission website.
- Provided information on stream channels and existing and potential stream buffers to the City of Milwaukee for use in developing a City Green Infrastructure Plan.
- Provided information, including sample ordinance language, to Kenosha County regarding wind energy system regulations, lot averaging regulations, and density bonuses in cluster subdivisions.
- Updated the “Summary of Comprehensive Plan Requirements” and “Implementation of Comprehensive Plans” fact sheets on the Commission website to reflect recent changes to State law affecting comprehensive plans and implementing ordinances.

#### **Data Provision-Housing**

- Provided data for the Milwaukee metropolitan area from the American Housing Survey regarding housing units with accessibility features for persons with disabilities to IndependenceFirst.
- Provided a map and table of development projects in Waukesha County that were awarded Low Income Housing Tax Credits by the Wisconsin Housing and Economic Development Authority to the City of Waukesha.
- Provided data from the job-housing balance analysis conducted as part of the Regional Housing Plan to the Milwaukee County

Economic Development Division, and information on Community Living Arrangements and similar housing to the Milwaukee Center for Independence.

- Provided information and recommendations pertinent to local governments from the Regional Housing Plan to the City of St. Francis for use in updating the City comprehensive plan.

#### **Data Provision-Socioeconomic**

- Provided Census data on population characteristics to the Waukesha School District for use in planning transportation service to students.
- Provided selected demographics for the population of a local bank’s service area for business planning purposes.

#### **Data Provision-General**

- Presented information to a University of Wisconsin-Milwaukee Pre-Urban Planners class on various types of planning services SEWRPC provides and has implemented throughout the Region.
- Provided GIS files of 2010 environmental corridors for a selected area in Milwaukee County to the Wisconsin Department of Transportation (WisDOT) for use in evaluating the impacts of a potential highway improvement project.
- Provided data on sewer connection and impact fees charged by communities in the Region to an area developer and to the City of West Bend.
- Provided maps of open space sites owned by private land trusts in the Mid-Kettle Moraine area to the Mid-Kettle Moraine Partners Group for use in updating an outdoor recreation map of the Mid-Kettle Moraine area.
- Provided information on the conversion of USH 41 to an interstate highway to the Hartford Area Development Corporation.
- Provided information on water trail accessibility standards, including related Americans with Disabilities Act (ADA) Accessibility Guidelines, to the Milwaukee Riverkeeper.

- Provided current and historical land use data sets to the Ozaukee-Washington Land Trust to assist in that organization's invasive species mapping and treatment program.
- Provided maps of municipal boundaries covering selected years from 1850 to 2010 to the graphics editor at the *Milwaukee Journal Sentinel* newspaper for use in a news report.
- Provided several digital data sets to WisDOT and to consultants working on WisDOT projects. Requests included elevation data covering Racine County, and land use and environmental corridor data for studies along State Trunk Highway 100 in Milwaukee County.
- Provided current land use and hydrography data sets to a planning consultant for use in preparing Municipal Separate Storm Sewer System (MS4) permits on behalf of five municipalities in Waukesha County.
- Prepared an updated *Farm Fresh Atlas of Southeastern Wisconsin* for the University of Wisconsin Cooperative Extension in Kenosha and Racine Counties. The *Atlas* is an effort to help promote local food production and consumption by providing descriptions and locations of farms, farmers markets, and restaurants and businesses that use and sell locally produced food.
- Delivered natural resource and habitat sites data sets to the Kettle Moraine Land Trust for use in identifying lands to be protected in the Mukwonago River watershed.
- Responded to 41 requests for digital land information data sets to various municipalities, government agencies, and private consultants for use in their planning activities, such as the provision of Public Land Survey System data referencing section, quarter-section, and center of section monumentation to WisDOT for use in tracking Department surveying projects.
- Provided digital orthophotography files and historical aerial photography imagery to 14 requesting parties—including such interests as We Energies, the WDNR Campbellsport office, and several environmental consulting firms—for use in a variety of 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 2014 follows.

### **Project Planning**

During 2014, SEWRPC worked with the Southeast Wisconsin Regional Economic Partnership (REP) to complete a draft Comprehensive Economic Development Strategy (CEDS) for the Region. The REP includes representatives from each county Economic Development Corporation (EDC) or, in those counties without an EDC, county economic development staff; the City of Milwaukee; the Wisconsin Energy Corporation; the Milwaukee 7 (M7); and SEWRPC. The REP works closely with the Wisconsin Economic Development Corporation (WEDC).

The draft CEDS draws heavily from the Framework for Economic Growth report prepared by the Brookings Institution in 2013 for the M7. The CEDS:

- Provides a regional perspective for identifying and capitalizing on economic advantages, including strategies to reduce unemployment and increase incomes in the Region.
- Provides a more widespread understanding of the Region's economic development work program, including an opportunity for public review and input.
- Provides a forum for identifying and prioritizing investment projects.
- Identifies performance measures to evaluate the success of economic development strategies.

The draft CEDS will be available for public review and comment during 2015. Following the comment period, approval of the CEDS will be requested by each County EDC Board and each County Board in the Region. Approval would make that county and its local governments eligible to apply for U.S. Department of Commerce Economic Development Administration (EDA) funding to assist economically distressed areas. Approval by all counties could potentially lead to EDA designation

of the Region as an Economic Development District, making the entire area eligible to apply for funding for ongoing development activities that would benefit economically distressed areas.

#### **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 the 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 responded to seven requests for EMSI data during 2014.
- Initiated an inventory of existing and proposed business parks in the Region for use in economic development and comprehensive planning.
- Provided a list of manufacturing companies in Walworth County and information regarding telecommunications services to the Walworth County Economic Development Alliance.

#### **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.
- Coordinated loan applications in Kenosha County with the 10-county Southern Housing Region formed by the Wisconsin Department of Administration for the purpose of administering housing-related Community Development Block Grant funds, as part of ongoing support to the Kenosha County Housing Authority.

#### **Revolving Loan Fund Support**

- Provided assistance to the Kenosha County Housing Authority in administering a revolving loan fund program for housing rehabilitation. The Commission staffs the Housing Authority and is responsible for providing information to local residents, for the packaging and closing of new housing assistance loans, and for servicing outstanding

loans. During 2014, 19 new loans were made and 143 loans were serviced.

- Provided assistance to the City of Muskego and the Villages of Menomonee Falls and Shorewood in administering revolving loan fund programs that support business development. During 2014 a total of three new business loans were made and 31 existing loans were serviced. This activity includes meeting with individuals in the private sector who seek information about these revolving loan programs.

### **SURVEYING, MAPPING, AND LAND INFORMATION**

#### **Background**

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

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

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

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

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

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

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

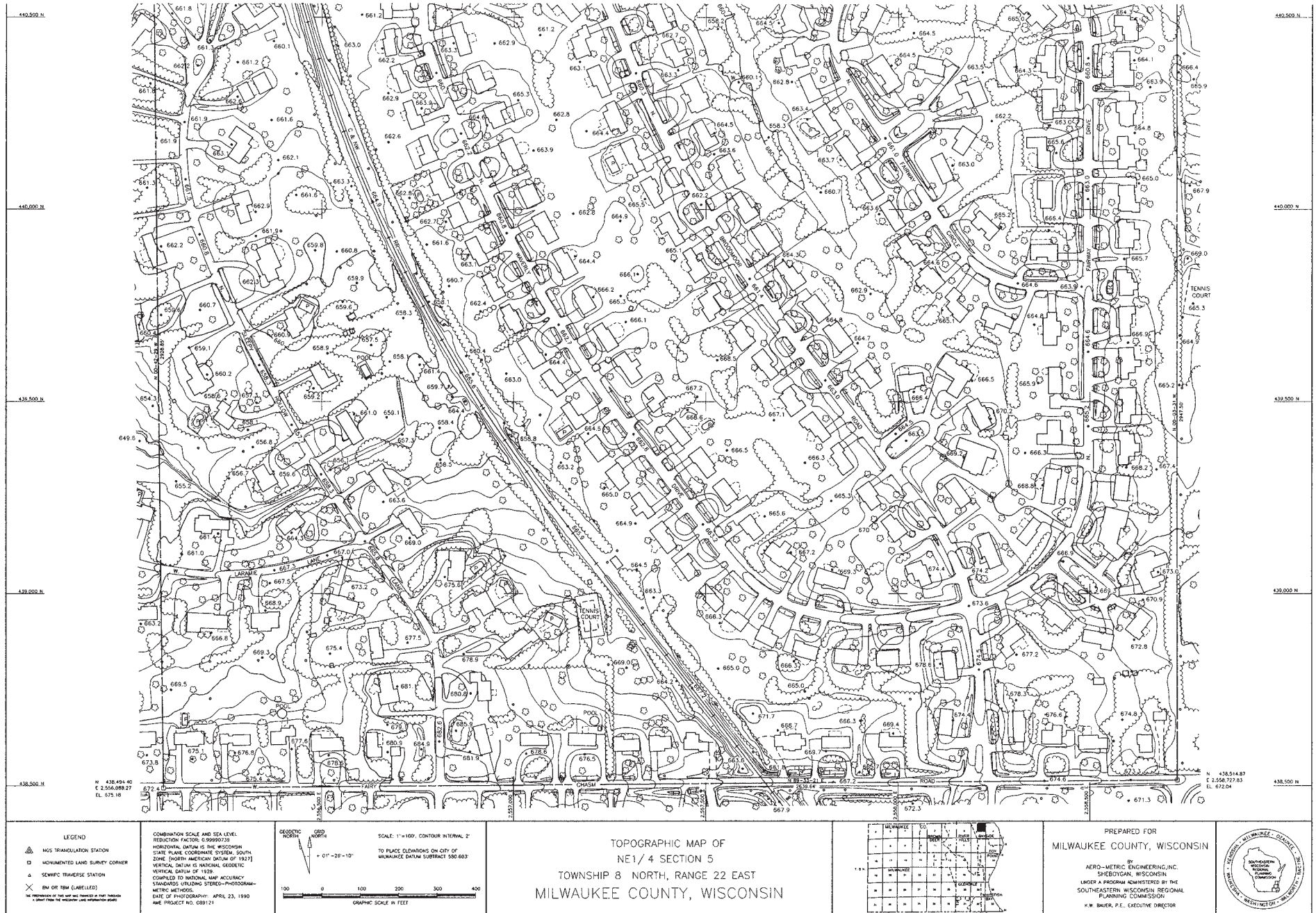
More information about this topic, including Commission recommendations relative to the transformation of data obtained on NAD 27 and NGVD 29 to newer Federal datums, can be found at [www.sewrpc.org/surveyingandmapping](http://www.sewrpc.org/surveyingandmapping).

### **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 5 identifies by category the data sets that are presently

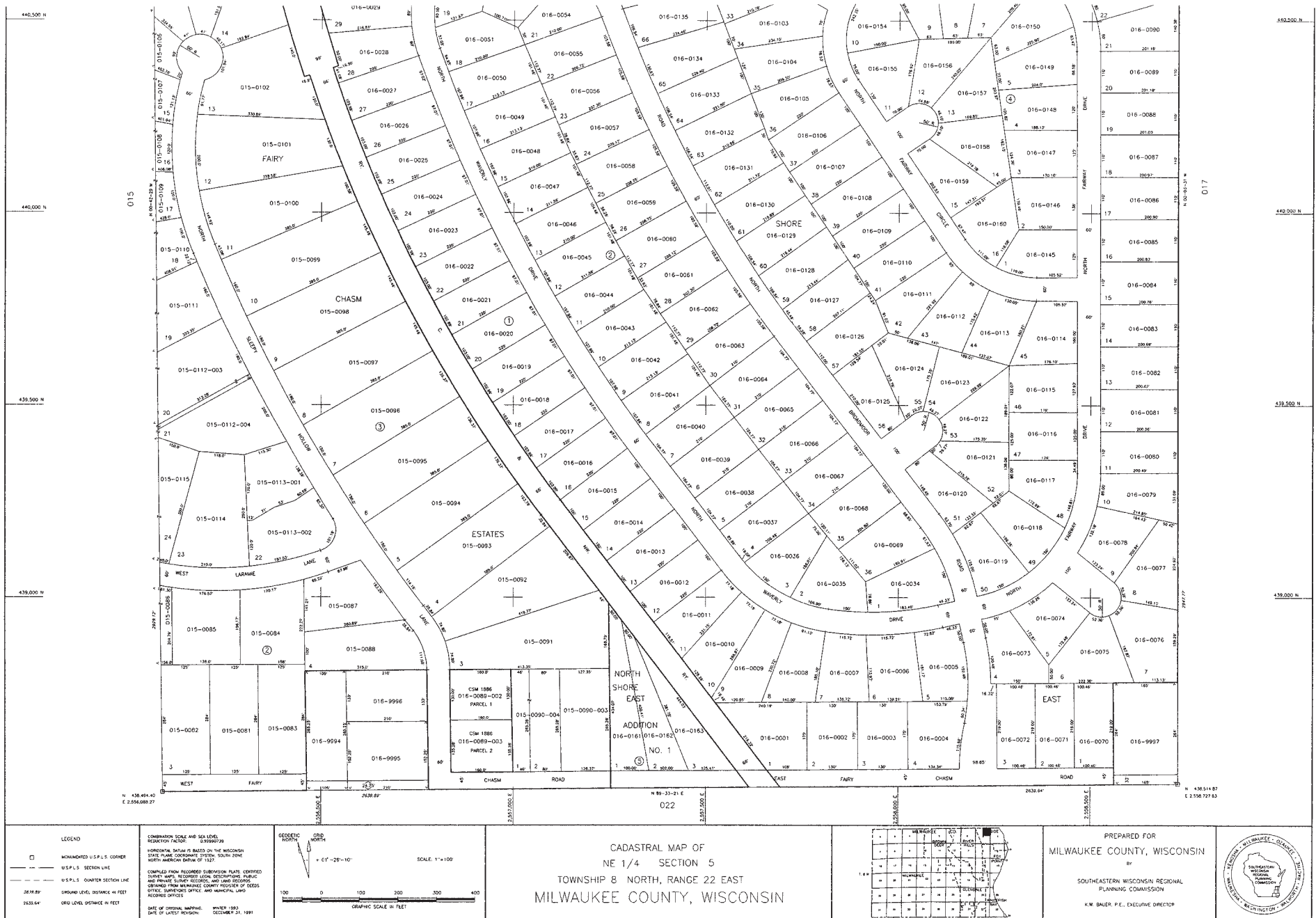
# Map 23

## PORTION OF TYPICAL SEWRPC-RECOMMENDED TOPOGRAPHIC MAP





### PORTION OF TYPICAL SEWRPC-RECOMMENDED CADASTRAL MAP



**Figure 5**

**SEWRPC REGIONAL LAND  
INFORMATION DIGITAL DATA SETS: 2014**

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

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

readily available in digital form, as well as those particular data sets that at present can be viewed on the Commission's website.

Work continued on several regional planning data sets in 2014. The Planned Environmental Corridor Inventory was partially completed. Delineation of resource features was initiated for the 1963 Environmental Corridor Inventory, a work effort to prepare an historical data set depicting environmental corridors and isolated natural resource features as they appeared over 50 years ago. Also in 2014, work was started on an update to the county base maps to bring that data set to 2010 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.

Planning was undertaken in 2014 on the next orthophotography project, with imagery to be acquired in the spring of 2015. Commission staff and the seven participating county land information officers met during the year to discuss project requirements and orthophoto specifications. The county officers reviewed project proposals and chose contractors to perform orthophoto collection and preparation for their areas. Several counties decided to participate in an additional project to acquire digital elevation data to complement the orthophotography. By the end of 2014, draft agreements and contracts were prepared and ready to be put in place to initiate the 2015 regional orthophotography project and companion 2015 elevation data project.

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

The regional land information website at [www.sewrpc.org/regionallandinfo](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

# RECORD OF U.S. PUBLIC LAND SURVEY 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 6). 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 information obtained from the high-order control surveys carried out within the Southeastern Wisconsin Region (see Figure 7). Each Control Survey Summary Diagram covers six USPLSS sections and shows the location and type of corner monuments; coordinates and elevations of the located corners; and grid distances, bearings, and interior angles of all USPLSS section and quarter-section lines. As survey documents are updated, the revised dossiers and

Historically, the Commission has worked closely with its constituent counties in their efforts to

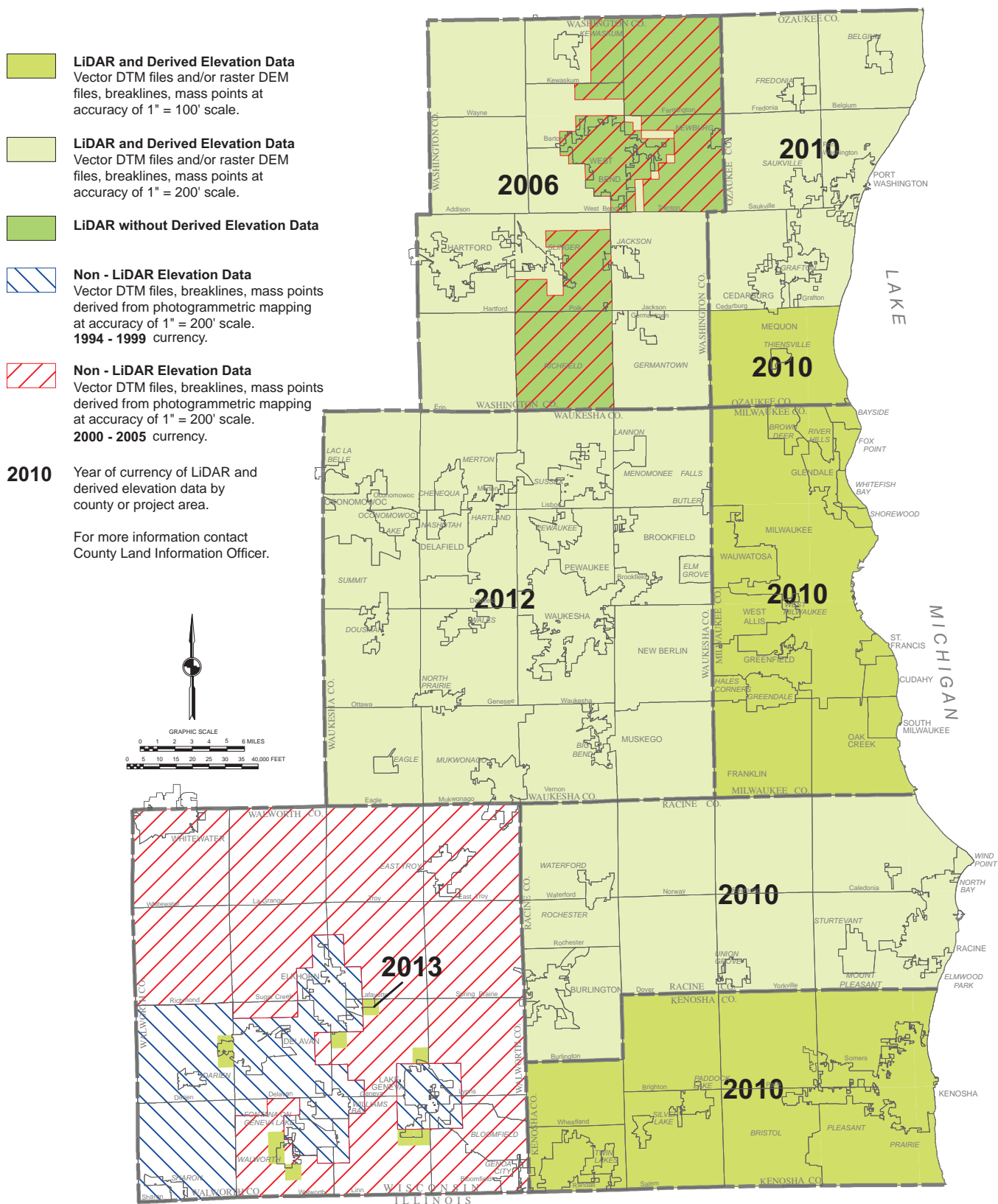


## TYPICAL CONTROL SURVEY SUMMARY DIAGRAM



# Map 25

## AVAILABILITY OF LiDAR AND ELEVATION DATA IN THE SOUTHEASTERN WISCONSIN REGION: 2014





## AVAILABILITY OF CONTOUR LINE DATA IN THE SOUTHEASTERN WISCONSIN REGION: 2014



2014, the Commission staff administered and completed a project that resulted in the update of 10 square miles of topographic mapping in the County. The second update project, initiated by the Commission in 2014, will acquire revised topographic maps for an additional 8.25 square miles. This project will be completed in early 2015.

- **Service on County Land Information Committees**

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

### **County Surveyor Activities**

State legislation was enacted in 1984 that requires the Commission Executive Director to act in the capacity of County Surveyor for Milwaukee County. Since then, the Commission has carried out those responsibilities, 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 2014 provided County Surveyor services to Kenosha, Walworth, and Waukesha Counties, as well as field support services to the Ozaukee County Surveyor. In each case, such special services are provided under contract agreements.

In performing the duties of the County Surveyor in the four counties concerned and in supporting the Ozaukee County Surveyor, the Commission during 2014 remonumented a total of 117 U.S. Public Land Survey corners that had been disturbed or destroyed through a range of activities, primarily road reconstruction activities. These activities included field work as well as substantial office work to prepare updated documentation of the corners concerned, including new corner dossier sheets and updated control survey summary diagrams.

## **PUBLIC INVOLVEMENT AND OUTREACH**

The Commission carries out an extensive public involvement and outreach program annually. In part, these efforts are integrated with the production of regional plan elements and generally involve traditional methods of 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, and public hearings. Other public participation efforts are directed at specific population subgroups, notably low-income and minority populations, persons 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*. 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 2014 in three specific categories: 1) SEWRPC-sponsored public informational workshops, meetings, and hearings; 2) public involvement and outreach efforts directed to targeted population groups; and 3) the work of the SEWRPC Environmental Justice Task Force. In addition to the efforts and activities described below, the Commission began publication of *Regional Planning News*, an electronic and print newsletter that summarizes the activities of the Commission.

### **SEWRPC-Sponsored Public Informational Workshops, Meetings, and Hearings**

The ongoing technical work of the Commission includes many important public participation activities. Such activities tend to be focused on Commission findings and recommendations relative to new regional plans and updates to prior regional plans. There are standard Commission procedures for public meetings and public hearings, including widely disseminated meeting notifications and the provision of a variety of opportunities for members of the public to make their views known on the topic

at hand. The Commission provides full documentation of comments from all public meetings. Moreover, all comments are considered by the Commission advisory committees as well as the Commission itself.

In 2014, such general public structured participation efforts continued to be focused largely on the major multi-year planning effort, VISION 2050, which is intended to result in a new set of coordinated regional land use and transportation plans for Southeastern Wisconsin.

VISION 2050 efforts in 2014 continued the visioning and scenario planning process initiated in 2013. This process is designed to obtain greater public input into the specific design and evaluation of 1) sketch-level year 2050 land use and transportation scenarios; 2) detailed alternative plans derived from those scenarios; and 3) a final set of recommended plans—all while expanding public knowledge of the implications of future land use and transportation development decision-making for the Region.

Work in this effort in 2013 involved visioning activities designed to engage the public in the planning process with a view toward developing a shared vision of future land use and transportation that is widely understood and embraced by the Region's residents.

During 2014, VISION 2050 public involvement and outreach efforts focused on visioning activities related to the sketch-level scenarios. These activities included the following:

- Eight VISION 2050 Task Forces were convened to obtain feedback about transportation-related needs in the Region. The task forces were comprised of individuals with knowledge about the following in the Region, as related to transportation needs: 1) natural resources; 2) public transit; 3) human services; 4) non-motorized transportation including bicycling; 5) land use; 6) freight; 7) transportation demand management and transportation systems management; and 8) women and families. Two series of task force meetings were held in 2014 to introduce VISION 2050 and review the sketch scenarios. In addition to the VISION 2050 task

forces listed above, the SEWRPC Environmental Justice Task Force met three times to review VISION 2050 efforts and materials.

- About 3,500 copies of a special publication titled *Guiding the Vision*—which described the 15 VISION 2050 guiding statements—were provided at the public workshops, presentations, task force meetings, and public outreach activities.
- Twelve VISION 2050 e-newsletters, one email announcement, one print brochure (in English and Spanish), and two VISION 2050 articles in *Regional Planning News* were distributed to the general public relative to the progress being made in the planning process. These publications, emails, and articles invited residents to attend the fall VISION 2050 interactive public workshops and included links to the website <http://www.vision2050sewis.org>.
- Three personalized letters were distributed to the leaders of 77 community organizations representing low-income and minority residents of the Region. The letters provided updates about VISION 2050 and offered opportunities to meet with Commission staff and/or participate in the VISION 2050 process. These letters were used to distribute copies of the VISION 2050 brochure, *Guiding the Vision* newsletter, and *Regional Planning News* newsletter to these community organizations.
- Sixteen paid advertisements were published and two news releases were distributed to newspapers of record to announce the public workshops.
- Seventeen presentations relative to the VISION 2050 process were provided to a wide range of groups and organizations, including organizations that serve minority and low-income residents, community and neighborhood organizations, service clubs, business associations, and environmental organizations.
- Eighteen staffed exhibits were provided at community events, with many events serving low-income and minority residents. Exhibits included VISION 2050 and related Commission materials for attendees.

- Outreach continued to eight VISION 2050 partner nonprofit community organizations, which include the Ethnically Diverse Business Coalition, Hmong American Friendship Association, IndependenceFirst, Milwaukee Urban League, Southside Organizing Committee, Urban Economic Development Association, Urban League of Racine and Kenosha, and Common Ground. Nearly 200 Southeastern Wisconsin residents representing these community partners participated in a third series of VISION 2050 community-partner workshops in 2014, bringing the total number of participants for the first three VISION 2050 community-partner workshops to over 600. Evaluations from participants and leaders of the partner organizations included primarily positive comments regarding the workshops' content, process, and communication, as well as suggestions for improving the process. The results from these workshops are included in the VISION 2050 public feedback.
- The Commission presented a third series of interactive public workshops to engage residents in comparing the sketch scenarios about land use and transportation alternatives for the future. In each round, a workshop was held for the general public in each of the seven counties in Southeastern Wisconsin. Eight similar workshops were held by the above named partner organizations targeted at their constituents. Additional individual workshops were held upon request for any interested group, organization, or local government. In total, 16 public, partner, and requested VISION 2050 workshops were held in 2014.

All of the documentation developed as part of this public involvement and outreach effort is available on the VISION 2050 website.

### **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 8.

**Figure 8**

### **MAJOR OBJECTIVES OF SEWRPC TARGETED PUBLIC INVOLVEMENT AND OUTREACH PROGRAM**

<p><b>Outreach</b></p> <ul style="list-style-type: none"> <li>• Build awareness and inform residents regarding SEWRPC purpose, activities, resources, and participation opportunities</li> <li>• Achieved through media, mass distributions, and large public event exhibits</li> </ul>
<p><b>Public Involvement</b></p> <ul style="list-style-type: none"> <li>• Targeted at key populations and organizations</li> <li>• Encourage participation in SEWRPC planning efforts</li> <li>• Promote understanding of SEWRPC advisory plan recommendations</li> <li>• Collaboratively achieved through such group activities as organizations, committees, and task forces</li> </ul>
<p><b>Education</b></p> <ul style="list-style-type: none"> <li>• Targeted at ages youth through adults</li> <li>• 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</li> </ul>
<p><b>Environmental Justice</b></p> <ul style="list-style-type: none"> <li>• Promote the consideration and integration of environmental justice principles throughout the SEWRPC planning process</li> <li>• Achieved through the evaluation of plan recommendations, public involvement and outreach program, and the work of an Environmental Justice Task Force</li> </ul>

More than 600 direct contacts were made with community organizations and leaders in 2014—almost all of which serve low-income and minority populations and a small number of which serve primarily transportation and environmental interests—including more than 260 recurring contacts and more than 200 new contacts.

As discussed in the VISION 2050 public involvement and outreach activities listed above, 2014 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 neighborhood contacts are characterized by the following:

- Regularity of contacts;
- Variety and number of organizations participating;
- Multiple, ongoing opportunities;
- Comprehensive subject matter for feedback;
- Timely distribution of relevant materials;

- Variety of contact modes (printed materials, U.S. mail, and e-mail);
- Participation in targeted events;
- Direct contacts with person(s) or group(s);
- Convenience for contacted groups and individuals; and
- Coordination with targeted groups' meetings and special events.

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

### **Primary Organizational Contacts**

The effort outlined above has led to the establishment of a contact list containing 75-90 organizations that serve as a formal distribution network for information about Commission planning activities. The organizations on the contact list serve low-income areas, areas predominantly consisting of communities of color and targeted ethnicities, individuals with disabilities, and/or communities or neighborhoods where issues related to employment, transportation, land use, and environmental deterioration relate directly to the Commission's planning efforts.

Within this larger group are "primary organizations" that have become a primary focus of the Commission and its targeted outreach efforts, as shown in Figure 9. This list of primary organizational contacts was reviewed and augmented in 2013 by the Commission's Environmental Justice Task Force.

Nearly 130 direct contacts were made with the Commission's Primary Organizations in 2014 to engage in direct dialog about VISION 2050, transportation, housing, and other issues. These direct contacts represented an average of 4.5 contacts per organization. Public involvement and outreach activities with the primary organizations are included with the activities documented in the previous VISION 2050 outreach section.



**Figure 9**

**SEWRPC PRIMARY  
ORGANIZATIONAL CONTACTS FOR  
OUTREACH AND INVOLVEMENT EFFORTS**

- African American Chamber of Commerce
- Aurora Family Service
- Clark Square – Layton Boulevard Neighborhoods Revitalization Initiative
- Community Brainstorming Forum
- Goodwill Industries of Southeastern Wisconsin
- Granville Brown Deer Chamber
- Groundwork Milwaukee
- Hispanic Chamber of Commerce
- Hispanic Roundtable of Racine
- Hmong American Friendship Association
- IndependenceFirst
- La Casa de Esperanza
- League of United Latin American Citizens
- Lindsay Heights Area, City of Milwaukee
- Milwaukee Urban League
- National Association for the Advancement of Colored People
- Northeast Milwaukee communities area
- Racine/Kenosha Community Action Agency
- Repairers of the Breach (Homeless Shelter)
- Social Development Commission
- Southeastern Oneida Tribal Services
- The 30th Street Industrial Corridor revitalization area
- The Salvation Army of Greater Milwaukee
- United Migrant Opportunity Services
- United Way Affiliated Entities Within the Southeastern Wisconsin Region
- Urban Economic Development Association of Wisconsin
- Urban League of Racine and Kenosha

**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, 2014 activities included the following:

- **Urban Economic Development Association**

For the fifth consecutive year, the Commission continued to work with the Urban Economic Development Association of Wisconsin (UEDA), which has its office headquartered in Milwaukee's central city. Participation occurred in a number of ways, including planning the Association's 13th Annual Community Development Summit, which was attended by more than 145 community and regional leaders. In preparation for the Summit, Commission staff assistance was provided to the Association through service on the Summit Planning Committee and printing of the program booklet. SEWRPC provided a staffed exhibit table at the Summit. Finally, Commission public outreach staff participated on a number of UEDA working committees, including the UEDA Board of Directors. In December 2014, SEWRPC re-established its Milwaukee satellite office at the UEDA building location after losing the Milwaukee County location.

- **Children and Family Health**

The Commission continued to work on a multi-year, multi-disciplinary effort to address the environmental conditions impacting children and family health by providing information about the importance of transportation and housing planning to groups engaged in the Social Determinants of Health effort. In this effort, the Commission worked with the Health and Wellness Commons Initiative, Aurora Health Care Social Responsibility Committee, Lindsay Heights Neighborhood Health Alliance, Southeastern Wisconsin Blood Center Community Advisory Committee, Froedtert Health System, and Center for Urban Population Health.

- **Environmental Education and Outreach**

Like 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 2014 public outreach presentations and exhibits mentioned previously, the Commission staff provided VISION 2050 presentations to the following groups: the Islamic Environmental Group of Wisconsin, Lincoln Park Friends, and Milwaukee Area Technical College Sustainability Committee. SEWRPC also staffed exhibit tables with VISION 2050 and environmental planning materials at events conducted by the following groups: Fox River Summit, Interfaith Earth Network Making Waves for Water, and the Johnson Foundation.

SEWRPC partnership-building environmental education activities include Commission participation in the interagency consortium, “Testing the Waters,” which has educated about 33,000 students and teachers in the Region over many years. During 2014, about 1,000 students and educators from public and private schools benefitted from Commission instruction and/or materials related to environmental planning. These schools are located within the watersheds tributary to the Milwaukee Harbor estuary.

In fall 2014, staff again worked with the Washington County Land Conservation Department and Riveredge Nature Center in Ozaukee County to conduct two Village of Newburg area bus tours for about 70 students and educators from Germantown, West Bend, and Milwaukee public and private schools. The bus tours focus on land use issues, water quality concerns, and related solutions to those issues and concerns in the rural and developing landscape. On the tours, urban, suburban, and rural students and educators have the opportunity to learn about the changing rural and small-town landscape and impacts on water resources. Tour participants from diverse backgrounds interact with each other and gain an understanding of regional planning principles as they view environmental sites of interest and concern. Tour subject matter includes Commission work such as water quality, riparian management, and preservation of environmental corridors. Commission publications, including the “Making Natural Connections” educational booklet series, are part of the subject matter.

- **Neighborhood and Community Economic Development**

The Commission networks with organizations and engages in activities that address neighborhood and community economic development issues. This effort includes ongoing interaction with the Local Initiatives Support Corporation (LISC-Milwaukee), the Commercial Corridors Consortium, various business improvement districts throughout the City of Milwaukee, and other community development organizations, with the goal of sharing the importance of transit, transportation, and housing planning as those matters relate to the local economy and regional economic development.

- **Workforce Development and Employment**

The Commission networks with organizations and engages in activities that address workforce development and employment issues. This effort includes the Workforce Regional Training Partnership, the African American Male Forum on Employment, the Milwaukee and Racine-Kenosha Labor Development Committees, the Southeast Wisconsin Migrant and Seasonal Workers Committee, Ways to Work, Human Capital Development of Racine and Kenosha, the Social Development Commission, the Racine County Workforce Development Center, 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, and the Milwaukee HomeGrown Initiative.

- **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

Figure 10

**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, low-income, minority, and disabled individuals and communities 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 low-income, minority, and disabled communities.
- **Identify Benefits and Effects**  
To help identify potential benefits and adverse effects of regional planning programs and activities with respect to minority, low-income, and disabled populations.
- **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, low-income, and disabled populations.
- **Enhance Planning Awareness**  
To enhance awareness, understanding, appreciation, support, and implementation of planning recommendations and benefits, with emphasis on the needs of minority, low-income, and disabled populations.

effort includes the following entities: The Milwaukee Regional Economic Partnership, the Global Human Capital Group, 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, the P3 Development Group, and the NAACP Chapters throughout the Region. During 2014, information was provided on housing, transportation, land use, and environmental issues, as well as the VISION 2050 planning effort.

**Environmental Justice Task Force**

Under Federal law, SEWRPC has a responsibility to help ensure the full and fair participation throughout the regional planning process of low-income and minority populations and persons 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 13 representatives from throughout the Region who meet regularly to gain an understanding of the Commission's technical work program and to provide input to that program through the lens of environmental justice. The purposes of the SEWRPC Environmental Justice Task Force are summarized in Figure 10.

In prior years, the Task Force provided substantial input to the analytical work being conducted relative to housing issues and the regional housing plan recommendations. In 2014, the Task Force met three times and focused attention on the VISION 2050 planning process. The Task Force reviewed and discussed materials in development for the VISION 2050 guiding statements, sketch scenarios and evaluation criteria, and the VISION 2050 plan chapters to date. Members also reviewed and discussed drafts of SEWRPC Memorandum Report 215: *Review and Update of the Year 2035 Regional Transportation Plan* and the *Transportation Improvement Program for Southeastern Wisconsin: 2015-2018*.

**2014 SEWRPC PUBLICATIONS**

The following publications were issued by SEWRPC during the year:

**Community Assistance Planning Reports**

- No. 135, 3rd Edition, *A Park and Open Space Plan for Walworth County*, March 2014, 128 pages
- No. 315, *A Water Resources Management Plan for the Village of Chenequa, Waukesha County, Wisconsin*, June 2014, 200 pages
- No. 316, *A Restoration Plan for the Root River Watershed, Part One, Chapters 1-7*, July 2014, 770 pages

- No. 316, *A Restoration Plan for the Root River Watershed, Part Two, Appendices*, July 2014, 344 pages
- No. 318, *A Lake Protection Plan for Bark Lake, Washington County, Wisconsin*, December 2014, 207 pages
- No. 319, *A Lake Protection Plan for School Section Lake, Waukesha County, Wisconsin*, December 2014, 255 pages
- SEWRPC Staff Memorandum, *Water Quality Sample Evaluation for Silver Lake, Waukesha County*, December 2014, 56 pages

#### Memorandum Reports

- No. 136, 3rd Edition, *Racine County Industrial Park Land Absorption Study*, August 2014, 54 pages
- No. 214, *An Aquatic Plant Management Plan for Saratoga Lake, Waukesha County, Wisconsin*, February 2014, 82 pages
- No. 215, *Review and Update of the Year 2035 Regional Transportation Plan*, June 2014, 186 pages
- 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, 63 pages
- No. 218, *Traffic Study for North Lincoln Street within the City of Elkhorn*, May 2014, 27 pages

#### Annual Report

- *2013 Annual Report*, October 2014, 191 pages

#### Newsletters

- *The Economy and Population of the Southeastern Wisconsin Region*, January 2014, 16 pages
- *VISION 2050: Guiding the Vision*, June 2014, 12 pages

- *Regional Planning News*, Volume 1, Issue 1, July 2014, 4 pages
- *Regional Planning News*, Volume 1, Issue 2, October 2014, 4 pages

#### Brochures

- *Year 2035 Regional Housing Plan for Southeastern Wisconsin*, Summary Brochure, April 2014, 4 pages
- *VISION 2050: Time to Review VISION 2050 Sketch Scenarios*, No. 3, April 2014, 3 pages
- *A Restoration Plan for the Root River Watershed*, July 2014, 12 pages
- *Draft Transportation Improvement Program: 2015-2018*, October 2014, 6 pages

#### Other Reports

- *Amendment to the Regional Water Quality Management Plan, City of Mequon*, March 2014, 10 pages
- *Amendment to the Regional Water Quality Management Plan, Village of Hartland and Lake Pewaukee Sanitary District*, June 2014, 10 pages
- *Amendment to the Regional Water Quality Management Plan, Greater Kenosha Area*, September 2014, 10 pages
- *Amendment to the Regional Water Quality Management Plan, City of Burlington*, September 2014, 10 pages
- *Amendment to the Regional Water Quality Management Plan, Village of Menomonee Falls*, September 2014, 10 pages
- *Record of Public Comments, Washington County Transit Development Plan: 2015-2019, February 14, 2014 Through March 21, 2014*, June 2014, 63 pages
- *A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018*, November 2014, 243 pages

## PART THREE: REGIONAL MONITORING ACTIVITIES

This final section of the 2014 SEWRPC Annual Report documents the results of Commission work efforts during the year relative to monitoring various aspects of regional growth and change. The topics covered include socioeconomic trends, land development activity, natural resource base preservation activity, regional transportation system performance, and implementation of the regional housing plan. Where applicable, these monitoring activities are reported in the context of Commission

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

Part One of this Annual Report provides information about the Commission and includes a brief description of each of the elements of the comprehensive regional plan. That part begins on page 1. Part Two documents the regional planning work activities undertaken during the year. That part begins on page 39.



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## 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 intermediate projection is considered the most likely to be achieved for the Region overall, and, in this sense, will constitute the Commission's "forecast," serving as a basis for the forthcoming year 2050 regional land use and transportation

plans. 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 following overview of socioeconomic trends in the Region includes comparisons of current population, household, and employment estimates for the Region with the Commission forecast levels for 2050, as appropriate. 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 8,300 persons, or 0.4 percent—to an estimated 2,028,300 persons in 2014 (see Table 5).

#### Comparison to Forecast

The estimated year 2014 population is slightly lower (by 1.2 percent) than the Commission's forecast population level for 2014 of 2,052,700 persons (see Table 6 and Figure 11).

#### Change in Regional Households

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

Table 5

#### POPULATION IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2014

County	Population			2000-2010 Change		2010-2014 Change	
	2000 Census	2010 Census	2014 Estimate	Number	Percent	Number	Percent
Kenosha.....	149,600	166,400	167,300	16,800	11.2	900	0.5
Milwaukee.....	940,200	947,800	949,700	7,600	0.8	1,900	0.2
Ozaukee .....	82,300	86,400	87,100	4,100	5.0	700	0.8
Racine.....	188,800	195,400	195,500	6,600	3.5	100	0.1
Walworth.....	92,000	102,200	102,800	10,200	11.1	600	0.6
Washington.....	117,500	131,900	133,100	14,400	12.3	1,200	0.9
Waukesha.....	360,800	389,900	392,800	29,100	8.1	2,900	0.7
Region	1,931,200	2,020,000	2,028,300	88,800	4.6	8,300	0.4

Figure 11

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

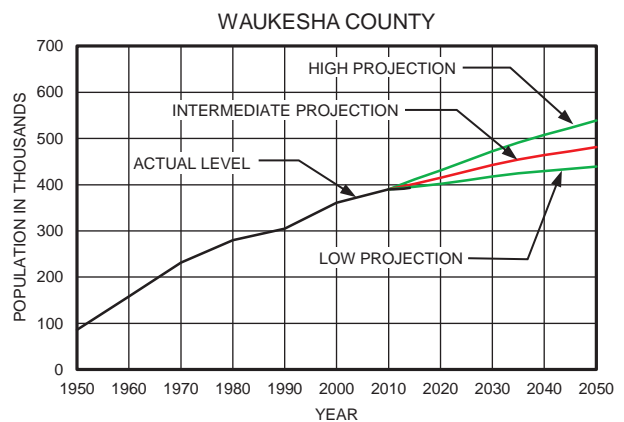
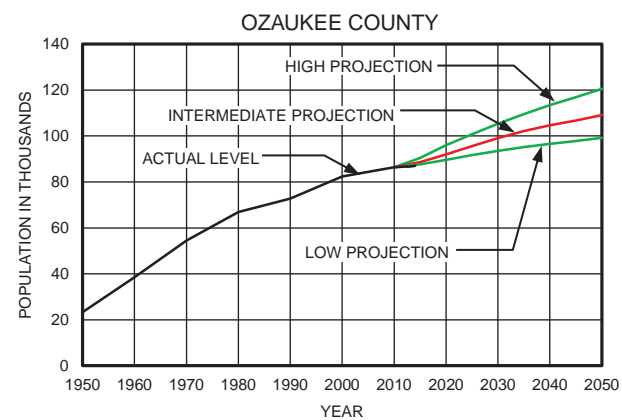
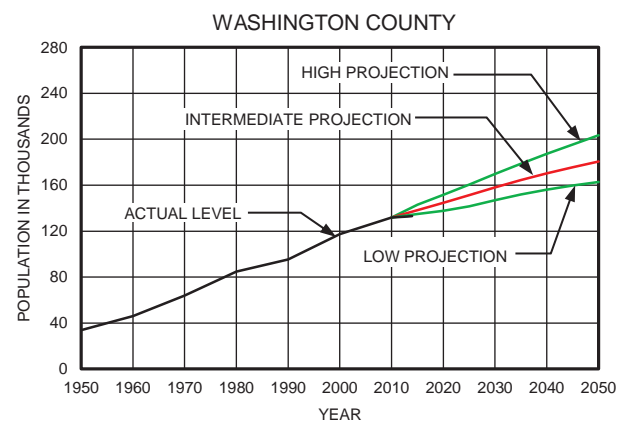
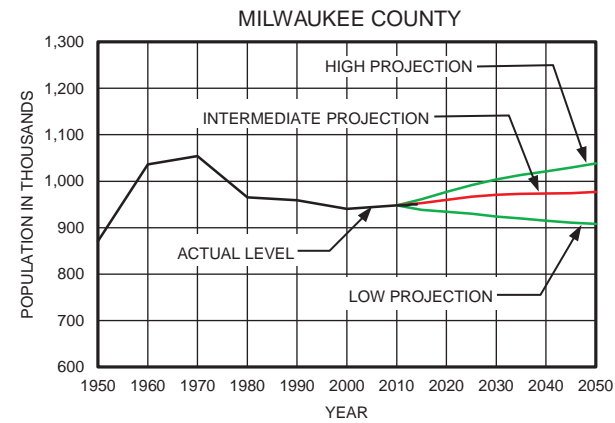
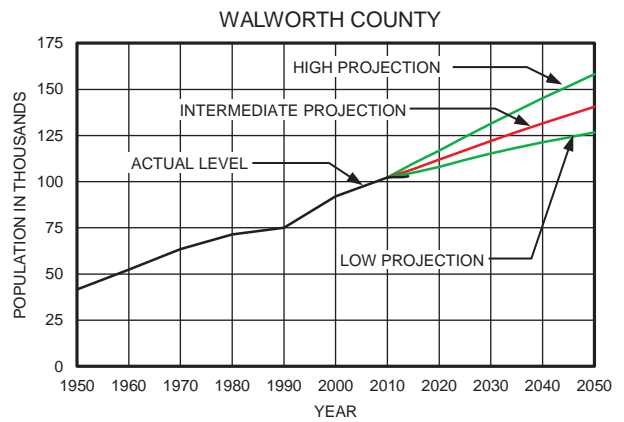
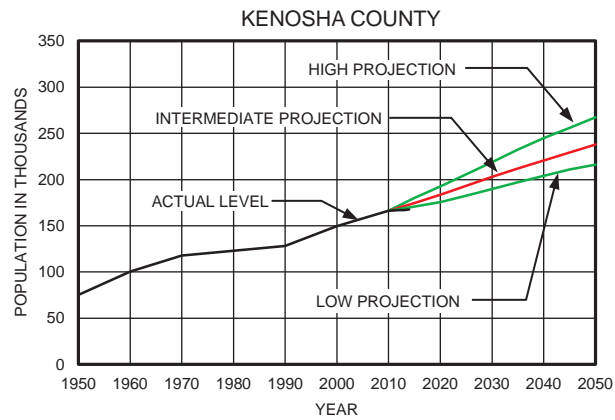
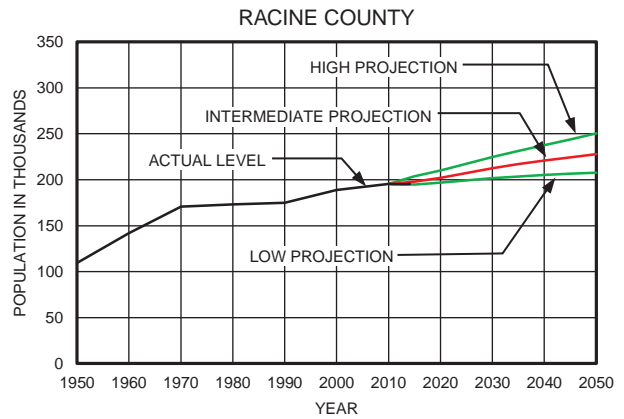
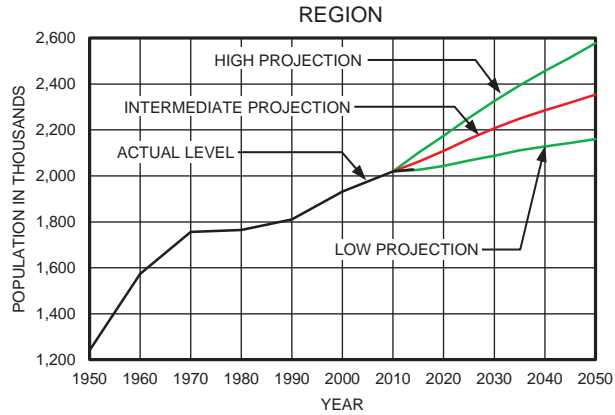


Table 6

**ACTUAL AND PROJECTED POPULATION LEVELS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2014**

County	2014 Population	Projected 2014 Population		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha .....	167,300	177,400	173,000	169,900
Milwaukee.....	949,700	958,500	951,700	940,200
Ozaukee .....	87,100	89,700	88,200	87,500
Racine .....	195,500	202,100	197,500	195,000
Walworth.....	102,800	108,300	105,900	104,300
Washington.....	133,100	140,800	136,900	134,300
Waukesha.....	392,800	407,100	399,500	394,400
Region	2,028,300	2,083,900	2,052,700	2,025,600

Table 7

**HOUSEHOLDS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2014**

County	Households			2000-2010 Change		2010-2014 Change	
	2000 Census	2010 Census	2014 Estimate	Number	Percent	Number	Percent
Kenosha .....	56,100	62,600	63,300	6,500	11.6	700	1.1
Milwaukee.....	377,700	383,600	385,200	5,900	1.6	1,600	0.4
Ozaukee .....	30,900	34,200	34,800	3,300	10.7	600	1.8
Racine .....	70,800	75,700	76,300	4,900	6.9	600	0.8
Walworth.....	34,500	39,700	40,000	5,200	15.1	300	0.8
Washington.....	43,800	51,600	52,500	7,800	17.8	900	1.7
Waukesha.....	135,200	152,700	155,200	17,500	12.9	2,500	1.6
Region	749,000	800,100	807,300	51,100	6.8	7,200	0.9

Table 8

**ACTUAL AND PROJECTED HOUSEHOLD LEVELS IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2014**

County	2014 Households	Projected 2014 Population		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha .....	63,300	66,100	64,900	64,000
Milwaukee.....	385,200	387,800	385,700	382,300
Ozaukee .....	34,800	35,300	34,800	34,600
Racine .....	76,300	77,900	76,600	75,800
Walworth.....	40,000	41,700	41,000	40,500
Washington.....	52,500	54,500	53,300	52,500
Waukesha.....	155,200	158,000	155,800	154,300
Region	807,300	821,300	812,100	804,000

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 7,200, or 0.9 percent, to an estimated 807,300 households in 2014 (see Table 7).

**Comparison to Forecast**

The estimated number of households in the Region in 2014 is slightly lower (by 0.6 percent) than the Commission's forecast household level for 2014 of 812,100 households (see Table 8 and Figure 12).

Figure 12

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

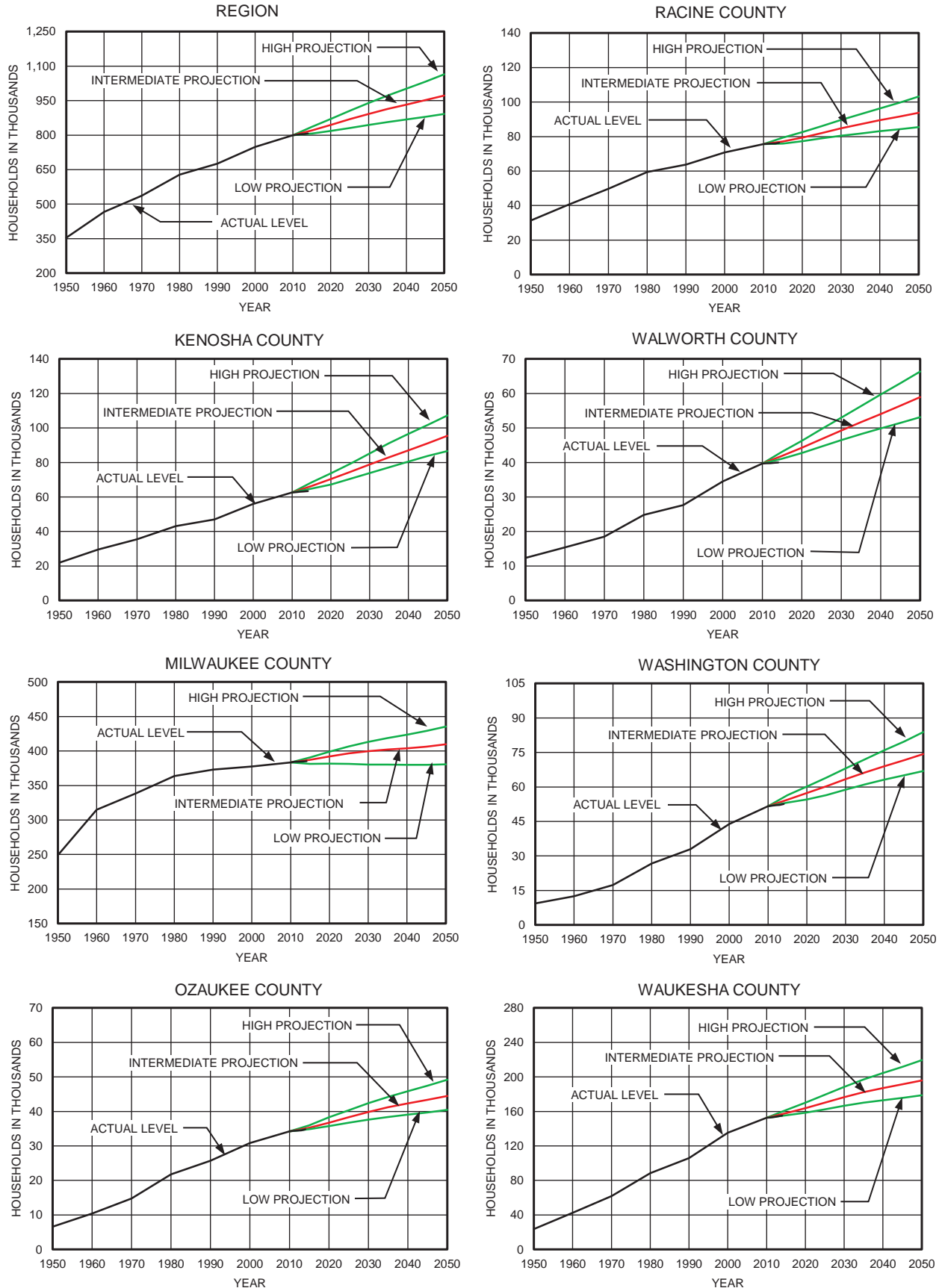




Table 9

**EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY CATEGORY: 2000, 2010, AND 2014**

General Industry Group	Employment (Jobs)			2000-2010 Change		2010-2014 Change	
	2000	2010	2014 Estimate				
				Number	Percent	Number	Percent
Agriculture .....	5,900	5,200	5,000	-700	-11.9	-200	-3.8
Construction .....	53,000	45,900	49,100	-7,100	-13.4	3,200	7.0
Manufacturing .....	214,500	148,100	158,300	-66,400	-31.0	10,200	6.9
Wholesale Trade .....	53,700	48,800	52,400	-4,900	-9.1	3,600	7.4
Retail .....	190,800	185,800	195,900	-5,000	-2.6	10,100	5.4
Services .....	531,900	584,400	607,200	52,500	9.9	22,800	3.9
Government .....	116,400	117,700	112,100	1,300	1.1	-5,600	-4.8
Other .....	43,600	40,700	38,800	-2,900	-6.7	-1,900	-4.7
Total Jobs	1,209,800	1,176,600	1,218,800	-33,200	-2.7	42,200	3.6

Table 10

**EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2000, 2010, AND 2014**

County	Employment (Jobs)			2000-2010 Change		2010-2014 Change	
	2000	2010	2014 Estimate				
				Number	Percent	Number	Percent
Kenosha .....	67,900	74,900	78,000	7,000	10.3	3,100	4.1
Milwaukee .....	618,300	575,400	586,600	-42,900	-6.9	11,200	1.9
Ozaukee .....	50,400	52,500	55,700	2,100	4.2	3,200	6.1
Racine .....	93,800	88,300	90,300	-5,500	-5.9	2,000	2.3
Walworth .....	51,200	52,700	55,800	1,500	2.9	3,100	5.9
Washington .....	60,300	63,900	68,400	3,600	6.0	4,500	7.0
Waukesha .....	267,900	268,900	284,000	1,000	0.4	15,100	5.6
Region	1,209,800	1,176,600	1,218,800	-33,200	-2.7	42,200	3.6

**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 through the mid-2000s, and then decreased near the end of the decade as a result of the economic downturn. Employment in the Region in 2010 was 33,200 jobs, or 2.7 percent, less than in 2000. Since 2010, total employment in the Region has increased by about 42,200 jobs, or 3.6 percent, from the low of 2010. Manufacturing, retail, and service jobs accounted for much of this increase (see Tables 9 and 10).

**Comparison to Forecast**

Despite the increases of the last three years, the employment level in the Region has not fully recovered from the effects of the recession of the

late 2000s. However, the estimated total employment in the Region in 2014 (1,218,800 jobs) was above the Commission's intermediate projection employment level by about 1.8 percent, or 21,000 jobs (see Table 11 and Figure 13). 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

Figure 13

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

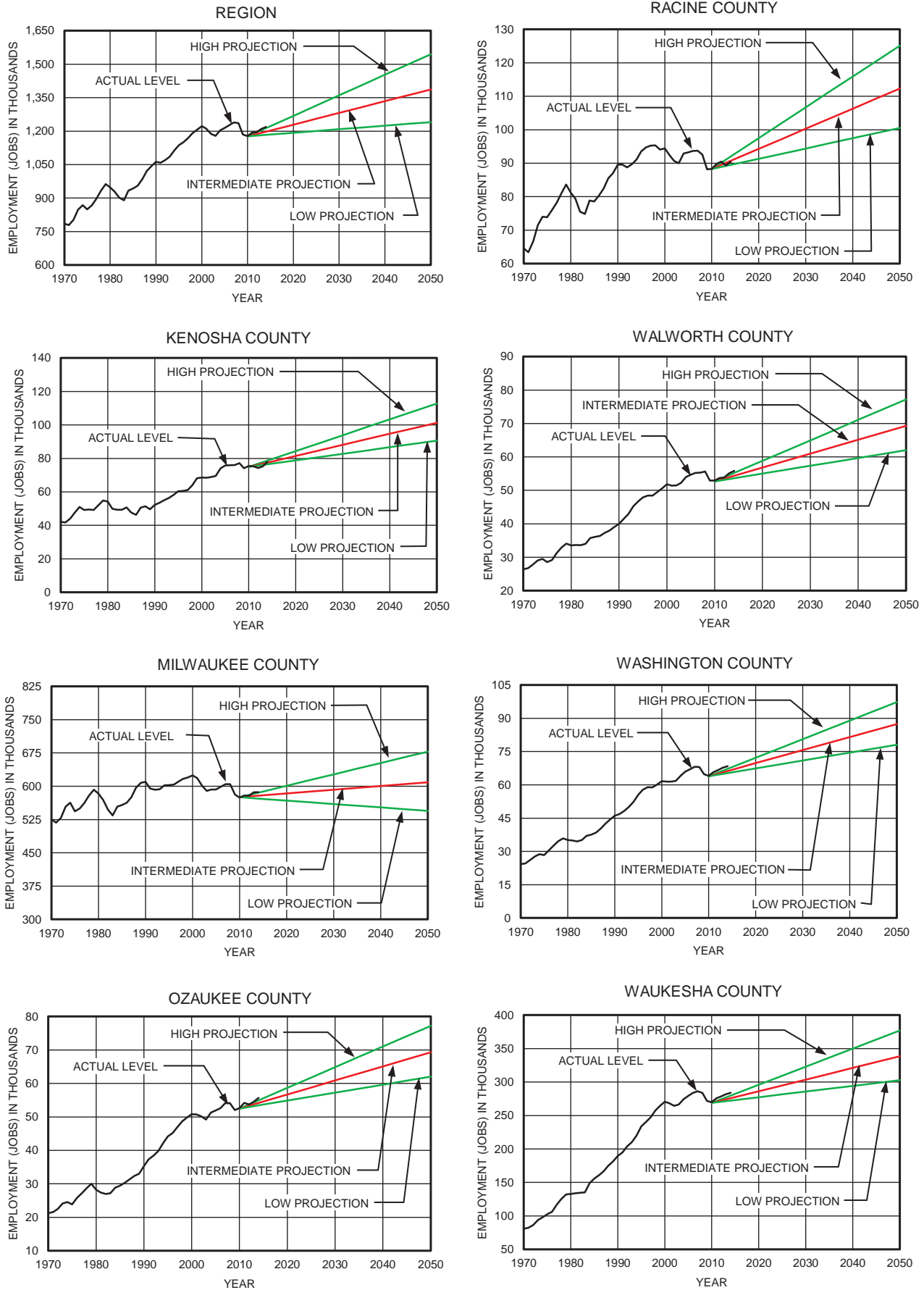
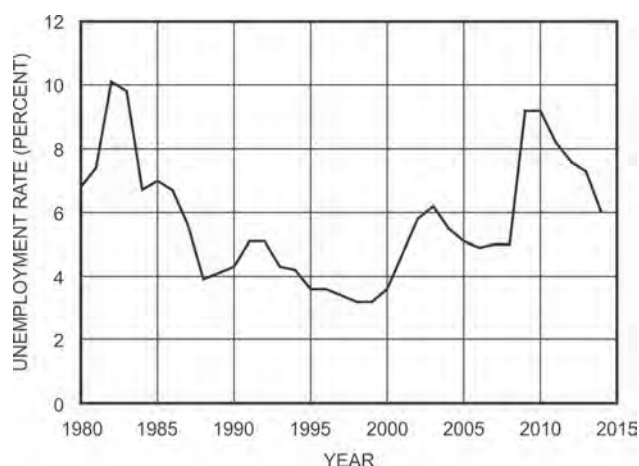


Table 11

## ACTUAL AND PROJECTED EMPLOYMENT IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 2014

County	2014 Employment (Jobs)	Projected 2014 Employment (Jobs)		
		High Projection	Intermediate Projection (Forecast)	Low Projection
Kenosha .....	78,000	78,700	77,500	76,500
Milwaukee.....	586,600	585,700	578,800	572,300
Ozaukee .....	55,700	55,000	54,200	53,500
Racine .....	90,300	92,000	90,700	89,500
Walworth.....	55,800	55,200	54,400	53,600
Washington.....	68,400	67,200	66,300	65,300
Waukesha.....	284,000	279,700	275,900	272,300
Region	1,218,800	1,213,500	1,197,800	1,183,000

Figure 14

UNEMPLOYMENT RATE  
IN THE REGION: 1980-2014

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 14). The unemployment rate decreased over the next four years, to a level of 6.0 percent in 2014.

## 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: Regional Land Use and Transportation System Plans for Southeastern Wisconsin* (forthcoming).

### 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, 509 residential lots were created by subdivision plats in 2014, higher than the annual level since 2010 (see Figure 15). Over 84 percent of the new lots were created in Waukesha County. The location of the residential lots created in 2014 is shown on Map 27.

All but 33 of the lots created in 2014 were intended to be served by centralized public sanitary sewer service (see Table 12).

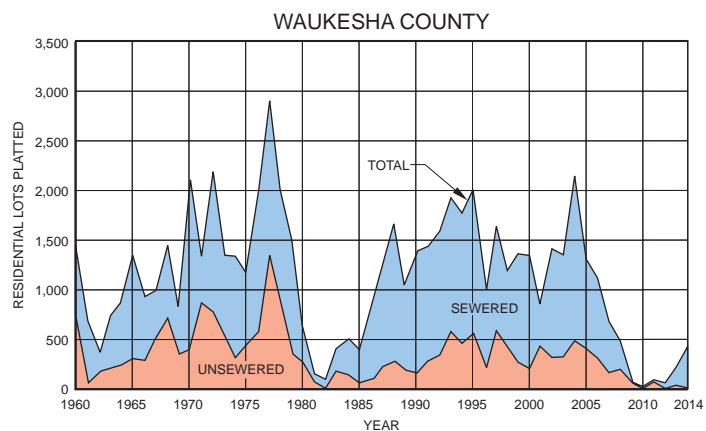
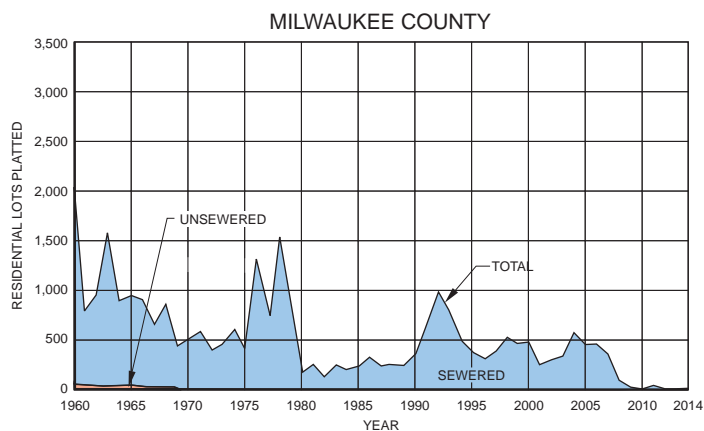
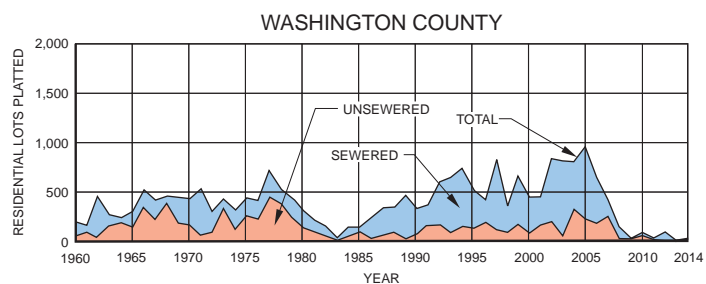
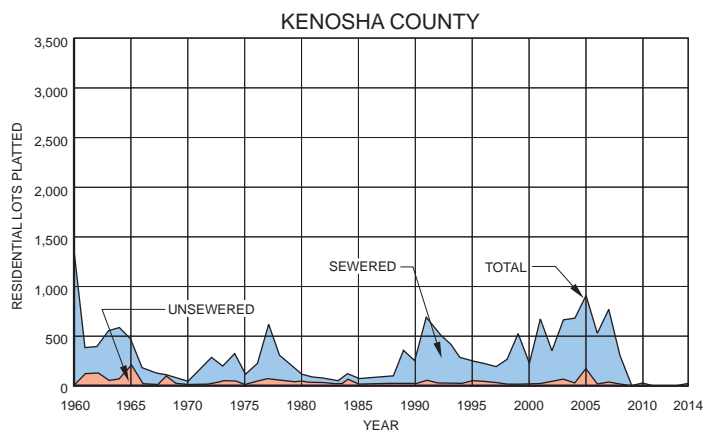
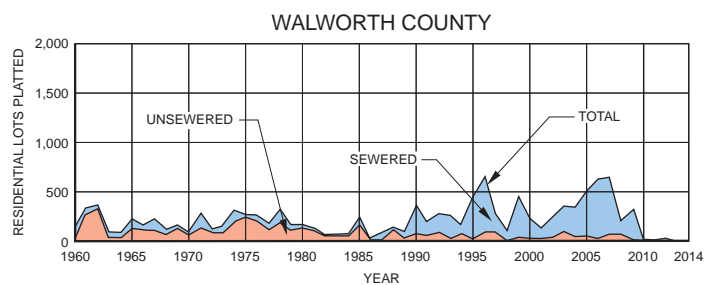
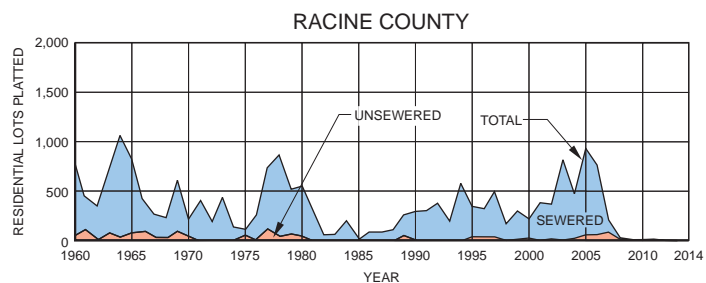
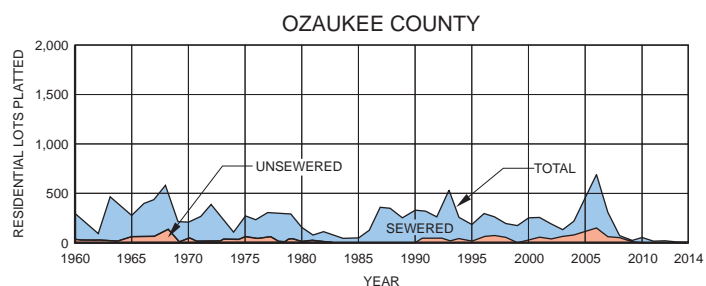
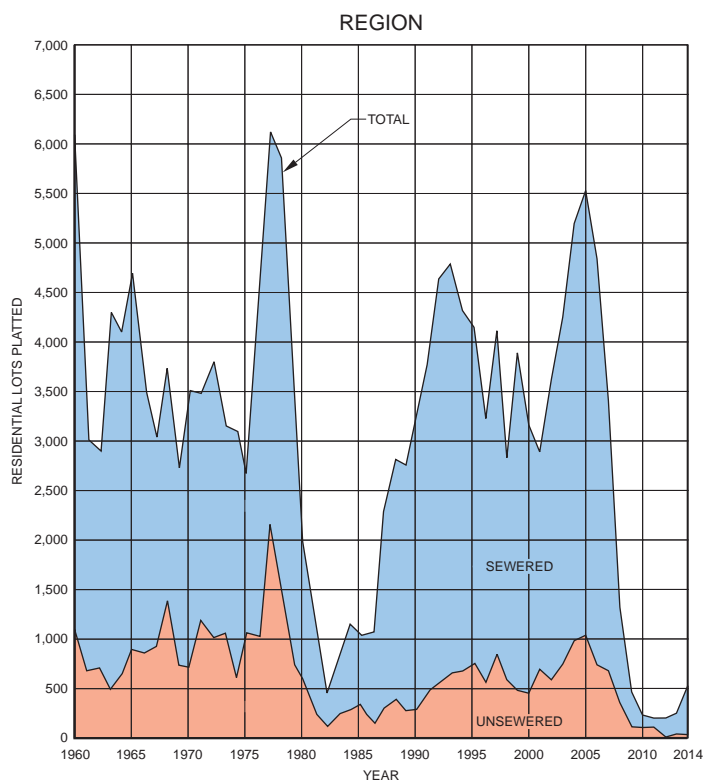
### Residential Housing Units

#### 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 16). Housing construction decreased substantially—to less than 3,000 units per year—during the economic downturn of the late 2000s.

Figure 15

RESIDENTIAL LOTS PLATTED IN THE REGION AND ITS COUNTIES: 1960-2014



# Map 27

## RESIDENTIAL PLATTING ACTIVITY IN THE REGION: 2014

- 10 SEWERED LOTS
- 10 UNSEWERED LOTS

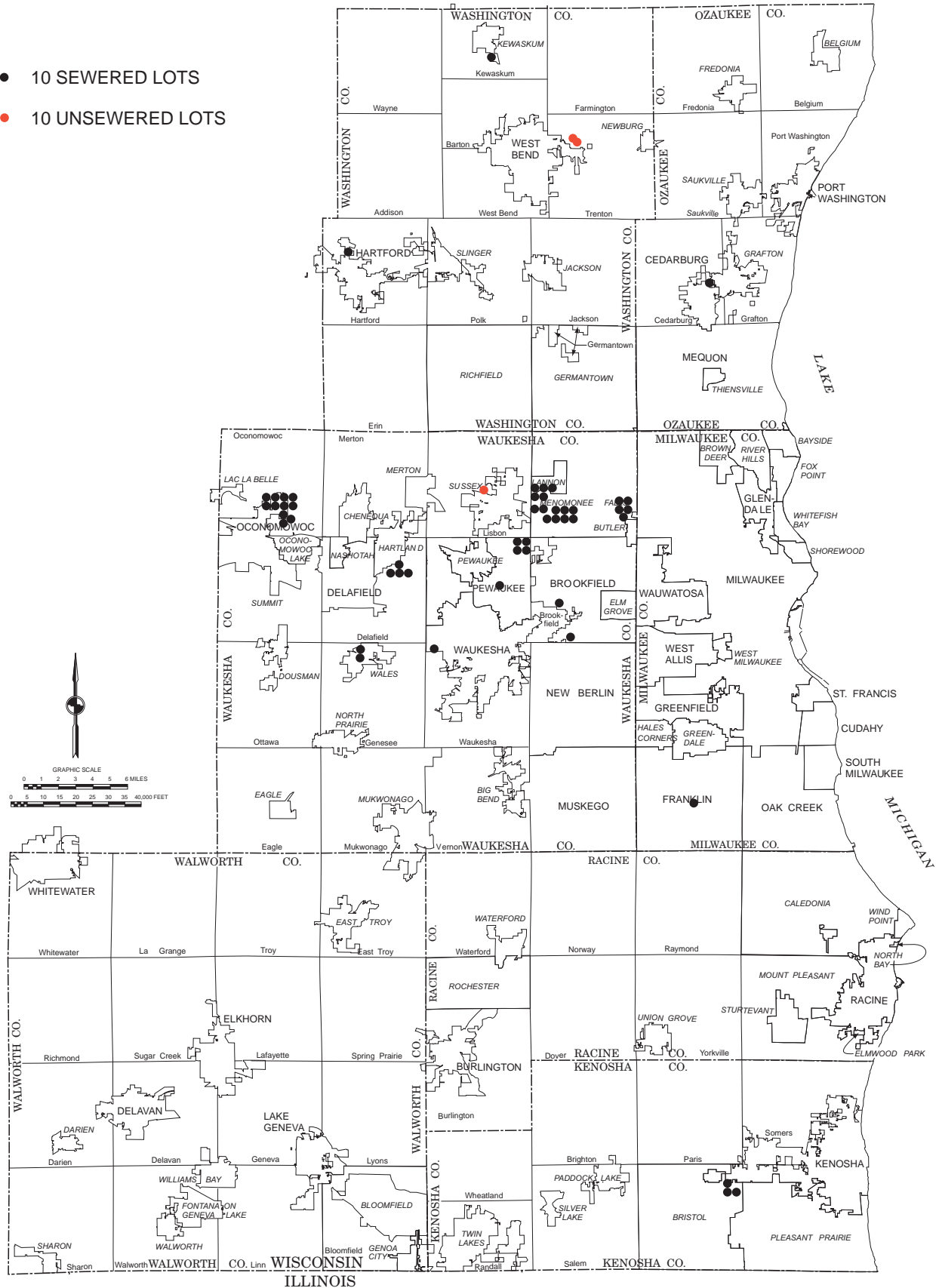




Figure 16

NEW HOUSING UNITS IN THE REGION AND ITS COUNTIES: 1990-2014

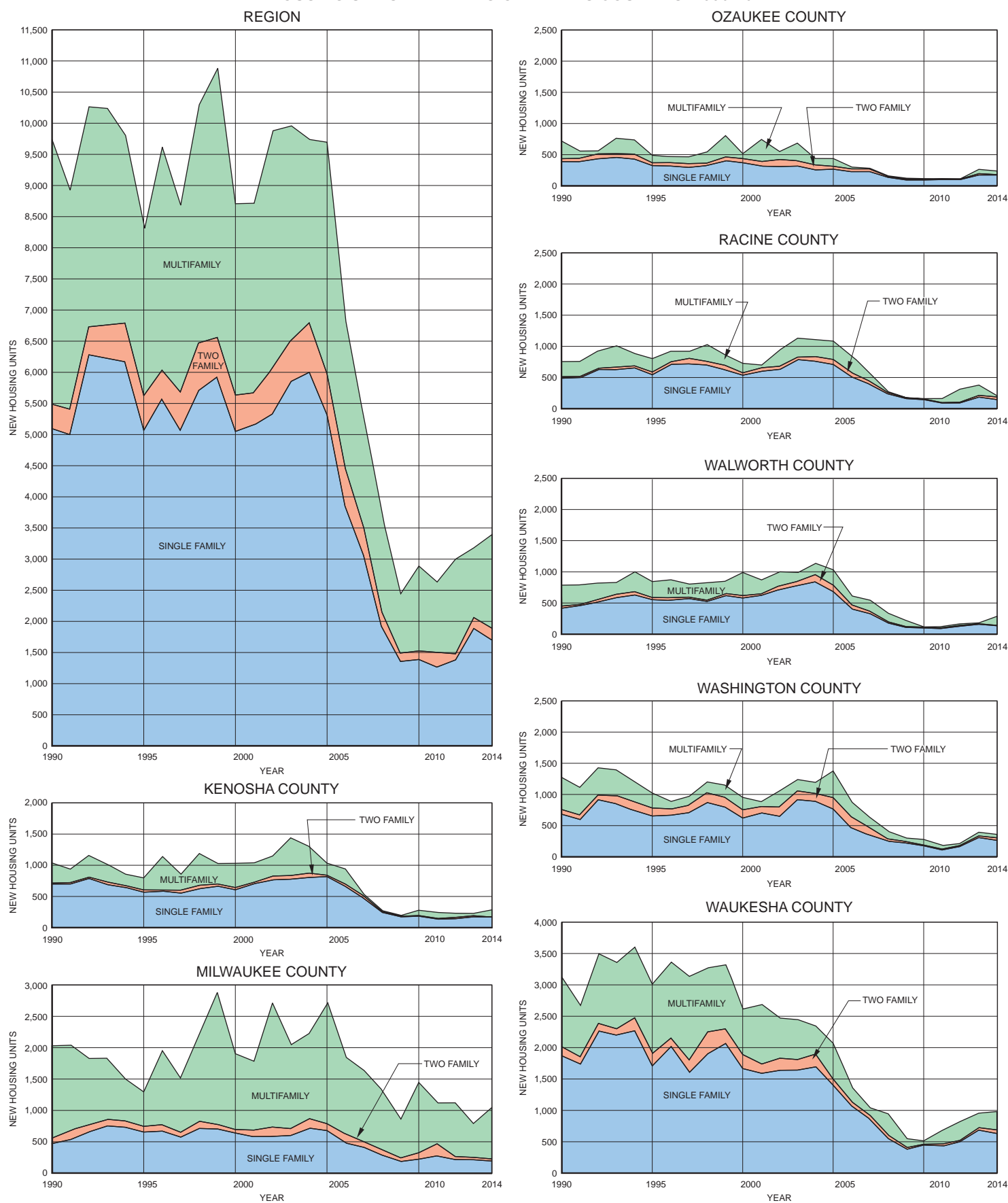


Table 12

**RESIDENTIAL SUBDIVISION  
PLATTING ACTIVITY IN THE REGION: 2014**

County	Sewered Lots		Unsewered Lots		Total Lots	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Region
Kenosha .....	25	100.0	0	0.0	25	4.9
Milwaukee .....	13	100.0	0	0.0	13	2.5
Ozaukee .....	8	100.0	0	0.0	8	1.6
Racine .....	0	0.0	0	0.0	0	0.0
Walworth .....	0	0.0	0	0.0	0	0.0
Washington .....	13	37.1	22	62.9	35	6.9
Waukesha .....	417	97.4	11	2.6	428	84.1
Region	476	93.5	33	6.5	509	100.0

NOTE: This table indicates the number of lots created by residential subdivision plats in 2014.

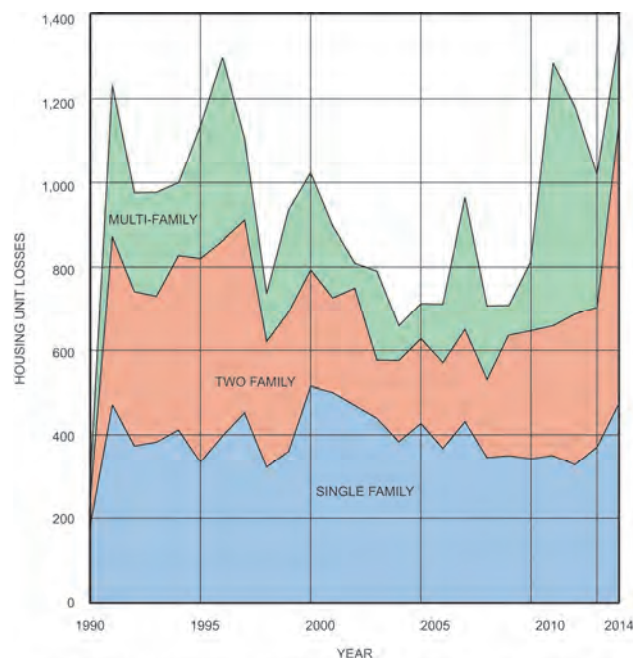
About 3,390 new housing units were added in 2014, including 1,690 single-family units, 190 units in two-unit structures, and 1,510 units in multi-family structures (see Table 13).

**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 average annual loss ranged between about 700 and 1,300 housing units (see Figure 17). A total of 1,342 housing units were lost in 2014, including 475 single-family units, 666 units in two-unit structures, and 201 units in multi-family structures. The net change in housing units in 2014 was a gain of about 2,048 (see Table 13).

Figure 17

**HOUSING UNITS LOSSES IN THE REGION BY  
STRUCTURE TYPE: 1990-2014**



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

**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

Table 13

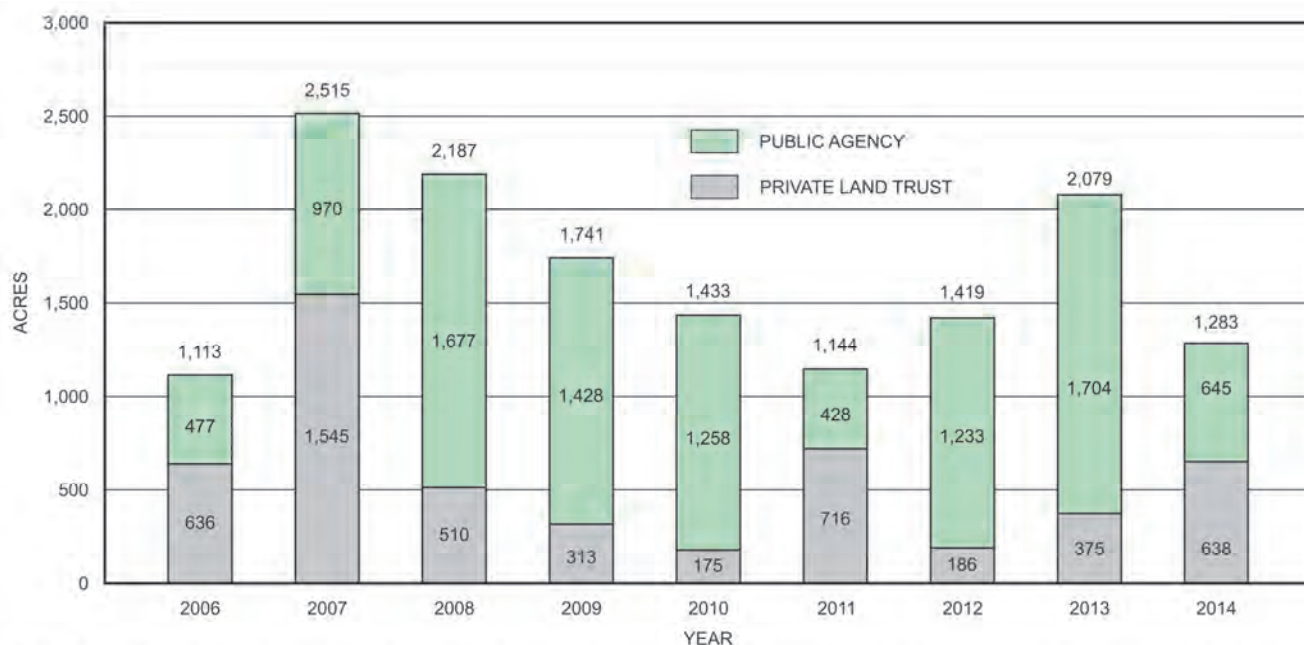
**CHANGE IN HOUSING UNITS BY STRUCTURE TYPE IN THE REGION: 2014**

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.....	158	0	116	274	48	6	0	54	110	-6	116	220
Milwaukee .....	196	34	818	1,048	209	640	168	1,017	-13	-606	650	31
Ozaukee .....	176	6	58	240	19	4	0	23	157	2	58	217
Racine.....	138	42	24	204	50	16	9	75	88	26	15	129
Walworth.....	137	6	146	289	44	0	20	64	93	6	126	225
Washington.....	254	44	54	352	16	0	0	16	238	44	54	336
Waukesha.....	631	58	294	983	89	0	4	93	542	58	290	890
Region	1,690	190	1,510	3,390	475	666	201	1,342	1,215	-476	1,309	2,048

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 18

**PUBLIC INTEREST ACQUISITION OF ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS IN THE REGION: 2006-2014**



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 which are located outside the environmental corridors and which may be expected to become part of the corridors as they revert to more natural conditions in the years ahead.

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 18 indicates the acreage of open space associated with environmental corridors and isolated natural resource areas in the Region protected through public interest acquisition or conservation easements since 2006. This acreage represents the total area of the parcels concerned—including the area within the environmental corridors—along with any agricultural or other open lands located outside the environmental corridors that may be expected to become part of the corridors as they revert to more

natural conditions in the years ahead. Summaries of recent open space protection efforts follow.

#### **Total Area Protected**

During 2014, 1,283 acres of open space associated with environmental corridors and isolated natural resource areas were protected through public interest acquisition or conservation easements (see location of sites on Map 28). This compares to an annual average of 1,472 acres of open space so protected over the five-year period 2010-2014.

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

Public agency efforts resulted in the protection of 645 acres during 2014, and an annual average of 1,054 acres over the five-year period 2010-2014.

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

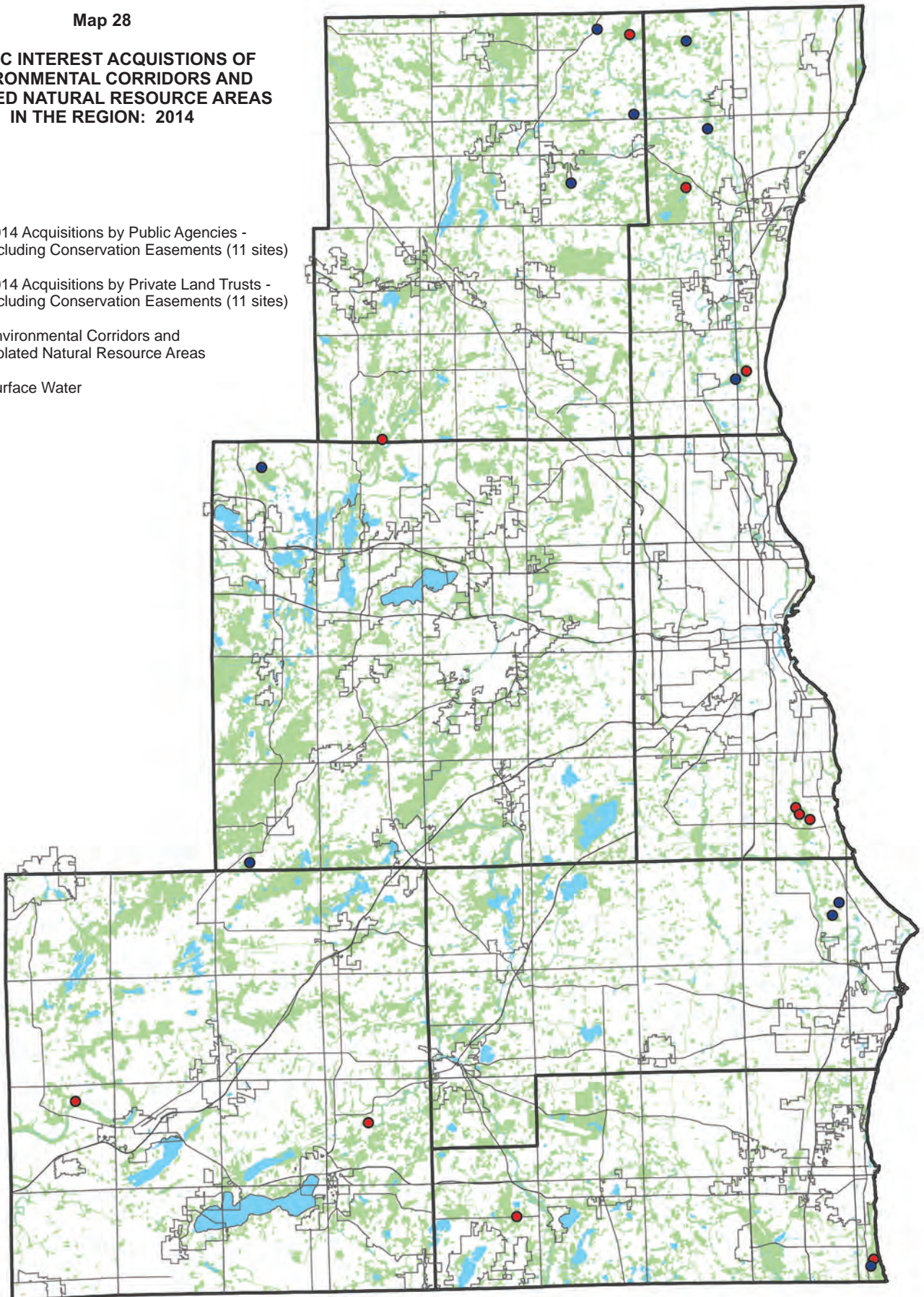
Private land trust efforts resulted in the protection of 638 acres in 2014, and an annual average of 418



Map 28

**PUBLIC INTEREST ACQUISITIONS OF  
ENVIRONMENTAL CORRIDORS AND  
ISOLATED NATURAL RESOURCE AREAS  
IN THE REGION: 2014**

- 2014 Acquisitions by Public Agencies -  
Including Conservation Easements (11 sites)
- 2014 Acquisitions by Private Land Trusts -  
Including Conservation Easements (11 sites)
- Environmental Corridors and  
Isolated Natural Resource Areas
- Surface Water



acres over the past five-year period 2010-2014. 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 2014 included more than 276 acres distributed among nine natural areas as identified in the SEWRPC natural areas and critical species habitat management plan. Specifically, the Wisconsin Department of Natural Resources acquired just under one acre combined in parts of the Barnes Creek Dunes and Panne in Kenosha County and the Cedarburg Bog State Natural Area in Ozaukee County. The Milwaukee Metropolitan Sewerage District acquired 73 acres of the Milwaukee River Swamp in Washington County as part of their Green Seams program. Finally, several land trust and conservancy organizations acquired nearly 142 acres among sites that included: Milwaukee River Mesic Woods and Huiras Lake Woods in Ozaukee County and Schoenbeck Woods in Washington County by the Ozaukee Washington Land Trust, Ashippun River Lowlands in Waukesha County by the Tall Pines Land Conservancy, Malek Wetland in Waukesha County by The Nature Conservancy, and Tabor Woods in Racine County by the Caledonia Conservancy.

## **REGIONAL TRANSPORTATION SYSTEM PERFORMANCE**

Each year the Commission gathers and analyzes available information relative to the performance of the regional transportation system. During 2014 that performance monitoring focused on vehicle availability, public transit operations, park-ride facilities and transit stations, pavement and bridge conditions, traffic congestion and travel times, crashes, aviation activity, and freight rail lines. Monitoring data on these topics usually comes from secondary sources. On occasion, however, the Commission is the source of the data, including travel origin-destination surveys directly conducted by the Commission at 10-year intervals, provided that fiscal resources are made available. Those surveys were undertaken in 2011-2012; the results are documented in Volume 1, Chapter V, “Travel Habits and Patterns,” SEWRPC Planning Report No. 55, *VISION 2050: A Regional Land Use and Transportation System Plan for Southeastern Wisconsin* (forthcoming).

### **Vehicle Availability<sup>1</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 1.41 million vehicles (see Table 14). While the average annual rate of growth in personal-use vehicle availability in the Region from 1963 to 2014 has been about 2 percent, that rate of growth has been decreasing and is expected to lessen further in the coming years under the regional transportation plan forecast (see Figure 19).

#### **Persons Per Personal-Use Vehicle**

The number of persons per personal-use vehicle in the Region was estimated at 1.44 in 2014, a slight decrease from 2013 (see Figure 20). This ratio has been relatively stable for over a decade and the SEWRPC forecast expects continued long-term stability as well. The estimated 2014 level of personal-use vehicle availability was only slightly higher—about 4 percent—than the availability level envisioned in the regional transportation plan.

#### **Commercial and Municipal Trucks**

As shown in Table 15, the number of commercial and municipal trucks available in the Region during 2014 was estimated at about 123,810, which is 1,380 more than the 2013 estimate. Light commercial trucks account for about 54 percent of all commercial trucks. The number of commercial and municipal trucks available in the Region remains at a level somewhat below the forecast level included in the regional transportation plan (see Figure 21).

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<sup>1</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.



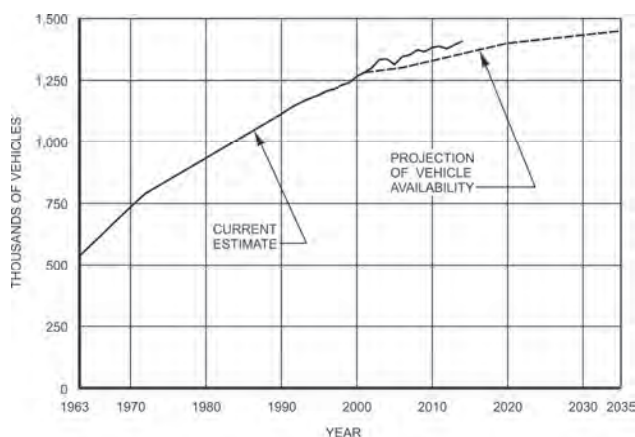
Table 14

PERSONAL-USE VEHICLE AVAILABILITY IN THE REGION<sup>a</sup>

County	1963	1972	2013	2014
Kenosha .....	37,240	51,100	121,610	122,810
Milwaukee .....	316,350	392,000	550,960	556,580
Ozaukee .....	16,780	28,030	71,190	71,920
Racine .....	52,040	73,350	148,630	149,580
Walworth .....	22,220	33,450	85,250	86,350
Washington .....	18,340	30,390	107,170	108,390
Waukesha .....	69,390	114,450	311,820	314,100
Total	532,360	722,770	1,396,630	1,409,730

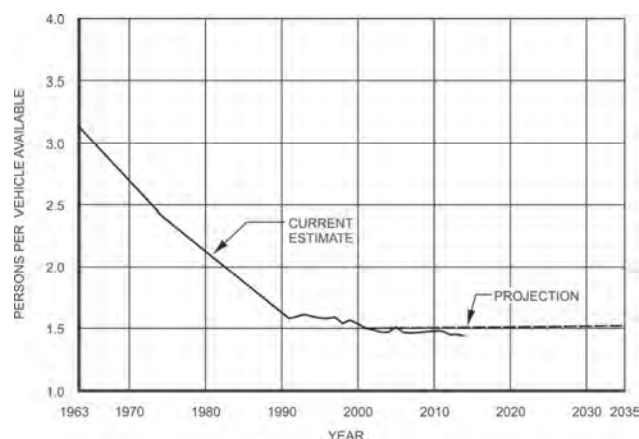
<sup>a</sup>The classification of automobiles and trucks used in this Annual Report differs from that used in Commission Annual Reports for years prior to 1994. For an explanation of the differences, see footnote 1, page 106.

Figure 19

PERSONAL-USE VEHICLE AVAILABILITY<sup>a</sup>

<sup>a</sup> THE CLASSIFICATION OF AUTOMOBILES AND TRUCKS USED IN THIS ANNUAL REPORT DIFFERS FROM THAT USED IN COMMISSION ANNUAL REPORTS FOR YEARS PRIOR TO 1994. FOR AN EXPLANATION OF THE DIFFERENCES, SEE FOOTNOTE 1, PAGE 106.

Figure 20

PERSONS PER PERSONAL-USE VEHICLE<sup>a</sup>

<sup>a</sup> THE CLASSIFICATION OF AUTOMOBILES AND TRUCKS USED IN THIS ANNUAL REPORT DIFFERS FROM THAT USED IN COMMISSION ANNUAL REPORTS FOR YEARS PRIOR TO 1994. FOR AN EXPLANATION OF THE DIFFERENCES, SEE FOOTNOTE 1 ON PAGE 106.

## Public Transit Operations

Transit Systems and Service Areas

The Southeastern Wisconsin Region was served during 2014 by the following public transit systems (see Map 29):

- Fixed-route intracounty bus service sponsored by Kenosha, Milwaukee, and Waukesha Counties and by the Cities of Kenosha, Racine, and Waukesha.
- Fixed-route intercounty bus service sponsored by the City of Racine for travel between Kenosha, Racine, and Milwaukee; and by Ozaukee, Washington, and Waukesha Counties

for travel between those counties and Milwaukee County.

- Shared-ride taxi service sponsored by Ozaukee and Washington Counties and by the Cities of Hartford, West Bend, and Whitewater.
- Paratransit service for persons 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.

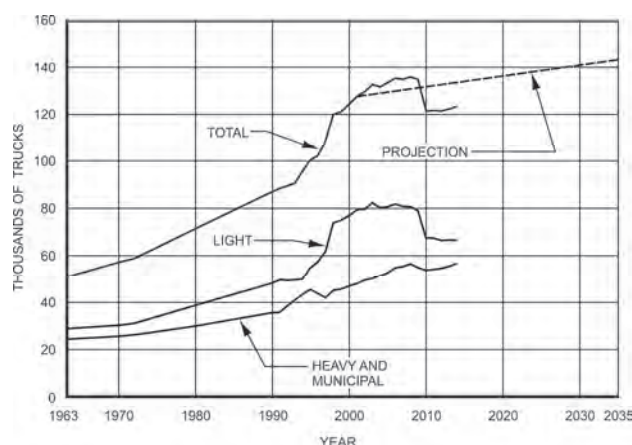
Table 15

COMMERCIAL TRUCK AVAILABILITY IN THE REGION<sup>a</sup>

County	1963	1972	2013	2014
Kenosha.....	4,370	4,490	10,500	10,400
Milwaukee.....	25,910	26,710	42,380	42,320
Ozaukee .....	2,270	2,550	5,870	5,930
Racine.....	5,670	6,460	13,830	14,180
Walworth.....	4,190	4,840	10,190	10,360
Washington.....	3,210	4,080	10,120	10,250
Waukesha.....	7,780	10,280	29,540	30,370
Total	53,400	59,410	122,430	123,810

<sup>a</sup>The classification of automobiles and trucks used in this Annual Report differs from that used in Commission Annual Reports for years prior to 1994. For an explanation of the differences, see footnote 1, page 106.

Figure 21

COMMERCIAL-USE TRUCK AVAILABILITY<sup>a</sup>

<sup>a</sup> THE CLASSIFICATION OF AUTOMOBILES AND TRUCKS USED IN THIS ANNUAL REPORT DIFFERS FROM THAT USED IN COMMISSION ANNUAL REPORTS FOR YEARS PRIOR TO 1994. FOR AN EXPLANATION OF THE DIFFERENCES, SEE FOOTNOTE 1, PAGE 106.

- 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, and the Chicago Loop.

**Notable Changes to Services**

- The Ozaukee County Shared-Ride Taxi extended its hours of operation on Sundays from

12:30 p.m. to 6 p.m. beginning in April 2014. In addition, the Shared-Ride Taxi experienced increased ridership after a private taxi service in Port Washington discontinued service in February 2014.

- The City of Hartford Shared-Ride Taxi experienced a decrease in service hours in 2014 due to an unfilled driver position for most of the year.
- The Waukesha County Transit System continued to experience decreased ridership on Route 79 in 2014 following the 2013 closing of the Watertown Plank Park-Ride and move of that park-ride service to Burleigh Street. The park-ride lot change is in effect for the duration of the Zoo Interchange construction project.

**Fixed-Route Bus Ridership**









The total reported ridership on fixed-route public bus services declined from about 40.7 million revenue passengers in 2013 to 37.5 million revenue passengers in 2014, a decrease of nearly 8 percent (see Table 16 and Figures 22 through 29 for individual system data).

**Shared-Ride Taxi Ridership**

The total reported ridership on shared-ride public taxi services grew from about 359,200 in 2013 to about 366,000 in 2014, an increase of about 2 percent (see Table 16 and Figures 30 through 34 for individual system data).

PUBLIC TRANSIT SERVICES IN THE REGION: 2014

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

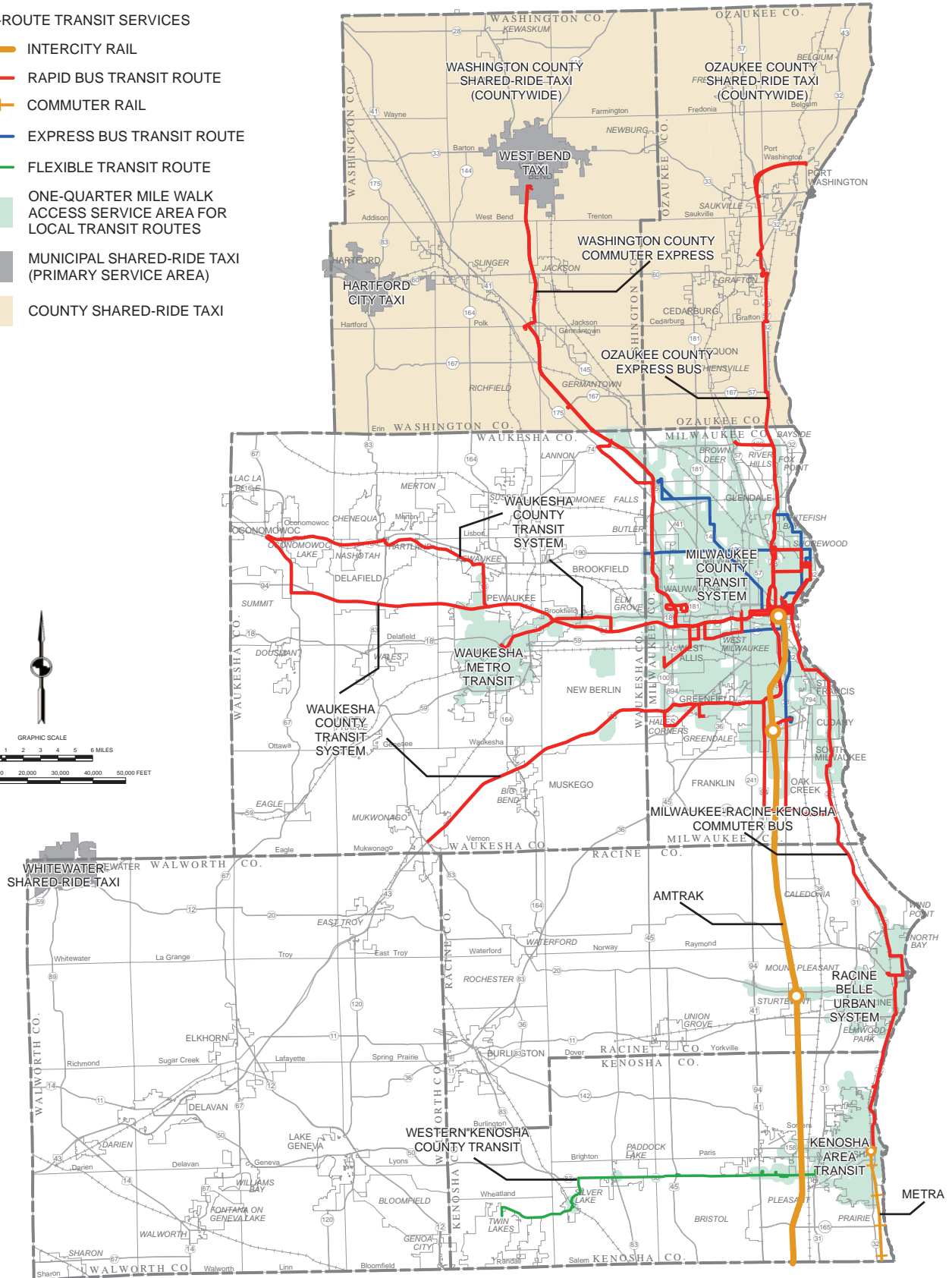
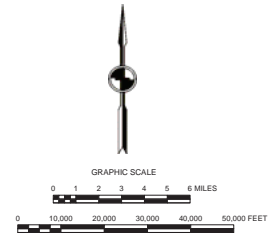


Table 16

## REPORTED PUBLIC TRANSIT REVENUE RIDERSHIP IN THE REGION

Transit Services	Revenue Passengers <sup>a</sup>						Percent Change 2013-2014
	1963	1972	1991	2001	2013	2014	
<b>Fixed Route Bus Systems</b>							
<b>Intracounty<sup>b</sup></b>							
City of Kenosha .....	1,876,000	503,000	1,128,000	1,805,200	1,164,000	1,166,400	0.2
Milwaukee County .....	88,546,000	52,141,000	53,025,000	52,333,400	36,995,700	33,779,800	-8.7
City of Racine .....	2,907,000	526,000	1,829,000	1,437,200	1,048,900	1,143,500	9.0
City of Waukesha.....	451,000	227,000	434,000	633,900	632,900	602,700	-4.8
Subtotal	93,780,000	53,397,000	56,416,000	56,209,700	39,841,500	36,692,400	-7.9
<b>Intercounty</b>							
Kenosha-Racine Milwaukee Counties .....	230,000 <sup>b</sup>	153,000	82,000	81,400	76,800	71,600	-6.8
Ozaukee-Milwaukee Counties .....	127,000	64,000	--	91,600	116,600	113,800	-2.4
Washington-Milwaukee Counties.....	--	--	--	67,500	116,100	110,300	-5.0
Waukesha-Milwaukee Counties.....	534,000 <sup>b</sup>	240,000	290,000	667,700	562,100	546,700	-2.7
Western Kenosha County .....	--	--	--	--	14,500	13,300	-8.3
Subtotal	891,000	457,000	372,000	908,200	886,100	855,700	-3.4
<b>Total Bus Systems</b>	<b>94,671,000</b>	<b>53,854,000</b>	<b>56,788,000</b>	<b>57,117,900</b>	<b>40,727,600</b>	<b>37,548,100</b>	<b>-7.8</b>
<b>Shared-Ride Taxi Systems</b>							
City of Hartford .....	--	--	8,000	20,800	22,000	20,500	-6.8
Ozaukee County.....	--	--	--	57,300	96,300	110,600	14.8
City of Port Washington <sup>c</sup> .....	--	--	--	23,200	-- <sup>b</sup>	-- <sup>b</sup>	-- <sup>b</sup>
Washington County .....	--	--	--	52,300	94,500	91,100	-3.6
City of West Bend.....	--	--	--	134,400	114,500	113,400	-1.0
City of Whitewater .....	--	--	38,000	19,700	31,900	30,400	-4.7
Subtotal	--	--	46,000	307,700	359,200	366,000	1.9
<b>Region Total</b>	<b>94,671,000</b>	<b>53,854,000</b>	<b>56,834,000</b>	<b>57,425,600</b>	<b>41,086,800</b>	<b>37,914,100</b>	<b>-7.7</b>

<sup>a</sup>From June 2012 through January 2013, Racine County operated a cross-county shuttle with Federal Section 5317 New Freedom funding. Called the Racine County Link, the service was open to the general public and was designed to serve cross-county trips between the City of Racine, the Village of Union Grove, and the Burlington/Rochester areas. Ridership on the Link was only about 450 revenue passengers during 2012 and Racine County eliminated the service in January 2013 because of its low ridership.

<sup>b</sup>The ridership figures shown in this table reflect transit revenue passengers as reported to the Wisconsin Department of Transportation by each transit operator. Since 1978, the annual revenue ridership figures reported to the State by the urban bus systems have included transfer trips made by passengers using a transit pass instead of a transfer slip to transfer between bus routes. The bus ridership figures shown here are somewhat higher than the estimates of linked transit passenger trips reported in other published Commission documents and reports. Linked passenger trips approximate the number of one-way trips made on the transit system between specific origins and destinations with transit passengers being counted only once for each origin and destination. Transfers between bus routes are not counted, as they are a continuation of a single trip. By way of comparison with the transit revenue passengers shown in this table, the Commission estimated the total annual linked transit passenger trips in the Region at about 30.9 million in 2014, 33.5 million in 2013, and 46.7 million in 2001.

<sup>c</sup>The shared-ride taxi service operated by the City of Port Washington was merged with the Ozaukee County Taxi Service at the end of 2012.

### **Paratransit Vehicle Ridership**

Paratransit vehicles serve people with disabilities unable to use fixed-route bus services. During 2014, about 621,900 one-way trips were made on paratransit services in the Region, an increase of about 2 percent from the 610,500 one-way trips made during 2013 (see Table 17 for individual system data). The number of one-way trips had declined over the past few years, which may have been attributed to educational efforts made by Milwaukee County to encourage persons 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. The slight increase in ridership observed between 2013 and 2014 may be attributed to a \$0.50 decrease in the one-way fare.

### **Metra Ridership**

Metra operates nine trains on weekdays, six trains on Saturdays, and three trains on Sundays and holidays from the Kenosha station to the Chicago Loop. The base one-way fare is \$8.25. For regular riders who use the service 20 days per month, a \$235 monthly pass reduces the fare to \$5.88 per trip.

Figure 22

**TRANSIT REVENUE RIDERSHIP  
CITY OF KENOSHA TRANSIT SYSTEM**

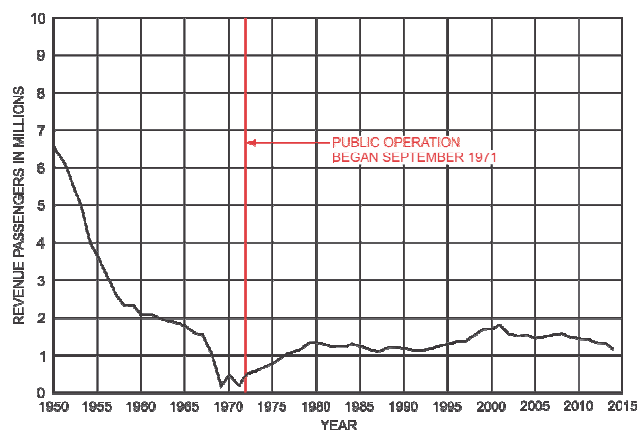


Figure 23

**TRANSIT REVENUE RIDERSHIP  
MILWAUKEE COUNTY TRANSIT SYSTEM**

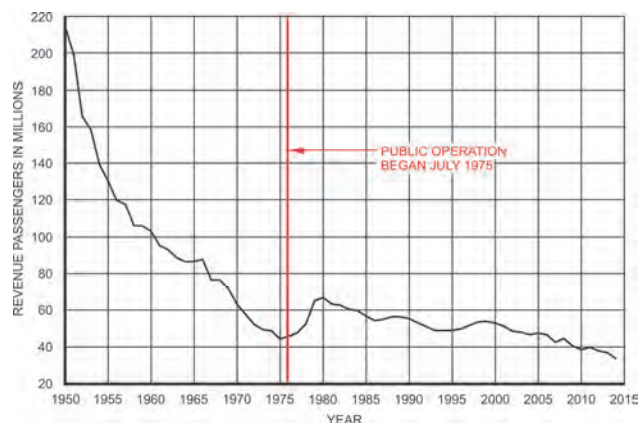


Figure 24

**TRANSIT REVENUE RIDERSHIP  
CITY OF RACINE TRANSIT SYSTEM**

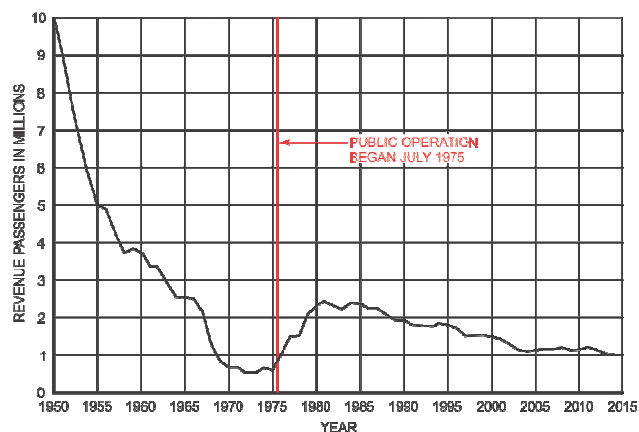


Figure 25

**TRANSIT REVENUE RIDERSHIP  
CITY OF WAUKESHA TRANSIT SYSTEM**

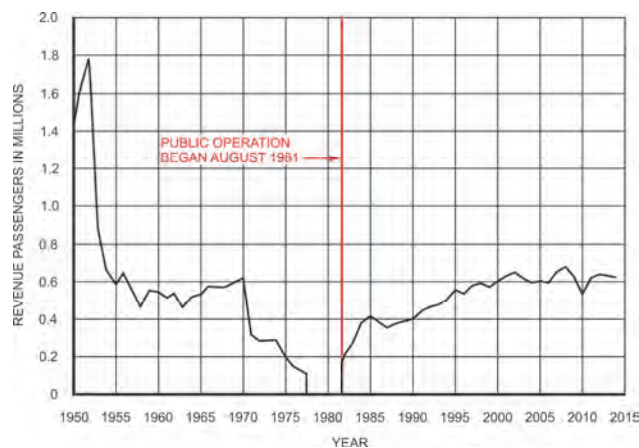
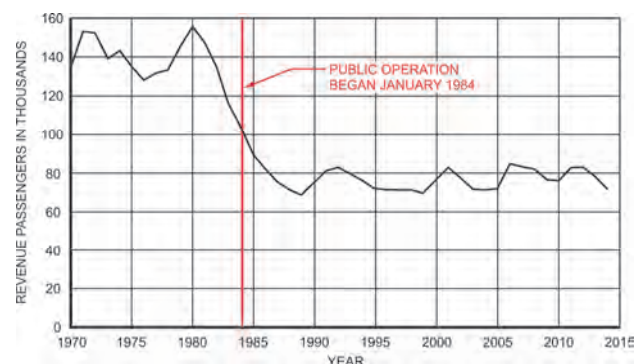


Figure 26

**TRANSIT REVENUE RIDERSHIP: KENOSHA-  
RACINE-MILWAUKEE AREA TRANSIT SYSTEM**



Metra last reported 842 average weekday departures/arrivals in 2006, an increase of about 60 percent over the period 1995-2006.

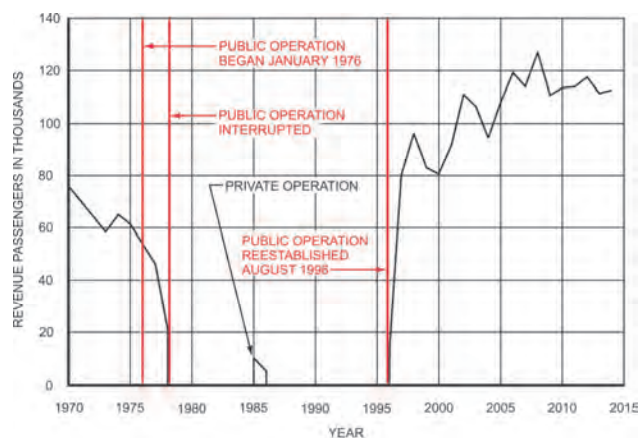
**Amtrak Ridership**

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. The base one-way fare is \$24. For regular riders who use the service 20 days per month, a \$390 monthly pass reduces the fare to \$9.75 per trip. Over the 10-year period 2005-2014, annual ridership increased by about 48 percent to a level of about 804,900 passengers. Starting in October 2013, Amtrak began using an eTicketing



Figure 27

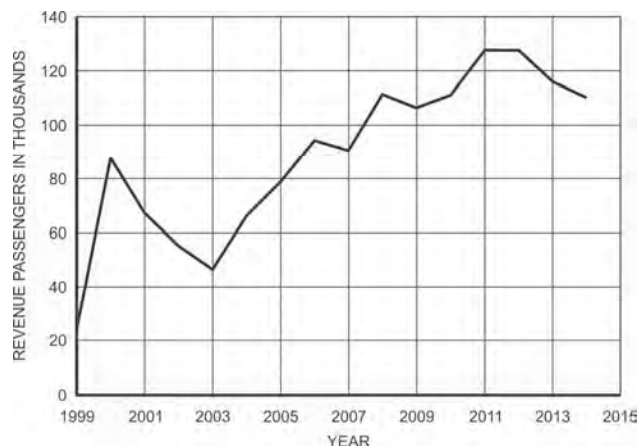
**TRANSIT REVENUE RIDERSHIP  
OZAUKEE COUNTY EXPRESS SYSTEM**



NOTE: THE GRAPH REFLECTS TWO PERIODS OF PUBLIC OPERATION: FROM JANUARY 1976 THROUGH JUNE 1978 DURING WHICH OZAUKEE COUNTY PROVIDED STATE AND COUNTY FUNDS TO A PRIVATE TRANSIT OPERATOR, WISCONSIN COACH LINES, INC., FOR AN EXISTING COMMUTER BUS ROUTE BETWEEN OZAUKEE AND MILWAUKEE COUNTIES; AND FROM AUGUST 1996 FORWARD DURING WHICH THE COUNTY HAS PROVIDED FEDERAL, STATE AND COUNTY FUNDS FOR A NEW COMMUTER BUS SERVICE BETWEEN THE TWO COUNTIES. FOR ABOUT NINE MONTHS IN 1985 AND 1986, A DIFFERENT PRIVATE COMPANY, OZAUKEE METROPOLITAN TRANSIT, PROVIDED COMMUTER BUS SERVICE BETWEEN THE TWO COUNTIES WITHOUT ANY PUBLIC SPONSORSHIP OR FUNDING.

Figure 28

**TRANSIT REVENUE RIDERSHIP  
WASHINGTON COUNTY EXPRESS BUS SYSTEM**



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. In 2014, the State of Wisconsin provided about \$5.4 million to support Hiawatha operating services.

**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 2014

Figure 29

**TRANSIT REVENUE RIDERSHIP  
WAUKESHA COUNTY TRANSIT SYSTEM**

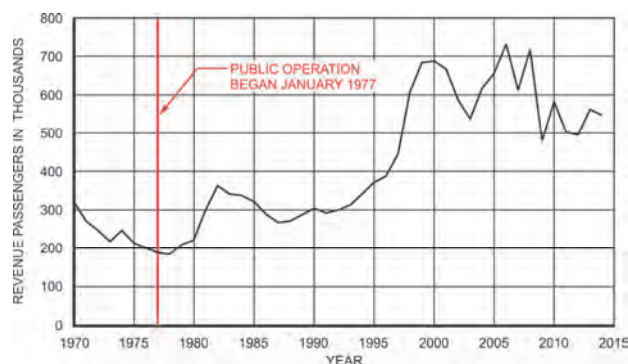


Figure 30

**TRANSIT REVENUE RIDERSHIP  
CITY OF HARTFORD TAXI SYSTEM**

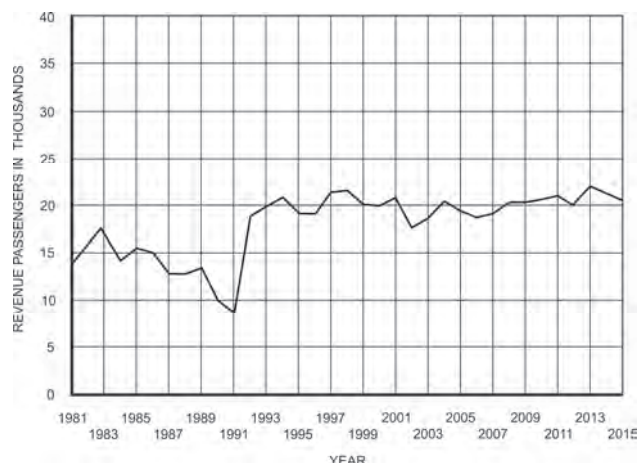


Figure 31

**TRANSIT REVENUE RIDERSHIP  
OZAUKEE COUNTY TAXI SYSTEM**

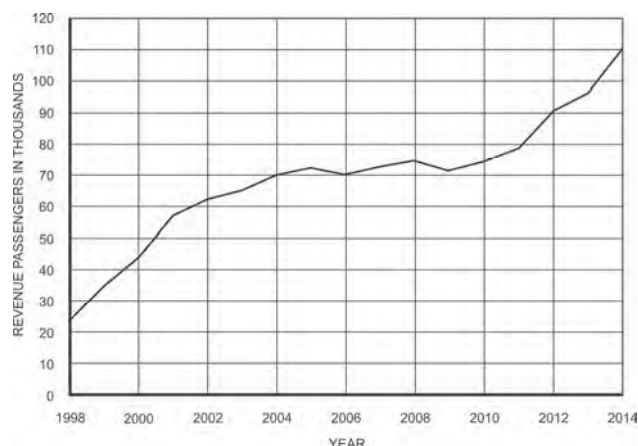


Figure 32

**TRANSIT REVENUE RIDERSHIP  
WASHINGTON COUNTY TAXI SYSTEM**

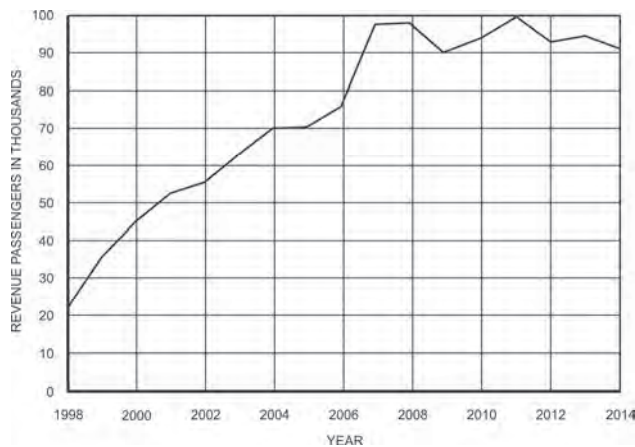
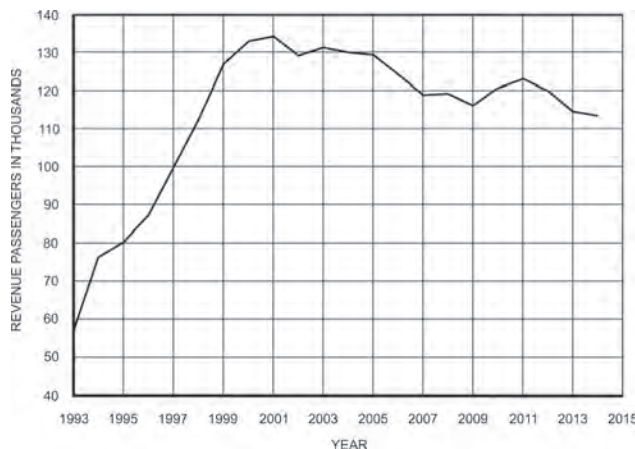


Figure 33

**TRANSIT REVENUE RIDERSHIP  
CITY OF WEST BEND TAXI SYSTEM**



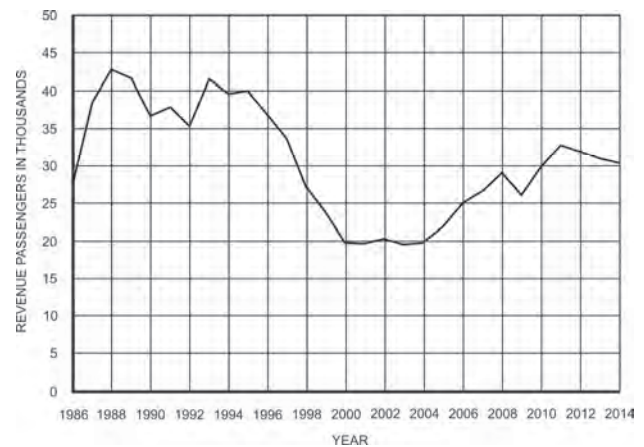
totaled about 22.4 million, representing an increase of less than 1 percent from the 22.3 million vehicle-miles operated during 2013 (see Table 18 for individual system data and Figure 35 for the historical trend).

**Bus Vehicle Age and Reliability**

The average age of buses operated by transit operators in the Region declined from 7.0 years in 2012 to 5.8 years in 2013. The number of service calls for those buses increased over 40 percent, from 2,835 in 2012 to 3,974 in 2013. Over the same period, the average revenue vehicle-miles traveled between service calls decreased by about 30 percent, from 6,921 in 2012 to 4,876 in 2013. The increase

Figure 34

**TRANSIT REVENUE RIDERSHIP  
CITY OF WHITEWATER TAXI SYSTEM**



in the number of service calls experienced between 2012 and 2013 is primarily due to design issues with some of the new buses put into service in 2013. A service call is defined as any repair made to a bus correcting a mechanical failure that either prevents the bus from completing a scheduled revenue trip or from starting its next scheduled revenue trip.

**Transit Fares**

Fares for the Region's transit operators are presented in Table 19. One transit operator, the Ozaukee County Express, raised base fares by \$0.25 in 2014.

**Operating Assistance**

Public transit operating assistance in the Region, exclusive of Metra and Amtrak services, totaled about \$128.4 million in 2013, the most recent year for which data is available, a 3 percent decrease from 2012 (see Table 20 for individual system data). Table 20 also provides the public subsidy per ride for each system.

**Park-Ride Facilities and Transit Stations**

**Number and Location**

Progress in providing the 73 park-ride lots and transit stations recommended in the regional transportation plan is summarized on Map 30. In 2014, there were 53 park-ride lots in the Region, the same number as in 2013. Of the 53 existing park-ride lots and transit stations in 2014, 39 were served by transit service and 14 were used exclusively by carpools. Eight of the 53 park-ride lots and transit stations were shared-use facilities that were not

Table 17

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

Transit Operator	Paratransit Trips				
	1991	2001	2013	2014	Percent Change 2013-2014
City of Kenosha .....	13,100	17,200	23,100	23,600	2.2
Milwaukee County .....	388,200	1,027,000	544,400	557,300	2.4
City of Racine .....	32,900	19,600	25,500	26,400	3.5
City of Waukesha.....	11,000	13,000	11,600	10,900	-6.0
Waukesha County .....	1,200	11,200	5,900	3,700	-37.3
Region Total	446,400	1,070,800	610,500	621,900	1.9

Table 18

## REPORTED PUBLIC TRANSIT REVENUE VEHICLE MILES OF SERVICE IN THE REGION

Transit Services	Revenue Vehicle Miles of Service						
	1963	1972	1991	2001	2013	2014	Percent Change 2013-2014
<b>Fixed Route Bus Systems</b>							
Intracounty							
City of Kenosha .....	764,200	309,900	735,300	1,163,800	889,600	889,500	0.0
Milwaukee County .....	24,279,300	18,883,700	17,161,200	19,246,100	15,337,200	15,537,300	1.3
City of Racine .....	1,099,800	461,600	1,258,500	1,416,400	1,035,100	948,200	-8.4
City of Waukesha.....	175,300	85,200	519,400	861,000	710,600	664,100	-6.5
Subtotal	26,318,600	19,740,400	19,674,400	22,687,300	17,972,500	18,039,100	0.4
Intercounty							
Kenosha-Racine Milwaukee Counties .....	N/A	N/A	253,300	381,600	215,600	215,000	-0.3
Ozaukee-Milwaukee Counties .....	N/A	110,000	--	224,200	183,500	186,500	1.6
Washington-Milwaukee Counties.....	--	--	--	339,800	245,800	243,200	-1.1
Waukesha-Milwaukee Counties.....	1,016,000	328,300	375,200	1,258,800	548,200	554,200	1.1
Western Kenosha County.....	--	--	--	--	211,900	204,000	-3.7
Subtotal	1,016,000	438,300	628,500	2,204,400	1,405,000	1,402,900	-0.1
<b>Total Bus Systems</b>	<b>27,334,600</b>	<b>20,178,700</b>	<b>20,302,900</b>	<b>24,891,700</b>	<b>19,377,500</b>	<b>19,442,000</b>	<b>0.3</b>
<b>Shared-Ride Taxi Systems</b>							
City of Hartford .....	--	--	24,700	44,500	56,900	56,400	-0.9
Ozaukee County.....	--	--	--	734,400	1,070,800	1,097,900	2.5
City of Port Washington <sup>a</sup> .....	--	--	--	82,600	--	--	--
Washington County .....	--	--	--	902,900	1,290,200	1,303,100	1.0
City of West Bend.....	--	--	--	432,200	390,600	382,000	-2.2
City of Whitewater .....	--	--	78,900	58,700	83,200	93,700	12.6
Subtotal	--	--	103,600	2,255,300	2,891,700	2,933,100	1.4
<b>Region Total</b>	<b>27,334,600</b>	<b>20,178,700</b>	<b>20,406,500</b>	<b>27,147,000</b>	<b>22,269,200</b>	<b>22,375,100</b>	<b>0.5</b>

<sup>a</sup>The shared-ride taxi service operated by the City of Port Washington was merged with the Ozaukee County Taxi Service in January 2012.

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 21 provides data on both the number of parking spaces available and the number of parking

spaces used on an average weekday in 2014 at all park-ride lots and transit stations. The total number of spaces available at park-ride lots in the Region was 7,470 in 2014, including 6,745 at park-ride lots served by transit and 725 at the lots not served by transit. Of the 6,745 spaces available at the 39 park-ride lots served by transit, 2,305 spaces were used on an average weekday during 2014—a utilization rate

Figure 35

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

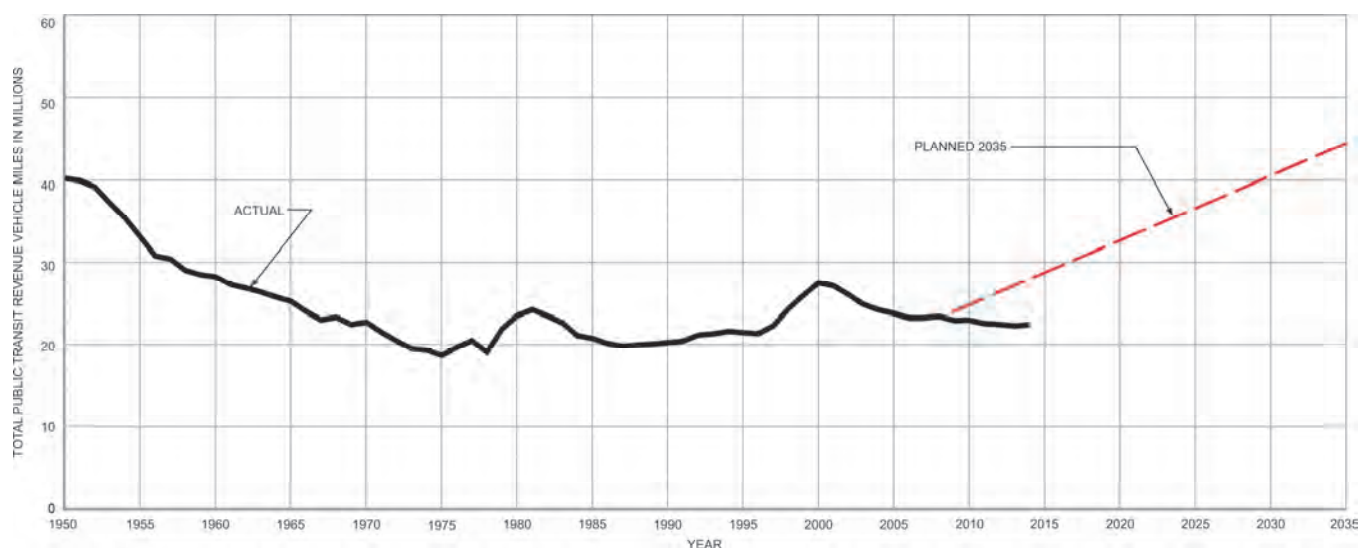


Table 19

### BASE ADULT FARES CHARGED BY PUBLIC TRANSIT SYSTEMS IN THE REGION 2013 AND 2014

Transit System	Fares Charged Per One-way Trip		Change 2013-2014
	2013	2014	
Fixed Route Bus Systems			
Intracounty			
City of Kenosha .....	\$1.75	\$1.75	--
Milwaukee County .....	\$2.25	\$2.25	--
City of Racine .....	\$2.00	\$2.00	--
City of Waukesha.....	\$2.00	\$2.00	--
Intercounty			--
Kenosha-Racine Milwaukee Counties .....	\$2.25-\$4.50	\$2.25-\$4.50	--
Ozaukee-Milwaukee Counties .....	\$3.25	\$3.50	\$0.25
Washington-Milwaukee Counties.....	\$3.75	\$3.75	--
Waukesha-Milwaukee Counties.....	\$3.25-\$4.00	\$3.25-\$4.00	--
Western Kenosha County .....	\$2.00-\$5.00	\$2.00-\$5.00	--
Shared-Ride Taxi Systems			
City of Hartford .....	\$3.00	\$3.00	--
Ozaukee County.....	\$3.00-\$6.75	\$3.00-\$6.75	--
Washington County .....	\$4.25-\$9.00	\$4.25-\$9.00	--
City of West Bend.....	\$4.00	\$4.00	--
City of Whitewater .....	\$3.00	\$3.00	--

of about 34 percent. Of the 725 spaces available at the lots not served by transit, 298 spaces were utilized during 2014—a utilization rate of about 41 percent. Four lots had utilization rates of 100 percent or higher, indicating they were at or over their rated capacity.

### Pavement and Bridge Conditions

#### State Trunk Highway Pavements

All state trunk highways, including interstate highways, are assessed on the basis of the International Roughness Index (see Figure 36 and Table 22). In 2013, slightly over 85 percent of the

Table 20

## PUBLIC TRANSIT OPERATING ASSISTANCE WITHIN THE REGION: 2012-2013

Transit Services	Public Transit Operating Assistance (dollars)							
	2012 Actual/Estimated				2013 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
<b>Fixed Route Bus Systems</b>								
Intracounty								
City of Kenosha .....	2,066,000	1,635,200	1,726,600	5,427,800	2,126,900	1,489,800	1,588,200	5,204,900
Milwaukee County .....	27,496,700	67,857,800	11,666,600	107,021,100	23,778,500	67,467,400	11,818,000	103,063,900
City of Racine .....	2,645,200	1,582,500	1,725,100	5,952,800	2,810,500	1,759,300	1,458,300	6,028,100
City of Waukesha .....	518,600	2,056,700	1,374,600	3,949,900	526,300	1,901,700	1,393,400	3,821,400
Subtotal	32,726,500	73,132,200	16,492,900	122,351,600	29,242,200	72,618,200	16,257,900	118,118,300
Intercounty								
Kenosha-Racine Milwaukee Counties.....	--	601,900	285,700	887,600	--	669,100	241,500	910,600
Ozaukee-Milwaukee Counties.....	89,200	421,100	391,000	901,300	86,000	428,300	360,600	874,900
Washington-Milwaukee Counties .....	322,600	535,400	56,700	914,700	504,300	430,200	52,900	987,400
Waukesha-Milwaukee Counties .....	477,400	2,296,800	744,400	3,518,600	484,500	2,123,700	754,600	3,362,800
Western Kenosha County .....	425,300	--	158,000	583,300	245,400	62,500	183,000	490,900
Subtotal	1,314,500	3,855,200	1,635,800	6,805,500	1,320,200	3,713,800	1,592,600	6,626,600
<b>Total Bus Systems</b>	<b>34,041,000</b>	<b>76,987,400</b>	<b>18,128,700</b>	<b>129,157,100</b>	<b>30,562,400</b>	<b>76,332,000</b>	<b>17,850,500</b>	<b>124,744,900</b>
<b>Shared-Ride Taxi Systems</b>								
City of Hartford .....	82,100	66,300	19,800	168,200	123,900	--	22,800	146,700
Ozaukee County .....	167,600	791,300	322,000	1,280,900	161,500	804,800	296,900	1,263,200
Washington County .....	352,300	919,900	420,000	1,692,200	550,700	739,100	391,500	1,681,300
City of West Bend.....	273,500	194,500	35,700	503,700	232,700	214,800	17,900	465,400
City of Whitewater .....	66,000	55,500	14,600	136,100	62,900	53,300	9,500	125,700
Subtotal	941,500	2,027,500	812,100	3,781,100	1,131,700	1,812,000	738,600	3,682,300
<b>Region Total</b>	<b>34,982,500</b>	<b>79,014,900</b>	<b>18,940,800</b>	<b>132,938,200</b>	<b>31,694,100</b>	<b>78,144,000</b>	<b>18,589,100</b>	<b>128,427,200</b>

Transit Services	Public Transit Operating Assistance per Ride (dollars)							
	2012 Actual/Estimated				2013 Actual/Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
<b>Fixed Route Bus Systems</b>								
Intracounty								
City of Kenosha.....	\$ 1.50	\$ 1.19	\$1.26	\$ 3.95	\$ 1.83	\$ 1.28	\$1.36	\$ 4.47
Milwaukee County .....	0.72	1.79	0.31	2.82	0.64	1.82	0.32	2.79
City of Racine .....	2.42	1.45	1.58	5.45	2.68	1.68	1.39	5.75
City of Waukesha .....	0.81	3.21	2.15	6.17	0.83	3.00	2.20	6.04
Weighted Average	0.80	1.78	0.40	2.98	0.73	1.82	0.41	2.96
Intercounty								
Kenosha-Racine Milwaukee Counties.....	--	7.25	3.44	10.69	--	8.71	3.14	11.86
Ozaukee-Milwaukee Counties.....	0.76	3.58	3.33	7.67	0.74	3.67	3.09	7.50
Washington-Milwaukee Counties .....	2.53	4.20	0.44	7.17	4.34	3.71	0.46	8.50
Waukesha-Milwaukee Counties .....	0.96	4.63	1.50	7.09	0.86	3.78	1.34	5.98
Western Kenosha County .....	23.50	--	8.73	32.23	16.92	4.31	12.62	33.86
Weighted Average	1.56	4.58	1.94	8.08	1.49	4.19	1.80	7.48
<b>Total Bus Systems</b>	<b>0.81</b>	<b>1.84</b>	<b>0.43</b>	<b>3.08</b>	<b>0.75</b>	<b>1.87</b>	<b>0.44</b>	<b>3.06</b>
<b>Shared-Ride Taxi Systems</b>								
City of Hartford .....	4.00	3.23	0.97	8.20	5.63	--	1.04	6.67
Ozaukee County .....	1.85	8.71	3.55	14.11	1.68	8.36	3.08	13.12
Washington County .....	3.79	9.90	4.52	18.22	5.83	7.82	4.14	17.79
City of West Bend.....	2.28	1.62	0.30	4.20	2.03	1.88	0.16	4.06
City of Whitewater .....	2.07	1.74	0.46	4.27	1.97	1.67	0.30	3.94
Weighted Average	2.65	5.70	2.28	10.62	3.15	5.04	2.06	10.25
<b>Region Weighted Average</b>	<b>\$ 0.83</b>	<b>\$ 1.87</b>	<b>\$0.45</b>	<b>\$ 3.15</b>	<b>\$ 0.77</b>	<b>\$ 1.90</b>	<b>\$0.45</b>	<b>\$ 3.13</b>



Map 30

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

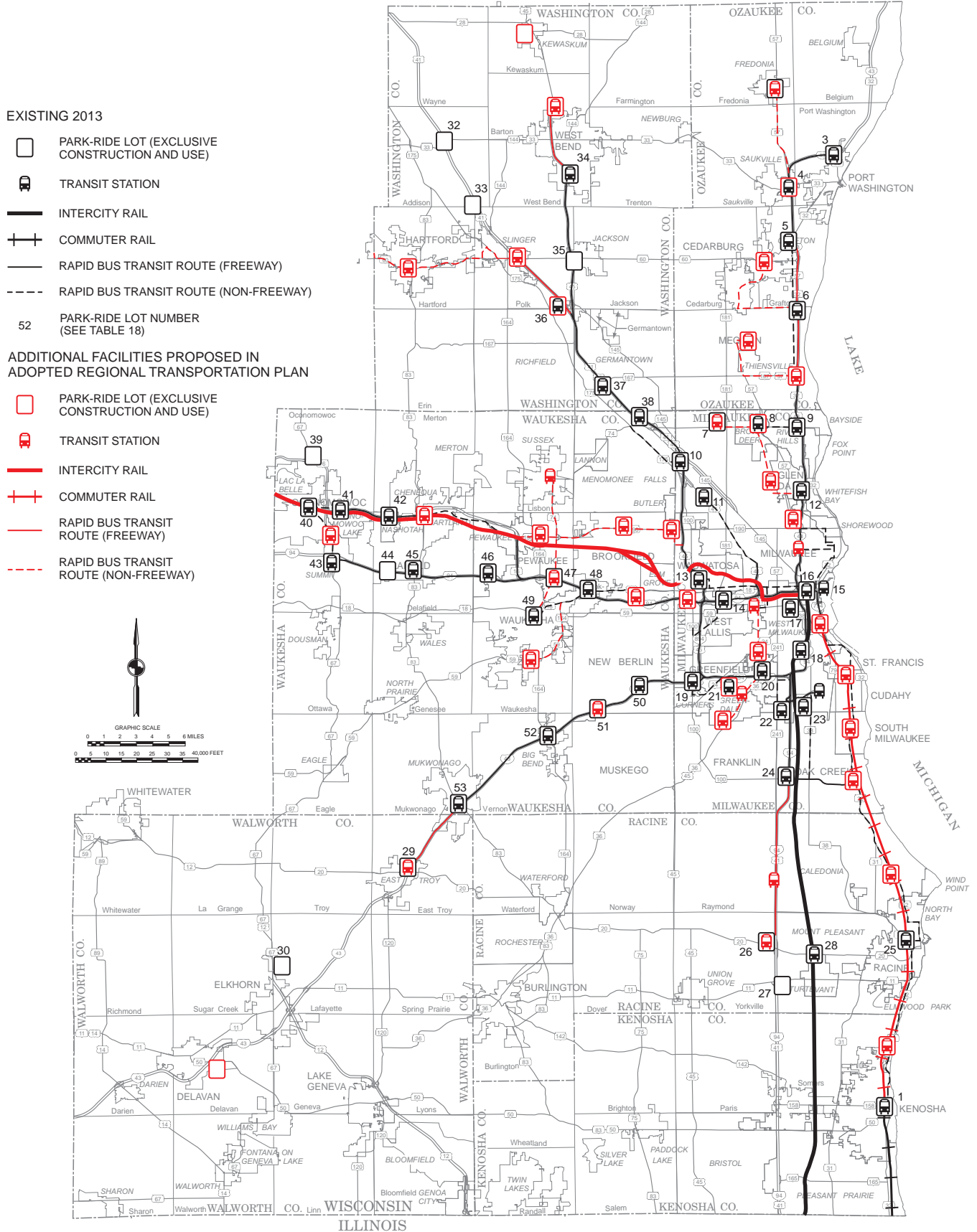


Table 21

## AVERAGE WEEKDAY USE OF PARK-RIDE LOTS AND TRANSIT STATIONS: 2014

Number On Map 26	Location	Served by Transit	Not served by Transit	Shared Use	Available Parking Spaces	Autos Parked on an Average Weekday: 2014	Percent of Spaces Used
1	<u>Kenosha County</u> Metra Station (Kenosha)	X		X	145	-- <sup>a</sup>	-- <sup>a</sup>
2	<u>Ozaukee County</u> STH 57 and CTH H (Fredonia)		X		60	8	13
3	IH 43 and STH 32-CTH H (Port Washington)	X			50	48	96
4	Wal-Mart (Saukville)	X		X	50	-- <sup>a</sup>	-- <sup>a</sup>
5	IH 43 and CTH V (Grafton)	X			85	28	33
6	IH 43 and CTH C (Grafton)	X			65	68	105
7	<u>Milwaukee County</u> STH 100 and N. 85th Street (Milwaukee)		X		100	-- <sup>a</sup>	-- <sup>a</sup>
8	Kohl's (Brown Deer)	X		X	130	-- <sup>a</sup>	-- <sup>a</sup>
9	Brown Deer (River Hills)	X			360	101	28
10	W. Good Hope Road (Milwaukee)	X			135	30	22
11	Timmerman Field (Milwaukee)	X			140	0	0
12	North Shore (Glendale)	X			195	94	48
13	W. Watertown Plank Road (Wauwatosa)	X			350 <sup>c</sup>	-- <sup>c</sup>	-- <sup>c</sup>
14	State Fair Park (Milwaukee)	X			285	163	57
15	Downtown Milwaukee Intermodal Amtrak Station	X			240	-- <sup>a</sup>	-- <sup>a</sup>
16	Milwaukee County Transit System Downtown Transit Center (Milwaukee)	X		X	-- <sup>b</sup>	-- <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	79	34
19	Whitnall (Hales Corners)	X			360	201	56
20	W. Loomis Road (Greenfield)	X			410	79	19
21	Southridge (Greendale)	X		X	170	-- <sup>a</sup>	-- <sup>a</sup>
22	W. College Avenue (Milwaukee)	X			650	260	40
23	Mitchell Airport Amtrak Station (Milwaukee)	X			280	186	66
24	W. Ryan Road (Oak Creek)	X			305	129	42
25	<u>Racine County</u> Racine Metro Transit Center (Racine)	X			120	-- <sup>a</sup>	-- <sup>a</sup>
26	IH 94 and STH 20 (Ives Grove)		X		75	43	57
27	IH 94 and STH 11 (Mount Pleasant)		X		60	54	90
28	Sturtevant Amtrak Station (Sturtevant)	X			180	-- <sup>a</sup>	-- <sup>a</sup>
29	<u>Walworth County</u> East Troy Municipal Airport (East Troy)		X		40	5	13
30	USH 12 and STH 67 (Elkhorn)		X		40	15	38
31	USH 12 and CTH P (Genoa City)		X		40	8	20
32	<u>Washington County</u> USH 41 and STH 33 (Allenton)		X		35	49	140
33	USH 41 and CTH K (Addison)		X		50	5	10
34	USH 45 and Paradise Drive (West Bend)	X			100	80	80
35	STH 60 and CTH P (Jackson)		X		30	24	80
36	Pioneer Road and Mayfield Road (Richfield)	X			30	62	207
37	USH 41 and Lannon Road (Germantown)	X			100	108	108
38	<u>Waukesha County</u> Pilgrim Road (Menomonee Falls)	X			70	39	56
39	STH 67 and Lang Road (Oconomowoc)		X		35	7	20
40	Collins Street Parking Lot (Oconomowoc)	X		X	-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
41	STH 16 and CTH P (Oconomowoc)	X			45	11	24
42	STH 16 and CTH C (Nashotah)	X			60	12	20
43	STH 67 and CTH DR (Summit)	X			100	45	45
44	IH 94 and CTH C (Delafield)		X		30	28	93
45	IH 94 and STH 83 (Delafield)	X			200	62	31
46	IH 94 and CTH G/CTH SS (Pewaukee)	X			245	73	30
47	IH 94 and CTH F (Pewaukee)		X		85	35	41
48	Goerke's Corners (Brookfield)	X			315	213	68
49	Waukesha Metro Transit Downtown Transit Center (Waukesha)	X		X	-- <sup>b</sup>	-- <sup>a</sup>	-- <sup>a</sup>
50	IH 43 and Moorland Road (New Berlin)	X			175	35	20
51	IH 43 and CTH Y (New Berlin)		X		45	17	38
52	IH 43 and STH 164 (Big Bend)	X			145	43	30
53	IH 43 and STH 83 (Mukwonago)	X			165	56	34
--	Total	--	--	--	7,470	2,603	35

<sup>a</sup>Data not available.<sup>b</sup>Parking available within larger public lot or structure.<sup>c</sup>The Watertown Plank Road Park-Ride was closed and temporarily replaced with the Burleigh Street Park-Ride at Mayfair Collection.

Table 22

## STATE TRUNK HIGHWAY PAVEMENT CONDITION IN THE REGION: 2006, 2012, AND 2013

International Roughness Index	2006		2012		2013	
	State Trunk Highway (Miles)	Percent of Total	State Trunk Highway (Miles)	Percent of Total	State Trunk Highway (Miles)	Percent of Total
0.00 to 2.50.....	916	74.2	927	74.8	969	78.8
2.50 to 2.75.....	76	6.2	78	6.3	80	6.5
2.75 to 3.00.....	61	4.9	59	4.8	61	5.0
3.00 to 12.00.....	161	13.0	166	13.4	113	9.2
No Rating.....	20	1.6	9	0.7	9	0.6
Total	1,234	100.0	1,239	100.0	1,230	100.0

Figure 36

INTERNATIONAL ROUGHNESS INDEX  
PAVEMENT RATING SYSTEM USED ON  
STATE TRUNK HIGHWAYS IN WISCONSIN

International Roughness Index	Ride Assessment
0.00-2.50	No ride problems
2.50-2.75	Minor ride problems
2.75-3.00	Moderate ride problems
3.00-12.00	Severe ride problems

Roadway surface roughness data is obtained by the use of special equipment to physically measure the longitudinal profile of a roadway.

state trunk highway system in the Region was determined to have few or no ride problems, a proportion that has slightly increased over the seven-year period 2006-2013. This would indicate that about 15 percent of the state trunk highway system in the Region at any point in time experiences moderate to severe ride problems, with those highway segments being targeted by WisDOT in highway improvement programming efforts for the years ahead. The results of the 2013 pavement condition assessment in southeastern Wisconsin by state trunk highway facility are shown on Map 31.

**County and Local Arterial Road Pavements**

State law requires counties and local municipalities to rate their arterial street and highway systems every two years. Counties and local municipalities uniformly use the Pavement Surface and Evaluation Rating (PASER) System (see Figure 37). The results of these ratings for the years 2005, 2011, and 2013

are shown in Table 23. The results of the 2013 rating by arterial facility are shown on Map 32. Over the eight-year period 2005-2013, the collective number of miles of county and local arterials with a PASER rating of one or two—those classifications that indicate severe deterioration and a need for reconstruction—significantly decreased from about 6 percent of all county and local arterials in 2005 to 2.5 percent in 2013. This particular finding pertains, however, only to county and local arterial streets and highways, and does not include local non-arterial roads that have the primary function of providing access to properties.

**Bridge Structures**

The condition of bridges is determined by a rating system having a scale of 0-100 (see Figure 38). The ratings for bridge structures located in the Region for 2006, 2012, and 2013 are shown in Table 24, while the 2013 ratings for individual bridge structures in the Region are shown on Map 33. The number of bridges in the Region having a rating less than 50, and therefore in need of replacement, has declined by about 17 percent over the past seven years. Similarly, the number of bridge structures with a rating from 50 to 80, indicating a need for rehabilitation, has declined by nearly 15 percent over that same seven-year period.

**Volume of Travel**

The amount of travel within the Region on the arterial street and highway system on an average weekday is set forth in Table 25 for selected years from 1963-2011. 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 38 percent of the

Map 31

**STATE TRUNK HIGHWAY  
PAVEMENT CONDITIONS  
IN THE REGION: 2013**

**INTERNATIONAL ROUGHNESS INDEX**

- 3.00 TO 12.00 (113 MILES)
- 2.75 TO 3.00 (61 MILES)
- 2.50 TO 2.75 (80 MILES)
- 0.00 TO 2.50 (969 MILES)
- NO RATING (7 MILES)

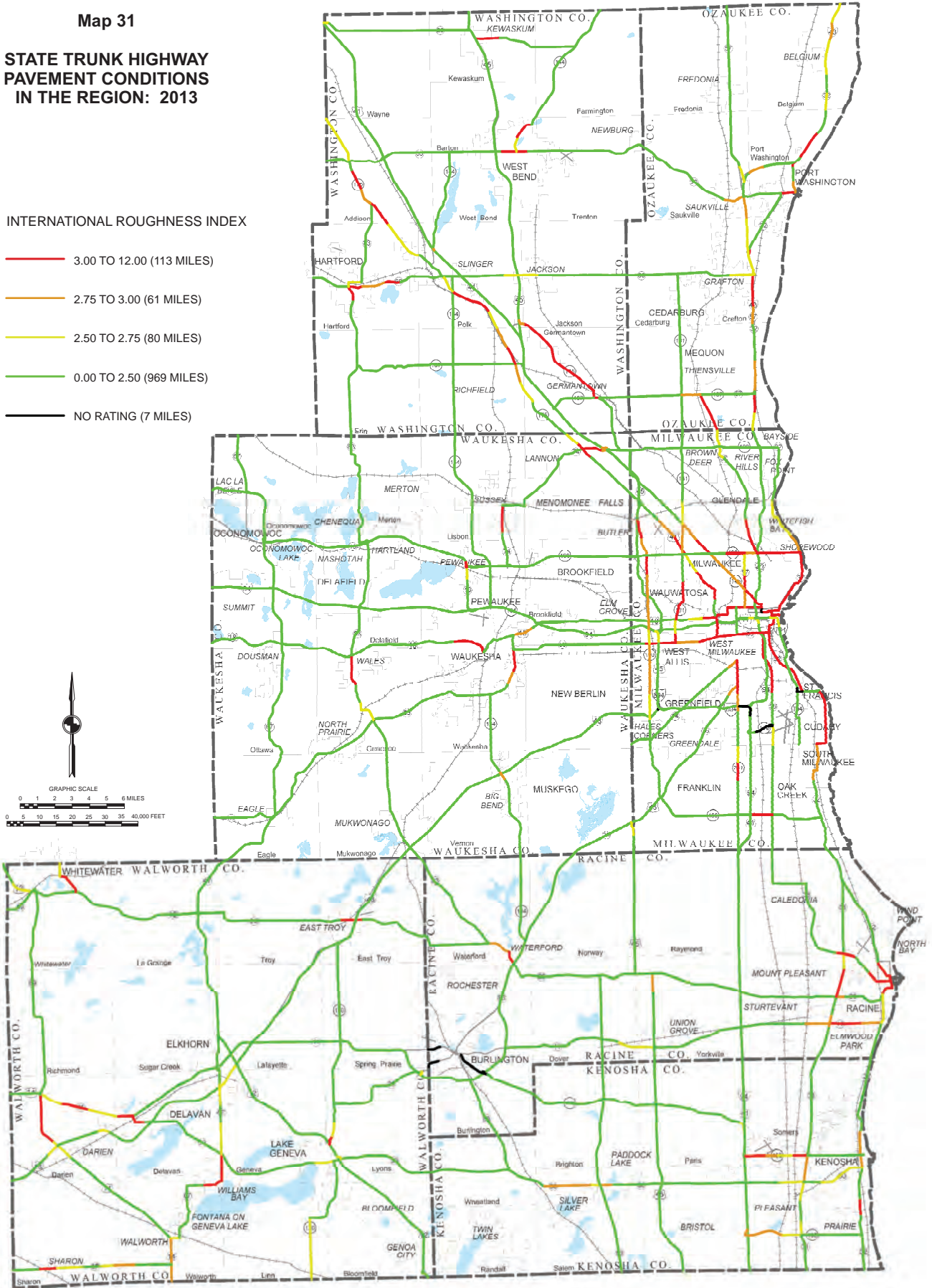
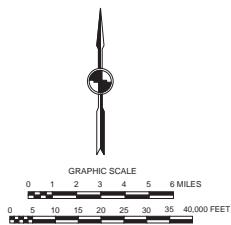


Table 23

**COUNTY AND LOCAL ARTERIAL STREET AND HIGHWAY  
PAVEMENT CONDITION IN THE REGION: 2005, 2011, AND 2013**

PASER Pavement Rating	2005		2011		2013	
	Local and County Arterial (Miles)	Percent of Total	Local and County Arterial (Miles)	Percent of Total	Local and County Arterial (Miles)	Percent of Total
1 and 2.....	132	5.7	92	3.9	59	2.5
3 and 4.....	233	10.2	227	9.6	244	10.3
5 and 6.....	431	18.8	556	23.4	501	21.2
7.....	376	16.4	431	18.1	444	18.8
8, 9, and 10.....	907	39.5	884	37.2	935	39.7
No Rating.....	215	9.4	185	7.8	175	7.4
Total	2,294	100.0	2,375	100.0	2,358	100.0

Table 24

**SUFFICIENCY RATINGS FOR BRIDGE STRUCTURES  
IN THE REGION: 2006, 2012, AND 2013**

Sufficiency Rating	Number of Bridges			Percent Change 2006-2013
	2006	2012	2013	
Less than 50.0 .....	98	86	81	-17.3
50.0 to 79.9.....	520	469	441	-15.2
80.0 to 100.0.....	1,244	1,363	1,372	10.3
Total	1,862	1,918	1,894	1.7

Figure 37

**PAVEMENT SURFACE AND EVALUATION RATING  
(PASER) SYSTEM USED ON COUNTY AND LOCAL  
ROADS IN WISCONSIN**

Visual Surface Assessment Condition Rating		Maintenance or Repair Requirements
Number	Classification	
1	Failed	Severely Deteriorated; Requires Reconstruction
2	Very Poor	
3	Poor	Structural Improvement Such as Recycling or Overlay
4	Fair	
5	Fair	Preservation Treatments Such as Sealcoating or Overlays
6	Good	
7	Good	Routine Maintenance such as crack filling Little to no Maintenance Required
8	Very Good	
9	Excellent	
10	Excellent	

*The identified maintenance or repair requirements apply to asphalt roads;  
similar requirements exist for concrete roads.*

approximately 41 million vehicle miles of travel (VMT) on an average weekday in the Region in 2011. This proportion of travel on the freeway

Figure 38

**BRIDGE STRUCTURE  
SUFFICIENCY RATING SYSTEM  
USED IN WISCONSIN**

Sufficiency Rating	Relationship to Federal Funding Eligibility for Rehabilitation or Replacement
Less than 50.0	Eligible for replacement funding
50.0 to 79.9	Eligible for rehabilitation funding
80.0 to 100.0	Not eligible for funding

*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.*

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.

The average annual growth rate of average weekday travel by decade since the early 1960s is identified in

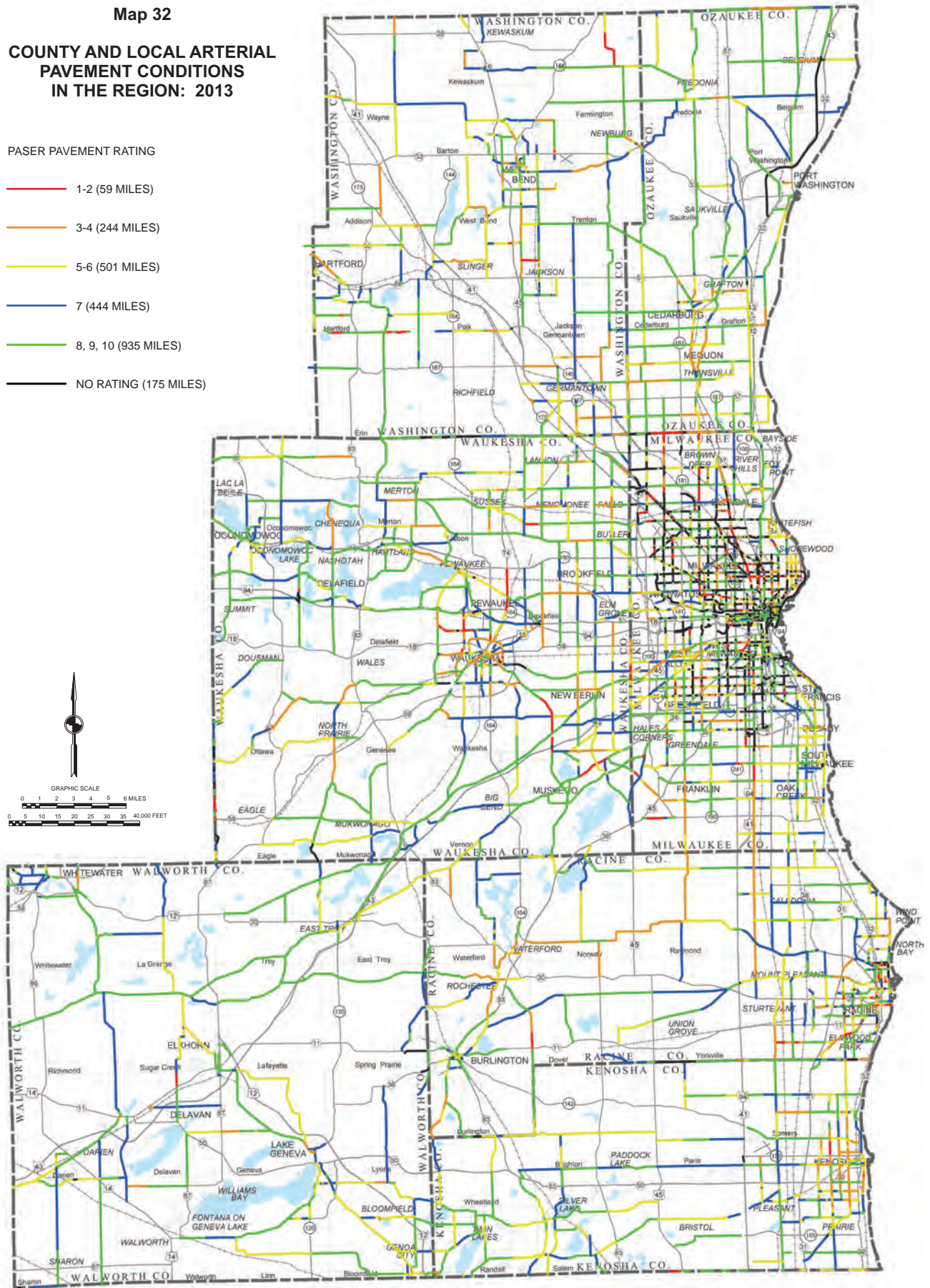
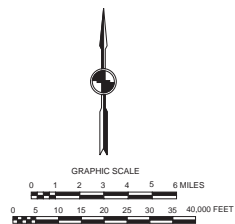


Map 32

**COUNTY AND LOCAL ARTERIAL  
PAVEMENT CONDITIONS  
IN THE REGION: 2013**

PASER PAVEMENT RATING

- 1-2 (59 MILES)
- 3-4 (244 MILES)
- 5-6 (501 MILES)
- 7 (444 MILES)
- 8, 9, 10 (935 MILES)
- NO RATING (175 MILES)





## BRIDGE STRUCTURE CONDITIONS IN THE REGION: 2013



Table 25

**ARTERIAL VEHICLE-MILES OF TRAVEL WITHIN THE REGION ON  
AN AVERAGE WEEKDAY BY COUNTY: 1963, 1972, 1991, 2001, AND 2011**

Year	County	Freeway		Standard Arterial		Total Vehicle Miles of Travel (thousands)
		Vehicle-Miles of Travel (thousands)	Percent of Total	Vehicle-Miles of Travel (thousands)	Percent of Total	
1963	Kenosha.....	204	21.7	734	78.3	938
	Milwaukee.....	531	7.2	6,817	92.8	7,348
	Ozaukee.....	20	4.1	464	95.9	484
	Racine.....	203	18.0	922	82.0	1,125
	Walworth.....	- -	- -	685	100.0	685
	Washington.....	345	49.6	351	50.4	696
	Waukesha.....	159	8.9	1,637	91.1	1,796
	Region	1,462	11.2	11,610	88.8	13,072
1972	Kenosha.....	382	26.8	1,046	73.2	1,428
	Milwaukee.....	3,977	37.2	6,718	62.8	10,695
	Ozaukee.....	223	26.2	627	73.8	850
	Racine.....	415	22.9	1,398	77.1	1,813
	Walworth.....	56	6.4	817	93.6	873
	Washington.....	190	16.5	961	83.5	1,151
	Waukesha.....	970	29.3	2,344	70.7	3,314
	Region	6,213	30.9	13,911	69.1	20,124
1991	Kenosha.....	675	27.0	1,825	73.0	2,500
	Milwaukee.....	5,945	41.3	8,446	58.7	14,391
	Ozaukee.....	762	39.2	1,180	60.8	1,942
	Racine.....	708	23.9	2,258	76.1	2,966
	Walworth.....	540	28.2	1,373	71.8	1,913
	Washington.....	546	23.0	1,833	77.0	2,379
	Waukesha.....	2,421	34.7	4,560	65.3	6,981
	Region	11,597	35.1	21,475	64.9	33,072
2001	Kenosha.....	805	25.8	2,321	74.2	3,126
	Milwaukee.....	6,878	42.0	9,499	58.0	16,377
	Ozaukee.....	951	42.1	1,308	57.9	2,259
	Racine.....	864	25.5	2,519	74.5	3,383
	Walworth.....	766	32.8	1,569	67.2	2,335
	Washington.....	1,370	44.3	1,725	55.7	3,095
	Waukesha.....	3,239	35.6	5,868	64.4	9,107
	Region	14,873	37.5	24,809	62.5	39,682
2011	Kenosha.....	906	25.9	2,590	74.1	3,497
	Milwaukee.....	6,770	41.8	9,440	58.2	16,210
	Ozaukee.....	974	40.9	1,405	59.1	2,378
	Racine.....	930	26.8	2,537	73.2	3,468
	Walworth.....	877	35.8	1,576	64.2	2,452
	Washington.....	1,541	44.8	1,901	55.2	3,442
	Waukesha.....	3,362	35.7	6,053	64.3	9,415
	Region	15,361	37.6	25,502	62.4	40,862

Table 26

**AVERAGE ANNUAL GROWTH RATE OF AVERAGE WEEKDAY VEHICLE-MILES OF TRAVEL WITHIN SOUTHEASTERN WISCONSIN BY DECADE BY COUNTY**

County	Average Annual Growth Rate of Average Weekday Vehicle-Miles of Travel				
	1960s	1970s	1980s	1990s	2000s
Kenosha .....	4.8	3.4	2.7	2.2	1.2
Milwaukee.....	4.3	1.5	1.6	1.3	-0.1
Ozaukee .....	6.5	4.1	4.6	1.5	0.5
Racine .....	5.4	2.7	2.5	1.3	0.3
Walworth.....	2.7	5.3	3.3	2.0	0.5
Washington.....	5.7	3.6	4.0	2.7	1.1
Waukesha.....	7.0	4.2	3.7	2.7	0.3
Region	4.9	2.7	2.6	1.9	0.3

Table 27

**FREEWAY AND SURFACE ARTERIAL TRAFFIC CONGESTION**

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

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

Table 26. While the volume of travel significantly increased in each of the four decades prior to the turn of the 21st century, that increase has significantly slowed since then, averaging only a 0.3 percent annual increase. This significant decline in the rate of growth may be largely attributed to the economic downturn beginning in 2008, with attendant high unemployment, loss of jobs, and consequent significant decline in travel to and from work. Among other factors at play in this phenomenon are a slowing regional population growth rate and declining average household incomes in real dollar terms. 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 amount of travel. Those factors, however, likely did not significantly contribute to an observed travel decline in the post-2008 period.

### **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 27). The freeway system represents less

Table 28

**TRAFFIC CONGESTION ON THE ARTERIAL STREET AND HIGHWAY  
SYSTEM IN THE REGION BY COUNTY: 2000 AND 2011**

2001

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

2011

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

than 10 percent of total arterial system mileage, but carries nearly 38 percent of total regional average weekday vehicle-miles of travel. 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 2001 and 2011 are set forth in Table 28 and shown on Map 34.

The amount of traffic congestion on the arterial street and highway system for the years 1963, 1972, 1991, 2001, 2005, and 2011 is set forth in Table 29 and summarily shown in Figure 39. 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, as regional employment and households increased by about 30 percent each, and as vehicle occupancy and carpooling significantly declined. The decline in vehicle occupancy from an average of 1.39 persons per vehicle to 1.22 persons per vehicle alone is estimated to have resulted in nearly a 15 percent increase in vehicle traffic. As well, limited transportation system improvement and expansion was completed between 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 then decreased to 274 miles in 2011. From 1991 to 2001,

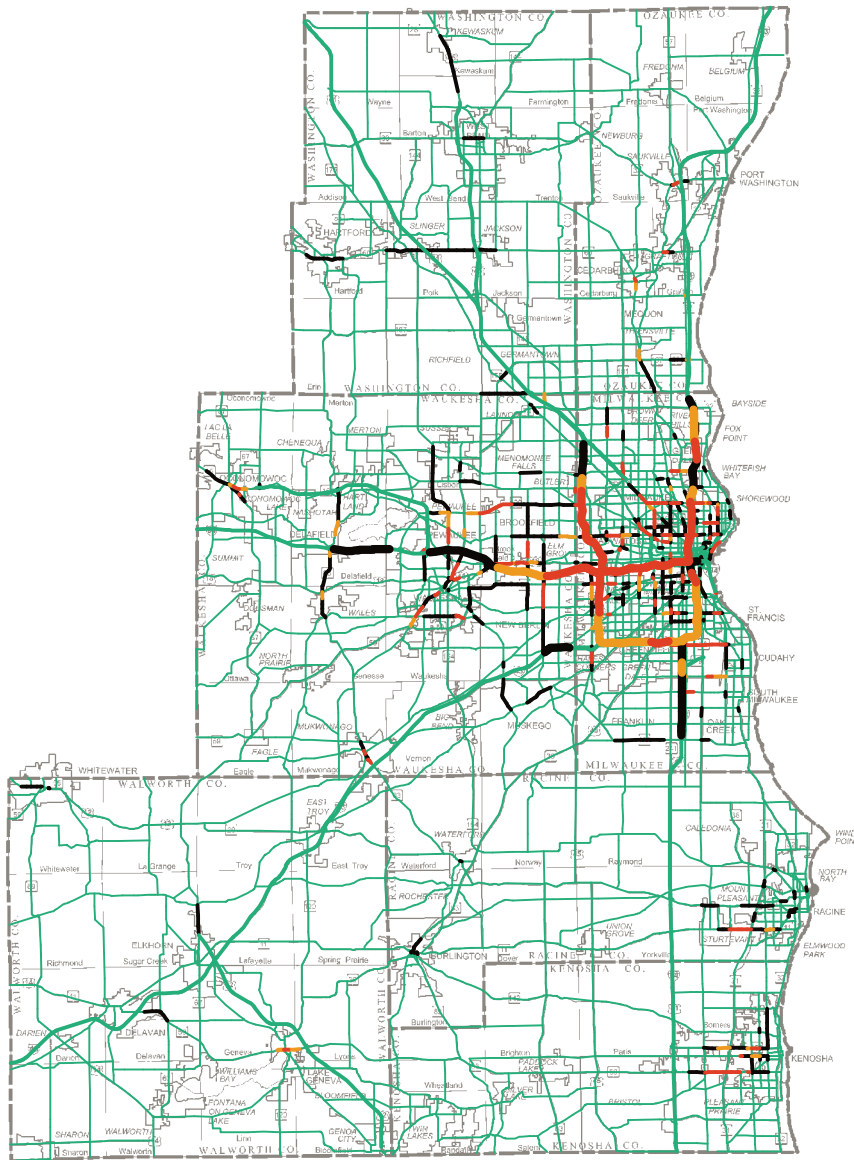


Map 34

CONGESTION ON THE ARTERIAL STREET AND HIGHWAY SYSTEM IN THE REGION: YEARS 2001 AND 2011

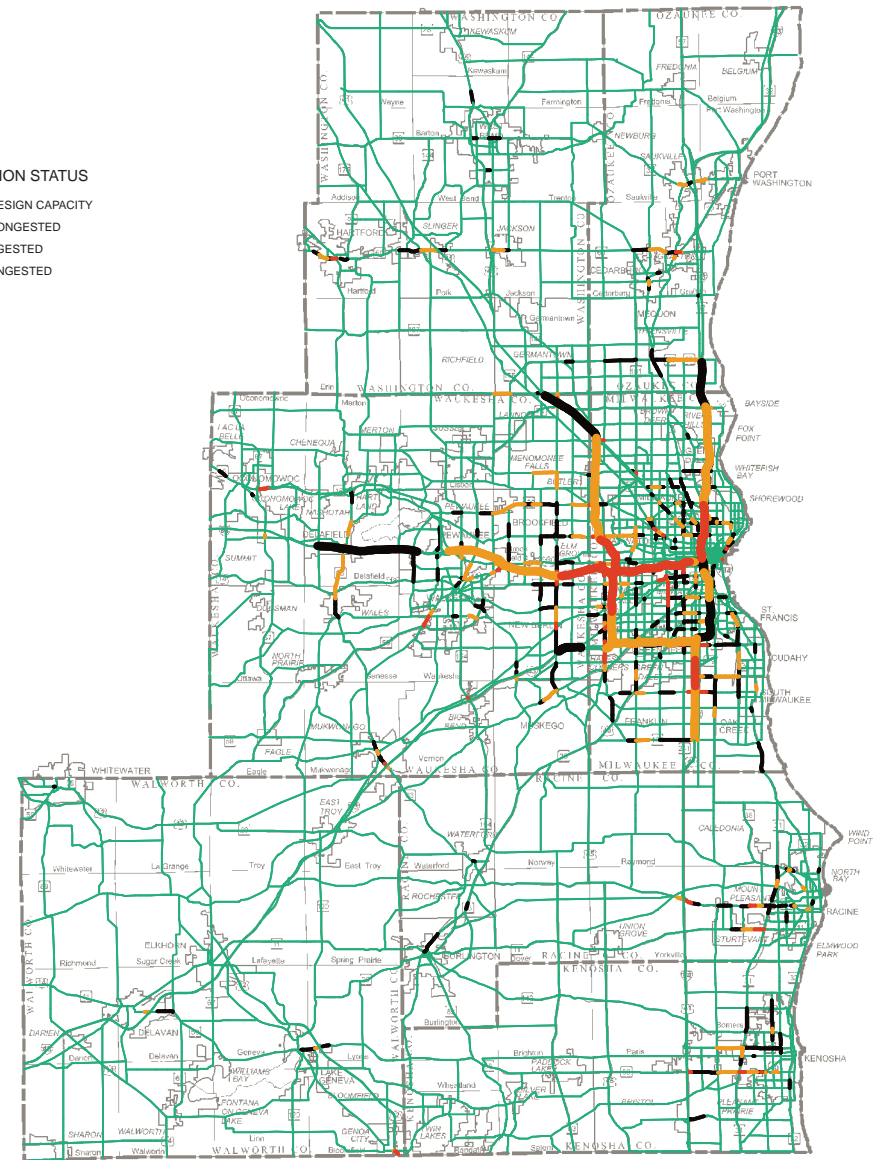
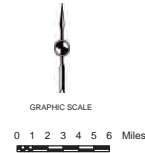
2001

2011<sup>a</sup>



FACILITY CONGESTION STATUS

- AT OR UNDER DESIGN CAPACITY
- MODERATELY CONGESTED
- SEVERELY CONGESTED
- EXTREMELY CONGESTED



<sup>a</sup> DURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF IH 94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE.

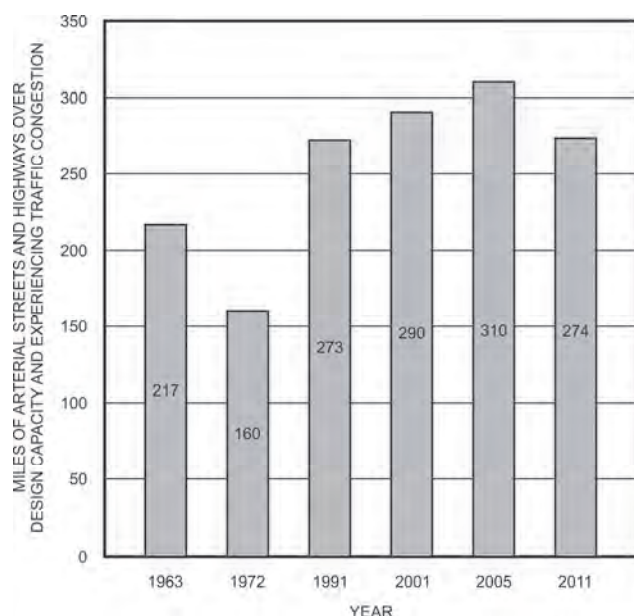
Table 29

**TRAFFIC CONGESTION ON THE ARTERIAL STREET AND  
HIGHWAY SYSTEM IN THE REGION: 1963, 1972, 1991, 2001, 2005, AND 2011**

Traffic Congestion	Arterial Street and Highway Mileage					
	1963	1972	1991	2001	2005	2011
Under or At Design Capacity.....	2,971	2,959	2,986	3,002	2,993	3,049
Over Design Capacity and Experiencing Traffic Congestion.....	217	160	273	290	310	274
Total	3,188	3,119	3,259	3,292	3,303	3,323

Figure 39

**TRAFFIC CONGESTION ON THE  
ARTERIAL STREET AND HIGHWAY SYSTEM IN THE  
REGION: 1963, 1972, 1991, 2001, 2005, AND 2011**



traffic is estimated to have increased by about 20 percent, and then increased from 2001 to 2011 by about 3 percent. The decrease in traffic congestion between 2001 and 2011 may be attributed to the combination of a relatively modest increase in traffic coupled with the implementation of a number of significant surface arterial street and highway widening and new construction projects over the same time period.

Detail on existing and historic congestion on the freeway system, including the number of hours of congestion experienced on congested freeway segments on an average weekday, is set forth in Table 30, Figure 40, and Map 35. While the extent

of congestion on the freeway system in Southeastern Wisconsin is estimated to have increased between 2001 and 2011, some segments of the freeway system have experienced a decrease in the severity of congestion. These decreases are likely attributed to lane closures associated with maintenance and reconstruction projects that were under way along the freeway system in recent years, particularly the resurfacing of IH 94 generally between STH 16 in Waukesha County and the Stadium Interchange in Milwaukee County and the reconstruction and reconfiguration of the Mitchell Interchange in Milwaukee County as part of the reconstruction and widening of the North-South segment of IH 94 between the Mitchell Interchange and the Illinois state line. It is expected that traffic volumes and attendant levels of congestion on the regional freeway system will continue to be impacted as that system is reconstructed segment by segment over the next 30 years.

#### **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 2001 and 2011 are presented in Table 31 and Map 36. 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. The miles of designated truck routes and NHS facilities carrying

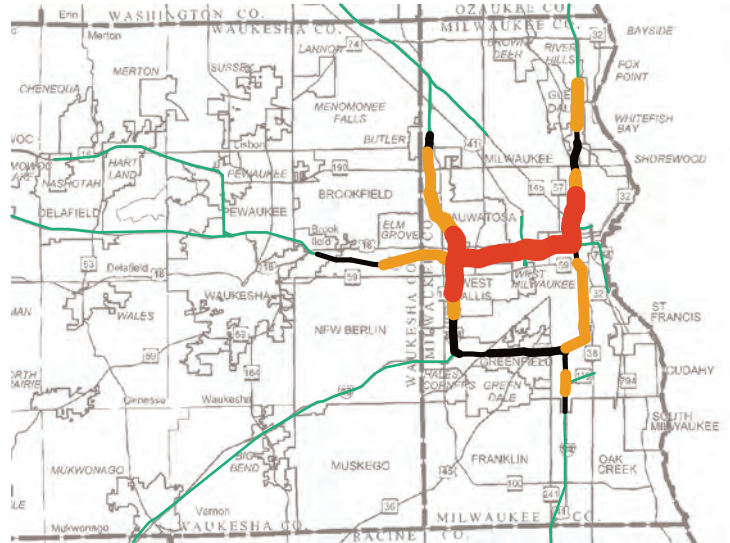
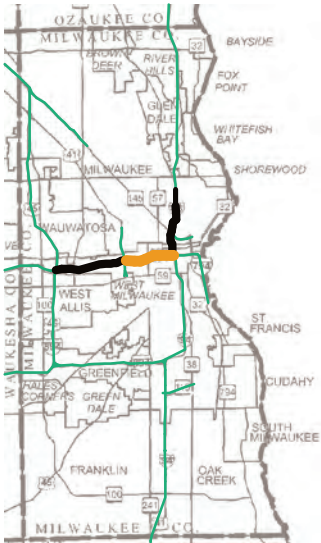
Map 35

# HISTORIC TRAFFIC CONGESTION ON THE SOUTHEASTERN WISCONSIN FREEWAY SYSTEM

1972

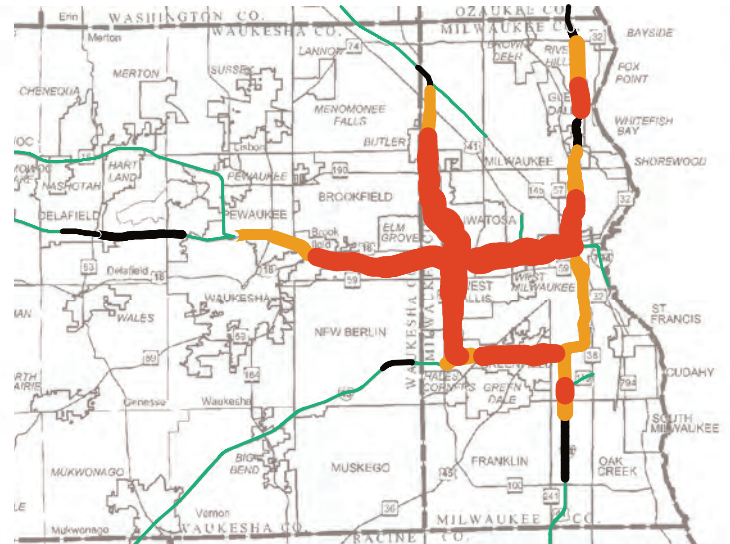
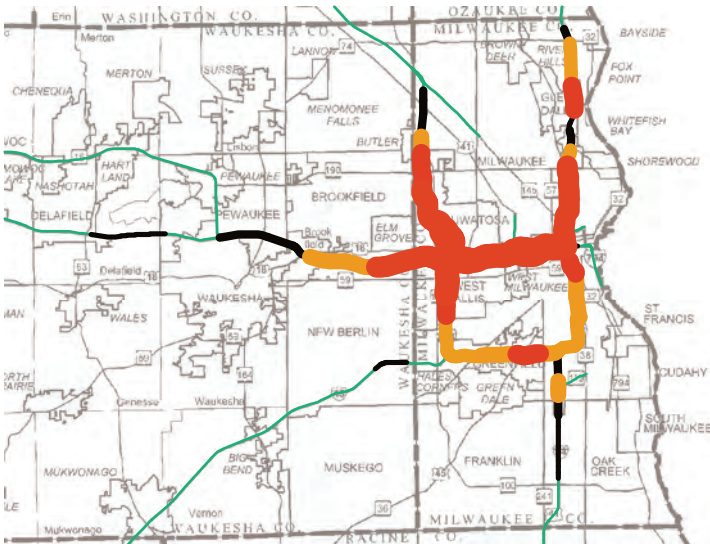
1980

1991



2001

2005



2011<sup>a</sup>

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

<sup>a</sup> DURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF IH 94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE.

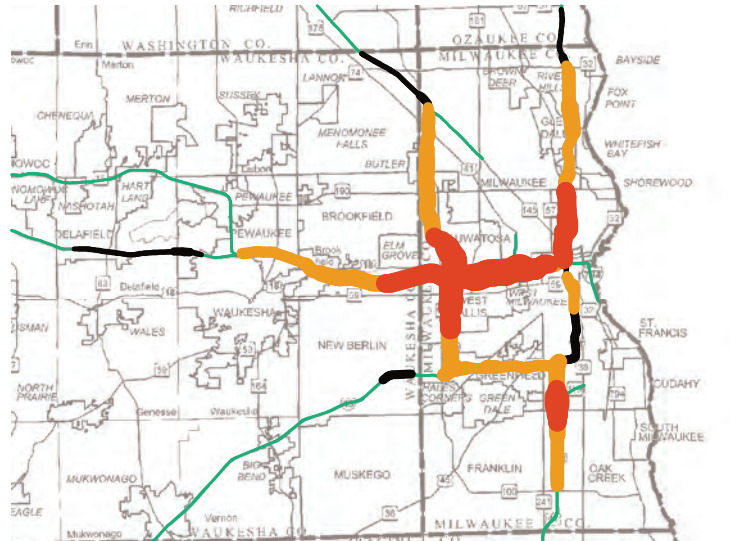




Table 30

**ESTIMATED EXISTING SOUTHEASTERN WISCONSIN FREEWAY SYSTEM  
TRAFFIC CONGESTION ON AN AVERAGE WEEKDAY: 1972, 1991, 2001, 2005, AND 2011**

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
2011	Extreme.....	18	6.8	1.3	2.9	3.9	8.1
	Severe.....	34	12.9	--	1.4	2.3	3.7
	Moderate.....	21	7.7	--	--	1.8	1.8
	Total.....	73	27.4	--	--	--	--
2005	Extreme.....	29	10.7	1.2	2.7	3.7	7.6
	Severe.....	23	8.5	--	1.2	2.3	3.5
	Moderate.....	16	6.0	--	--	2.2	2.2
	Total.....	68	25.2	--	--	--	--
2001	Extreme.....	24	8.9	1.4	3.3	4.4	9.1
	Severe.....	18	6.7	--	1.5	2.5	4.0
	Moderate.....	22	8.1	--	--	2.1	2.1
	Total.....	64	23.7	--	--	--	--
1991	Extreme.....	11	4.4	1.0	2.1	3.1	6.2
	Severe.....	12	4.8	--	1.1	2.9	4.0
	Moderate.....	23	9.1	--	--	2.3	2.3
	Total.....	46	18.3	--	--	--	--
1972	Extreme.....	--	--	--	--	--	--
	Severe.....	2	1.2	--	1.0	3.0	4.0
	Moderate.....	7	4.3	--	--	2.8	2.8
	Total.....	9	5.5	--	--	--	--

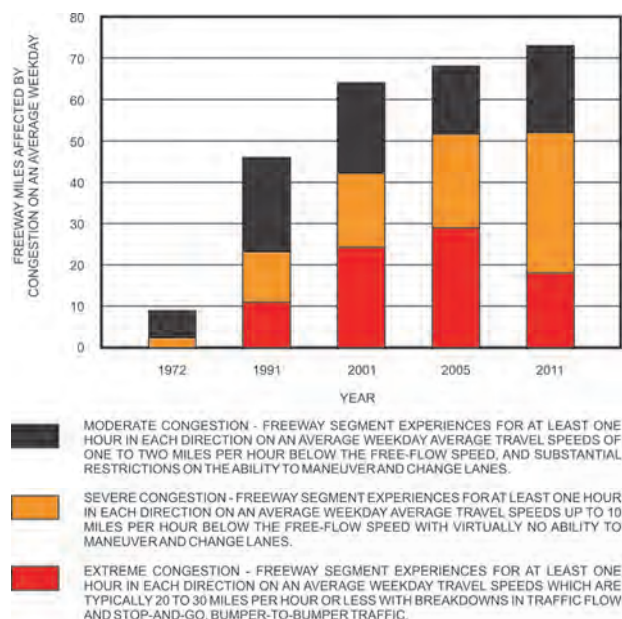
Table 31

**TRAFFIC CONGESTION ON DESIGNATED TRUCK ROUTES AND THE  
NATIONAL HIGHWAY SYSTEM IN THE REGION: 2001 AND 2011**

Year	Under or At Design Capacity	Over Design Capacity			
		Moderate Congestion	Severe Congestion	Extreme Congestion	Total Mileage
2001	1,395	153	38	59	1,645
2011	1,416	124	86	34	1,660

Figure 40

**ESTIMATED EXISTING SOUTHEASTERN WISCONSIN  
FREEWAY SYSTEM TRAFFIC CONGESTION ON AN  
AVERAGE WEEKDAY: 1972, 1991, 2001, 2005, AND 2011**



traffic volumes exceeding their design capacity has remained relatively stable over the past 10 years, decreasing only 2.4 percent from 250 miles in 2001 to 244 miles in 2011. Reductions in congestion on these roadways favorably affect the travel time and freight movement.

### Arterial Highway and Transit Travel Times

The estimated peak-hour travel speeds for selected freeway and surface arterial street segments for 2001 and 2011 are shown on Map 37. Estimated peak-hour arterial street and highway travel time contours for 2001 and 2011 are shown on Map 38 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, displaying little change.

The ratio of total overall transit travel time to automobile travel time between selected locations during the weekday-morning peak period and midday off-peak period in 2011 is shown on Map 39. Transit travel time is longer than automobile

Map 36

CONGESTION ON DESIGNATED TRUCK ROUTES AND THE NATIONAL HIGHWAY SYSTEM IN THE REGION: YEARS 2001 AND 2011<sup>a</sup>

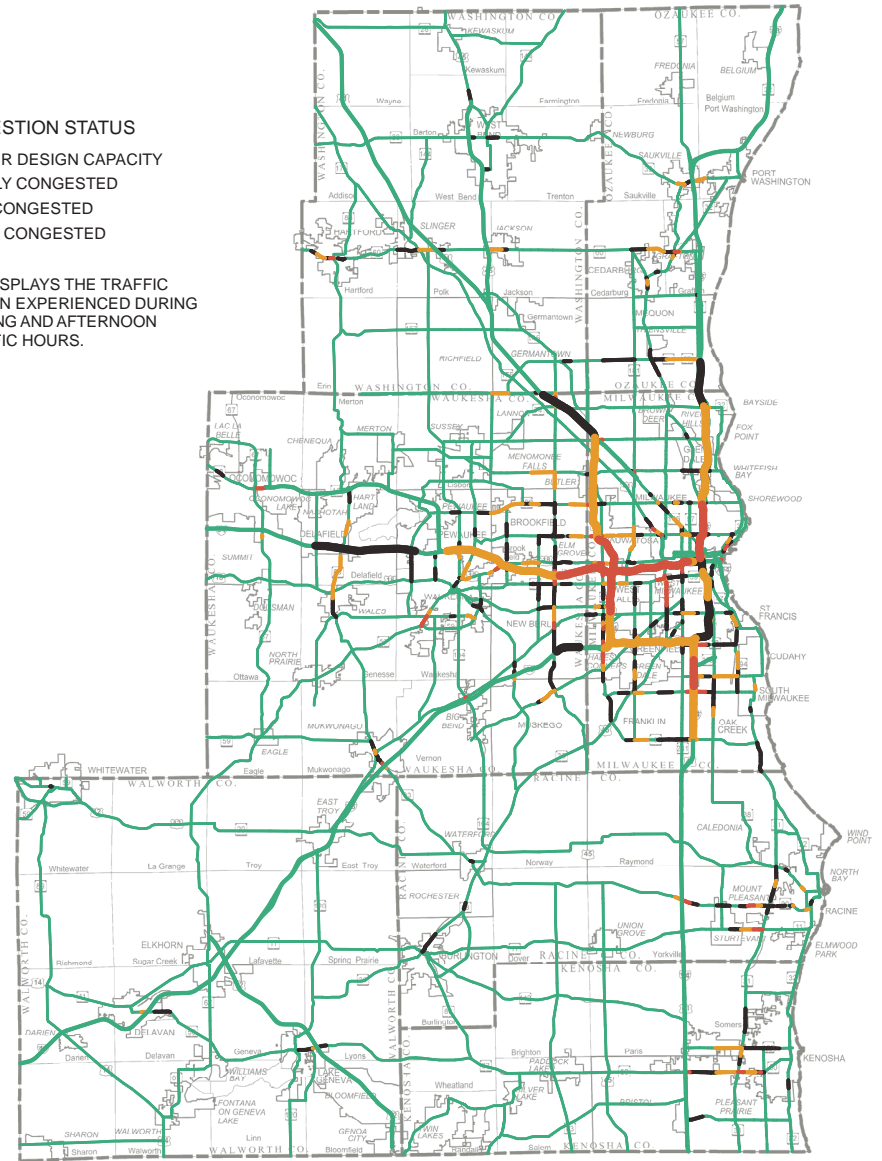
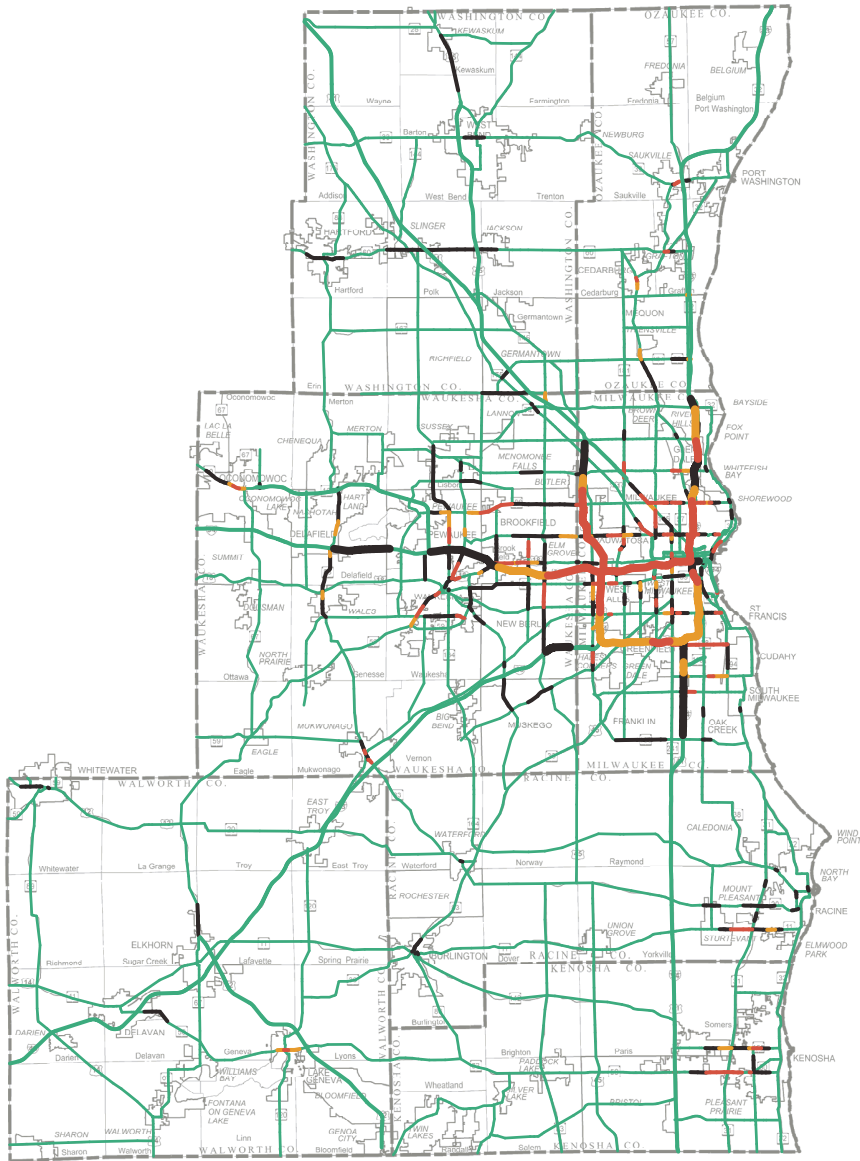
2001

2011<sup>a</sup>

FACILITY CONGESTION STATUS

- AT OR UNDER DESIGN CAPACITY
- MODERATELY CONGESTED
- SEVERELY CONGESTED
- EXTREMELY CONGESTED

NOTE: THIS MAP DISPLAYS THE TRAFFIC CONGESTION EXPERIENCED DURING THE MORNING AND AFTERNOON PEAK TRAFFIC HOURS.

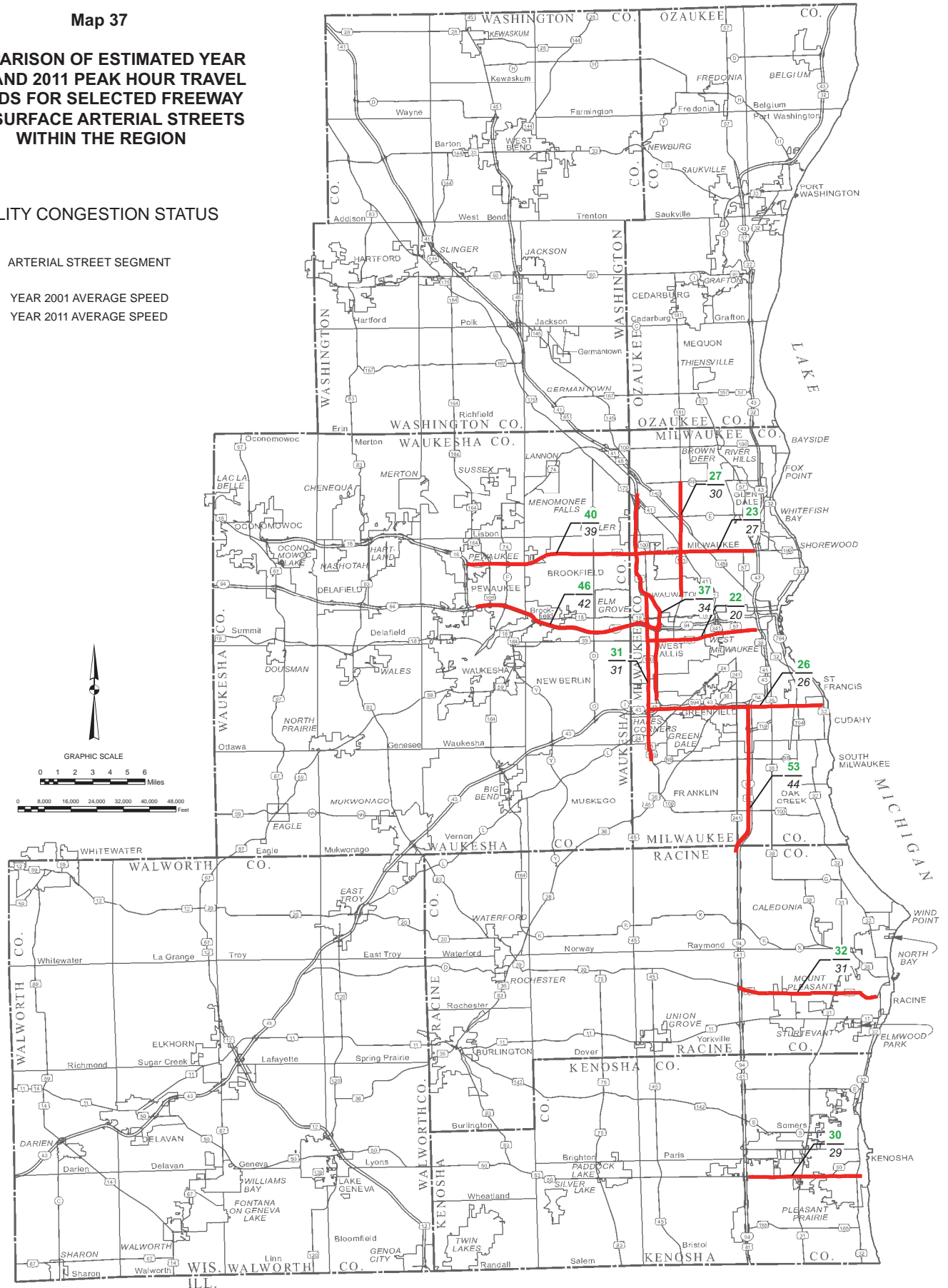


<sup>a</sup> DURING 2011, THE TRAFFIC VOLUME ON THE FREEWAY SYSTEM WAS IMPACTED BY LANE CLOSURES ATTENDANT TO THE RESURFACING OF IH 94 BETWEEN STH 16 AND THE STADIUM INTERCHANGE, AND THE RECONSTRUCTION OF THE MITCHELL INTERCHANGE.



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

 ARTERIAL STREET SEGMENT  
 YEAR 2001 AVERAGE SPEED  
 YEAR 2011 AVERAGE SPEED

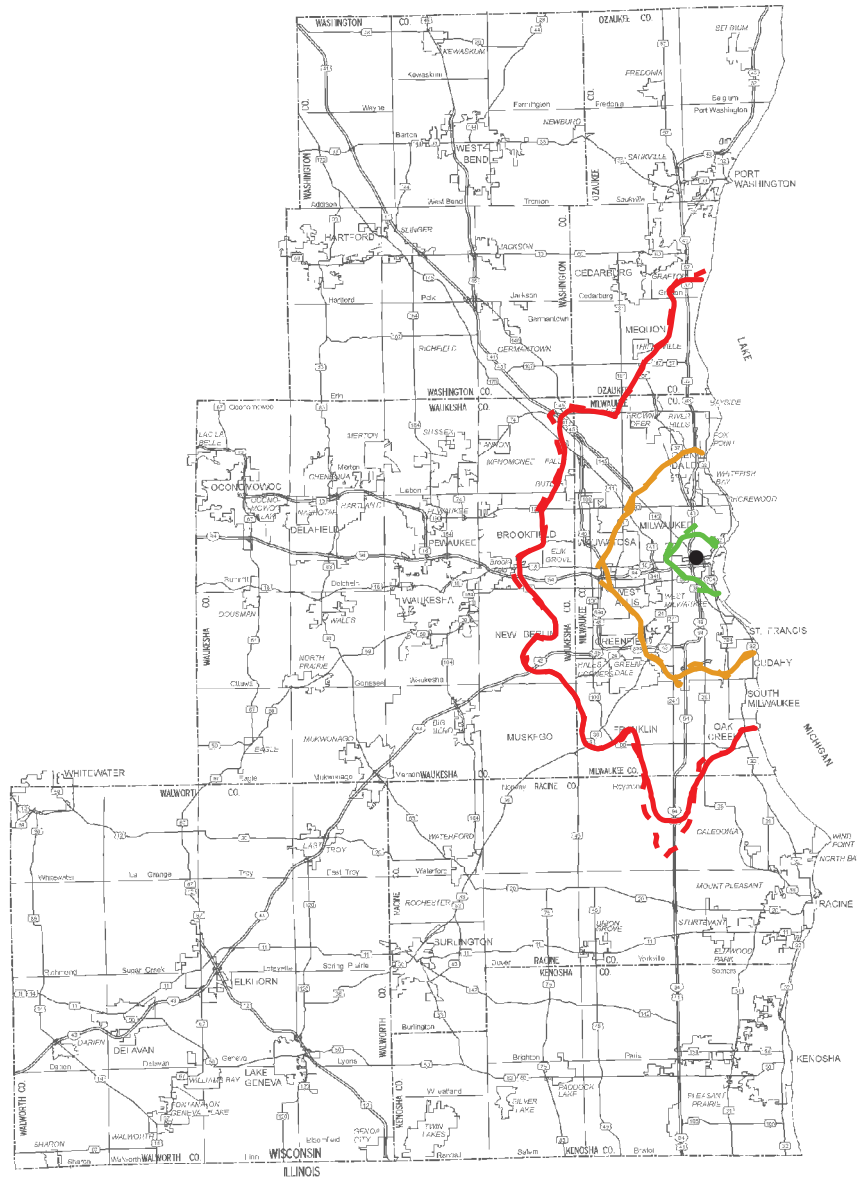


# Map 38

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

### MILWAUKEE CENTRAL BUSINESS DISTRICT

### MILWAUKEE REGIONAL MEDICAL CENTER



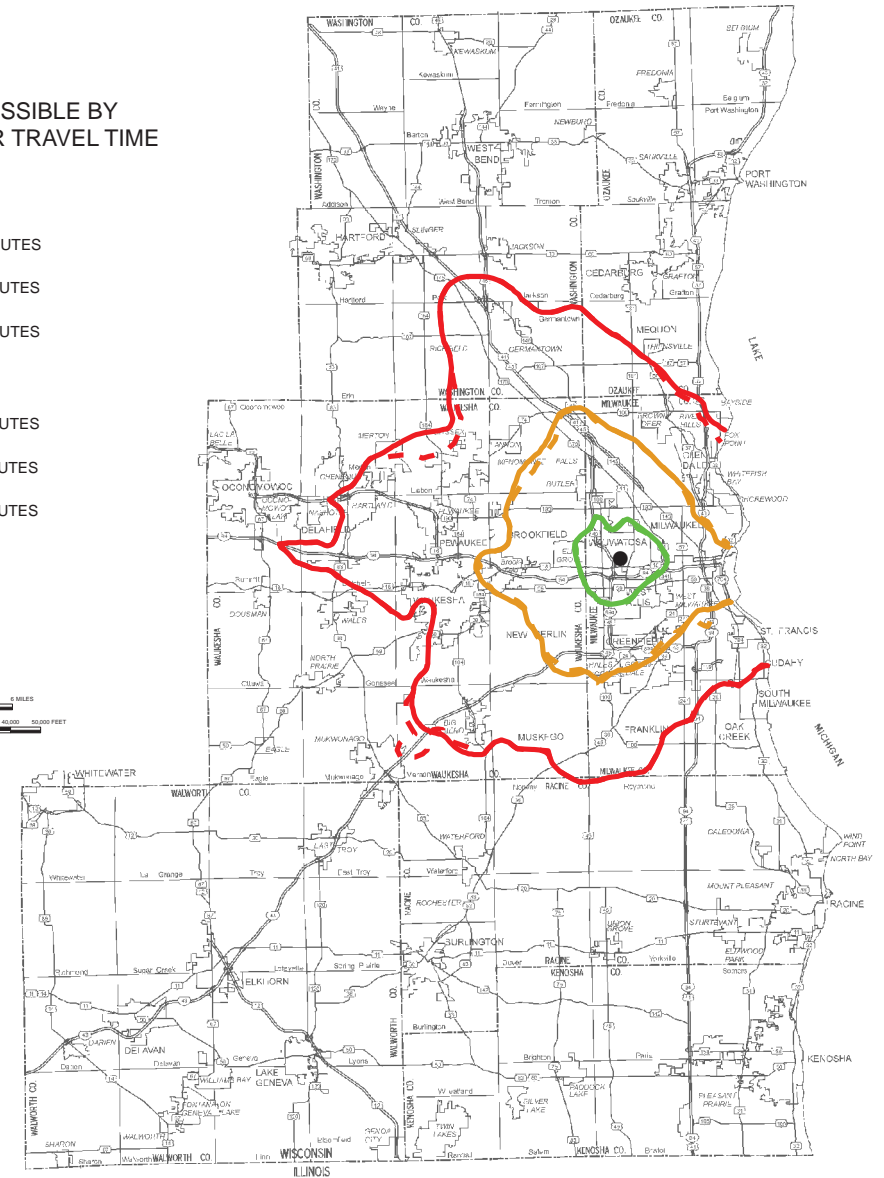
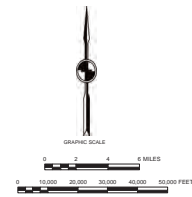
### AREA ACCESSIBLE BY PEAK HOUR TRAVEL TIME

2001

- 10 MINUTES
- 20 MINUTES
- 30 MINUTES

2011

- 10 MINUTES
- 20 MINUTES
- 30 MINUTES



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

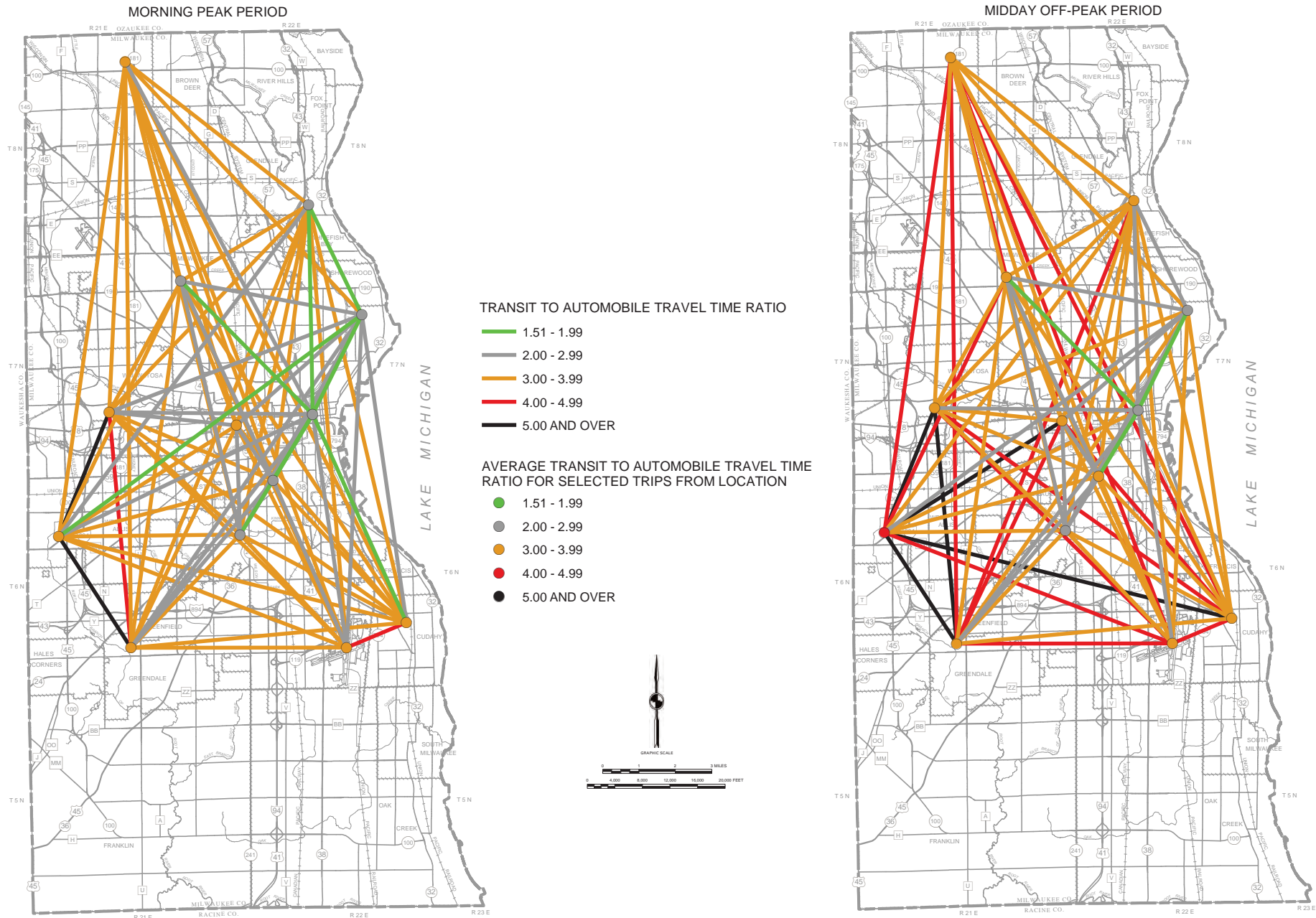


Table 32

**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

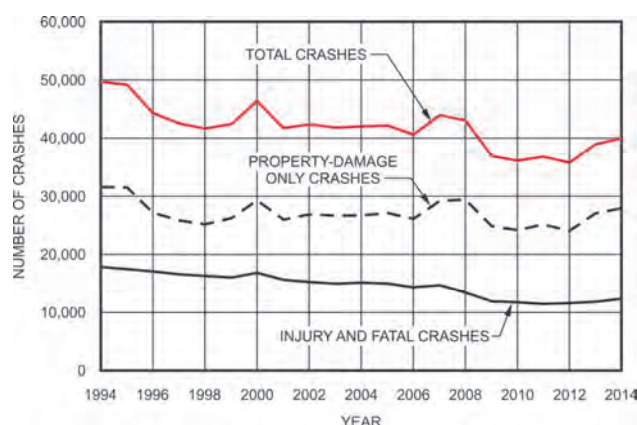
  

Year	Estimated Air Pollutant Emissions (Tons per Hot Summer Weekday)					Estimated Fuel Consumption (Gallons per Average Weekday)
	Butadiene	Acetaldehyde	Acrolein	Benzene	Formaldehyde	
2001	0.20	0.43	0.03	1.40	0.63	1,805,000
2010	0.09	0.20	0.01	0.66	0.30	1,865,000

<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.

Figure 41

**TOTAL, PROPERTY-DAMAGE ONLY, AND  
INJURY AND FATAL VEHICULAR CRASHES  
REPORTED IN THE REGION: 1994-2014**



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 for transit trips to and from

outlying portions of Milwaukee County, including locations in the northwest, southeast, and southwest portions of the Milwaukee County area. Some reduction in transit service has occurred since 2011; however, the travel time ratios for 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 32. Estimated air pollutant emissions have declined for all pollutants—particularly volatile organic compounds and nitrogen oxides—owing to cleaner, more efficient vehicles, with the exception being carbon dioxide emissions and ammonia (which are estimated to have increased from 2001 to 2010 as fuel consumption has increased during these years).

### Vehicular Crashes

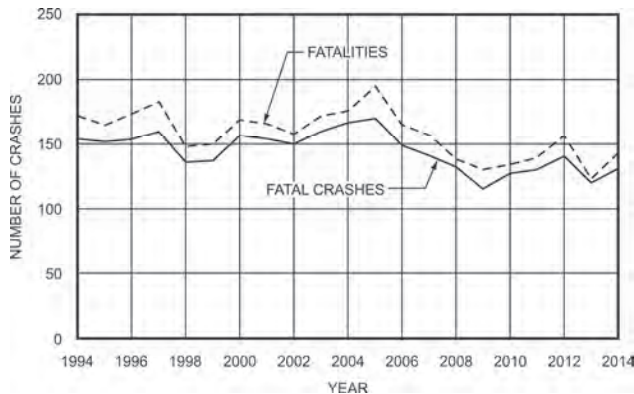
#### Number of Crashes

Total vehicular crashes in the Region increased to 39,977 crashes in 2014, representing a nearly 3 percent increase over 2013. Over the 20-year period 1994-2014, the number of vehicular crashes in the Region decreased by about 19 percent (see Figure 41). Crashes involving an injury or a fatality increased slightly to 12,035 crashes in 2014, representing about one-third of all crashes. Over the period 1994-2014, crashes involving an injury or a fatality have decreased by about 33 percent. Property-damage-only crashes increased over the past year by about 3 percent, to 27,942 crashes,



**Figure 42**

**FATAL VEHICULAR CRASHES AND FATALITIES REPORTED IN THE REGION: 1994-2014**



representing the remaining two-thirds of all crashes. The overall decrease in vehicular crashes since 1994 is particularly significant given the increase in annual vehicle miles traveled over a similar period of about 17 percent.

**Fatal Crashes**

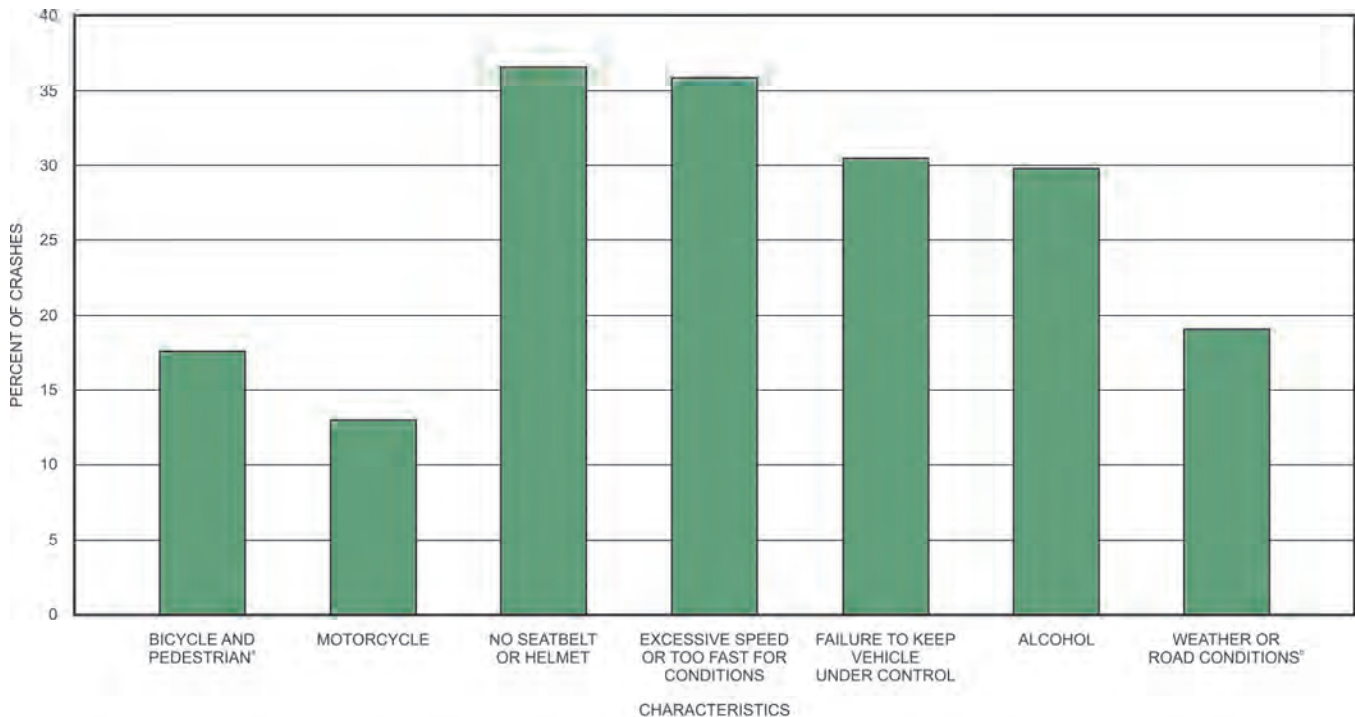
There were 131 vehicular crashes in the Region in 2014 that resulted in 143 fatalities. As shown in Figure 42, before the decline of 21 percent between 2012 and 2013, roadway crash fatalities had increased each year since 2009. Figure 43 presents selected characteristics of vehicle crash related fatalities in the Region during 2014. About 17.6 percent of fatalities involved bicyclists and pedestrians and 13 percent involved motorcyclists. Alcohol was cited as a contributing factor in about 30 percent of all fatalities.

**Serious Injury Crashes**

In 2014, there were 695 vehicle crashes in the Region that resulted in at least one serious injury, representing an 11 percent decrease from 2013. As shown in Figure 44, over the period 1994-2014, the number of crashes resulting in serious injury has declined significantly, by about 68 percent.

**Figure 43**

**SELECTED CHARACTERISTICS OF VEHICULAR CRASH-RELATED FATALITIES IN THE REGION: 2014**



\*IN 2014, THERE WERE 2 BICYCLE FATALITIES (1.5 PERCENT OF TOTAL FATALITIES) AND 21 PEDESTRIAN FATALITIES (16.0 PERCENT OF TOTAL FATALITIES).

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

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



Figure 44

**NUMBER OF CRASHES RESULTING IN A SERIOUS INJURY REPORTED IN THE REGION: 1994-2014**

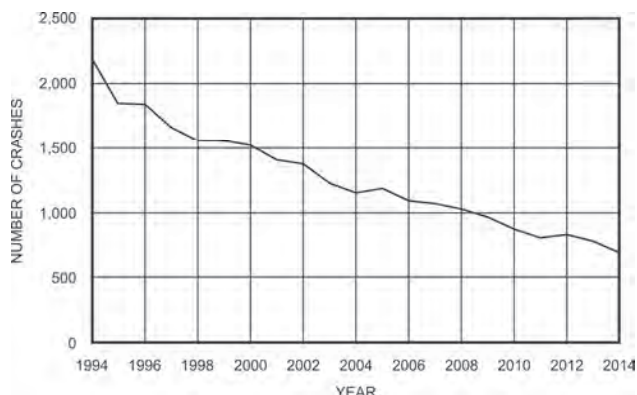


Figure 45

**NUMBER OF VEHICULAR CRASHES INVOLVING BICYCLES OR PEDESTRIANS IN THE REGION: 1994-2014**

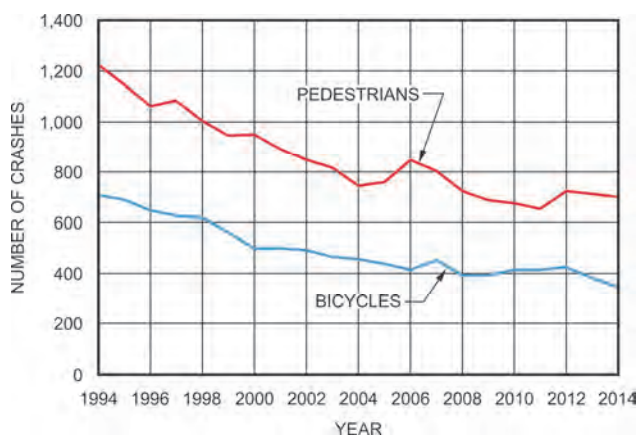
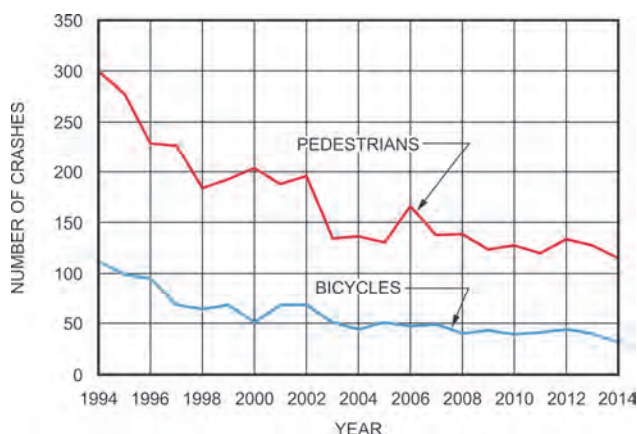


Figure 46

**NUMBER OF VEHICULAR CRASHES RESULTING IN A FATALITY OR SERIOUS INJURY INVOLVING BICYCLES OR PEDESTRIANS AS REPORTED IN SOUTHEASTERN WISCONSIN: 1994-2014**



**Bicycle and Pedestrian Crashes**

In 2014, there were 346 vehicular crashes involving bicycles and 700 vehicular crashes involving pedestrians. Over the past 20 years, the number of bicycle and pedestrian crashes has significantly decreased by nearly 51 percent and 43 percent, respectively (see Figure 45). The number of bicycle and pedestrian crashes resulting in a fatality or serious injury has also decreased substantially over the past 20 years, as seen in Figure 46. In 2014, there were 31 bicycle crashes and 115 pedestrian crashes resulting in a fatality or serious injury.

**State Trunk Highway Vehicular Crash Rates**

A summary of the five-year average annual crash rates on those freeways and standard arterials on the State Trunk Highway network in the Region is presented in Table 33 for two time periods—2005-2009 and 2008-2012. Crash rates, expressed on the basis of the number of crashes per 100 million vehicle miles driven, declined 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 13 percent, from 2012 to 2013, and then remained relatively steady at about 6.5 million passengers in 2014 (see Table 34 and Figure 47). Since 2004, passenger travel at GMIA increased until 2010—peaking at a level of about 9.8 million—but has subsequently declined by 34 percent from 2010-2014.

**Change in GMIA Major Aircraft Operations**

The number of scheduled air carrier and military aircraft operations (aircraft takeoffs and landings) at GMIA decreased in 2014 by about 5 percent, to a level of about 100,400 operations (see Table 35 and Figure 48). Over the 10-year period 2005-2014, scheduled air carrier and military aircraft operations at GMIA have declined nearly 49 percent, peaking at a level of about 196,300 operations in 2005.

**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

Table 33

**AVERAGE VEHICULAR CRASH RATE OF STATE TRUNK HIGHWAYS  
BY ARTERIAL TYPE BY COUNTY IN SOUTHEASTERN WISCONSIN: 2005-2009 AND 2008-2012**

County	Crash Rate per 100 Million Vehicle Miles			
	Freeways		Standard Arterials	
	2005-2009	2008-2012	2005-2009	2008-2012
Kenosha.....	45.8	45.7	298.4	255.6
Milwaukee.....	126.0	120.2	408.1	372.8
Ozaukee.....	41.9	41.0	146.9	119.0
Racine.....	40.3	33.7	296.8	234.9
Walworth.....	42.4	38.3	151.6	139.2
Washington.....	47.9	43.3	231.5	215.0
Waukesha.....	57.1	53.7	234.1	222.4
Region	79.9	72.5	297.1	265.0
State	64.2	58.6	163.1	149.8

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

Table 34

**AIR CARRIER ENPLANING AND DEPLANING PASSENGERS  
AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2005-2014**

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Percent Change: 2013- 2014	Percent Change: 2005- 2014
7,268,000	7,299,300	7,713,100	7,957,000	7,946,000	9,848,000	9,522,000	7,515,000	6,525,200	6,554,200	0.4	-9.8

Table 35

**AIR CARRIER AND MILITARY AIRCRAFT OPERATIONS  
AT GENERAL MITCHELL INTERNATIONAL AIRPORT: 2005-2014**

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Percent Change: 2013- 2014	Percent Change: 2005- 2014
196,300	181,600	179,800	166,900	154,000	176,600	158,600	118,400	105,900	100,400	-5.2	-48.9

Figure 47

**AIR CARRIER ENPLANING AND DEPLANING  
PASSENGERS AT GENERAL MITCHELL  
INTERNATIONAL AIRPORT: 2005-2014**

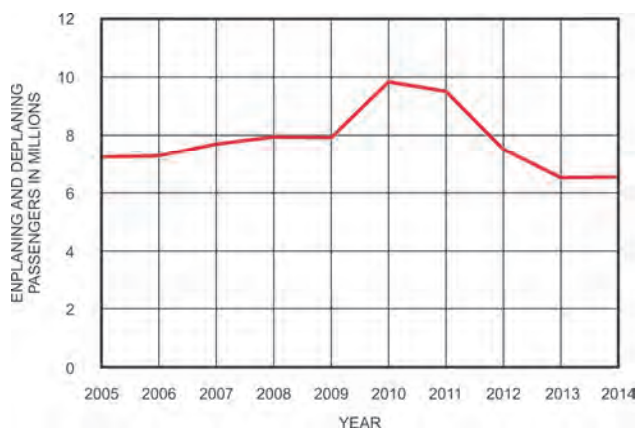


Figure 48

**AIR CARRIER AND MILITARY AIRCRAFT  
OPERATIONS AT GENERAL MITCHELL  
INTERNATIONAL AIRPORT: 2005-2014**

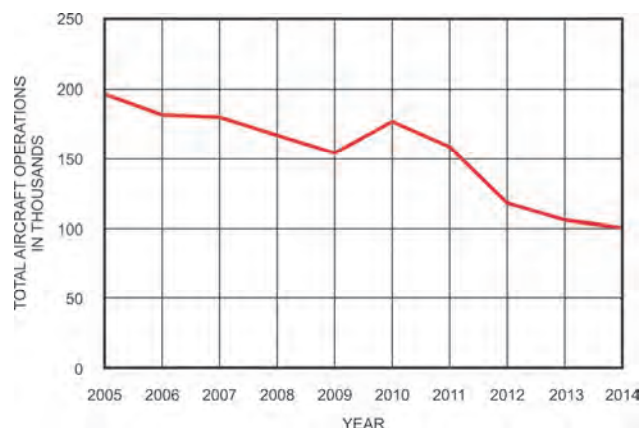


Table 36

**GENERAL AVIATION AIRCRAFT OPERATIONS AT AIRPORTS IN THE  
SOUTHEASTERN WISCONSIN REGION WITH CONTROL TOWERS: 2005-2014**

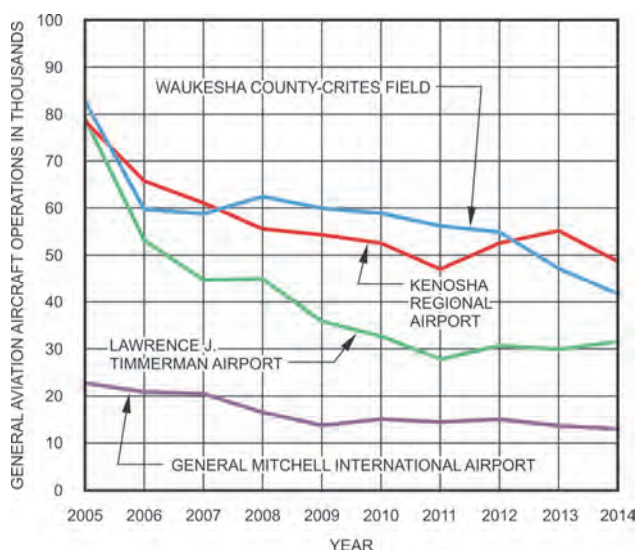
Airport	2005	2006	2007	2008	2009	2010
Waukesha County-Crites Field.....	82,700	59,700	58,700	62,400	59,900	58,800
Kenosha Regional Airport .....	78,400	65,700	61,000	55,500	54,300	52,500
Lawrence J. Timmerman Airport .....	79,100	53,000	44,600	44,900	35,600	32,600
General Mitchell International Airport .....	22,800	20,900	20,400	16,400	13,700	15,000

Airport	2011	2012	2013	2014	Percent Change: 2013-2014	Percent Change: 2005-2014
Waukesha County-Crites Field.....	56,100	54,800	47,200	41,700	-11.7	-49.6
Kenosha Regional Airport .....	47,100	52,700	56,200	48,700	-13.3	-37.9
Lawrence J. Timmerman Airport .....	27,800	30,800	29,900	31,500	5.4	-59.5
General Mitchell International Airport .....	14,400	15,000	13,600	12,900	-5.1	-43.4

Figure 49

**GENERAL AVIATION AIRCRAFT OPERATIONS  
AT AIRPORTS IN THE SOUTHEASTERN REGION  
WITH CONTROL TOWERS: 2005-2014**



numbers of general aviation aircraft operations at those four airports over the period 2005-2014 are shown in Table 36 and Figure 49. Over that 10-year period, general aviation aircraft operations at those airports have declined significantly, ranging from a decline of about 38 percent at Kenosha Regional Airport to a decline of nearly 60 percent at Lawrence J. Timmerman Airport. During 2014, general aviation aircraft operation activity continued to decrease at each airport with the exception of Lawrence J. Timmerman Airport, which experienced a slight increase.

### 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 40). During 2014 there was no change to the number of miles of active freight rail lines.

### REGIONAL HOUSING PLAN IMPLEMENTATION ACTIVITY

As reported in Part One, a regional housing plan was adopted by the Commission in early 2013. The housing plan recommends that implementation of various aspects of the plan be monitored and the results reported every one, five, or 10 years, in accordance with a monitoring schedule included in the plan. The full 2014 Regional Housing Plan Implementation Report is available on the Commission website at [www.sewrpc.org/housing2014](http://www.sewrpc.org/housing2014) or can be requested by contacting the Commission office. A brief summary of implementation activities associated with the regional housing plan is provided in this section.

#### **Housing Plan Endorsement and Presentations**

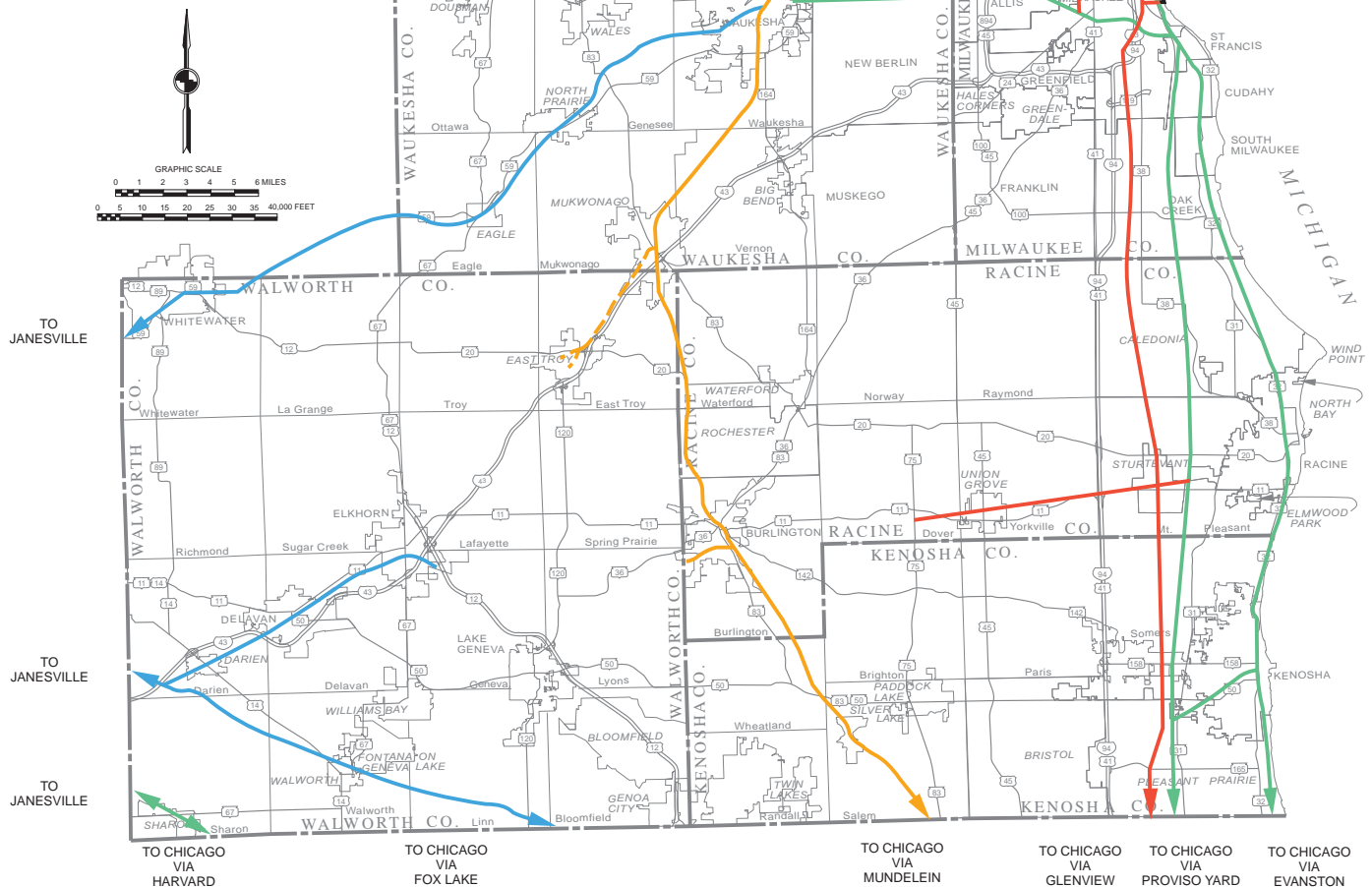
Following adoption of the regional housing plan in March 2013, the final plan report was distributed to all county and local governments in the Region, with a request that they consider endorsing the plan as a guide to housing and community development within their community or county. By the end of 2013, four of the seven counties and 10 of the 147 cities, towns, and villages in the Region had

Map 40

# COMMON CARRIER RAIL FREIGHT LINES IN SOUTHEASTERN WISCONSIN: 2014

- CANADIAN NATIONAL RAILWAY (CN)
- CANADIAN PACIFIC RAILWAY (CP)
- MUNICIPALITY OF EAST TROY WISCONSIN RAILROAD (METW)
- UNION PACIFIC RAILROAD (UP)
- WISCONSIN & SOUTHERN RAILROAD COMPANY (WSR)
- OTHER FACILITIES

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





formally endorsed the plan through adoption of a resolution. Three additional units of government acted on the plan in 2014. The Grafton Town Board endorsed the plan by resolution and the Waukesha County Board adopted an amendment to the County comprehensive plan that incorporated 40 of the 50 regional plan recommendations into its comprehensive plan. The Brookfield Common Council subsequently endorsed the action of the County Board and reaffirmed its support of the housing initiatives in the County plan, as amended.

During 2014, SEWRPC staff gave presentations about the Regional Housing Plan to a class at UW-Milwaukee, the Community Bankers Roundtable, the Mercy Lakefront Housing Advisory Board, and to the Public Policy Task Force of the Greater Milwaukee Association of Realtors. SEWRPC staff also made presentations about the plan at a Statewide Fair Housing Luncheon in Wisconsin and a Housing Opportunity and Community Development conference in Chicago intended for the greater Chicago area, including southeastern Wisconsin, northeastern Illinois, and northwestern Indiana.

### **Implementation of Housing Plan Recommendations**

The following paragraphs describe activities undertaken by State and Federal agencies, county and local units of government, and SEWRPC to implement regional housing plan recommendations. Monitoring results are organized according to the six general topic areas addressed by housing plan recommendations. Only those recommendations that were fully or partially implemented during 2014 are included.

#### **Affordable Housing**

- Waukesha County considered the recommendations of the housing plan when updating its zoning ordinance and reviewing proposed changes to town zoning ordinances. Specifically, the regional housing plan recommendation that zoning ordinances allow single-family homes of 1,200 square feet (to accommodate more affordable housing) was included in an amendment to the Town of Waukesha zoning ordinance, and housing plan recommendations for residential densities and apartment sizes for affordable housing were included in new County zoning regulations for urban planned unit developments.

- The City of Whitewater adopted a comprehensive update of its zoning ordinance. Among other changes, the ordinance includes new regulations that would allow higher density development in multi-family zoning districts, and a new mixed-use commercial and residential zoning district.

#### **Fair Housing/Opportunity**

- During 2014, Milwaukee County developed an agreement form for communities that receive Community Development Block Grant (CDBG) or HOME Investment Partnership (HOME) program grant funds from the County. The County receives funding for these programs from the U.S. Department of Housing and Urban Development (HUD). Some of the HUD funding is distributed as pass-through grants by the County to cities and villages outside the City of Milwaukee (the City of Milwaukee receives its own HUD allocation). As a condition of receiving funds from the County, 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.

HUD requires that a consolidated plan include a certification by the entitlement jurisdiction to affirmatively further fair housing (AFFH). AFFH activities are to be identified based on Fair Housing Planning. An analysis of impediments (AI) is the basis for fair housing planning. There are no HUD regulations governing the preparation or content of an AI. In July 2013, HUD issued proposed regulations that would replace the AI with an Assessment of Fair Housing. HUD would provide an "Assessment Tool" and standardized data to each entitlement jurisdiction to assist in the preparation of the assessment, which entitlement jurisdictions would then use to develop fair housing goals and priorities to fulfill the AFFH requirement. The fair housing goals and priorities would, in turn, be used to prepare the consolidated plan. In September 2014, HUD released a proposed Assessment Tool template for review. Comments on the proposed tool were accepted until November 25, 2014. The final



Assessment Tool and AFFH regulations had not been published as of the end of 2014.

### **Job/Housing Balance**

- Five sanitary sewer service area plan amendments were adopted by the Regional Planning Commission in 2014. Amendments were made to the plans for the Cities of Burlington, Kenosha, and Mequon and the Villages of Hartland/Pewaukee and Menomonee Falls. In accordance with a housing plan recommendation, information on the job/housing balance analysis conducted as part of the housing plan was provided as part of the review process for the sewer service area amendments. The intent of the recommendation is to remind local communities of the findings of the plan for their community as they propose expansion of their sewer service areas. Specifically, communities are encouraged to consider job/housing balance as part of the next major update of their comprehensive plans. The City of Mequon and Village of Hartland are projected to have a shortage of housing affordable to workers holding lower-wage jobs (low-cost job/housing imbalance), and a shortage of housing affordable to workers holding moderate-wage jobs (moderate-cost job/housing imbalance). The Villages of Menomonee Falls and Pewaukee are projected to have a shortage of housing affordable to workers holding moderate-wage jobs (moderate-cost job/housing imbalance). The Cities of Burlington and Kenosha are projected to have a balance between jobs and housing.

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 Village of Richfield adopted a 10-year update of its comprehensive plan during 2014. The Village did not conduct a job/housing balance analysis as part of its comprehensive plan update; however, the Village was not included in the job-housing balance analysis conducted as part of the regional housing plan

because there is no public sanitary sewer service provided in the Village.

- In addition to the Richfield comprehensive plan update, SEWRPC received 59 amendments to comprehensive plans adopted by 23 communities and four counties in the Region during 2014. Most of the amendments were related to changes to land use plan designations pertaining to one parcel. Exceptions were an amendment to the Village of Mount Pleasant plan which updated planned land use designations for over 300 parcels and an update to the Village of Newburg plan which revised planned land use designations within the Village and parcels in surrounding towns within the Village's extra-territorial jurisdiction. None of the communities in the Region conducted a community-level job/housing balance analysis nor requested SEWRPC assistance for conducting such an analysis during 2014.

### **Accessible Housing**

- Although housing construction slowed considerably in the Region following the national recession in the late 2000s, construction of multi-family units has been fairly strong. As shown on Table 37, housing units in one- and two-family buildings comprised about 75 percent of the housing stock in the Region at the beginning of 2010, with housing units in multi-family buildings (three or more units) making up the remaining 25 percent. Between 2010 and the end of 2014, 55 percent of the new units constructed (8,578 units) were in one- or two-family buildings and 45 percent (6,900 units) were in multi-family buildings (see Table 38). Table 38 also shows the number of housing units removed from the Region's housing stock, and the net change in housing by structure type. Overall, there was a net increase of 4,690 one-family units and 5,091 multi-family units. As shown in Table 39, the percentage of multi-family units increased slightly, by 0.3 percent, in the Region between 2010 and the end of 2014. The increase in the number and percentage of multi-family units in the Region helps increase the supply of accessible housing units, because many new multi-family units must be accessible to persons with mobility disabilities under Fair Housing Act requirements.

Table 37

HOUSING UNITS BY STRUCTURE TYPE IN THE SOUTHEASTERN WISCONSIN REGION: 2010<sup>a</sup>

County	Single-Family <sup>b</sup>		Two-Family		Multi-Family		Total <sup>c</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>2010 data includes 2000 Census data plus the number of building permits issued for each type of housing unit from 2000 to January 1, 2010. Building permit data were provided by the Wisconsin Department of Administration.

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

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

Table 38

## CHANGE IN HOUSING UNITS BY STRUCTURE TYPE IN SOUTHEASTERN WISCONSIN: 2010-2014

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.....	753	40	415	1,208	187	34	55	276	566	6	360	932
Milwaukee.....	1,153	382	3,991	5,526	746	1,882	1,211	3,839	407	-1,500	2,780	1,687
Ozaukee .....	663	46	150	859	69	6	0	75	594	40	150	784
Racine.....	626	88	486	1,200	170	34	447	651	456	54	39	549
Walworth.....	668	28	216	912	285	6	30	321	383	22	186	591
Washington.....	1,032	100	285	1,417	74	6	0	80	958	94	285	1,337
Waukesha.....	2,839	160	1,357	4,356	387	2	66	455	2,452	158	1,291	3,901
Region	7,734	844	6,900	15,478	1,918	1,970	1,809	5,697	5,816	-1,126	5,091	9,781

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 January 1, 2015.

**Subsidized and Tax Credit Housing**

- There was a modest increase in the number of vouchers allotted in the Region between 2011 and 2014—from 13,061 to 13,815, an increase of 754 vouchers or about 6 percent. Table 40 indicates the number of vouchers allotted to each Public Housing Agency (PHA) in 2014. The table provides both 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.

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.

- A significant change in the administration of housing vouchers in the Region in 2013 was the

Table 39

**HOUSING UNITS BY STRUCTURE TYPE IN THE SOUTHEASTERN WISCONSIN REGION: 2014<sup>a</sup>**

County	Single-Family <sup>b</sup>		Two-Family		Multi-Family		Total <sup>c</sup>	
	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total	Housing Units	Percent of Total
Kenosha.....	50,512	71.9	5,347	7.6	14,371	20.5	70,230	100.0
Milwaukee.....	216,454	51.6	70,532	16.8	132,714	31.6	419,700	100.0
Ozaukee .....	29,608	79.9	1,971	5.3	5,497	14.8	37,076	100.0
Racine.....	61,256	74.0	5,125	6.2	16,377	19.8	82,758	100.0
Walworth.....	39,850	76.5	2,162	4.1	10,135	19.4	52,147	100.0
Washington.....	43,130	76.9	2,763	4.9	10,182	18.2	56,075	100.0
Waukesha.....	126,664	76.8	4,117	2.5	34,069	20.7	164,850	100.0
Region	567,474	64.3	92,017	10.4	223,345	25.3	882,836	100.0

<sup>a</sup>2014 data includes 2010 Census data plus the number of building permits issued for each type of housing unit from 2010 to January 1, 2015. Building permit data were provided by the Wisconsin Department of Administration.

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

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

transfer of voucher administration in Washington County from the Cities of Hartford and West Bend to the Wisconsin Housing and Economic Development Authority (WHEDA). In 2014, administration responsibility for vouchers allotted to the Kenosha County Housing Authority was transferred from WHEDA to the City of Kenosha Housing Authority.

- Table 41 provides information on the number of public housing units managed by PHAs in the Region. There were 5,422 public housing units in the Region in 2014, with 88 percent of the units located in and managed by the Housing Authority of the City of Milwaukee. About 57 percent of PHA housing units were designated for families and the remaining 43 percent were designated for the elderly or persons with disabilities.
- Housing developed under the Low-Income Housing Tax Credit (LIHTC) program has been a major source of new affordable housing in the Region. Six projects in the Region were awarded tax credits in 2014. Two projects are for new housing development intended for family occupancy, one each in the Cities of Kenosha and Milwaukee. A third project, located in the City of Milwaukee, was awarded for the conversion of a historic office building to

apartments for families. The remaining three awards were for rehabilitation of existing housing units, one each in the Cities of Kenosha, Milwaukee, and Whitewater.

### Housing Development

- The regional housing plan recommends that local governments, PHAs, and developers consider Crime Prevention Through Environmental Design (CPTED) elements when developing and reviewing site plans for proposed housing developments. CPTED is based on the concept that the proper design of the built environment can lead to a reduction in the incidence and fear of crime and can increase quality of life. CPTED utilizes four general elements, including natural surveillance, natural access control, territorial reinforcement, and maintenance, which are described in Chapter XI (Best Practices) of the regional housing plan report.

The Housing Authority of the City of Milwaukee uses CPTED principles when designing new and renovated public housing. The City of Milwaukee Police Department (MPD) also reviews proposed tavern sites based on CPTED principles. Completion of a CPTED survey is now required as part of the application process for tavern licenses. The Police Department cooperated with the Milwaukee

Table 40

**SECTION 8 HOUSING VOUCHERS  
ALLOTTED IN THE SOUTHEASTERN WISCONSIN REGION: 2014**

Public Housing Agency <sup>a</sup>	Housing Choice Vouchers		Project-Based Vouchers		Total Vouchers	
	Number	Percent	Number	Percent	Number	Percent
<b>Kenosha County</b>						
City of Kenosha Housing Authority .....	1,211 <sup>b</sup>	9.4	0	0.0	1,211	8.8
Kenosha County Housing Authority <sup>c</sup> .....	100	0.8	0	0.0	100	0.7
County Subtotal	1,311	10.2	0	0.0	1,311	9.5
<b>Milwaukee County</b>						
Housing Authority of the City of Milwaukee .....	5,394 <sup>d</sup>	42.1	548	55.2	5,942	43.0
Milwaukee County Housing Division .....	1,726	13.4	345	34.7	2,071	15.0
West Allis Housing Authority .....	457 <sup>e</sup>	3.6	100 <sup>f</sup>	10.1	557	4.0
County Subtotal	7,577	59.1	993	100.0	8,570	62.0
<b>Ozaukee County</b>						
WHEDA .....	125	1.0	0	0.0	125	0.9
County Subtotal	125	1.0	0	0.0	125	0.9
<b>Racine County</b>						
The Housing Authority of Racine County .....	1,574 <sup>g</sup>	12.3	0	0.0	1,574	11.4
County Subtotal	1,574 <sup>g</sup>	12.3	0	0.0	1,574	11.4
<b>Walworth County</b>						
Walworth County Housing Authority .....	410 <sup>h</sup>	3.2	0	0.0	410	3.0
County Subtotal	410	3.2	0	0.0	410	3.0
<b>Washington County</b>						
Hartford Community Development Authority <sup>i</sup> .....	148	1.1	0	0.0	148	1.1
West Bend Housing Authority <sup>i</sup> .....	244	1.9	0	0.0	244	1.8
WHEDA .....	102	0.8	0	0.0	102	0.7
County Subtotal	494	3.8	0	0.0	494	3.6
<b>Waukesha County</b>						
New Berlin Housing Authority <sup>i</sup> .....	88	0.7	0	0.0	88	0.6
Housing Authorities of the City and County of Waukesha <sup>i</sup> .....	1,243	9.7	0	0.0	1,243	9.0
County Subtotal	1,331	10.4	0	0.0	1,331	9.6
<b>Region Total</b>	<b>12,822</b>	<b>100.0</b>	<b>993</b>	<b>100.0</b>	<b>13,815</b>	<b>100.0</b>

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

<sup>b</sup>Includes 41 family-unification vouchers, 89 vouchers for persons 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 persons with disabilities and 138 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>Number of vouchers in 2013. Updated information was not provided by the Walworth County Housing Authority.

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

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

Table 41

**PUBLIC HOUSING UNITS MANAGED BY PUBLIC HOUSING  
AGENCIES (PHA) IN THE SOUTHEASTERN WISCONSIN REGION: 2014**

	Family Units		Elderly/S pecial Needs Units		Total Units	
Public Housing Agency <sup>a</sup>	Number	Percent	Number	Percent	Number	Percent
Milwaukee County						
Housing Authority of the City of Milwaukee <sup>b</sup> .....	2,881	93.1	1,906	81.8	4,787	88.3
South Milwaukee Housing Authority.....	52	1.7	8	0.3	60	1.1
West Allis Housing Authority .....	0	0.0	104 <sup>c</sup>	4.5	104 <sup>c</sup>	1.9
County total	2,933	94.8	2,018	86.6	4,951	91.3
Racine County						
Housing Authority of Racine County.....	0	0.0	24	0.4	24	0.2
County total	0	0.0	24	0.4	24	0.2
Washington County						
Slinger Housing Authority.....		8	0.3	41	1.8	49
West Bend Housing Authority .....		0	0.0	146	6.3	146
County total	8	0.3	187	8.1	195	3.6
Waukesha County						
Housing Authorities of the City and County of Waukesha.....	152	4.9	114	4.9	266	4.9
County total	152	4.9	114	4.9	266	4.9
Region	3,093	100.0 <sup>d</sup>	2,329	100.0 <sup>d</sup>	5,422	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>Information for the Housing Authority of the City of Milwaukee (HACM) was current as of 2011. Updated information was not provided by HACM.

<sup>c</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>d</sup>About 57 percent of public housing units are designated to be occupied by families, and the remaining 43 percent are designated for occupancy of the elderly or persons with disabilities.

office of the Local Initiatives Support Corporation (LISC) to develop the survey as part of a SafeGrowth initiative sponsored by LISC. A copy of the brochure describing the CPTED concept produced by the MPD and LISC can be viewed at:  
<http://city.milwaukee.gov/ImageLibrary/Groups/ccLicenses/CPTEDBrochure.pdf>

### Consolidated Plans

- All of the entitlement jurisdictions in the Region and the State of Wisconsin have prepared consolidated plans. A consolidated plan identifies needs and priorities for housing and community development activities to principally benefit low- and moderate-income residents in the entitlement jurisdiction, and also identifies

activities proposed to be funded using HUD Community Planning and Development programs (which include CDBG, HOME, Emergency Solutions, and Housing for Persons with Aids grants) to address the needs identified through the planning process. Consolidated plans are detailed through the preparation of annual action plans prepared by each entitlement jurisdiction. During 2013, Milwaukee County and the Cities of Wauwatosa and West Allis updated their plans for the years 2014 to 2018. The City of Kenosha and Waukesha County updated their consolidated plans in 2014. The State of Wisconsin and Cities of Milwaukee and Racine also updated their plans during 2014, but the plans had not been reviewed by HUD before the end of the year.



## APPENDICES

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## Appendix A

### SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION COMMISSIONERS AND COMMITTEES: DECEMBER 2014

#### COMMISSIONERS

	Term Expires
<b>KENOSHA COUNTY</b>	
* Michael J. Skaltzky .....	2016
** Adelene Greene, Secretary .....	2016
*** Robert W. Pitts .....	2018
<b>MILWAUKEE COUNTY</b>	
*** William R. Drew, Vice-Chairman .....	2020
* Brian R. Dranzik .....	2020
** Marina Dimitrijevic .....	2016
<b>OZAUKEE COUNTY</b>	
** David W. Opitz. ....	2014
*** Thomas H. Buestrin.....	2018
* Gustav W. Wirth, Jr. ....	2014
<b>RACINE COUNTY</b>	
* Mike Dawson.....	2020
*** David L. Eberle.....	2016
** Peggy L. Shumway .....	2018
<b>WALWORTH COUNTY</b>	
** Charles L. Colman.....	2020
* Nancy L. Russell, Treasurer .....	2018
*** Linda J. Seemeyer .....	2018
<b>WASHINGTON COUNTY</b>	
** Daniel S. Schmidt.....	2016
* Daniel W. Stoffel.....	2014
*** David L. Stroik, Chairman .....	2018
<b>WAUKESHA COUNTY</b>	
** Michael A. Crowley.....	2016
*** Jose M. Delgado .....	2016
* James T. Dwyer .....	2018
* Elected by County Board or appointed by County Executive and confirmed by County Board.	
** Appointed by the Governor from a County-supplied list of candidates.	
*** Appointed by the Governor on his own motion without reference to any County-supplied list.	

#### COMMITTEES

##### EXECUTIVE COMMITTEE

David L. Stroik, Chairman  
William R. Drew, Vice-Chairman  
Thomas H. Buestrin  
Michael A. Crowley  
James T. Dwyer  
Adelene Greene  
Nancy L. Russell  
Daniel S. Schmidt  
Gustav W. Wirth, Jr.

##### ADMINISTRATIVE COMMITTEE

Adelene Greene, Chair  
James T. Dwyer, Vice-Chairman  
Thomas H. Buestrin  
Michael A. Crowley  
William R. Drew  
Nancy L. Russell  
Daniel S. Schmidt  
David L. Stroik  
Gustav W. Wirth, Jr.

##### INTERGOVERNMENTAL AND PUBLIC RELATIONS COMMITTEE

Michael A. Crowley, Chairman  
Daniel W. Stoffel, Vice-Chairman  
Marina Dimitrijevic  
Nancy L. Russell  
Michael J. Skaltzky  
David L. Stroik  
Gustav W. Wirth, Jr.

##### PLANNING AND RESEARCH COMMITTEE

Daniel S. Schmidt, Chairman  
Daniel W. Stoffel, Vice-Chairman  
Charles L. Colman  
Jose M. Delgado  
Brian R. Dranzik  
William R. Drew  
David L. Eberle  
David W. Opitz  
Robert W. Pitts  
Nancy L. Russell  
Linda J. Seemeyer  
Peggy L. Shumway  
Michael J. Skaltzky  
David L. Stroik

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## Appendix B

### COMMISSION ADVISORY COMMITTEES: 2014

#### KENOSHA COUNTY JURISDICTIONAL HIGHWAY PLANNING COMMITTEE

Vacant ..... Director of Public Works,  
Chairman ..... Kenosha County  
Kenneth R. Yunker ..... Executive Director,  
Secretary ..... Southeastern Wisconsin  
Regional Planning Commission  
Bill Antti ..... President, Village of Genoa City  
Terry Burns ..... President, Village of Paddock Lake  
David N. DeVito ..... Chairman, Town of Brighton  
Jennifer Frederick ..... Administrator, Village of Twin Lakes  
Virgil D. Gentz ..... Chairman, Town of Paris  
Sue Gerber ..... President, Village of Silver Lake  
William M. Glembocki ..... Chairman, Town of Wheatland  
Ben Harbach ..... Chairman, Town of Somers  
Randall Kerkman ..... Administrator, Village of Bristol  
Michael M. Lemens ..... Director of Public Works, City of Kenosha  
Dwight E. McComb ..... Planning and Environmental  
Manager/Team Leader,  
Federal Highway Administration,  
U.S. Department of Transportation  
Gary A. Sipsma ..... Director, Division of Highways, and  
Highway Commissioner, Department of  
Public Works, Kenosha County  
Michael R. Spence ..... Village Engineer, Village of Pleasant Prairie  
Robert M. Stoll ..... Chairperson, Town of Randall  
Diann D. Tesar ..... Chairman, Town of Salem  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation

#### MILWAUKEE COUNTY JURISDICTIONAL HIGHWAY PLANNING COMMITTEE

Brian Dranzik ..... Commissioner, Southeastern Wisconsin  
Chairman ..... Regional Planning Commission;  
Director, Department of Transportation,  
Milwaukee County  
Kenneth R. Yunker ..... Executive Director,  
Secretary ..... Southeastern Wisconsin  
Regional Planning Commission  
Scott Brandmeier ..... Director of Public Works/  
Village Engineer, Village of Fox Point  
Melinda K. Dejewski ..... City Engineer,  
City of St. Francis  
David Eastman ..... Assistant to City Administrator/  
Director of City Services, City of Glendale  
Kim Egan-Mueller ..... Village Administrator,  
Village of West Milwaukee  
Michael Hall ..... Village Manager, Village of Brown Deer  
Jeffery Katz ..... City Engineer, City of Greenfield  
Ghassan A. Korban ..... Commissioner of Public Works,  
City of Milwaukee  
Mary Jo Lange ..... Director of Public Works/  
City Engineer, City of Cudahy  
Chris Lear ..... Village Manager/Clerk/Treasurer,  
Village of River Hills  
Michael G. Lewis ..... City Engineer/Director of Public Works,  
City of West Allis  
Michael J. Martin ..... Director, Department of Public Works,  
Village of Hales Corners  
Robert B. Mcfaul ..... Director of Public Works, Village of Greendale  
Glen E. Morrow ..... City Engineer/ Director of Public Works,  
City of Franklin  
Andrew Pederson ..... Village Manager, Village of Bayside  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
William A. Porter ..... Director, Department of Public Works,  
City of Wauwatosa  
Steven Sheiffer ..... Village Manager, Village of Whitefish Bay  
Michael C. Simmons ..... City Engineer, City of Oak Creek  
M. Chris Swartz ..... Village Manager, Village of Shorewood  
Kyle E. Vanderkar ..... City Engineer, City of South Milwaukee  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation

#### OZAUKEE COUNTY JURISDICTIONAL HIGHWAY PLANNING COMMITTEE

Robert R. Dreblow ..... Highway Commissioner,  
Chairman ..... Highway Department, Ozaukee County  
Kenneth R. Yunker ..... Executive Director,  
Secretary ..... Southeastern Wisconsin  
Regional Planning Commission  
Lester A. Bartel, Jr. .... Chairman, Town of Grafton  
Kathlyn T. Geracie ..... Chairperson, Public Works Committee,  
Ozaukee County  
Richard C. Howells ..... President, Village of Belgium  
William Janeshek ..... Supervisor, Town of Belgium  
Barbara J. Jobs ..... Chairman, Town of Saukville  
Kip Kinzel ..... Mayor, City of Cedarburg  
Andy La Fond ..... Director of Public Works, Village of Thiensville  
Chuck Lopicola ..... President, Village of Fredonia  
Kristen B. Lundeen ..... Director of Public Works/City Engineer,  
City of Mequon  
Dwight McComb ..... Planning and Environmental Manager/  
Team Leader Wisconsin Division,  
Federal Highway Administration,  
U.S. Department of Transportation  
James Melichar ..... Chairman, Town of Port Washington  
Richard Mueller ..... Chairman, Town of Fredonia  
David Murphy ..... Director of Public Works/  
Village Engineer, Village of Grafton  
William R. Sackett ..... President, Village of Newburg  
David Valentine ..... Chairman, Town of Cedarburg  
Robert Vanden Noven ..... Director of Public Works/City Engineer,  
City of Port Washington  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
Roy Wilhelm ..... Director of Public Works/Engineer,  
Village of Saukville

#### RACINE COUNTY JURISDICTIONAL HIGHWAY PLANNING COMMITTEE

Julie A. Anderson ..... Director of Public Works and  
Chairman ..... Development Services,  
Racine County  
Kenneth R. Yunker ..... Executive Director,  
Secretary ..... Southeastern Wisconsin  
Regional Planning Commission  
Michael Aimone ..... President, Village of Union Grove  
Paul Beere ..... President, Village of Rochester  
Peter Christensen ..... President, Village of Wind Point  
Rebecca Ewald ..... Administrator, Village of Waterford  
Mark M. Gleason ..... President, Village of Mount Pleasant  
Peter Hansen ..... Chairperson, Town of Yorkville  
Michael A. Hayek ..... Village Engineer, Village of Caledonia  
Tom Hincz ..... Chairman, Town of Waterford  
Steven D. Jansen ..... President, Village of Sturtevant  
Gary Kastenson ..... Chairman, Town of Raymond  
Thomas R. Kramer ..... Administrator/Treasurer,  
Town of Norway  
Thomas P. Lembcke ..... Chairman, Town of Dover  
Robert Miller ..... Mayor, City of Burlington  
Thomas Mills ..... Village President, Village of Elmwood Park  
Brian F. O'Connell ..... Director of City Development, City of Racine  
Nathan Plunkett ..... Project Engineer, Highway Engineering Division,  
Public Works and Development Services Department,  
Racine County  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
David Prott ..... Superintendent of Highway Division,  
Public Works and Development  
Services Department, Racine County  
Ralph Rice ..... Chairperson, Town of Burlington  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
Kristin Wright ..... President, Village of North Bay  
Mark H. Yehlen ..... Commissioner of Public Works,  
City of Racine



**WALWORTH COUNTY  
JURISDICTIONAL HIGHWAY  
PLANNING COMMITTEE**

Kevin M. Brunner ..... Director of Public Works/Central Services,  
Chairman Walworth County  
Kenneth R. Yunker ..... Executive Director,  
Secretary Southeastern Wisconsin  
Regional Planning Commission  
Joseph Abell ..... Chairman, Town of Walworth  
Bill Antti ..... President, Village of Genoa City  
Richard Brandl ..... Chairman, Town of Sharon  
Cameron Clapper ..... City Manager, City of Whitewater  
Daniel Cooper ..... Chairman, Town of Lafayette  
David P. Duwe ..... Chairman, Town of Sugar Creek  
Lowell Hagen ..... Chairman, Town of Whitewater  
Don Henningfeld ..... Chairman, Town of Spring Prairie  
Patrick Hoffmann ..... Highway Commissioner, Town of La Grange  
Dennis Jordan ..... Administrator, City of Lake Geneva  
Jeffery Karbash ..... Chairman, Town of Richmond  
John Kendall ..... Chairman, Town of Troy  
Joseph Klarkowski ..... Chairman, Town of East Troy  
Joseph F. Kopecky ..... Chairman, Town of Geneva  
Cecil R. Logterman ..... Chairperson, Town of Darien  
William Mangold ..... Chairman, Town of Lyons  
Dwight E. McComb ..... Planning and Environmental  
Manager/Team Leader,  
Federal Highway Administration,  
U.S. Department of Transportation  
Jerry Mehring ..... Director of Public Works,  
Village of Williams Bay  
Kenneth Monroe ..... President, Village of Bloomfield  
Arvid Petersen ..... President,  
Village of Fontana on Geneva Lake  
David A. Rasmussen ..... President, Village of Walworth  
Mark Ruosch ..... President, Village of Sharon  
Nancy Russell ..... Commissioner, Southeastern Wisconsin  
Regional Planning Commission;  
Chair, Board of Supervisors, Walworth County  
Daniel Schoonover ..... Chairman, Town of Bloomfield  
Ryan Simons ..... Chair, Town of Delavan  
Samuel E. Tapson ..... Administrator, City of Elkhorn  
Randy Timms ..... President, Village of East Troy  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
James Weiss ..... Chairman, Town of Linn  
Mark E. Wendorf ..... Director of Public Works, City of Delavan  
Frederick Winchowky ..... President, Village of Mukwonago  
Kurt Zipp ..... President, Village of Darien

**WASHINGTON COUNTY  
JURISDICTIONAL HIGHWAY PLANNING COMMITTEE**

Thomas Wondra ..... Highway Commissioner,  
Chairman Washington County  
Kenneth R. Yunker ..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Richard L. Bertram ..... Chairperson, Town of Barton  
Robert A. Bingen ..... Chairman, Town of Addison  
Russell Brandt ..... President, Village of Slinger  
Joseph C. Dautermann ..... Mayor, City of Hartford  
Justin J. Drew ..... City Planner, City of Hartford  
Chris Elbe ..... Chairman, Town of Farmington  
Daniel R. Goetz ..... Supervisor, Washington County  
Joseph C. Gonnering ..... Chairman, Town of Trenton  
Raymond Heidtke ..... Chairman, Town of Jackson  
Matt Heiser ..... Village Administrator, Village of Kewaskum  
John Jeffords ..... President, Village of Richfield  
T.J. Justice ..... City Administrator/Director of Development,  
City of West Bend  
Wendy A. Kannenberg ..... President, Village of Jackson  
Dennis E. Kenealy ..... Chairman, Town of Erin  
Carl Klemme ..... Chairman, Town of Wayne  
Max Marechal ..... City Engineer, City of West Bend  
Dwight E. McComb ..... Planning and Environmental  
Manager/Team Leader,  
Federal Highway Administration,  
U.S. Department of Transportation  
Paul J. Metz ..... Chairperson, Town of Germantown  
Paul R. Rice ..... Chairman, Town of West Bend  
William R. Sackett ..... President, Village of Newburg  
Kraig Sadownikow ..... Mayor, City of West Bend

**WASHINGTON COUNTY  
JURISDICTIONAL HIGHWAY PLANNING COMMITTEE  
(continued)**

Daniel H. Schmidt ..... Chairperson, Town of Kewaskum  
Albert Schulteis ..... Chairman, Town of Polk  
Jay Shambeau ..... Administrator, Washington County  
Planning and Parks Department  
Maurice Strupp ..... Chairman, Town of Hartford  
Herbert J. Tennies ..... Chairperson, Washington County  
Board of Supervisors  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
Dean Wolter ..... President, Village of Germantown

**WAUKESHA COUNTY  
JURISDICTIONAL HIGHWAY PLANNING COMMITTEE**

David W. Swan ..... Supervisor, Waukesha County Board;  
Chairman Chairman, Waukesha County  
Public Works Committee  
Kenneth R. Yunker ..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Fred V. Abadi ..... Director of Public Works, City of Waukesha  
Richard Arrowood ..... Chairman, Town of Ottawa  
Tim Barbeau ..... Town Engineer, Town of Delafield  
Joseph Birbaum ..... President, Village of Oconomowoc Lake  
Thomas Bird ..... Chairman/City Engineer, Town of Vernon  
Allison M. Bussler ..... Director, Department of Public Works,  
Waukesha County  
Timothy J. Clark ..... President, Village of Lac La Belle  
Harlan E. Clinkenbeard ..... City Planner, City of Pewaukee  
David E. Cox ..... Village Administrator, Village of Hartland  
James Daley ..... Mayor, City of Oconomowoc  
Michele F. DeYoe ..... Mayor, City of Delafield  
David Dubey ..... Chairperson, Town of Mukwonago  
Richard A. Ensslin ..... President, Village of Butler  
Jeffery A. Flaws ..... President, Village of Wales  
Robert T. Foote, Jr. .... President, Village of Chenequa  
Matthew Gehrke ..... Chairman, Town of Lisbon  
Greg Goetz ..... President, Village of Sussex  
Scott Gosse ..... Administrator, Village of Pewaukee  
Deborah Hall ..... President, Village of North Prairie  
Keith Henderson ..... Chairman, Town of Brookfield  
Robert C. Hultquist ..... Chairman, Town of Oconomowoc  
Arlyn Johnson ..... Director of Public Works,  
Village of Menomonee Falls  
Gregory W. Kessler ..... Director of Community Development,  
City of New Berlin  
Robert Kwiatkowski ..... Chairman, Town of Eagle  
Richard Lartz ..... President, Village of Nashotah  
Sharon L. Leair ..... Chairman, Town of Genesee  
John Marek ..... Chairman, Town of Waukesha  
Dwight E. McComb ..... Planning and Environmental Manager/Team  
Leader, Federal Highway Administration,  
U.S. Department of Transportation  
Richard Morris ..... Chairman, Town of Merton  
David Nagler ..... President, Village of Lannon  
Jack Nissen ..... President, Village of Dousman  
Neil H. Palmer ..... President, Village of Elm Grove  
Steven V. Ponto ..... Mayor, City of Brookfield  
Ron Reinowsky ..... President, Village of Merton  
Jack Riley ..... President, Village of Summit  
David Simpson ..... Director of Public Works/City Engineer,  
City of Muskego  
James S. Soneberg ..... President, Village of Big Bend  
Richard A. Spurrell ..... President, Village of Eagle  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
Fred Winchowky ..... President, Village of Mukwonago

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR THE RACINE URBANIZED AREA**

Julie A. Anderson ..... Director of Public Works and Development Services,  
Chairman Racine County  
Kenneth R. Yunker ..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Christopher R. Bertch ..... Community Planner,  
Federal Transit Administration-  
Region V, U.S. Department of Transportation

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR  
THE RACINE URBANIZED AREA  
(continued)**

Peter Christensen .....President, Village of Wind Point  
Mary Cole ..... Village Administrator, Village of Sturtevant  
Tom Dieckelman.....President, Wisconsin Coach Lines, Inc.  
Don Gutkowski ..... Director, Bureau of Planning and  
Economic Development, Division of  
Transportation Investment Management,  
Wisconsin Department of Transportation  
Peter L. Hansen..... Chairman, Town of Yorkville  
Michael A. Hayek..... Village Engineer, Village of Caledonia  
Kristin Holmberg-Wright..... President, Village of North Bay  
Peter T. McMullen..... Program and Policy Analyst,  
Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Thomas Mills ..... Village President, Village of Elmwood Park  
Cheryl L. Newton ..... Environmental Protection Specialist,  
U.S. Environmental Protection Agency, Region V  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
William D. Sasse..... Director of Engineering, Village of Mt. Pleasant  
Albert Stanek ..... Parking and Transit Systems Manager, City of Racine  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation  
Mark H. Yehlen ..... Commissioner of Public Works,  
City of Racine

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR  
THE KENOSHA URBANIZED AREA**

Kenneth R. Yunker ..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Christopher R. Bertch .... Community Planner, Federal Transit Administration-  
Region V, U.S. Department of Transportation  
Shelly Billingsley ..... Director, Engineering Division,  
Department of Public Works, City of Kenosha  
Tom Dieckelman..... President, Wisconsin Coach Lines, Inc.  
Virgil Gentz ..... Chairman, Town of Paris  
Don Gutkowski ..... Director, Bureau of Planning and  
Economic Development, Division of  
Transportation Investment Management,  
Wisconsin Department of Transportation  
Ron Iwen ..... Director, Department of Transportation,  
City of Kenosha  
Randall Kerkman ..... Village Administrator, Village of Bristol  
Jeffrey B. Labahn..... Director, Department of Community Development  
and Inspections, City of Kenosha  
Michael M. Lemens..... Director of Public Works and City Engineer,  
City of Kenosha  
Peter T. McMullen..... Program and Policy Analyst,  
Bureau of Air Management,  
Wisconsin Department of Natural Resources  
William Morris ..... Town Administrator, Town of Somers  
Cheryl L. Newton ..... Environmental Protection Specialist,  
U.S. Environmental Protection Agency, Region V  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
Gary A. Sipsma ..... Director, Division of Highways, and  
Highway Commissioner, Department of  
Public Works, Kenosha County  
Michael Spence ..... Village Engineer, Village of Pleasant Prairie  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR  
THE MILWAUKEE URBANIZED AREA**

Brian Dranzik ..... Commissioner, Southeastern Wisconsin  
Chairman Regional Planning Commission;  
Director of Transportation,  
Department of Transportation, Milwaukee County  
Fred V. Abadi..... Director of Public Works,  
City of Waukesha  
Chris Abele ..... Milwaukee County Executive

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR  
THE MILWAUKEE URBANIZED AREA  
(continued)**

Robert J. Bauman ..... Alderman, City of Milwaukee  
Scott Brandmeier ..... Director of Public Works and Village Engineer,  
Village of Fox Point  
Allison M. Bussler ..... Director of Public Works, Waukesha County  
Robert R. Dreblow ..... Highway Commissioner,  
Highway Department, Ozaukee County  
Michael Einweck ..... Director of Public Works, Village of Hartland  
Gary Evans ..... Highway Engineering Division Manager,  
Department of Public Works,  
Waukesha County  
Jennifer Gonda ..... Legislative Liaison Director,  
City of Milwaukee  
Thomas M. Grisa ..... Director, Department of Public Works,  
City of Brookfield  
Ghassan A. Korban..... Commissioner of Public Works,  
City of Milwaukee  
Michael G. Lewis..... City Engineer, City of West Allis  
Michael J. Maierle ..... Manager of Long-Range Planning,  
Department of City Development,  
City of Milwaukee  
James Martin ..... Director of Operations,  
Department of Transportation,  
Milwaukee County  
Michael J. Martin..... Director, Department of Public Works,  
Village of Hales Corners  
Michael Mayo, Sr. .... 7th District Supervisor, Milwaukee County  
Board of Supervisors  
Jeffrey S. Polenske..... City Engineer,  
City of Milwaukee  
William A. Porter ..... Director, Department of Public Works,  
City of Wauwatosa  
Clark Wantoch ..... Director of Highway Operations,  
Department of Transportation,  
Milwaukee County  
Thomas Wondra ..... Highway Commissioner, Washington County  
Dennis Yaccarino..... Senior Budget and Policy Manager,  
Budget and Management Division,  
Department of Administration,  
City of Milwaukee

**Nonvoting Technical Staff Members**

Kenneth R. Yunker..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Christopher R. Bertch ..... Community Planner,  
Federal Transit Administration-  
Region V, U.S. Department of Transportation  
Tom Dieckelman ..... President, Wisconsin Coach Lines, Inc.  
Don Gutkowski..... Director, Bureau of Planning and  
Economic Development,  
Division of Transportation Investment Management,  
Wisconsin Department of Transportation  
Peter T. McMullen..... Program and Policy Analyst,  
Bureau of Air Management,  
Wisconsin Department of Natural Resources  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
Brett Wallace ..... Director, Southeast Region,  
Wisconsin Department of Transportation

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM  
PLANNING AND PROGRAMMING FOR THE ROUND LAKE BEACH-McHENRY-  
GRAYSLAKE, IL-WI URBANIZED AREA (WISCONSIN PORTION)**

Kenneth R. Yunker..... Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Bill Antti..... President, Village of Genoa City  
Christopher R. Bertch ..... Community Planner,  
Federal Transit Administration-  
Region V, U.S. Department of Transportation  
Kevin M. Brunner ..... Director of Central Services and  
Highway Commissioner,  
Walworth County  
Terry Burns..... President, Village of Paddock Lake  
David N. DeVito ..... Chairman, Town of Brighton  
Sue Gerber ..... President, Village of Silver Lake  
William M. Glembocki ..... Chairman, Town of Wheatland

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM PLANNING  
AND PROGRAMMING FOR THE ROUND LAKE BEACH-McHENRY-  
GRAYSLAKE, IL-WI URBANIZED AREA (WISCONSIN PORTION)**  
(continued)

Don Gutkowski .....Director, Bureau of Planning and Economic Development,  
Division of Transportation Investment Management,  
Wisconsin Department Transportation  
Randall Kerkman ..... Administrator, Village of Bristol  
Peter T. McMullen..... Program and Policy Analyst,  
Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Kenneth Monroe ..... President, Village of Bloomfield  
Cheryl L. Newton ..... Environmental Protection Specialist,  
U.S. Environmental Protection Agency, Region V  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
Daniel Schoonover ..... Chairman, Town of Bloomfield  
Gary A. Sipsma ..... Director, Division of Highways, and  
Highway Commissioner, Department of  
Public Works, Kenosha County  
Howard K. Skinner..... President, Village of Twin Lakes  
Robert M. Stoll..... Chairman, Town of Randall  
Diann D. Tesar ..... Chairperson, Town of Salem  
Brett Wallace .....Director, Southeast Region,  
Wisconsin Department of Transportation

**ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM PLANNING  
AND PROGRAMMING FOR THE WEST BEND URBANIZED AREA**

Thomas Wondra ..... Highway Commissioner,  
Chair  
Washington County  
Jessi Balcom ..... Village Administrator, Village of Slinger  
Christopher R. Bertch ..... Community Planner,  
Federal Transit Administration-  
Region V, U.S. Department of Transportation  
Richard L. Bertram..... Chairman, Town of Barton  
Joseph C. Gonnering..... Chairman, Town of Trenton  
Don Gutkowski ..... Director, Bureau of Planning and  
Economic Development,  
Division of Transportation Investment Management,  
Wisconsin Department of Transportation  
Raymond Heidtke ..... Chairman, Town of Jackson  
Matt Heiser ..... Village Administrator, Village of Kewaskum  
T.J. Justice ..... City Administrator and Director of  
Development, City of West Bend  
George Poirier ..... Wisconsin Division Administrator,  
Federal Highway Administration,  
U.S. Department of Transportation  
Paul R. Rice..... Chairman, Town of West Bend  
Jason Schall ..... City Engineer,  
Engineering Department,  
City of Harford  
Daniel H. Schmidt..... Chairperson, Town of Kewaskum  
Albert Schulteis..... Chairman, Town of Polk  
Maurice Strupp.....Chairman, Town of Hartford  
Brett Wallace .....Director, Southeast Region,  
Wisconsin Department of Transportation  
John Walther ..... Village Administrator, Village of Jackson

**ADVISORY COMMITTEE ON REGIONAL  
TRANSPORTATION SYSTEM PLANNING**

Brian Dranzik ..... Commissioner, Southeastern Wisconsin  
Chairman  
Regional Planning Commission;  
Director of Transportation, Department of Transportation,  
Milwaukee County  
Fred Abadi..... Director of Public Works,  
City of Waukesha  
Julie A. Anderson..... Director of Public Works and Development Services,  
Racine County  
Christopher R. Bertch ....Community Planner, Federal Transit Administration-  
Region V, U.S. Department of Transportation  
Daniel Boehm ..... Managing Director,  
Milwaukee County Transit System  
Scott Brandmeier.....Director of Public Works/Village Engineer,  
Village of Fox Point  
Kevin M. Brunner ..... Director of Public Works/Central Services,  
Department of Public Works, Walworth County

**ADVISORY COMMITTEE  
ON REGIONAL  
TRANSPORTATION SYSTEM PLANNING**  
(continued)

Allison M. Bussler ..... Director of Public Works,  
Waukesha County  
David E. Cox ..... Village Administrator, Village of Hartland  
Robert R. Dreblow ..... Highway Commissioner,  
Highway Department, Ozaukee County  
Gary Evans ..... Highway Engineering Division Manager,  
Department of Public Works, Waukesha County  
Jennifer Gonda ..... Legislative Liaison Director, City of Milwaukee  
Thomas M. Grisa ..... Director of Public Works, City of Brookfield  
Don Gutkowski.....Director, Bureau of Planning and  
Economic Development,  
Division of Transportation Investment Management,  
Wisconsin Department of Transportation  
Susan Hedman .....Regional Administrator, Region V,  
U.S. Environmental Protection Agency  
T.J. Justice..... City Administrator and Director of  
Development, City of West Bend  
Ghassan A. Korban..... Commissioner of Public Works,  
City of Milwaukee  
Nik Kovac..... Alderman, City of Milwaukee  
Michael M. Lemens..... Director of Public Works and City Engineer,  
City of Kenosha  
Michael G. Lewis..... City Engineer/Director of Public Works,  
City of West Allis  
Michael Mayo, Sr. ....7th District Supervisor, Milwaukee County  
Dwight E. McComb ..... Planning and Environmental  
Manager/Team Leader,  
Federal Highway Administration,  
U.S. Department of Transportation  
Eric Nitschke..... Southeast Region Director, Wisconsin  
Department of Natural Resources  
Jeffrey S. Polenske..... City Engineer, City of Milwaukee  
William A. Porter .....Director, Department of Public Works,  
City of Wauwatosa  
William D. Sasse..... Director of Engineering,  
Village of Mount Pleasant  
Sheri Schmit ..... Deputy Director,  
Southeast Region, Wisconsin  
Department of Transportation  
Gary A. Sipsma..... Director, Division of Highways, and  
Highway Commissioner, Department of  
Public Works, Kenosha County  
Bart A. Sponseller ..... Director, Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Andrea Weddle-Henning..... Transportation Engineering  
Manager, Department of  
Transportation, Milwaukee County  
Thomas Wondra ..... Highway Commissioner, Washington County  
Dennis Yaccarino..... Senior Budget and Policy Manager,  
Budget and Management Division,  
Department of Administration, City of Milwaukee  
Mark H. Yehlen ..... Commissioner of Public Works,  
City of Racine  
Willie Wade..... Alderman, City of Milwaukee,  
Liaison to Environmental Justice Task Force

**TECHNICAL AND CITIZEN ADVISORY COMMITTEE ON  
COASTAL MANAGEMENT IN SOUTHEASTERN WISCONSIN**

Dr. Norman P. Lasca ..... Professor (Emeritus), Department of Geological  
Chairman  
Sciences, University of Wisconsin-Milwaukee  
John Dargle, Jr. ....Director, Milwaukee County  
Vice-Chairman  
Department of Parks,  
Recreation, and Culture  
Dr. Donald M. Reed ..... Chief Biologist, Southeastern Wisconsin  
Secretary  
Regional Planning Commission  
Stevan M. Keith .....Sustainability and Environmental Engineer,  
Department of  
Transportation and Public Works, Milwaukee County  
Ghassan A. Korban..... Commissioner of Public Works,  
Department of Public Works,  
City of Milwaukee  
Mary Jo Lange ..... Director of Public Works,  
City Engineer, City of Cudahy  
Tamara Mayzik ..... City Administrator, City of South Milwaukee  
Thomas Mlada ..... Mayor, City of Port Washington

**TECHNICAL AND CITIZEN ADVISORY COMMITTEE ON  
COASTAL MANAGEMENT IN  
SOUTHEASTERN WISCONSIN  
(continued)**

Eric Nitschke.....Regional Director, Southeast Region,  
Wisconsin Department of  
Natural Resources  
Eric Reinelt.....Municipal Port Director, Port of Milwaukee  
Susan E. Robertson.....Manager, Village of Fox Point  
Chad Sampson.....County Conservationist, Racine County  
Kevin L. Shafer.....Executive Director, Milwaukee  
Metropolitan Sewerage District

**ADVISORY COMMITTEE ON  
REGIONAL WATER QUALITY MANAGEMENT PLAN  
UPDATE FOR THE GREATER MILWAUKEE WATERSHEDS**

Daniel S. Schmidt.....SEWRPC Commissioner  
Chairman  
Michael G. Hahn.....Deputy Director, Southeastern  
Secretary.....Wisconsin Regional Planning Commission  
Julie A. Anderson.....Director of Public Works and Development Services,  
Racine County  
Michael J. Ballweg.....Crops and Soils Educator,  
University of Wisconsin-Extension,  
Sheboygan County  
John R. Behrens.....Commissioner-Secretary, Silver Lake  
Protection and Rehabilitation District  
Aaron Brault.....Director, Planning and Conservation Department,  
Sheboygan County  
Jennifer Bolger Breceda.....Executive Director, Milwaukee Riverkeeper  
Thomas J. Bunker.....Representative, City of Racine  
Water and Wastewater Utility  
Lisa Conley.....Representative, Town and Country Resource  
Conservation and Development, Inc.  
Joyce A. Fiocco.....Director and Land Information Officer,  
Land Resources and Parks Department,  
Dodge County  
Sharon L. Gayan.....Deputy Water Leader, Wisconsin  
Department of Natural Resources  
Shawn Graff.....Executive Director, The Ozaukee  
Washington Land Trust, Inc.  
Jane Harrison.....Social Science Outreach Specialist,  
University of Wisconsin Sea Grant Institute  
Kristine S. Hillmer.....Executive Director, Metropolitan Builders  
Association of Greater Milwaukee  
Andrew A. Holschbach.....Director,  
Land and Water Management Department,  
Ozaukee County  
Stevan M. Keith.....Sustainability and Environmental Engineer,  
Milwaukee County Department of  
Administrative Services  
Demaris Kenwood.....Interim Executive Director,  
Milwaukee Riverkeeper  
Ghassan Korban.....Commissioner, Department of Public Works,  
City of Milwaukee  
Kristen B. Lundeen.....Director of Public Works/ City Engineer,  
City of Mequon  
Max Marechal.....City Engineer, City of West Bend  
Lynn Mathias.....County Conservationist,  
Fond du Lac County  
Charles S. Melching.....Consultant and Former Associate  
Professor, Civil and Environmental  
Engineering, Marquette University  
Patrick A. Murphy.....State Resource Conservationist,  
Natural Resources Conservation Service  
Jeffrey S. Nettesheim.....Director of Utilities,  
Village of Menomonee Falls  
Charles A. Peters.....Director, Wisconsin Water Science Center,  
U.S. Geological Survey  
William A. Porter.....Director of Public Works, City of Wauwatosa  
Bruce W. Ramme.....Vice-President, Environmental  
Department, We Energies  
Kevin L. Shafer.....Executive Director, Milwaukee  
Metropolitan Sewerage District  
Jay Shambeau.....Administrator, Washington County  
Planning and Parks Department  
Dale R. Shaver.....Director,  
Parks and Land Use Department, Waukesha County  
Peter G. Swenson.....Branch Chief, Watershed and Wetlands Branch,  
U.S. Environmental Protection Agency

**ADVISORY COMMITTEE ON  
REGIONAL WATER QUALITY MANAGEMENT PLAN  
UPDATE FOR THE GREATER MILWAUKEE WATERSHEDS  
(continued)**

Sam Tobias.....Director of Planning and Development,  
Fond du Lac County  
Thomas A. Wiza.....Director of Engineering and Public Works,  
City of Cedarburg

**ADVISORY COMMITTEE ON  
REGIONAL LAND USE PLANNING**

Julie A. Anderson.....Director of Public Works and  
Chairman.....Development Services, Racine County  
Jennifer Andrews.....City Planner, City of Waukesha  
Timothy R. Bate.....Director of Planning, Research and Sustainability,  
Milwaukee Metropolitan Sewerage District  
Robert J. Bauman.....Alderman, City of Milwaukee  
Andy M. Buehler.....Director of Planning Operations,  
Kenosha County  
Milwaukee Metropolitan Sewerage District  
Harlan E. Clinkenbeard.....Planner, City of Pewaukee  
Michael P. Cotter.....Director,  
Walworth County Land Use and  
Resource Management Department  
Brian Dranzik.....Commissioner, Southeastern Wisconsin  
Regional Planning Commission;  
Director of Transportation, Department of Transportation,  
Milwaukee County  
Henry Elling.....Administrator, Village of Summit  
Charles Erickson.....Community Development Manager,  
City of Greenfield  
Daniel F. Ertl.....Director of Community Development,  
City of Brookfield  
Jason Fruth.....Planning and Zoning Manager,  
Waukesha County  
Vanessa Koster.....Planning Manager, City of Milwaukee  
Department of City Development  
Jeffrey B. Labahn.....Director, Department of  
Community Development  
and Inspections, City of Kenosha  
Debra Sielski.....Deputy Planning and Parks  
Administrator, Manager of Planning Division,  
Washington County  
Patricia T. Najera.....City Plan Commissioner, City of Milwaukee  
Eric A. Nitschke.....Regional Director, Southeast Region,  
Wisconsin Department of Natural Resources  
Mark Piotrowicz.....City Planner/Operations Manager, City of West Bend  
Brandi Richter.....District Conservationist, Kenosha- Racine-  
Milwaukee Counties, U.S. Natural  
Resources Conservation Service  
Matthew Sadowski.....Assistant Director, City of Racine  
Department of City Development  
Steven J. Schaer.....Manager of Planning and Zoning, City of West Allis  
Sheri Schmit.....Systems Planning Chief, Southeast Region,  
Wisconsin Department of Transportation  
Douglas Seymour.....Director of Community Development,  
City of Oak Creek  
Andrew T. Struck.....Director, Planning and Parks  
Department, Ozaukee County  
Todd Stuebe.....Director of Community Development,  
City of Glendale  
Randy L. Tetzlaff.....Director of Planning and Development,  
City of Port Washington  
Teig Whaley-Smith.....Economic Development Director,  
Milwaukee County

**ADVISORY COMMITTEE ON  
REGIONAL POPULATION AND ECONOMIC FORECASTS**

Andrew T. Struck.....Director, Planning and Parks  
Chairman.....Department, Ozaukee County  
Julie A. Anderson.....Director of Public Works and Development Services,  
Racine County  
Don Gutkowski.....Director, Bureau of Planning and Economic Development,  
Division of Transportation Investment Management,  
Wisconsin Department of Transportation  
Andy M. Buehler.....Director of Planning Operations, Kenosha County  
Michael P. Cotter.....Director, Land Use and  
Resource Management Department, Walworth County

**ADVISORY COMMITTEE ON  
REGIONAL POPULATION AND ECONOMIC FORECASTS  
(continued)**

Joel E. Dieti ..... Planning Manager, City of Franklin  
John Flynn ..... Vice President, Strategy and Development,  
American Transmission Company  
David Egan-Robertson ..... Demographer, Applied Population,  
Laboratory, University of Wisconsin-Madison  
Jenny Trick ..... Executive Director,  
Economic Development Corporation, Racine County  
Jedd Lapid ..... Regional Chief Development Officer,  
American Red Cross of Eastern Wisconsin  
Richard Marcoux ..... Commissioner, City of Milwaukee,  
Department of City Development  
Bret J. Mayborne ..... Director of Economic Research, Metropolitan  
Milwaukee Association of Commerce  
Reggie Newson ..... Secretary, Wisconsin Department of  
Workforce Development  
Francisco Sanchez ..... President, Waukesha-Ozaukee-  
Washington Workforce Development, Inc.  
John Schmid ..... Project Specialist, We Energies  
Dale R. Shaver ..... Director, Waukesha County  
Parks and Land Use Department  
Donald Sykes ..... President/CEO, Milwaukee Area  
Workforce Investment Board, Inc.

**TECHNICAL ADVISORY COMMITTEE FOR THE  
PROTECTION AND MANAGEMENT OF NATURAL  
AREAS IN SOUTHEASTERN WISCONSIN**

Dr. Susan E. Lewis ..... Professor of Biology, Carroll College;  
Chairman ..... Director, Greene Field Station;  
Member, State of Wisconsin  
Natural Areas Preservation Council  
Dr. Donald M. Reed ..... Chief Biologist, Southeastern Wisconsin  
Secretary ..... Regional Planning Commission  
Fay U. Amerson ..... Urban Conservation Specialist, Walworth County  
Dr. Philip J. Arnholt ..... Professor of Science, Biology  
Department, Concordia University  
Dr. Owen D. Boyle ..... Species Management Section Chief,  
Wisconsin Department of Natural Resources  
John Dargle, Jr. .... Director, Milwaukee County  
Department of Parks, Recreation and Culture  
Gerald H. Emmerich, Jr. .... Member, Board of Directors,  
Land Trust of Walworth County  
Sharon G. Fandel ..... Conservation Biologist,  
Wisconsin Department of Natural Resources  
Shawn Graff ..... Executive Director, The Ozaukee  
Washington Land Trust  
Duane Grimm ..... Waukesha County Park System Manager  
Andrew A. Holschbach ..... Director, Land and Water  
Management Department, Ozaukee County  
Jessica Jens ..... Executive Director, Riveredge Nature Center  
B. Martinus Johnson ..... Wildlife Biologist, Wisconsin  
Department of Natural Resources  
Marlin P. Johnson ..... Associate Professor Emeritus,  
Field Station Manager, Department of Biological  
Sciences, University of Wisconsin Waukesha Center;  
Vice President, Waukesha County Land Conservancy  
Nicholas A. Miller ..... Director of Science, Wisconsin  
Chapter, The Nature Conservancy  
Dr. Patricia Nagai ..... Horticulture Educator,  
UW-Extension Service, Racine County  
Jonathan Rudie ..... General Manager of Park Operations,  
Division of Parks, Public Works Department,  
Kenosha County  
Kevin L. Shafer ..... Executive Director, Milwaukee  
Metropolitan Sewerage District  
Dr. Stephen L. Solheim ..... Associate Professor, Department of Biological  
Sciences, University of Wisconsin-Whitewater  
Dr. Joy J. Wolf ..... Associate Professor, Department of  
Geography, University of Wisconsin-Parkside

**REGIONAL WATER SUPPLY PLANNING  
ADVISORY COMMITTEE**

Dr. Kurt W. Bauer ..... Executive Director Emeritus, Southeastern Wisconsin  
Chairman ..... Regional Planning Commission  
Michael G. Hahn ..... Deputy Director, Southeastern Wisconsin  
Secretary ..... Regional Planning Commission

**REGIONAL WATER SUPPLY PLANNING  
ADVISORY COMMITTEE  
(continued)**

Julie A. Anderson ..... Director of Public Works and Development Services,  
Racine County  
Kenneth R. Bradbury ..... Hydrogeologist/Professor, Wisconsin  
Geological and Natural History Survey  
Andy M. Buehler ..... Director of Planning Operations, Kenosha County  
Thomas J. Bunker ..... Representative, Water and  
Wastewater Utility, City of Racine  
Douglas S. Cherkauer ..... Professor of Hydrogeology Emeritus,  
University of Wisconsin-Milwaukee  
Lisa Conley ..... Representative, Town and  
Country Resource Conservation  
and Development, Inc.  
Michael P. Cotter ..... Director, Land Use and Resource  
Management Department, Walworth County  
Charles A. Czarkowski ..... Water Supply Specialist,  
Wisconsin Department of  
Natural Resources, Southeast Region  
Brian Dranzik ..... Commissioner, Southeastern Wisconsin  
Regional Planning Commission;  
Director of Transportation,  
Department of Transportation, Milwaukee County  
Daniel S. Duchniak ..... General Manager,  
Waukesha Water Utility,  
City of Waukesha  
Charles P. Dunning ..... Hydrologist, U.S. Geological Survey  
Franklyn A. Ericson ..... Manager, Worldwide S/H/E/Q  
Operations, S.C. Johnson & Son, Inc.  
David Ewig ..... Water Utility Superintendent,  
City of Port Washington  
Thomas M. Grisa ..... Director of Public Works,  
City of Brookfield  
Jeffrey A. Helmuth ..... Hydrogeologist Program Coordinator,  
Wisconsin Department of Natural Resources, Madison  
John Hemauer ..... Water Utility Manager,  
City of West Bend  
Kristine S. Hillmer ..... Executive Director, Metropolitan Builders  
Association of Greater Milwaukee  
Andrew A. Holschbach ..... Director  
Land and Water  
Management Department, Ozaukee County  
Eric J. Kiefer ..... Manager,  
North Shore  
Water Commission  
Elizabeth Kraus ..... Administrator/Clerk, Town of Lisbon  
Carrie M. Lewis ..... Superintendent, Milwaukee Water Works,  
City of Milwaukee  
Mark Lurvey ..... Agricultural Business Operator,  
Lurvey Turf Nursery  
Tim Nennig ..... Utility Superintendent, Village of Grafton  
Michael P. Rau ..... President, City Water, LLC  
Edward St. Peter ..... General Manager,  
Water Utility, City of Kenosha  
Jay Shambeau ..... Administrator, Washington County  
Planning and Parks Department  
Dale R. Shaver ..... Director, Waukesha County  
Department of Parks and Land Use  
Michael J. Sullivan ..... General Manager,  
Water and Sewer Utility,  
City of Oak Creek  
James Surfus ..... Senior Environmental Engineer,  
MillerCoors, LLC  
Daniel S. Winkler ..... Director of Public Works and Utilities,  
City of Lake Geneva

**REGIONAL HOUSING PLAN ADVISORY COMMITTEE\***

William R. Drew ..... Executive Director, Milwaukee County Research  
Chairman ..... Park and Commissioner, Southeastern  
Wisconsin Regional Planning Commission  
Julie A. Anderson ..... Director of Public Works and Development Services,  
Racine County  
Andy M. Buehler ..... Director of Planning Operations,  
Kenosha County Planning and  
Development Department  
Michael P. Cotter ..... Director, Land Use and  
Resource Management Department,  
Walworth County  
Kalan R. Haywood, Sr. .... President, Vangard Group, Milwaukee



**REGIONAL HOUSING PLAN ADVISORY COMMITTEE\***  
(continued)

Joseph G. Heck, Jr. .... Assistant Director (Retired),  
Department of City Development, City of Racine

Rob Henken..... President, Public Policy Forum, Milwaukee

Kristine S. Hillmer ..... Executive Director, Metropolitan Builders  
Association of Greater Milwaukee

Douglas J. Koehler ..... Planner, City of Waukesha

Gary Koppelberger ..... City Administrator, City of Hartford

Jeffrey B. Labahn..... Director, Department of  
Community Development and Inspections,  
City of Kenosha

Michael J. Murphy..... Common Council President, City of Milwaukee

Falamak Nourzad ..... Principal, Continuum Architects  
& Planners, Milwaukee

Linda Olson ..... Director, Aging and Disability  
Resource Center, Washington County

Antonio M. Pérez ..... Executive Director, Housing Authority,  
City of Milwaukee

Brian Peters..... Housing Policy Advocate, IndependenceFirst,  
Milwaukee

Kim Plache ..... Senior Community Relations Officer,  
WHEDA Milwaukee Office

Maria Prioletta ..... Redevelopment and Special Projects Manager,  
Department of City Development, City of Milwaukee

Welford Sanders..... Executive Director, M.L. King Economic  
Development Corporation

Mary Kay Schleiter..... Associate Professor,  
Department of Sociology-Anthropology,  
University of Wisconsin-Parkside

Kori Schneider-Peragine..... Senior Administrator, Inclusive  
Communities Program, Metropolitan  
Milwaukee Fair Housing Council

Dale R. Shaver ..... Director,  
Department of Parks and Land Use,  
Waukesha County

Michael J. Soika..... Director, Milwaukee Succeeds

Denise Stimart ..... Executive Director, Housing  
Authorities of the City and County of Waukesha

Andrew T. Struck ..... Director, Planning and Parks  
Department, Ozaukee County

**REGIONAL HOUSING PLAN ADVISORY COMMITTEE\***  
(continued)

Marne J. Stück..... Governmental Affairs Director,  
Greater Milwaukee Association of Realtors

Scott Thistle ..... Principal, Halen Homes, Brookfield

Rev. James C. Thomas..... Retired, Board of Ezekiel Community  
Development Corporation

John F. Weishan, Jr. .... Supervisor, Board of Supervisors,  
Milwaukee County

**ENVIRONMENTAL JUSTICE  
TASK FORCE**

Adelene Greene..... Commissioner, Southeastern Wisconsin Regional  
Chair Planning Commission; Director of Workforce  
Development, Kenosha County

Yolanda Adams ..... President and CEO, Urban  
League of Racine and Kenosha

Tyrone P. Dumas..... Educational Consultant,  
SOS Center of Hope After School Program,  
Milwaukee

Ella Dunbar ..... Program Services Manager,  
Social Development  
Commission, Milwaukee

Ness Flores..... Attorney, Flores & Reyes Law Offices

Nancy Holmlund ..... Past President, Racine Interfaith Coalition

Jedd Lapid ..... Regional Chief Development Officer,  
American Red Cross of Eastern Wisconsin

N. Lynnette McNeely..... Legal Redress Chair,  
Waukesha County—NAACP

Guadalupe “Wally” Rendon..... President, Hispanic  
Business and Professionals  
Association of Racine;  
Former Racine Police Officer

Jackie Schellinger ..... Indian Community Representative,  
Retired Judge

Theresa Schuerman ..... Walworth County Bilingual  
Migrant Worker Outreach

Willie Wade..... Alderman, City of Milwaukee

Wallace White..... Principal/CEO, W2EXCEL, LLC

\*Committee Membership on the date the Regional Housing Plan was adopted by the Commission (March 13, 2013)

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## Appendix C

### SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION STAFF: 2014

#### EXECUTIVE DIVISION

Michael G. Hahn, PE, PH Deputy Director	Kenneth R. Yunker, PE Executive Director  Dr. Kurt W. Bauer, PE, PLS, AICP Executive Director Emeritus	Debra D'Amico Executive Secretary
--	--	--------------------------------------

#### COMMUNITY ASSISTANCE PLANNING DIVISION

Nancy M. Anderson, AICP  
Chief Community  
Assistance Planner

Richard R. Kania, AICP, RLA  
Principal Planner

John R. Meland  
Principal Specialist

Christopher D. Parisey  
Robbie L. Robinson  
Planners

#### TRANSPORTATION PLANNING DIVISION

Christopher T. Hiebert, PE  
Chief Transportation  
Engineer

Robert E. Beglinger  
Principal Planner

Ryan W. Hoel, PE  
Eric D. Lynde  
Kevin J. Muhs  
Principal Engineers

Nicholas A. Koncz  
Senior Engineer

Dr. Gom B. Ale  
Joseph M. Delmagori  
Victor Helin  
Ethan S. Johnson  
Senior Planners

Ajibola Ayanwale  
Joshua W. Depies  
Engineers

C. Terrence Anderson  
Laurie B. Miller  
Xylia N. Rueda  
Planners

Gary K. Korb  
Specialist

Kaleb W. Kutz  
Reginald L. Mason  
Research Analysts

Andres Orrego  
Gabriel A. Rosenwald  
Engineering  
Technicians

#### GEOGRAPHIC INFORMATION SYSTEMS DIVISION

John G. McDougall  
Geographic Information  
Systems Manager

Paul J. Clavette  
John D. Harasha  
Principal Systems  
Analysts

Michael G. Gosetti  
GIS Supervisor

Bradley T. Subotnik  
Senior GIS  
Specialist

Patricia L. Bouchard  
Timothy R. Gorsegrner  
GIS Specialist

#### ADMINISTRATIVE SERVICES DIVISION

Elizabeth A. Larsen, SPHR  
Assistant Director-  
Administration

Linette G. Heis  
Secretary

Christine A. Kettner  
Accounting Clerk/Human  
Resource Assistant

Robert J. Klatkiewicz  
Office Clerk

Ann Dee Allen  
Senior Public  
Involvement and  
Outreach Specialist

Nancee A. Nejedlo  
Jean C. Peters  
Principal Planning  
Draftsmen

Richard J. Wazny  
Print Shop  
Supervisor

#### LAND USE PLANNING DIVISION

David A. Schilling  
Chief Land Use Planner

Benjamin R. McKay  
William J. Stauber  
Principal Planners

Kathryn E. Sobottke  
Principal Specialist

Rochelle M. Brien  
Frank G. Fierek, Jr.  
James P. Siegler  
Planners

Leroy Mims, Jr.  
Land Use Mapping  
Specialists

Joyce A. Gramz  
Senior GIS Specialist

#### CARTOGRAPHIC AND GRAPHIC ARTS DIVISION

Robert W. Merry, PLS  
Chief Surveyor

LuAnn Sakale  
Senior Planning  
Draftsman

John T. Washburn, PLS  
Senior Specialist-  
Land Surveyor

Donald P. Simon, PLS  
Land Surveyor

Andrew J. Traeger  
Certified Survey  
Technician

Byron D. Guerra  
Land Survey  
Assistant

Stephen P. Adams  
Public Involvement and  
Outreach Manager

Nakeisha Payne  
Public Involvement  
and Outreach Specialist

#### PUBLIC INVOLVEMENT AND OUTREACH DIVISION

#### ENVIRONMENTAL PLANNING DIVISION

Laura L. Kletti, PE, CFM  
Chief Environmental  
Engineer

Dr. Donald M. Reed  
Chief Specialist-  
Biologist

Ronald J. Printz, PE  
Principal Engineer

Joshua A. Murray, PE  
Senior Engineer

Dr. Thomas M. Slawski  
Principal Planner

Dr. Joseph E. Boxhorn  
Senior Planner

Dr. Daniel L. Carter  
Beverly A. Saunders  
Senior  
Specialists

Megan R. Bender  
Zijia Li  
Julia C. Orlowski  
Engineers

Jennifer L. Dietl  
Christopher J. Jors  
Zofia Noe  
Specialists

Aaron W. Owens  
Planner

Megan A. Beauchaine  
Michael A. Borst  
Research Analysts

Anna C. Cisar  
Laura Fields-Sommers  
Planner-Technician

Patricia M. Kokan  
Secretary

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## Appendix D

SCRIMA, KABITZKE & Co., S.C.  
CERTIFIED PUBLIC ACCOUNTANTS  
328 WEST SUNSET DRIVE  
WAUKESHA, WISCONSIN 53189

TELEPHONE:  
(262) 542-8401  
FAX 542-8713

MEMBER WISCONSIN  
INSTITUTE OF CPAs

### INDEPENDENT AUDITOR'S REPORT

To the Commissioners of  
Southeastern Wisconsin Regional Planning Commission  
Waukesha, Wisconsin

#### Report on the Financial Statements

We have audited the accompanying financial statements of Southeastern Wisconsin Regional Planning Commission, as of and for the year ended December 31, 2014, and the related notes to the financial statements, which collectively comprise the Commission'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.

#### Auditor's 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 auditor's 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 respective financial position of activities of Southeastern Wisconsin Regional Planning Commission, as of December 31, 2014, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### Other Matters

Management has omitted management's discussion and analysis and budgetary comparison information that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing 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 the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Southeastern Wisconsin Regional Planning Commission's basic financial statements. The schedule of expenditures of federal and state of Wisconsin awards, as required by Office of Management and Budget Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations are presented for purposes of additional analysis and are not a required part of the basic financial statements.

#### Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 26, 2015 on our consideration of Southeastern Wisconsin Regional Planning Commission's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Southeastern Wisconsin Regional Planning Commission's internal control over financial reporting and compliance.

*Scrima, Kabitzke & Co., S.C.*

Scrima, Kabitzke & Co., S.C.  
Waukesha, Wisconsin  
May 26, 2015



Southeastern Wisconsin Regional Planning Commission

Balance Sheet - All Fund Types

December 31, 2014

	<u>Governmental Fund Types</u>			
	<u>General</u>	<u>Special Revenue</u>	<u>2014 Total</u>	<u>2013 Total</u>
<u>Assets</u>				
Pooled cash and cash equivalents	\$ 4,773,508	\$	\$ 4,773,508	\$ 4,561,736
Grants receivable	175,939	986,520	1,162,459	1,260,463
Prepaid expense	127,774		127,774	119,676
Property and equipment	2,824,959		2,824,959	2,915,216
Due from other funds	986,520		986,520	911,857
Total Assets	<u>\$ 8,888,700</u>	<u>\$ 986,520</u>	<u>\$ 9,875,220</u>	<u>\$ 9,768,948</u>
<u>Liabilities</u>				
State sales tax	\$ 37	\$	\$ 37	\$ 42
Accounts payable	220,718		220,718	131,774
Vacation accrual	267,157		267,157	279,027
Deferred revenue	457,716		457,716	869,294
Sick pay accrual	448,491		448,491	457,973
Due to other funds		986,520	986,520	911,857
Accrued payroll and taxes	238,482		238,482	136,264
Deposits and advance rents	3,333		3,333	3,333
Total Liabilities	<u>1,635,934</u>	<u>986,520</u>	<u>2,622,454</u>	<u>2,789,564</u>
<u>Fund Equity</u>				
Investments in fixed assets	3,440,027		3,440,027	3,357,949
Fund Balances - designated	2,671,435		2,671,435	2,501,422
- undesignated	1,141,304		1,141,304	1,120,013
Total Fund Equity	<u>7,252,766</u>		<u>7,252,766</u>	<u>6,979,384</u>
Total Liabilities and Fund Equity	<u>\$ 8,888,700</u>	<u>\$ 986,520</u>	<u>\$ 9,875,220</u>	<u>\$ 9,768,948</u>

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements

Southeastern Wisconsin Regional Planning Commission

Statement of Revenues, Expenditures and Changes

in Fund Balance - All Governmental Fund Types

For the Year Ended December 31, 2014

	<u>Governmental Fund Types</u>			
	<u>General</u>	<u>Special Revenue</u>	<u>2014</u>	<u>2013</u>
<u>Revenues</u>				
Contributions from counties	\$ 2,370,245	\$	\$ 2,370,245	\$ 2,370,245
Grant revenues		3,546,554	3,546,554	3,117,642
Service grants	344,940	1,078,879	1,423,819	1,274,888
Pass-through grants	165,000		165,000	211,284
Interest on invested funds	6,958		6,958	7,619
Other income	4,807		4,807	6,336
Rental income	71,518		71,518	71,518
Total Revenues	<u>2,963,468</u>	<u>4,625,433</u>	<u>7,588,901</u>	<u>7,059,532</u>
<u>Expenditures</u>				
Salaries and fringe benefits	2,996,793	2,971,634	5,968,427	5,395,795
Office and other expenses:				
Technical consultants	62,093	75,023	137,116	237,112
Technical consultants - pass-through	162,317	2,683	165,000	211,284
Office supplies	55,241	1,571	56,812	46,765
Insurance, audit, legal fees	59,553		59,553	62,027
Library acquisition and dues	26,575	5,705	32,280	35,966
Printing and graphics supplies	47,390	6,553	53,943	48,777
Postage expense	19,573	7,609	27,182	20,919
Travel expense	40,492	19,038	59,530	44,593
Telephone expense	16,265	8,396	24,661	30,119
Building usage	182,749	6,839	189,588	184,957
Building maintenance	263,778		263,778	191,244
Other operating expenses	14,464	15,063	29,527	36,358
Software and equipment maintenance	161,141	69,432	230,573	135,783
Capital outlay	96,089	3,538	99,627	207,820
Total Expenditures	<u>4,204,513</u>	<u>3,193,084</u>	<u>7,397,597</u>	<u>6,889,519</u>
Excess (Deficit) Revenues Over Expenditures	(1,241,045)	1,432,349	191,304	170,013
Indirect Expense Allocation	1,432,349	(1,432,349)		
Fund Balance - beginning of year	3,621,435	-0-	3,621,435	3,451,422
Fund Balance - end of year	<u>\$ 3,812,739</u>	<u>\$ -0-</u>	<u>\$ 3,812,739</u>	<u>\$ 3,621,435</u>

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements.

Southeastern Wisconsin Regional Planning Commission  
Statement of Revenues, Expenditures and Changes  
in Fund Balance - Budget and Actual - All Governmental Fund Types  
For the Year Ended December 31, 2014

Revenues	Budget	Actual	Variance Favorable (Unfavorable)
Contributions from counties	\$ 2,370,245	\$ 2,370,245	\$
Grant revenues	4,646,045	4,970,373	324,328
Pass-through grants		165,000	165,000
Interest on invested funds		6,958	6,958
Other income		4,807	4,807
Rental income	71,518	71,518	
Total Revenues	7,087,808	7,588,901	501,093
Expenditures			
Salaries and fringe benefits	5,816,378	5,968,427	(152,049)
Office and other expenses:			
Technical consultants	130,000	137,116	(7,116)
Technical consultants - pass-through		165,000	(165,000)
Office supplies	60,000	56,812	3,188
Insurance, audit, legal fees	109,670	59,553	50,117
Library acquisition and dues	35,000	32,280	2,720
Printing and graphics supplies	40,000	53,943	(13,943)
Postage expense	30,000	27,182	2,818
Travel expense	35,000	59,530	(24,530)
Telephone expense	30,000	24,661	5,339
Building usage	172,260	172,260	-
Building maintenance	170,500	263,778	(93,278)
Other operating expenses	30,000	29,527	473
Unemployment compensation expense	5,000		5,000
Software and equipment maintenance	162,000	230,573	(68,573)
Capital outlay	247,000	99,627	147,373
Rent expense	15,000	17,328	(2,328)
Total Expenditures	7,087,808	7,397,597	(309,789)
Excess Revenues Over Expenditures	\$ -0-	191,304	\$ 191,304
Fund Balance - beginning of year		3,621,435	
Fund Balance - end of year		\$ 3,812,739	

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements.

Southeastern Wisconsin Regional Planning Commission  
Combined Notes to the Financial Statements  
For the Year Ended December 31, 2014

The accompanying summary of Southeastern Wisconsin Regional Planning Commission's more significant accounting policies is presented to assist the reader in interpreting the financial statements and other data in this report. These policies, as presented, should be reviewed as an integral part of the accompanying financial statements. The accounting policies of Southeastern Wisconsin Regional Planning Commission conform to generally accepted accounting principles as applicable to governmental units.

Note 1 - Summary of Significant Accounting Policies

Reporting Entity

The Commission uses the criteria set forth by the Governmental Accounting Standards Board to determine the scope of the Commission's reporting entity. The accompanying financial statements reflect all significant operations of the Commission, which are under control of the Commissioners of Southeastern Wisconsin Regional Planning Commission.

Basis of Presentation

Southeastern Wisconsin Regional Planning Commission is a public agency serving the local communities within the counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha.

The accounts of the Commission are organized on the basis of funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures. Government resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent and the means by which spending activities are controlled. The following funds are used by the Commission:

Governmental Funds

**General Fund** - The General Fund is the general operating fund of the Commission. It is used to account for all financial resources except those required to be accounted for in another fund.

**Special Revenue Fund** - Special Revenue Funds are used to account for the specific revenue sources (other than major capital projects) that are legally restricted to expenditures for specified purposes.

**Total (Memorandum Only)** - The column captioned Total (Memorandum Only) in the combined financial statements is a total of the columnar statements by fund type. The total column is not comparable to a consolidation and does not present financial position and results of operations in conformity with generally accepted accounting principles because the same basis of accounting is not used by all funds and interfund transactions and balancing accounts have not been eliminated.

Southeastern Wisconsin Regional Planning Commission  
Combined Notes to the Financial Statements  
For the Year Ended December 31, 2014

Note 1 - Summary of Significant Accounting Policies (Cont'd)

Budget

The Commissions annual budget is prepared principally on the cash basis and represents departmental appropriations as authorized and any authorized revisions during the year to reflect changes in programs and activities. The budget cash basis differs from generally accepted accounting principles (GAAP). Actual amounts in the accompanying budgetary comparison statement are presented on the modified accrual basis.

Cash and Cash Equivalents

In addition to bank accounts and petty cash, this classification includes all short-term investments.

Basis of Accounting

The modified accrual basis of accounting is followed by the governmental funds. Under the modified accrual basis those items of revenue for which a valid receivable can be determined in advance of their due date should be recognized on the accrual basis. All other items are recognized on the cash basis because the time of collection generally coincides with the determination of the amount. Expenditures are recognized when a liability to be met from fund assets is incurred.

Fixed Assets

Governmental general fixed assets acquired during the year ended December 31, 2014 are recorded as expenditures in the governmental funds. Generally accepted accounting principles require that these fixed assets be capitalized at cost.

Accrued Sick Leave

The Commission accrues up to 130 days for sick leave when an employee retires. The employee may use these funds to purchase health insurance after they retire.

Accrued Vacation

The Commission accrues unused vacation time since the unused vacation time is cumulative from year to year. The maximum accrual per individual is 30 days.

Southeastern Wisconsin Regional Planning Commission  
Combined Notes to the Financial Statements  
For the Year Ended December 31, 2014

Note 1 - Summary of Significant Accounting Policies (Cont'd)

Fund Balances

The Commission classifies its fund equity as follows:

Designated Fund Balances - indicates that portion of fund equity, which has been segregated for specific purposes.

Undesignated Fund Balances - indicates that portion of fund equity, which is available for budgeting or other uses in future periods.

Note 2 - General Fixed Asset Group

The following is a cost breakdown of fixed assets as of December 31 of the year indicated. Generally accepted accounting principles require that these fixed assets be capitalized at the original cost. Fair market value at liquidation would be different from these values.

	2014	2013
Land	\$ 335,300	\$ 335,300
Land improvements	213,655	213,655
Building and improvements	3,415,990	3,287,879
Office furniture	255,023	270,154
Computers and related equipment	304,091	296,640
Office equipment	362,959	394,640
Automobiles	168,225	176,511
Field equipment	79,201	77,662
	5,134,444	5,052,441
Less: Depreciation	(2,309,485)	(2,137,225)
Net Book Value	\$ 2,824,959	\$ 2,915,216

## Combined Notes to the Financial Statements

For the Year Ended December 31, 2014

Note 3 – Employee Retirement Plan

All eligible Southeastern Wisconsin Regional Planning Commission employees participate in the Wisconsin Retirement System, a cost-sharing multiple-employer, defined benefit, public employee retirement system (PERS). The payroll for employees covered by the system for the year ended December 31, 2014 was \$3,886,202, the employer's total payroll was \$4,174,186.

All permanent employees hired before July 1, 2011, expected to work over 600 hours a year are eligible to participate in the System. All employees employed after July 1, 2011 and work at least 1200 hours are eligible to participate in the System. Covered employees in the general category are required by statute to contribute 7% of their salary (7.75% for Executives and Elected Officials, 7% for Protective Occupations with Social Security, and 7% for Protective Occupations without Social Security), to the plan. Employers may not make these contributions to the plan on behalf of employees. Total contributions for the years ending December 31, 2014 and 2013 were \$272,033 and \$248,040, respectively, equal to the required contributions for each year.

Employees, who retire at or after age 65, are entitled to receive a retirement benefit. Employees may retire at age 55, (50 for protective occupation employees), and receive actuarially reduced benefits. 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 employees' three highest years earnings. Employees terminating covered employment before becoming eligible for a requirement benefit may withdraw their contributions and, by doing so, forfeit all rights to any subsequent benefit. For employees beginning participation after 1/1/90, 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 become eligible on or after July 1, 2011 must have five years of creditable service to be vested.

The System also provides death and disability benefits for employees. Eligibility for and the amount of all benefits is determined under Chapter 40 of the State Statutes.

## Combined Notes to the Financial Statements

For the Year Ended December 31, 2014

Note 4 – Cash and Temporary Investments

Cash and temporary investment balances as disclosed on the accompanying financial statements are comprised of the following:

Cash on hand and on deposit CDs	\$ 1,344,598
Temporary cash investments	<u>3,428,910</u>
	<u>\$ 4,773,508</u>

The temporary cash investments are invested in the Wisconsin Investment Pool. The pool was paying 0.09% as of December 31, 2014.

Note 5 – Cognizant Agency

The cognizant agency for the Single Audit report is the Wisconsin Department of Transportation.

Note 6 – Designated Funds

The Commission has designated the following funds for future purposes:

	<u>2014</u>	<u>2013</u>
Equipment replacement	\$ 374,000	\$ 374,000
Errors and Omissions Insurance	400,000	400,000
Building Improvement & Maintenance	898,422	898,422
Program Development Fund	999,013	829,000
	<u>\$ 2,671,435</u>	<u>\$ 2,501,422</u>

Note 7 – Cash Risks

As of the balance sheet date, balances of cash at a financial banking institution exceeded the federally insured limit. These balances fluctuate greatly during the year and can exceed this limit. Management monitors, regularly, the financial condition of the banking institution, and tries to keep this potential risk to a minimum.

Note 8 – Subsequent Events

Management of Southeastern Wisconsin Regional Planning Commission has evaluated all subsequent events through May 26, 2015, for possible inclusion as a disclosure in the notes to the financial statements. The Organization has no subsequent events that require disclosure in the notes to the financial statements.

## Appendix E

### PUBLICATIONS OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION: 1962-2012

(Titles of reports in red are those that can be accessed on the website at [www.sewrpc.org](http://www.sewrpc.org).)

#### PROSPECTUSES

Regional Planning Program, April 1962\*

Root River Watershed Planning Program, March 1963\*

Fox River Watershed Planning Program, October 1964\*

Continuing Land Use-Transportation Study, May 1965

Milwaukee River Watershed Planning Program, September 1966\*

Comprehensive Library Planning Program, April 1968

Community Shelter Planning Program, August 1968

Racine Urban Planning District Comprehensive Planning Program, November 1968

Regional Sanitary Sewerage System Planning Program, December 1968\*

Menomonee River Watershed Planning Program, November 1969

Comprehensive Regional Airport Planning Program, December 1969\*

Regional Housing Study, December 1969

Deep Sandstone Aquifer Simulation Modeling Program, October 1972

Regional Park, Outdoor Recreation, and Related Open Space Planning Program, March 1973

Preliminary Engineering Study for the Abatement of Pollution from Combined Sewer  
Overflow in the Milwaukee Metropolitan Area, July 1973\*

Kinnickinnic River Watershed Planning Program Prospectus, November 1974\*

Regional Air Quality Maintenance Planning Program Prospectus, November 1974

Preliminary Engineering Study for the Abatement of Water Pollution in the Kenosha  
Urban Area, December 1975

Lake Michigan Estuary and Direct Drainage Area Subwatersheds Planning Program  
Prospectus, September 1978\*

Milwaukee Area Primary Transit System Alternatives Analysis Prospectus, October 1978

Milwaukee Northwest Side/Ozaukee County Transportation Improvement Study Prospectus,  
November 1978

Milwaukee Area Work Time Rescheduling Study Prospectus, December 1978

Pike River Watershed Planning Program Prospectus, April 1979

Milwaukee Area Freeway Traffic Management System Study Prospectus, June 1979

Oak Creek Watershed Planning Program Prospectus, December 1979

Prospectus for an Energy Emergency Contingency Plan for Southeastern Wisconsin, December 1983

Milwaukee River Priority Watersheds Program Prospectus, March 1985

Stormwater Drainage and Flood Control Planning Program Prospectus for the Milwaukee  
Metropolitan Sewerage District, March 1985

Infrastructure Study for the Southeastern Wisconsin Region, June 1986

Milwaukee High Lake Level Impact Study Prospectus, December 1987

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans  
for the Kenosha Area, June 1988

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans  
for the Racine Area, May 1989\*

Natural Area Protection and Management Planning Program Prospectus, August 1989\*

Prospectus for the Preparation of a Comprehensive Plan for the Kenosha Urban Planning  
District, December 1990

Des Plaines River Watershed Planning Program Prospectus, September 1991

## PROSPECTUSES—continued

Prospectus for a Study of Emergency Medical Services in Waukesha County, March 1992  
Prospectus for the Preparation of a Sanitary Sewerage System Plan for the Northwestern  
Waukesha County Area, September 1993  
Regional Aquifer Performance Simulation Modeling Program Prospectus, October 1998\*  
Regional Water Supply Planning Program Prospectus, September 2002  
Prospectus for a Regional Telecommunications Planning Program, December 2003

## OVERALL WORK PROGRAMS

Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning  
Commission: 1976-1980, December 1975  
Overall Work Program of the Southeastern Wisconsin Regional Planning Commission: 1977-1981,  
December 1976  
Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning  
Commission: 1978-1982, December 1977

Overall Work Program—1979	Overall Work Program—1992	Overall Work Program—2005
Overall Work Program—1980	Overall Work Program—1993	Overall Work Program—2006
Overall Work Program—1981	Overall Work Program—1994	Overall Work Program—2007
Overall Work Program—1982	Overall Work Program—1995	Overall Work Program—2008
Overall Work Program—1983	Overall Work Program—1996	Overall Work Program—2009
Overall Work Program—1984	Overall Work Program—1997	Overall Work Program—2010
Overall Work Program—1985	Overall Work Program—1998	Overall Work Program—2011
Overall Work Program—1986	Overall Work Program—1999	Overall Work Program—2012
Overall Work Program—1987	Overall Work Program—2000	Overall Work Program—2013
Overall Work Program—1988	Overall Work Program—2001	Overall Work Program—2014
Overall Work Program—1989	Overall Work Program—2002	Overall Work Program—2015
Overall Work Program—1990	Overall Work Program—2003	
Overall Work Program—1991	Overall Work Program—2004	

## STUDY DESIGNS

Study Design for the Continuing Regional Land Use-Transportation Study: 1970-1974  
Study Design for the Continuing Land Use-Transportation Study: 1972-1976  
Study Design for the Areawide Water Quality Planning and Management Program  
for Southeastern Wisconsin: 1975-1977\*  
Study Design for the Milwaukee Harbor Estuary Comprehensive Water Resources Planning Program,  
September 1981  
Study Design for the Continuing Regional Land Use-Transportation Study: 1992-2000, February 1993  
Waukesha County Development Plan Study Design, May 1993  
Upland Environmental Corridor Protection Study Design, September 1995

## PLANNING REPORTS

No. 1 - Regional Planning Systems Study, December 1962\*  
No. 2 - Regional Base Mapping Program, July 1963\*  
No. 3 - The Economy of Southeastern Wisconsin, June 1963\*  
No. 4 - The Population of Southeastern Wisconsin, June 1963\*  
No. 5 - The Natural Resources of Southeastern Wisconsin, June 1963\*



## PLANNING REPORTS—continued

- No. 6 - The Public Utilities of Southeastern Wisconsin, July 1963\*
- No. 7 - The Regional Land Use-Transportation Study
  - Volume 1 - Inventory Findings: 1963, May 1965\*
  - Volume 2 - Forecasts and Alternative Plans: 1990, June 1966
  - Volume 3 - Recommended Regional Land Use and Transportation Plans: 1990, November 1966\*
- No. 8 - Soils of Southeastern Wisconsin, June 1966\*
- No. 9 - A Comprehensive Plan for the Root River Watershed, July 1966\*
- No. 10 - A Comprehensive Plan for the Kenosha Planning District
  - Volume 1 - Inventory Findings, Forecasts, and Recommended Plans, February 1967\*
  - Volume 2 - Implementation Devices, February 1967\*
- No. 11 - A Jurisdictional Highway System Plan for Milwaukee County, March 1969\*
- No. 12 - A Comprehensive Plan for the Fox River Watershed
  - Volume 1 - Inventory Findings and Forecasts, April 1969\*
  - Volume 2 - Alternative Plans and Recommended Plan, February 1970
- No. 13 - A Comprehensive Plan for the Milwaukee River Watershed
  - Volume 1 - Inventory Findings and Forecasts, December 1970\*
  - Volume 2 - Alternative Plans and Recommended Plan, October 1971\*
- No. 14 - A Comprehensive Plan for the Racine Urban Planning District
  - Volume 1 - Inventory Findings and Forecasts, December 1970
  - Volume 2 - The Recommended Comprehensive Plan, October 1972
  - Volume 3 - Model Plan Implementation Ordinances, September 1972
- No. 15 - A Jurisdictional Highway System Plan for Walworth County, October 1972\*
- No. 15 - 2nd Edition, A Jurisdictional Highway System Plan for Walworth County, March 2011
- No. 16 - A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin, February 1974
- No. 17 - A Jurisdictional Highway System Plan for Ozaukee County, December 1973
- No. 18 - A Jurisdictional Highway System Plan for Waukesha County, January 1974
- No. 19 - A Library Facilities and Services Plan for Southeastern Wisconsin, July 1974
- No. 20 - A Regional Housing Plan for Southeastern Wisconsin, February 1975\*
- No. 21 - A Regional Airport System Plan for Southeastern Wisconsin, December 1975
- No. 22 - A Jurisdictional Highway System Plan for Racine County, February 1975
- No. 23 - A Jurisdictional Highway System Plan for Washington County, October 1974\*
- No. 23 - 2nd Edition, A Jurisdictional Highway System Plan for Washington County, July 2008
- No. 24 - A Jurisdictional Highway System Plan for Kenosha County, April 1975
- No. 25 - A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000
  - Volume 1 - Inventory Findings, April 1975\*
  - Volume 2 - Alternative and Recommended Plans, May 1978\*
- No. 26 - A Comprehensive Plan for the Menomonee River Watershed
  - Volume 1 - Inventory Findings and Forecasts, October 1976\*
  - Volume 2 - Alternative Plans and Recommended Plan, October 1976\*
- No. 27 - A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, November 1977\*
- No. 28 - A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000, June 1980
- No. 29 - A Regional Wastewater Sludge Management Plan for Southeastern Wisconsin, July 1978\*

## PLANNING REPORTS—continued

- No. 30 - A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000  
Volume 1 - Inventory Findings, September 1978\*  
Volume 2 - Alternative Plans, February 1979\*  
Volume 3 - Recommended Plan, June 1979\*
- No. 31 - A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982, April 1978
- No. 32 - A Comprehensive Plan for the Kinnickinnic River Watershed, December 1978\*
- No. 33 - A Primary Transit System Plan for the Milwaukee Area, June 1982
- No. 34 - A Transportation System Plan for the Milwaukee Northwest Side/Ozaukee County Study Area, August 1983
- No. 35 - A Comprehensive Plan for the Pike River Watershed, June 1983\*
- No. 36 - A Comprehensive Plan for the Oak Creek Watershed, August 1986
- No. 37 - A Water Resources Management Plan for the Milwaukee Harbor Estuary  
Volume 1 - Inventory Findings, March 1987\*  
Volume 2 - Alternative and Recommended Plans, December 1987\*
- No. 38 - A Regional Airport System Plan for Southeastern Wisconsin: 2010, May 1987
- No. 38 - 2nd Edition, A Regional Airport System Plan for Southeastern Wisconsin: 2010, November 1996\*
- No. 39 - A Freeway Traffic Management System Plan for the Milwaukee Area, November 1988\*
- No. 40 - A Regional Land Use Plan for Southeastern Wisconsin—2010, January 1992\*
- No. 41 - A Regional Transportation System Plan for Southeastern Wisconsin: 2010, December 1994\*
- No. 42 - A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, September 1997
- No. 43 - A Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2010, December 1994
- No. 44 - A Comprehensive Plan for the Des Plaines River Watershed, June 2003
- No. 45 - A Regional Land Use Plan for Southeastern Wisconsin: 2020, December 1997
- No. 46 - A Regional Transportation System Plan for Southeastern Wisconsin: 2020, December 1997
- No. 47 - A Regional Freeway System Reconstruction Plan for Southeastern Wisconsin, May 2003\*
- No. 48 - A Regional Land Use Plan for Southeastern Wisconsin: 2035, June 2006
- No. 49 - A Regional Transportation System Plan for Southeastern Wisconsin: 2035, June 2006
- No. 50 - A Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds, December 2007
- No. 51 - A Wireless Antenna Siting and Related Infrastructure Plan for Southeastern Wisconsin, September 2006
- No. 52 - A Regional Water Supply Plan for Southeastern Wisconsin  
Volume 1 - Chapters 1 – 2, December 2010  
Volume 2 – Appendices, December 2010
- No. 53 - A Regional Broadband Telecommunications Plan for Southeastern Wisconsin, October 2007
- No. 54 - A Regional Housing Plan for Southeastern Wisconsin: 2035, March 2013

## PLANNING GUIDES

- No. 1 - Land Development Guide, November 1963\*
- No. 1 - Second Edition, Land Division Control Guide, July 2001

## PLANNING GUIDES—continued

- No. 2 - Official Mapping Guide, February 1964
- No. 2 - 2nd Edition, Official Mapping Guide, June 1996
- No. 3 - Zoning Guide, April 1964\*
- No. 4 - Organization of Planning Agencies, June 1964\*
- No. 5 - Floodland and Shoreland Development Guide, November 1968\*
- No. 6 - Soils Development Guide, August 1969\*
- No. 7 - Rural Cluster Development Guide, December 1996\*

## TECHNICAL REPORTS

- No. 1 - Potential Parks and Related Open Spaces, September 1965\*
- No. 2 - Water Law in Southeastern Wisconsin, January 1966\*
- No. 2 - 2nd Edition, Water Law in Southeastern Wisconsin, December 1977\*
- No. 3 - A Mathematical Approach to Urban Design, January 1966\*
- No. 4 - Water Quality and Flow of Streams in Southeastern Wisconsin, November 1966\*
- No. 5 - Regional Economic Simulation Model, October 1966\*
- No. 6 - Planning Law in Southeastern Wisconsin, October 1966\*
- No. 6 - 2nd Edition, Planning Law in Southeastern Wisconsin, April 1977
- No. 7 - Horizontal and Vertical Survey Control in Southeastern Wisconsin, July 1968\*
- No. 7 - 2nd Edition, Horizontal and Vertical Survey Control in Southeastern Wisconsin, August 1990
- No. 7 - 3rd Edition, Horizontal and Vertical Survey Control in Southeastern Wisconsin, August 1996\*
- No. 8 - A Land Use Design Model
  - Volume 1 - Model Development, January 1968
  - Volume 2 - Model Test, October 1969
  - Volume 3 - Final Report, April 1973
- No. 9 - Residential Land Subdivision in Southeastern Wisconsin, September 1971
- No. 10 - The Economy of Southeastern Wisconsin, December 1972\*
- No. 10 - 2nd Edition, The Economy of Southeastern Wisconsin, May 1984
- No. 10 - 3rd Edition, The Economy of Southeastern Wisconsin, October 1995
- No. 10 - 4th Edition, The Economy of Southeastern Wisconsin, July 2004
- No. 11 - The Population of Southeastern Wisconsin, December 1972\*
- No. 11 - 2nd Edition, The Population of Southeastern Wisconsin, June 1984
- No. 11 - 3rd Edition, The Population of Southeastern Wisconsin, October 1995
- No. 11 - 4th Edition, The Population of Southeastern Wisconsin, July, 2004
- No. 10 - 5th Edition, The Economy of Southeastern Wisconsin, March, 2013
- No. 11 - 5th Edition, The Population of Southeastern Wisconsin, March, 2013
- No. 12 - A Short-Range Action Housing Program for Southeastern Wisconsin: 1972 and 1973, June 1972
- No. 13 - A Survey of Public Opinion in Southeastern Wisconsin, September 1974
- No. 14 - An Industrial Park Cost-Revenue Analysis in Southeastern Wisconsin: 1975, June 1975
- No. 15 - Household Response to Motor Fuel Shortages and Higher Prices in Southeastern Wisconsin, August 1976
- No. 16 - Digital Computer Model of the Sandstone Aquifer in Southeastern Wisconsin: April 1976
- No. 17 - Water Quality of Lakes and Streams in Southeastern Wisconsin: 1964-1975, June 1978

## TECHNICAL REPORTS—continued

- No. 18 - State of the Art of Water Pollution Control in Southeastern Wisconsin  
Volume 1 - Point Sources, July 1977  
Volume 2 - Sludge Management, August 1977  
Volume 3 - Urban Storm Water Runoff, July 1977  
Volume 4 - Rural Storm Water Runoff, December 1976
- No. 19 - A Regional Population Projection Model, October 1980
- No. 20 - Carpooling in the Metropolitan Milwaukee Area, March 1977
- No. 21 - Sources of Water Pollution in Southeastern Wisconsin: 1975, September 1978\*
- No. 22 - Recent Population Growth and Change in Southeastern Wisconsin: 1970-1977, September 1979
- No. 23 - Transit-Related Socioeconomic, Land Use, and Transportation Conditions and Trends in the Milwaukee Area, December 1980\*
- No. 24 - State-of-the-Art of Primary Transit System Technology, February 1981
- No. 25 - Alternative Futures for Southeastern Wisconsin, December 1980
- No. 26 - Milwaukee Area Alternative Primary Transit System Plan Preparation, Test, and Evaluation, March 1982
- No. 27 - Milwaukee Area Work Time Rescheduling Study, August 1981
- No. 28 - Evaluation of the Milwaukee Area Rideshare Program: 1972-1982, May 1983
- No. 29 - Industrial Land Use in Southeastern Wisconsin, November 1984\*
- No. 30 - The Development of an Automated Mapping and Land Information System: A Demonstration Project for the Town of Randall, Kenosha County, Wisconsin, December 1985
- No. 31 - Costs of Urban Nonpoint Source Water Pollution Control Measures, June 1991\*
- No. 32 - General Mitchell International Airport Enplaning Passenger Survey Findings: 1989, August 1990
- No. 33 - Integration of the Computer-Assisted Management and Planning System with a Parcel-Based Land Information System: A Demonstration Project in Kenosha County, September 1992
- No. 34 - A Mathematical Relationship between NAD27 and NAD83(91) State Plane Coordinates in Southeastern Wisconsin, December 1994
- No. 35 - Vertical Datum Differences in Southeastern Wisconsin, December 1995
- No. 36 - Lake Michigan Shoreline Recession and Bluff Stability in Southeastern Wisconsin: 1995, December 1997
- No. 37 - Groundwater Resources of Southeastern Wisconsin, June 2002\*
- No. 39 - Water Quality Conditions and Sources of Pollution in the Greater Milwaukee Watersheds, November 2007
- No. 40 - Rainfall Frequency in the Southeastern Wisconsin Region, April 2000
- No. 41 - A Regional Aquifer Simulation Model for Southeastern Wisconsin, June 2005
- No. 42 - Municipal Fiscal Capacity Analysis for Southeastern Wisconsin, July 2005
- No. 43 - State-of-the-Art of Water Supply Practices, July 2007
- No. 44 - Water Supply Law, April 2007
- No. 45 - Technical Review and Revaluation of the Regional Control Survey Program in Southeastern Wisconsin, March 2008
- No. 46 - Groundwater Budget Indices and Their Use in Assessing Water Supply Plans for Southeastern Wisconsin, February 2010
- No. 47 - Groundwater Recharge in Southeastern Wisconsin Estimated by a GIS - Based Water – Balanced Model, July 2008

## TECHNICAL REPORTS—continued

- No. 48 - Shallow Groundwater Quantity Sustainability Analysis Demonstration for the Southeastern Wisconsin Region, November 2009
- No. 49 - Bidirectional Transformation of Legacy and Current Survey Control Data Within Southeastern Wisconsin, May 2010

## COMMUNITY ASSISTANCE PLANNING REPORTS

- No. 1 - Residential, Commercial, and Industrial Neighborhoods, City of Burlington and Environs, February 1973
- No. 2 - Alternative Land Use and Sanitary Sewerage System Plans for the Town of Raymond: 1990, January 1974
- No. 3 - Racine Area Transit Development Program: 1975-1979, June 1974
- No. 4 - Floodland Information Report for the Rubicon River, City of Hartford, Washington County, Wisconsin, December 1974
- No. 5 - Drainage and Water Level Control Plan for the Waterford-Rochester-Wind Lake Area of the Lower Fox River Watershed, May 1975
- No. 6 - A Uniform Street Naming and Property Numbering System for Racine County, Wisconsin, November 1975\*
- No. 7 - Kenosha Area Transit Development Program: 1976-1980, March 1976\*
- No. 8 - Analysis of the Deployment of Paramedic Emergency Medical Services in Milwaukee County, April 1976\*
- No. 9 - Floodland Information Report for the Pewaukee River, Village of Pewaukee, Waukesha County, Wisconsin, October 1976
- No. 9 - 2nd Edition, Floodland Information Report for the Pewaukee River, Village of Pewaukee, Waukesha County, Wisconsin, March 1985
- No. 10 - Land Use and Arterial Street System Plans, Village of Jackson, Washington County, Wisconsin, December 1976
- No. 11 - Floodland Information Report for Sussex Creek and Willow Springs Creek, Village of Sussex, Waukesha County, Wisconsin, March 1977\*
- No. 12 - Waukesha Area Transit Development Program: 1977-1981, January 1977\*
- No. 13 - Flood Control Plan for Lincoln Creek, Milwaukee County, Wisconsin, September 1977
- No. 13 - 2nd Edition, Flood Control Plan for Lincoln Creek, Milwaukee County, Wisconsin, September 1982\*
- No. 14 - Floodland Management Plan for the Village of Pewaukee, February 1978
- No. 15 - Off-Airport Land Use Development Plan for General Mitchell Field and Environs: 1977, May 1977\*
- No. 16 - A Plan for the Whittier Neighborhood, City of Kenosha and Town of Pleasant Prairie, Kenosha County, Wisconsin, June 1977\*
- No. 17 - A Plan for the Jefferson Park Neighborhood, Village of Germantown, Washington County, Wisconsin, March 1978
- No. 18 - A Land Use Plan for the Town of Erin: 2000, July 1978\*
- No. 19 - Storm Water Storage Alternatives for the Crossway-Bridge and Port Washington-Bayfield Drainage Area in the Village of Fox Point, Milwaukee County, Wisconsin, August 1977\*
- No. 20 - A Rail Transportation Service Plan for the East Troy Area, September 1977
- No. 21 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1978, December 1977\*



## COMMUNITY ASSISTANCE PLANNING REPORTS—continued

- No. 22 - Alternative and Recommended Land Use Plans for the Town of Genesee: 2000, February 1978
- No. 23 - A Park and Recreation Plan for Ozaukee County, August 1978
- No. 24 - A Park and Open Space Plan for the Village of Darien, Walworth County, Wisconsin, December 1978\*
- No. 25 - A Plan for the Delrock Neighborhood, City of Delavan, Walworth County, Wisconsin, January 1979\*
- No. 26 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1979, December 1978
- No. 27 - A Park and Open Space Plan for the Town of Eagle, Waukesha County, Wisconsin, April 1979
- No. 28 - Oconomowoc Area Traffic Management Plan, City of Oconomowoc, Waukesha County, Wisconsin, December 1979
- No. 29 - A Development Plan for the Quarry Ridge Neighborhood, City of Burlington, Racine County, Wisconsin, July 1979\*
- No. 30 - Whitewater Area Rail Service Plan, August 1979\*
- No. 31 - Waukesha Area Transit Development Program: 1981-1985, February 1980\*
- No. 32 - Recommended Electronic Data Processing and Transmittal System for Criminal Justice Agencies in Southeastern Wisconsin, September 1979\*
- No. 33 - A Land Use Plan for the Town of Fredonia: 2000, September 1979
- No. 33 - 2nd Edition, A Land Use Plan for the Town of Fredonia: 2010, Ozaukee County, Wisconsin, January 1999
- No. 34 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1980, December 1979\*
- No. 35 - Sanitary Sewer Service Area for the City of West Bend, Washington County, Wisconsin, December 1982
- No. 35 - 2nd Edition, Sanitary Sewer Service Area for the City of West Bend and Environs, Washington County, Wisconsin, June 1998\*
- No. 36 - A Land Use Plan for the Village of Germantown: 2000, Village of Germantown, Washington County, Wisconsin, July 1980\*
- No. 37 - A Nonpoint Source Water Pollution Control Plan for the Root River Watershed, March 1980\*
- No. 38 - A Land Use and Traffic Circulation Plan for the Village of Fredonia: 2000, Ozaukee County, Wisconsin, September 1980\*
- No. 39 - A Public Transit System Accessibility Plan
  - Volume 1 - Kenosha Urbanized Area, June 1980
  - Volume 2 - Milwaukee Urbanized Area, Milwaukee County, May 1980
  - Volume 3 - Racine Urbanized Area, June 1980
  - Volume 4 - Milwaukee Urbanized Area, Waukesha County, June 1980
- No. 40 - Recommended Locations for Motor Vehicle Inspection and Emissions Test Facilities in the Southeastern Wisconsin Region, October 1980\*
- No. 41 - A Park and Open Space Plan for the Kenosha Planning District, Kenosha, Wisconsin, December 1980\*
- No. 42 - A Park and Open Space Plan for the Town and Village of Pewaukee, Waukesha County, Wisconsin, October 1980
- No. 43 - A Development Plan for the Woodview Neighborhood, City of Franklin, Milwaukee County, Wisconsin, September 1980\*
- No. 44 - Proposed Public Transit Service Improvements: 1980, Waukesha County, Wisconsin, July 1980\*

## COMMUNITY ASSISTANCE PLANNING REPORTS—continued

- No. 45 - A Farmland Preservation Plan for Kenosha County, Wisconsin, June 1981\*
- No. 46 - A Farmland Preservation Plan for Racine County, Wisconsin, August 1981\*
- No. 46 - 2nd Edition, A Farmland Preservation Plan for Racine County, Wisconsin, December 2013
- No. 47 - A Water Quality Management Plan for Lac La Belle, Waukesha County, Wisconsin, December 1980\*
- No. 47 - 2nd Edition, A Water Quality Management Plan for Lac LaBelle, Waukesha County, Wisconsin, May 2007
- No. 48 - A Water Quality Management Plan for Ashippun Lake, Waukesha County, Wisconsin, January 1982
- No. 48 - 2nd Edition, A Lake Management Plan for Ashippun Lake, Waukesha County, Wisconsin, May 2007
- No. 49 - A Land Use and Traffic Circulation Plan for the Village of Hartland: 2000, Waukesha County, Wisconsin, July 1981
- No. 50 - A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981, June 1981
- No. 51 - A Land Use Plan for the Village of Sussex: 2000, Waukesha County, Wisconsin, January 1982\*
- No. 52 - Housing Opportunities Guide for the Southeastern Wisconsin Region, December 1980
- No. 53 - A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin, August 1981\*
- No. 53 - 2nd Edition, A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin, December 2003
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- No. 191 -A Lake Protection Plan for Cravath and Trippe Lakes, Walworth County, Wisconsin, April 2011

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- No. 192 -An Aquatic Plant Management Plan for Lake Shangrila and Benet Lake, Kenosha County, Wisconsin, March 2010
- No. 193 -A Lake Protection Plan for Powers Lake, Kenosha and Walworth Counties, Wisconsin, November 2011
- No. 194 -Stream Habitat Conditions and Biological Assessment of the Kinnickinnic and Menomonee River Watersheds: 2000-2009, January 2010
- No. 196 -Assessment of Conformity of the Year 2035 Regional Transportation Plan and the Year 2009-2012 Transportation Improvement Program with Respect to the State of Wisconsin Air Quality Implementation Plan—Six County Southeastern Wisconsin Ozone Nonattainment Area and Three County Fine Particulate (PM<sub>2.5</sub>) Nonattainment Area, June 2010
- No. 197 -Review, Update, and Reaffirmation of the Year 2035 Regional Transportation Plan, December 2010
- No. 199 -Southeastern Wisconsin Fox River Commission Implementation Plan: 2011-2020, September 2011
- No. 200 -Comparison of the Relationship of Alternative 2010 Orthophotographs for Milwaukee County to National Map Accuracy Standards, June 2011
- No. 201 -Study of a Lake Parkway (STH 794) Extension from Edgerton Avenue to STH 100 in Milwaukee County, April 2012
- No. 202 -Comparison of the Relationship of Alternative 2010 Orthophotographs for Milwaukee County to National Map Accuracy Standards, June 2011
- No. 203 -Regional Transportation Operations Plan for Southeastern Wisconsin: 2012-2016, May 2012
- No. 204 -Development of a Framework for a Watershed-Based Municipal Stormwater Permit for the Menomonee River Watershed, January 2013
- No. 205 -Assessment of Conformity of the Year 2035 Regional Transportation Plan and the Year 2013-2016 Transportation Improvement Program for the 1997 and 2008 Eight-Hour Ozone and 2006 24-Hour Fine Particulate National Ambient Air Quality Standards, October 2012
- No. 206 -Estimate of the Costs of Converting the Foundational Elements of the Land Information and Public Works Management Systems in Southeastern Wisconsin from Legacy to New Datums, October 2012
- No. 207 -Public Transit–Human Services Transportation Coordination Plan for Kenosha County: 2012, February 2013
- No. 208 -Public Transit–Human Services Transportation Coordination Plan for Milwaukee County: 2012, February 2013
- No. 209 -Public Transit–Human Services Transportation Coordination Plan for Ozaukee County: 2012, February 2013
- No. 210 -Public Transit–Human Services Transportation Coordination Plan for Racine County: 2012, February 2013
- No. 211 -Public Transit–Human Services Transportation Coordination Plan for Walworth County: 2012, February 2013
- No. 212 -Public Transit–Human Services Transportation Coordination Plan for Washington County: 2012, February 2013
- No. 213 -Public Transit–Human Services Transportation Coordination Plan for Waukesha County: 2012, February 2013
- No. 214 -An Aquatic Plant Management Plan for Saratoga Lake, Waukesha County, Wisconsin, February 2014
- No. 215 -Review and Update of the Year 2035 Regional Transportation Plan, June 2014

## MEMORANDUM REPORTS—continued

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

## ECONOMIC DEVELOPMENT PROFILES

Economic Development Profiles have been prepared for the Southeastern Wisconsin Region, for each of the seven counties in the Region, for the Milwaukee Metropolitan Statistical Area, and for the following communities within each of the seven counties:

Kenosha County	Ozaukee County	Walworth County	Waukesha County
City of Kenosha	City of Cedarburg	City of Delavan	City of Brookfield
Village of Pleasant Prairie	City of Mequon	City of Elkhorn	City of Delafield
Town of Bristol	City of Port Washington	City of Lake Geneva	City of Muskego
	Village of Belgium	City of Whitewater	City of New Berlin
Milwaukee County	Village of Fredonia	Village of Darien	City of Oconomowoc
City of Cudahy	Village of Grafton	Village of East Troy	City of Pewaukee
City of Franklin	Village of Saukville	Village of Walworth	City of Waukesha
City of Glendale	Village of Thiensville		Village of Butler
City of Greenfield			Village of Dousman
City of Milwaukee	Racine County	Washington County	Village of Eagle
City of Oak Creek	City of Burlington	City of Hartford	Village of Elm Grove
City of St. Francis	City of Racine	City of West Bend	Village of Hartland
City of South Milwaukee	Village of Rochester	Village of Germantown	Village of Menomonee Falls
City of Wauwatosa	Village of Sturtevant	Village of Jackson	Village of Mukwonago
City of West Allis	Village of Union Grove	Village of Kewaskum	Village of Pewaukee
Village of Brown Deer	Village of Waterford	Village of Slinger	Village of Sussex
Village of Hales Corners	Town of Caledonia		
Village of West Milwaukee	Town of Mt. Pleasant		
	Town of Yorkville		

## LAKE USE REPORTS-FOX RIVER WATERSHED

### Kenosha County

No. FX-40, Benedict Lake  
No. FX-12, Camp Lake  
No. FX-27, Center Lake  
No. FX-35, Cross Lake  
No. FX-45, Dyer Lake\*  
No. FX-7, Elizabeth Lake

No. FX-34, Lilly Lake\*  
No. FX-17, Marie Lake\*  
No. FX-13, Powers Lake\*  
No. FX-11, Silver Lake\*  
No. FX-45, Voltz Lake

### Racine County

No. FX-25, Bohner Lake  
No. FX-15, Browns Lake  
No. FX-9, Eagle Lake  
No. FX-42, Echo Lake\*  
No. FX-32, Kee Nong Go-Mong Lake

No. FX-29, Long Lake\*  
No. FX-6, Waterford-Tichigan Lakes\*  
No. FX-26, Waubeesee Lake  
No. FX-5, Wind Lake\*

### Walworth County

No. FX-41, Army Lake  
No. FX-40, Benedict Lake  
No. FX-7, Beulah Lake  
No. FX-31, Booth Lake  
No. FX-4, Como Lake\*  
No. FX-1, Lake Geneva  
No. FX-Lauderdale Lakes\*  
(17, Green Lake,  
20, Middle Lake,  
18, Mill Lake)

No. FX-39, Lulu Lake  
No. FX-21, North Lake  
No. FX-37, Pell Lake  
No. FX-43, Peters Lake\*  
No. FX-25, Pleasant Lake  
No. FX-24, Potters Lake\*  
No. FX-38, Silver Lake  
No. FX-30, Wandawega Lake

### Waukesha County

No. FX-3, Big Muskego Lake\*  
No. FX-23, Denoon Lake  
No. FX-19, Eagle Spring Lake\*  
No. FX-10, Little Muskego Lake\*

No. FX-14, Lower Phantom Lake  
No. FX-2, Pewaukee Lake\*  
No. FX-34, Spring Lake  
No. FX-33, Upper Phantom Lake

## LAKE USE REPORTS-MILWAUKEE RIVER WATERSHED

### Fond du Lac County

No. ML-2, Long Lake\*  
No. ML-9, Auburn Lake  
No. ML-21, Forest Lake  
No. ML-12, Mauthe Lake\*  
No. ML-18, Mud Lake\*  
No. ML-5, Kettle Moraine Lake\*

### Ozaukee County

No. ML-4, Mud Lake  
No. ML-17, Spring Lake

### Sheboygan County

No. ML-6, Random Lake\*  
No. ML-10, Crooked Lake\*  
No. ML-7, Lake Ellen\*

### Washington County

No. ML-3, Little Cedar Lake\*  
No. ML-14, Green Lake\*  
No. ML-19, Lake Twelve\*  
No. ML-13, Lucas Lake  
No. ML-11, Smith Lake\*  
No. ML-20, Wallace Lake\*  
No. ML-15, Barton Pond  
No. ML-1, Big Cedar Lake\*  
No. ML-8, Silver Lake\*  
No. ML-16, West Bend Pond

## TECHNICAL RECORDS

### Volume 1-No. 1, October-November 1963\*

Regional Planning in Southeastern Wisconsin  
by Kurt W. Bauer, Executive Director  
The SEWRPC Land Use-Transportation Study  
by J. Robert Doughty, Study Director  
Home Interview Sample Selection-Part I  
by Kenneth J. Schlager, Chief Systems Engineer  
Truck and Taxi Sample Selection  
by Thomas A. Winkel, Urban Planning Supervisor  
A Backward Glance: Early Toll Roads in Southeastern Wisconsin  
by Richard E. Rehberg, Editor

### Volume 1-No. 2, December 1963-January 1964

Arterial Network and Traffic Analysis Zones  
by Richard B. Sheridan, Chief Transportation Planner  
Conducting the Household Postal Questionnaire Survey  
by Wade G. Fox, Cartography and Design Supervisor  
Conducting the Home Interview Survey  
by Sheldon W. Sullivan, Administrative Officer  
Aerial Photographs and Their Use in the Land Use Inventory  
by Harlan E. Clinkenbeard, Land Use Planning Chief  
A Backward Glance: The U. S. Public Land Survey in Southeastern Wisconsin  
by Richard E. Rehberg, Editor

### Volume 1-No. 3, February-March 1964

Conducting the Truck and Taxi Survey  
by Sheldon W. Sullivan, Administrative Officer  
Conducting the Truck and Taxi Postal Questionnaire Survey  
by Wade G. Fox, Cartography and Design Supervisor  
Conducting the External Survey  
by William E. Creger, P.E., Traffic Operations Engineer  
Rail and Transit Inventory and Design of the Transit Network  
by David A. Kuemmel, P.E., Transportation Planning Engineer  
A Backward Glance: The Man-Made Ice Age  
by Richard E. Rehberg, Editor

### Volume 1-No. 4, April-May 1964\*

The Application of Soil Studies to Regional Planning  
by Kurt W. Bauer, Executive Director  
Coding  
by Wade G. Fox, Cartography and Design Supervisor, and Robert L. Fisher, Coding Supervisor  
Inventory of Existing Outdoor Recreation Facilities and Historic Sites in Southeastern Wisconsin  
by Theodore F. Lauf, Research Analyst  
Inventory of Potential Park and Related Open Space Sites  
by Karl W. Holzwarth, Landscape Architect  
A Backward Glance: The Electric Interurban Railway  
by Richard E. Rehberg, Editor



## TECHNICAL RECORDS—continued

### Volume 1-No. 5, June-July 1964

Reconciliation of Sample Coverage in the Internal O & D Surveys  
by Eugene G. Muhich, P.E., Transportation Planning Engineer  
The Contingency Check Program  
by Wade G. Fox, Cartography and Design Supervisor  
Inventory of the Arterial Street Network  
by William T. Wambach, Jr., P.E.  
A Backward Glance: The Milwaukee and Rock River Canal  
by James E. Seybold, Editor

### Volume 1-No. 6, August-September 1964

Checking the Network Description for Arterial Highway and Transit Networks  
by Richard B. Sheridan, Chief Transportation Planner  
A Study of the Water Quality and Flow of Streams in Southeastern Wisconsin  
by Roy W. Ryling, Hydrologist  
Expanding the Origin-Destination Sample  
by Richard B. Sheridan, Chief Transportation Planner, and  
Wade G. Fox, Cartography and Design Supervisor  
A Backward Glance: Greendale-Garden City in Wisconsin  
by Kurt W. Bauer, Executive Director

### Volume 2-No. 1, October-November 1964\*

Simulation Models in Urban and Regional Planning  
by Kenneth J. Schlager, Chief Systems Engineer

### Volume 2-No. 2, December 1964-January 1965

Capacity of Arterial Network Links  
by Richard B. Sheridan, Chief Transportation Planner  
The ABC Method of Current Population Estimating  
by Donald L. Gehrke, Economics and Population Analyst, and  
Orlando E. Delogu, Financial Resources and Legal Analyst  
O & D Surveys Accuracy Checks  
by Eugene G. Muhich, P.E., Transportation Planning Engineer  
A Backward Glance: Railroad Transportation in Southeastern Wisconsin  
by Patricia J. Tegge, Editor

### Volume 2-No. 3, February-March 1965

Determination of Historical Flood Frequency for the Root River of Wisconsin  
by James C. Ringenoldus, P.E., Harza Engineering Company  
The Regional Multiplier  
by Kenneth J. Schlager, Chief Systems Engineer  
A Backward Glance: The Street Railway in Milwaukee  
by Henry M. Mayer, Administrative Assistant, Milwaukee & Suburban Transport Corporation

### Volume 2-No. 4, April-May 1965\*

Determination of Runoff for Urban Storm Water Drainage System Design  
by Kurt W. Bauer, Executive Director

## TECHNICAL RECORDS—continued

### Volume 2-No. 5, June-July 1965

Screen Line Adjustment of Trip Data

by Richard B. Sheridan, P.E., Chief Transportation Planner

Inventory of Land Development Regulations in Southeastern Wisconsin

by William J. Kockelman, Chief Community Assistance Planner

A Backward Glance: Highway Development in Southeastern Wisconsin-Part I

by Jean C. Meier, Librarian and Research Assistant

### Volume 2-No. 6, August-September 1965

A Modal Split Model for Southeastern Wisconsin

by Edward Weiner, Highway Engineer

### Volume 3-No. 1, 1968

Transit System Development Standards

by Edward Weiner, Transportation Planning Engineer

Modified Rapid Transit Service in the Southeastern Wisconsin Region

by Sheldon W. Sullivan, Administrative Officer

A Backward Glance: Highway Development in Southeastern Wisconsin-Part II

by Jean C. Meier, Research Assistant, and Sheldon W. Sullivan, Administrative Officer

### Volume 3-No. 2, 1969

Characteristics of Travel in the Milwaukee Central Business District

by Sheldon W. Sullivan, Administrative Officer

Computing the Center of Population and the Geographic Center

by Wayne H. Faust, Associate Planner

A Backward Glance: Downtown Yesterdays

by Gerald P. Caffrey, Milwaukee Municipal Reference Librarian

### Volume 3-No. 3, September 1971\*

Hydrogeologic Considerations in Liquid Waste Disposal, with a Case Study in Southeastern Wisconsin

by Martha J. Ketelle, Department of Geology and Geophysics, University of Wisconsin-Madison

### Volume 3-No. 4, September 1971

Characteristics of Air and Ground Travel Generated by General Mitchell Field Airport Terminal: May 1968

by Sheldon W. Sullivan, Chief of Data Collection

Shifts in Centers of Population within the Region: 1960-1970

by Wayne H. Faust, Associate Planner

A Backward Glance: The Development of General Mitchell Field

by Sheldon W. Sullivan, Chief of Data Collection

## TECHNICAL RECORDS—continued

### Volume 3-No. 5, March 1973\*

- Freeway Flyer Service in Southeastern Wisconsin-A Progress Report: 1964-1971  
by Sheldon W. Sullivan, Chief of Data Collection
- Development of Equations for Rainfall Intensity-Duration-Frequency Relationship  
by Stuart G. Walesh, Water Resources Engineer
- A Backward Glance: The American Automobile-A Brief History of the Development  
of the American Automobile and the Growth of Automobile Registrations in the  
United States, Wisconsin, and the Southeastern Wisconsin Region: 1896-1970  
by Sheldon W. Sullivan, Chief of Data Collection

### Volume 3-No. 6, April 1976\*

- Floodland Management: The Environmental Corridor Concept  
by Stuart G. Walesh, SEWRPC Water Resources Engineer
- Characteristics of Travel in the Milwaukee Central Business District: 1963 and 1972  
by Sheldon W. Sullivan, SEWRPC Chief of Data Collection, and Jean Lusk, SEWRPC Research Analyst
- The Changing Factorial Ecology of Milwaukee's Black Ghetto  
by Harold McConnell, Richard A. Karsten, and Marilyn Ragusa
- A Backward Glance: Environmental Corridors of Yesterday and Today  
by Dr. Jeremy M. Katz, Research Psychologist, and Jeanne Sollen, Editor

### Volume 4-No. 1, March 1978\*

- A Backward Glance: Milwaukee's Water Story  
by Milwaukee Water Works
- Is There a Groundwater Shortage in Southeastern Wisconsin?  
by Douglas S. Cherkauer and Vinton W. Bacon, University of Wisconsin-Milwaukee
- An Overview of the Sources of Water Pollution in Southeastern Wisconsin  
by Kurt W. Bauer, Executive Director, SEWRPC
- The Effect of Sample Rate on Socioeconomic and Travel Data Obtained through Standard Home Interview  
by Jean Lusk, SEWRPC Planner

### Volume 4-No. 2, March 1981\*

- Refining the Delineation of the Environmental Corridors in Southeastern Wisconsin  
by Bruce P. Rubin, Chief Land Use Planner, SEWRPC, and  
Gerald H. Emmerich, Jr., Senior Planner, SEWRPC
- Water Quality and Quantity Simulation Modeling for the Areawide  
Water Quality Management Planning Program for Southeastern Wisconsin  
by Thomas R. Sear, P.E., Senior Water Resources Engineer, SEWRPC
- Evaluation of a Water Quality Standard for Total Phosphorus  
in Flowing Streams in Southeastern Wisconsin  
by David B. Kendzierski, Senior Planner, SEWRPC
- Bibliography of Lake Michigan Shore Erosion and Nearshore Process Studies  
by Norman P. Lasca, Professor, Department of Geological Sciences and Center for Great Lakes Studies,  
University of Wisconsin-Milwaukee, and David Baier, Warren Baumann, Patrick Curth, and Jan H. Smith,  
Geologists, Department of Geological Sciences and Center for Great Lakes Studies, University of  
Wisconsin-Milwaukee
- A Backward Glance: Historic Evolution of the Local Governmental Structure in Southeastern Wisconsin  
by Eileen Hammer

## TECHNICAL RECORDS—continued

### Volume 4-No. 3, February 1982

Preservation of Scientifically and Historically Important Geologic Sites in Milwaukee County, Wisconsin  
by Donald G. Mikulic, Staff Geologist, Illinois State Geological Survey, and Joanne Kluessendorf,  
Geologic Research Assistant, Illinois State Geological Survey, Champaign, Illinois  
Inventory of Solid Waste Management Facilities in Southeastern Wisconsin: 1980  
by Robert P. Biebel, Principal Engineer, SEWRPC, and Joseph E. Stuber, Senior Engineer, SEWRPC  
Inventory Findings of Cannonball Passenger Surveys: 1980 and 1971  
by Jean M. Lusk, SEWRPC Planner  
A Backward Glance: Historic Evolution of the Local Governmental Structure in Southeastern Wisconsin  
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### Volume 4-No. 4, February 1984

Characteristics of Travel in Six Major Attractors in the Southeastern Wisconsin Region  
by Jean M. Lusk, SEWRPC Planner, and John L. Zastrow, SEWRPC Senior Specialist  
Shopping Centers: Characteristics of Travel—1963-1972  
by Jean M. Lusk, SEWRPC Planner, and John L. Zastrow, SEWRPC Senior Specialist  
A Backward Glance: Historic Evolution of the Local Governmental Structure in Southeastern Wisconsin  
by Eileen Hammer

### Volume 4-No. 5, December 1989

Review and Analysis of Lake Michigan Water Levels at Milwaukee, Wisconsin  
by David P. Kendzierski, SEWRPC Principal Planner  
Lake Levels and Datum Differences  
by Kurt W. Bauer, SEWRPC Executive Director  
A Backward Glance—A History of Storm Damage and Protective Measures in Milwaukee Harbor  
by Bruce W. Jordan, M.A.

### Volume 4-No. 6, December 1993\*

Interpreting Soils of Southeastern Wisconsin for Onsite Disposal of Household Sewage  
by Marvin T. Beatty, Ph.D., Professor Emeritus of Soil Science, University of Wisconsin-Madison  
Shifts in Centers of Population within the Region: 1963-1990  
by Donald G. Dittmar, SEWRPC Senior Specialist  
Methodology for Review of Challenges to Wetland Field Delineations Conducted  
by the Southeastern Wisconsin Regional Planning Commission  
by Donald M. Reed, SEWRPC Chief Biologist  
A Backward Glance—Unincorporated Settlements in Southeastern Wisconsin  
by Arno M. Klausmeier, SEWRPC Librarian, with Assistance from Scott K. Enk, SEWRPC Senior Editor

## ANNUAL REPORTS

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and 2013

## CONFERENCE PROCEEDINGS

1st Regional Planning Conference, December 6, 1961\*  
2nd Regional Planning Conference, November 4, 1962\*  
3rd Regional Planning Conference, November 20, 1963\*  
4th Regional Planning Conference, May 12, 1965\*  
5th Regional Planning Conference, October 26, 1966\*  
6th Regional Planning Conference, May 6, 1969  
7th Regional Planning Conference, January 19, 1972  
8th Regional Planning Conference, October 16, 1974  
Regional Conference on Sanitary Sewerage System User and  
Industrial Waste Treatment Recovery Charges, July 18, 1974  
9th Regional Planning Conference, April 14, 1976  
10th Regional Planning Conference, March 15, 1978  
11th Regional Planning Conference, April 19, 1979  
12th Regional Planning Conference, January 31, 1980\*  
13th Regional Planning Conference, November 9, 1983  
14th Regional Planning Conference, May 13, 1985  
15th Regional Planning Conference, November 14, 1988  
16th Regional Planning Conference, May 5, 1992  
17th Regional Planning Conference, June 27, 1994

## NEWSLETTERS

SEWRPC Newsletter, Volume 2 through Volume 42, Number 4  
SEWRPC Freeway System Study Newsletter, Nos. 1 through 5  
SEWRPC Review and Update of Regional Land Use and  
Transportation System plans for Southeastern Wisconsin Nos. 1 through 4  
Milwaukee County Transit System Development Plan: 2007-2011  
Year 2035 Regional Land Use and Transportation System Plans for Southeastern  
Wisconsin, Number 5  
Summary of Proposed Comprehensive Broadband Telecommunications Plan for  
Southeastern Wisconsin  
Regional Water Supply Plan for Southeastern Wisconsin—Nos. 1 through 4  
Summary of A Regional Water Quality Management Plan Update for the  
Greater Milwaukee Watersheds  
Assessment of Lake Michigan Shoreline Erosion Control Structures in Racine County  
Milwaukee County Transit System Development Plan: 2009-2013, Transit Service Improvement  
Natural Areas and Critical Species Habitat Plan Update for Southeastern Wisconsin  
Year 2035 Regional Housing Plan for Southeastern Wisconsin—Nos. 1 through 3  
Racine County Transit Plan: 2011-2015  
Preliminary Recommended Jurisdictional Highway System Plan for Walworth County  
Kenosha County Transit Development Plan: 2012-2016  
Year 2035 Regional Housing Plan for Southeastern Wisconsin, Number 4  
A Regional Water Quality Management Plan Update for the Greater Milwaukee Watersheds  
The Economy and Population of the Southeastern Wisconsin Region  
VISION 2050: Guiding the Vision  
Regional Planning News, Volume 1, Issues 1 and 2



## TRANSPORTATION IMPROVEMENT PROGRAMS

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1978-1982, December 1977\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1979-1983, December 1978\*

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A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981-1985, December 1980\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1982-1986, December 1981\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1983-1987, December 1982\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1984-1988, December 1983\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1985-1989, December 1984\*

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A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1987-1991, December 1986\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1988-1992, December 1987\*

A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1989-1993, December 1988

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A Transportation Improvement Program for Southeastern Wisconsin: 1995-1997, November 1994

A Transportation Improvement Program for Southeastern Wisconsin: 1997-1999, September 1996

A Transportation Improvement Program for Southeastern Wisconsin: 1998-2000, November 1997

A Transportation Improvement Program for Southeastern Wisconsin: 2000-2002, February 2000

A Transportation Improvement Program for Southeastern Wisconsin: 2002-2004, February 2002

A Transportation Improvement Program for Southeastern Wisconsin: 2004-2006, December 2003

A Transportation Improvement Program for Southeastern Wisconsin: 2005-2007, January 2005

A Transportation Improvement Program for Southeastern Wisconsin: 2007-2010, December 2006

A Transportation Improvement Program for Southeastern Wisconsin: 2009-2012, March 2009

A Transportation Improvement Program for Southeastern Wisconsin: 2011-2014, February 2010

A Transportation Improvement Program for Southeastern Wisconsin: 2013-2016, October 2012

A Transportation Improvement Program for Southeastern Wisconsin: 2015-2018, November 2014

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Economic Development Planning Staff Memorandum No. 94-01, Southeastern Wisconsin Region  
Industrial/Business Park Directory: July 1994, August 1994

Scope of Work for a Detailed Planning Study of Commuter Rail and Bus Alternatives in the Kenosha-Racine-Milwaukee Corridor, July 1998

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Job Access and Reverse Commute Regional Transportation Plan, December 1998

Scope of Work, A Regional Freeway System Reconstruction Study for Southeastern Wisconsin,  
December 2000

SEWRPC Staff Memorandum, Water Quality Sample Evaluation for Silver Lake, Waukesha County, December  
2014

\*Out of print.



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