PLAN IMPLEMENTATION 3

REVISED DRAFT

INTRODUCTION

The recommended year 2050 regional land use and transportation plan ("VISION 2050") described in Chapter 1 of this volume provides a design for the attainment of the specific regional land use and transportation system development objectives set forth in Chapter 3 of Volume II. In a practical sense, however, the plan is not complete until the steps required to implement the plan—that is, to convert the plan into action policies and programs—are specified. Accordingly, this chapter is presented as a guide for use in the implementation of VISION 2050.

More specifically, this chapter outlines the actions that should be taken by various agencies and units of government in efforts to implement VISION 2050. Part I of this chapter describes plan implementation recommendations with respect to the land use component of the plan. Part II describes the implementation recommendations with respect to the transportation system. Part III describes the process for plan adoption, endorsement, and integration.

Because the Regional Planning Commission is an advisory agency, implementation of VISION 2050 will be entirely dependent upon the actions taken by local, county, areawide, State, and Federal agencies of government. Agencies and units of government that have a role in plan implementation are listed in Table 3.1. While this chapter focuses on the role of the various units and agencies of government, it should be recognized that implementation of VISION 2050 depends as well upon the cooperation of a myriad of private interests. These private sector interests range from businesses, developers, builders, and engineering and design consultants—who have a major influence on development patterns in the Region—to private conservancy groups that play an increasingly important role in the protection and management of environmentally significant open spaces.

Table 3.1
Summary of VISION 2050 Implementation Responsibilities

Agencies	Plan Endorsement and Integration	Preparation of Local Refinements of Regional Plan	Administration of General Zoning, Land Division Regulations, and Official Mapping	Administration of Other Regulatory Mechanisms[a]	Implementation and Coordination of Public Utilities/ Facilities	Park and Open Space Acquisition	Urban Revitalization: Planning and Administration of Related Support Programs	Planning-Related Financial and Technical Assistance	Planning-Related Education	Transportation Conformity
Local Level Agencies										
County Boards of Supervisors	X	X	X	X	X	X	X	X	X	- -
County Planning Committees and Park and Planning Commissions	X	X	X	X	X	X	X	X	X	- -
County Highway, Transit, and Public Works Committees	X	X	- -	- -	X	- -	- -	- -	- -	- -
County Land Conservation Committees	X	- -	- -	- -	- -	- -	- -	X	- -	- -
City Councils, Village Boards, and Town Boards	X	X	X	X	X	X	X	X	X	- -
City, Village, and Town Plan Commissions	X	X	X	X	- -	- -	X	X	X	- -
City, Village, and Town Boards of Public Works	X	X	- -	- -	X	- -	- -	- -	- -	- -
City Transit Commissions	X	X	- -	- -	X	- -	- -	- -	- -	- -
County Drainage Boards and Drainage Districts	X	- -	- -	- -	X	- -	- -	- -	- -	- -
Sanitary and Utility Districts	X	- -	- -	- -	X	- -	- -	- -	- -	- -
Community Development Authorities	X	- -	- -	- -	- -	- -	X	- -	- -	- -
Lake Management Districts	X	- -	- -	- -	X	X	- -	- -	- -	- -
County Economic Development Corporations	X	- -	- -	- -	- -	- -	X	X	- -	- -
Areawide Agencies										
Metropolitan Sewerage Districts	X	- -	- -	- -	X	X	- -	X	- -	- -
Cooperative Contract Commissions	X	- -	- -	- -	X	- -	- -	- -	- -	- -
Regional Planning Commission	X	- -	- -	- -	X	- -	- -	X	X	X
State Level Agencies										
University of Wisconsin-Extension	X	- -	- -	- -	- -	- -	- -	X	X	- -
Wisconsin Department of Administration	X	- -	- -	- -	- -	- -	- -	X	- -	- -
Wisconsin Department of Agriculture, Trade and Consumer Protection	X	- -	- -	- -	- -	- -	- -	- -	X	- -
Wisconsin Department of Safety and Professional Services	X	- -	- -	X	X	- -	- -	- -	- -	- -
Wisconsin Department of Natural Resources	X	- -	- -	X	X	X	X	X	- -	X
Wisconsin Department of Transportation	X	- -	- -	- -	X	- -	- -	X	- -	X
Wisconsin Land Council	X	- -	- -	- -	- -	- -	- -	X	X	- -
Federal Level Agencies										
U. S. Department of Agriculture Natural Resources Conservation Service	X	- -	- -	- -	- -	X	- -	X	- -	- -
Farm Service Agency	X	- -	- -	- -	- -	- -	- -	- -	- -	- -
U. S. Department of Commerce Economic Development Administration	X	- -	- -	- -	- -	- -	X	- -	- -	- -
U. S. Department of Housing and Urban Development	X	- -	- -	- -	- -	- -	X	- -	- -	- -
U. S. Department of Transportation										
Federal Highway Administration	X	- -	- -	- -	- -	- -	- -	X	X	X
Federal Transit Administration	X	- -	- -	- -	- -	- -	- -	X	X	X
U. S. Army Corps of Engineers	X	- -	- -	X	- -	- -	- -	- -	- -	- -
U. S. Environmental Protection Agency	X	- -	- -	X	- -	- -	- -	- -	- -	X
Federal Emergency Management Agency	X	- -	- -	X	- -	- -	- -	- -	- -	- -

[a] *Includes State-local floodland and shoreland zoning; State-local oversight of public sanitary sewerage facilities and private sewage systems; and the Federal wetland regulatory program.*

Source: SEWRPC

PART I: LAND USE PLAN IMPLEMENTATION

Land Use Plan Design Guidelines

One of the most important tasks accomplished as part of the first regional land use planning study in the mid-1960s was the formulation of a set of objectives, principles, and standards expressing the desired direction, magnitude, and quality of future development within the Region. Formulated under the guidance of a broad-based advisory committee, these objectives provided the basis for the development of the first regional land use plan—the design year 1990 regional land use plan adopted by the Commission in 1966. Over time, the objectives, principles, and standards were subsequently reaffirmed, with minor modifications, and recommended for use as a basis for the preparation of the subsequent regional land use plans.

Under the current regional planning effort, the land use objectives were again reviewed and evaluated by the Advisory Committee on Regional Land Use Planning. The updated plan objectives are included in Volume II, Chapter 3, of this report. The principles and standards included in previous regional plans have also been reviewed and evaluated and have been recast as "design guidelines" in VISION 2050. The modification to design guidelines is intended primarily to update the language and clarify intent, leaving the underlying concepts largely unchanged.

Appendix K lists the land use plan recommendations that are intended to achieve plan objectives along with detailed design guidelines that serve to facilitate implementation of the plan recommendations. The plan recommendations and design guidelines are concerned with the proper allocation of space to the various categories of land use and the proper arrangement of land use at the systems level of planning. While the design guidelines include guidelines for neighborhood development and the development of commercial and industrial areas, detailed site design considerations are properly addressed at the local level of planning, and it is the function of local planning to ensure good design at individual development sites. It is in the local planning process that the ultimate responsibility lies to ensure the development of properly designed neighborhood units, commercial and industrial areas, and mixed-use areas appropriately related to, and integrated with, the surrounding urban areas. Local planning must also seek to ensure that, to the extent that it is accommodated, rural development is designed in a way that minimizes impacts on the natural resource base, scenic values, and overall character of rural areas of the Region. Achievement of the land use objectives embodied in VISION 2050 thus depends to a large extent upon local planning within the framework of the regional plan, along with the exercise of local land use controls in a manner that is consistent with such planning.

The plan objectives, recommendations, and design guidelines provide a vision for land use within Southeastern Wisconsin. Under that vision, urban land would increase as necessary to accommodate growth in the regional population and economic base. New urban land would be provided through the infilling and renewal of existing urban areas, as well as through the orderly expansion of existing urban areas, resulting in a more compact and efficient overall urban settlement pattern, one that is readily served by basic urban services and facilities and that maximizes the use of existing urban service and facility systems. The land development needs of the Region would be met while preserving the best remaining elements of the natural resource base and minimizing the loss of important farmland.

Land Use Plan Implementation Measures
Implementation of the land use component of VISION 2050 depends upon the judicious application of a variety of plan implementation measures and cooperation among the local units of government and the areawide, State, and Federal agencies involved in the application of those measures. The most important land use plan implementation measures are addressed with in this section. For convenience in presentation and use, this section has been divided into the following subject areas:

- County and Community comprehensive plans
  - Planning in urban areas
  - Planning in rural areas
  - Planning in environmentally significant areas

- Local regulatory measures
  - Zoning ordinances
    - Zoning in urban areas
    - Zoning in rural areas
    - Zoning in environmentally significant areas
  - Land division ordinances
  - Official mapping

- State and Federal regulatory measures
  - State-local floodplain and shoreland regulations
  - Federal wetland regulatory program
  - Regulation of public sanitary sewerage systems
  - Regulation of private sewage disposal systems

- Park and open space acquisition/conservation easements

- Purchase of development rights

- Transfer of development rights

- Municipal boundary and utility extension agreements

- Municipal revenue sharing

- Capital improvement programming

- Brownfield redevelopment

- Development design standards

- Sound land and water management practices

- Educational activities

- Technical and financial assistance for planning

County and Community Comprehensive Plans
The land use component of the regional plan is a systems level plan. As such, it includes generalized boundaries for urban service areas, allocations of population, households, and employment and associated land uses to urban and rural areas; and recommended density ranges for urban service areas. The systems level regional plan thus provides an overall regional land use planning framework that needs refinement and detailing through county

and community planning. The vehicle for such refinement and detailing of the regional plan is the local comprehensive plan that is effectively required of all counties, cities, villages, and towns under the State comprehensive planning law.

The balance of this section provides guidance to counties and communities in the Region as they prepare local comprehensive plans within the framework of the regional plan. It includes a discussion of planning for urban areas and rural areas, as well as for environmentally significant areas, which are found within both urban and rural areas.

Planning in Urban Areas

- **Community-level Planning** – Community-level comprehensive plans[1] should refine and detail the VISION 2050 recommendations for urban areas. While such plans may vary in format and level of detail, they should generally do the following:

  - Precisely identify boundaries of urban service areas.

  - Identify residential neighborhoods and special planning districts within urban service areas.

  - Recommend an overall density for each residential neighborhood within the broad density range recommended in the regional plan.
  - Identify general site locations for needed neighborhood and community facilities.

  - Identify environmentally significant lands to be preserved consistent with the recommendations of VISION 2050.

  - Include, as appropriate, an indication of the staging of development in subareas of the community over time. Staging recommendations should be based upon anticipated market demands, the availability of utilities and basic urban services and facilities, and other factors.

- **Neighborhood and Special District Planning** – Within the context of community-level plans, detailed neighborhood development plans should be prepared for each residential neighborhood or special district where significant growth is expected. Community-level plans may allow for a broad range of interpretation, and potential misinterpretation, by both community officials and property owners or developers. In addition, the actions taken to implement a community-level plan may occur over a lengthy period of time, allowing for the potential for further misinterpretation. Detailed neighborhood-level planning provides an opportunity to clarify the intent of a community-level plan at the neighborhood-level. While neighborhood-level plans may vary in format and level of detail, they should generally do the following:

  - Define the neighborhood. This may involve identifying a point of common interest, such a park, school, or place of employment/ commerce. This may also involve identifying boundaries such as arterial streets/highways or bodies of water.

[1] *The discussion of community-level plans here pertains to all community-level comprehensive plans, whether prepared by individual cities, villages, and towns or prepared cooperatively as part of a county-wide or other multi-jurisdictional comprehensive planning efforts.*

- Designate future collector and land access street locations and alignments, pedestrian paths and bicycle ways, and, as appropriate, the configuration of individual blocks and lots.

- Further classify residential areas as to structure type and density, with the mix of housing structure types and lot sizes resulting in an overall density for the neighborhood consistent with that recommended in the community-level plan and regional plan.

- Identify specific sites for neighborhood parks, schools, and retail and service centers that are recommended on a general-site-location basis in the community-level plan.

- Identify environmentally significant areas to be preserved consistent with the community-level plan and regional plan.

- Indicate areas to be reserved for stormwater management and utility easements.

The neighborhood planning process should make full use of the many design concepts that can enhance the living environment and increase efficiency in the provision of urban services and facilities and in travel patterns. Among these design concepts are the following:

- **Mixed-Used Development –** Residential development in mixed-use settings can provide a desirable environment for a variety of household types seeking the benefits of proximity to places of employment as well as civic, cultural, commercial, and other urban amenities. Examples of mixed-use settings include dwellings above the ground floor of commercial uses and residential structures intermixed with, or located adjacent to, compatible commercial, institutional, or other civic uses.

- **Traditional Neighborhood Development** – The term traditional neighborhood development (TND) refers to very compact, pedestrian-oriented, mixed-use neighborhoods typically characterized by a gridlike street system and street-oriented setbacks and building designs. The overall design, including the layout of streets and sidewalks, encourages walking and bicycling as alternatives to automobile transportation within the neighborhood.

- **Transit-Oriented Development** – The term transit-oriented development (TOD) refers to compact, mixed-use development whose internal design is intended to maximize access to a transit stop located within or adjacent to the development. Within the development, commercial uses and higher-density residential uses are located near the transit stop. The layout of streets and sidewalks provides convenient and safe walking and bicycling access to the transit stop. Figure 3.1 provides an example of a neighborhood plan that embodies mixed-use, transit-oriented design concepts. Detailed TOD design guidelines are presented in Appendix K.

In addition to plans for developing neighborhoods, detailed plans should also be prepared for mature neighborhoods or special-purpose districts showing signs of land use instability or deterioration. Such plans should identify areas recommended for redevelopment

to a different use, areas recommended for rehabilitation, any local street re-alignments or improvements, and other public utility and facility improvements. Special consideration should be given in such planning to overcoming contamination problems at, and reuse of, brownfields. Redevelopment plans should seek to preserve those historic, cultural, and natural features and features of the urban landscape which provide for neighborhood identity within the larger urban complex. Such plans should maximize opportunities for the provision of living arrangements and amenities that are unique to older cities in the Region, such as "downtown" housing and urban waterfront development.

VISION 2050 seeks to maintain the viability of major industrial centers and other economic activity centers in the older urban areas of the Region and to moderate the historical loss in employment at these centers. Cities with aging industrial centers should undertake strategic and physical planning efforts for each center. Such planning should include a determination of the potential for assembling marketable sites and assessment of any contamination problems. Cities should make full use of—and assist private developers in securing—all State and Federal financial assistance available, be it for environmental cleanup, blight elimination, or other renewal activities, in support of the reuse and revitalization of these sites.

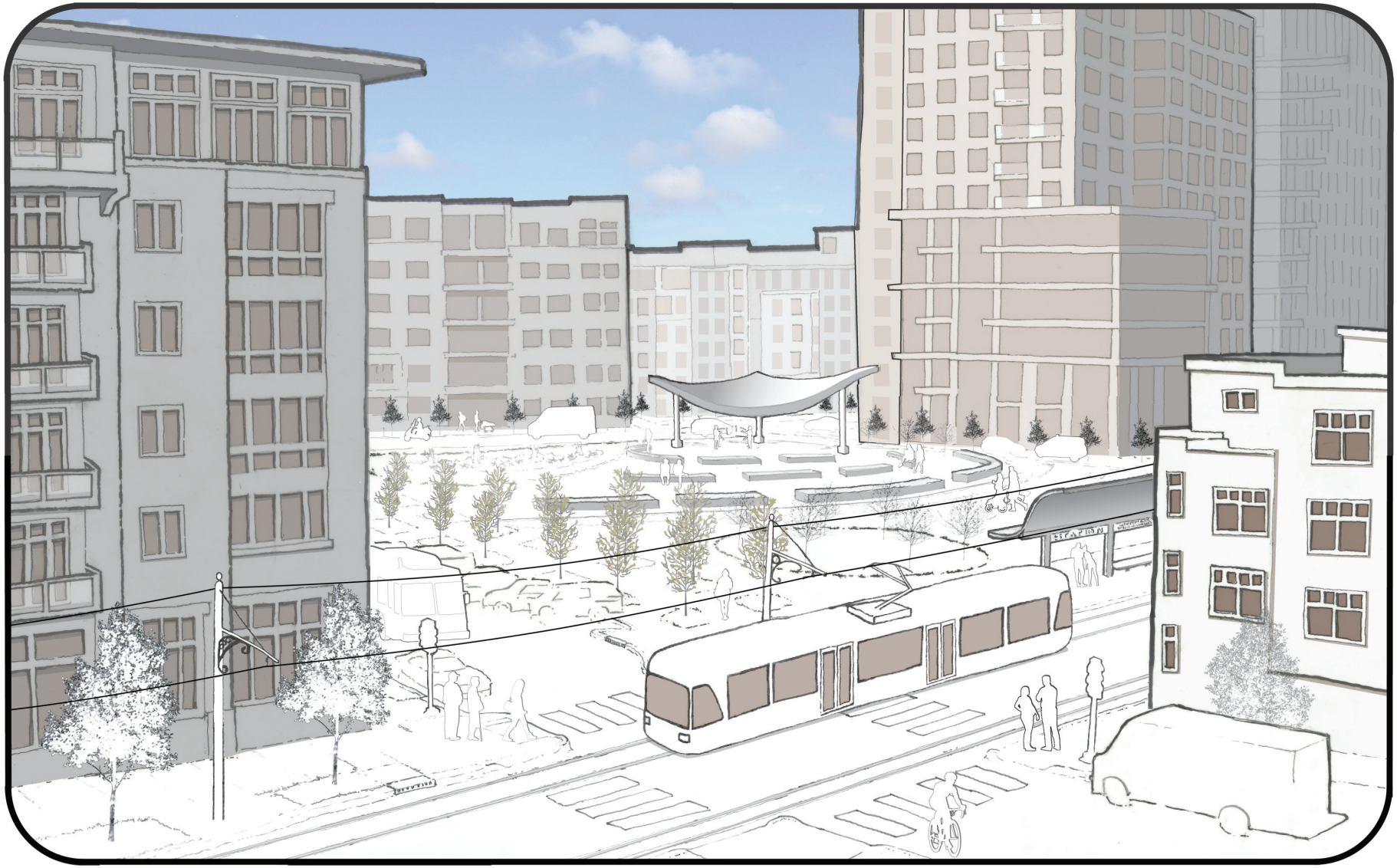
Planning in Rural Areas

Comprehensive plans prepared by county and local units of government should also incorporate, refine, and detail the recommendations of VISION 2050 for rural areas—that is, those areas that are located beyond the recommended urban service areas—including prime agricultural lands and other rural lands.

- **Prime Agricultural Land** – As required by the Wisconsin Farmland Preservation Law (Chapter 91 of the *Wisconsin Statutes*) as revised and enacted by the Wisconsin Legislature in 2009, each county in the Region, excluding Milwaukee County, has adopted a farmland preservation plan that identifies areas to preserve in agricultural use. Chapter 91 of the Statutes also requires that farmland preservation plans be included in county comprehensive plans and ensures that the farmland preservation plan is consistent with the comprehensive plan. Most of the county farmland preservation plans place an emphasis upon the preservation of the most productive soils—soils in U.S. Natural Resources Conservation Service (NRCS) Capability Class I and Class II soils.[2] These plans also considered other factors—such as the size of farm units, the overall size of the farming area, the availability of farm implement dealers, and conflicts between farming operations and urban activities. Based upon these factors, not all Class I and Class II farmland was identified as prime.

[2] *As an alternative to the U.S. Natural Resources Conservation Service agricultural capability class system, Ozaukee County chose to use the "land evaluation" system, also developed by the Natural Resources Conservation Service, to identify prime farmland. The land evaluation system provides a rating of farmland derived from soil-based factors. That rating may be combined with site assessment factors that are not related to soil characteristics, through a land evaluation and site assessment system ('LESA' system) that integrates various soil-based and non-soil-based factors for evaluating farmland. Site assessment factors may include the level of on-farm investment, compatibility with adjacent uses, proximity to urban development, distance to public utilities, and others.*

Figure 3.1
Example of a Transit-Oriented Design



Source: SEWRPC

Except as needed to accommodate the planned expansion of urban service areas, prime agricultural land identified in this manner should be designated for continued agricultural use in local comprehensive plans, with development limited to no more than one dwelling per 35 acres.

- **Other Rural Land** – Local comprehensive plans should incorporate the VISION 2050 recommendation that other rural lands—comprised, for the most part, of non-prime farmland—be retained in rural use. This could be in the form of continued agricultural activity (traditional agricultural activity, hobby farms, equestrian farms, or community-supported agricultural operations) or in the form of rural density residential development (no more than one dwelling unit per five acres). Other development should generally be limited to uses that are consistent with the rural character of the area or otherwise needed within the area, such as animal hospitals, veterinary clinics, and riding stables. In general, office, industrial, and institutional development and the types of retail and service uses that are provided as a matter of convenience and necessity in urban residential neighborhoods should not be accommodated within rural planning areas.

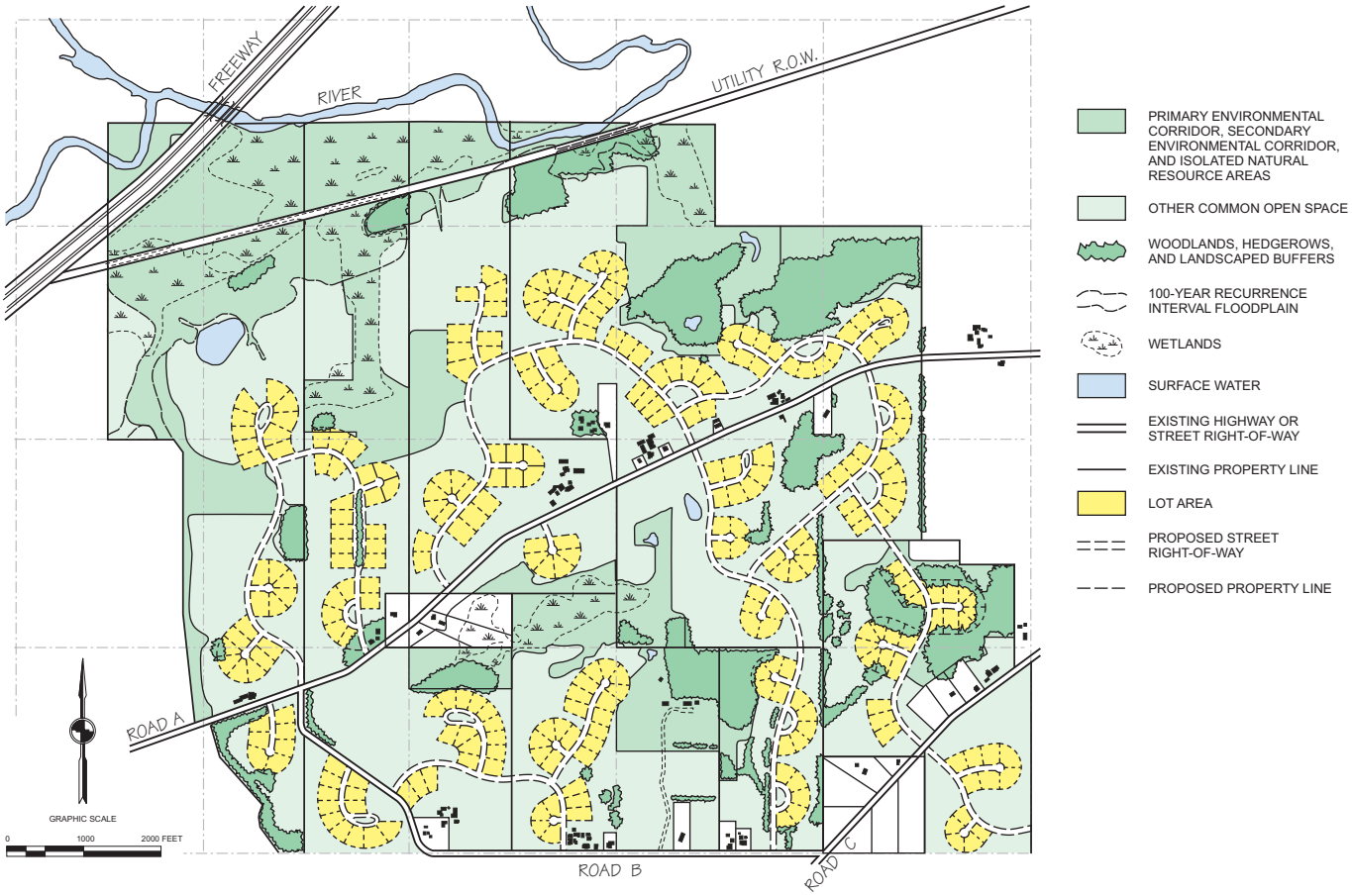
  Local comprehensive plans should emphasize the use of cluster subdivision designs where rural density residential development is to be accommodated. Cluster subdivision designs generally involve locating dwelling units in clusters surrounded by open space, thereby achieving the desired overall density. In the cluster subdivision design process, open space preservation areas should be delineated first, with residential clusters designed around those areas. Designs for residential clusters should be integrated with topographic and other natural features, taking full advantage of the settings provided by those features without causing undue disturbance. Designed in this manner, cluster subdivision designs can minimize the visual impact of the permitted residential development; preserve significant natural features and, in some cases, agricultural lands; and increase the efficiency of infrastructure development, including a potential reduction in the length of needed access streets.[3]

  Similar to the preparation of detailed plans for neighborhoods within urban areas, consideration should be given to planning for "rural neighborhoods." This approach would be appropriate for larger non-prime farming areas where a decision has been made to accommodate rural density residential development. As a practical matter, rural neighborhoods or planning units will be several square miles in size and may encompass large portions of a civil town. Planning for a rural neighborhood, as opposed to planning on a parcel-by-parcel basis, can result in more integrated designs that better preserve existing natural features and the rural landscape. Figure 3.2 presents an example of a neighborhood-scale plan for a rural area, incorporating cluster subdivision design principles.

  It should be recognized that the recommended density of no more than one dwelling unit per five acres can be achieved in a number of ways. To a large extent, the density would be achieved through cluster subdivision designs, as noted above. In addition, local planning may call for some accretion-like growth on smaller lots around small

[3] *The cluster subdivision design process is described in detail in SEWRPC Planning Guide No. 7, Rural Cluster Development Guide, December 1996.*

Figure 3.2
Example of a Rural Area Plan Incorporating Cluster Subdivision Design Principles



Source: SEWRPC

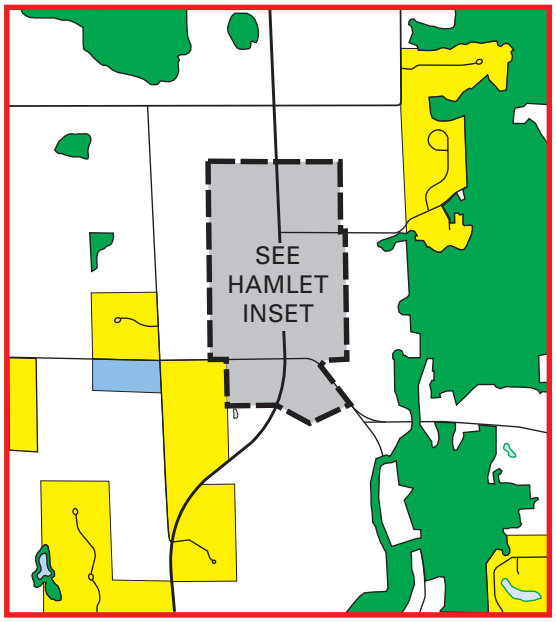
cross-road communities and other existing settlements, creating a hamlet-like environment within the rural area. The density calculation should be done on an overall basis for the rural neighborhood or planning area, taking into account dwellings to be accommodated in cluster subdivisions, in hamlets, or in other settings. Figure 3.3 presents an example of a rural area plan featuring a small hamlet and other forms of rural development.

Planning in Environmentally Significant Areas

Local comprehensive plans should incorporate the VISION 2050 recommendations for environmentally significant areas. At a minimum, local comprehensive plans should incorporate the primary environmental corridor delineations set forth in VISION 2050 and recommend the preservation of those corridors in accordance with the guidelines presented in Appendix K. In addition, county and local units of government are encouraged to include recommendations for the preservation of secondary environmental corridors and isolated natural resource areas in their comprehensive plans, applying the guidelines for preservation to those areas as well.

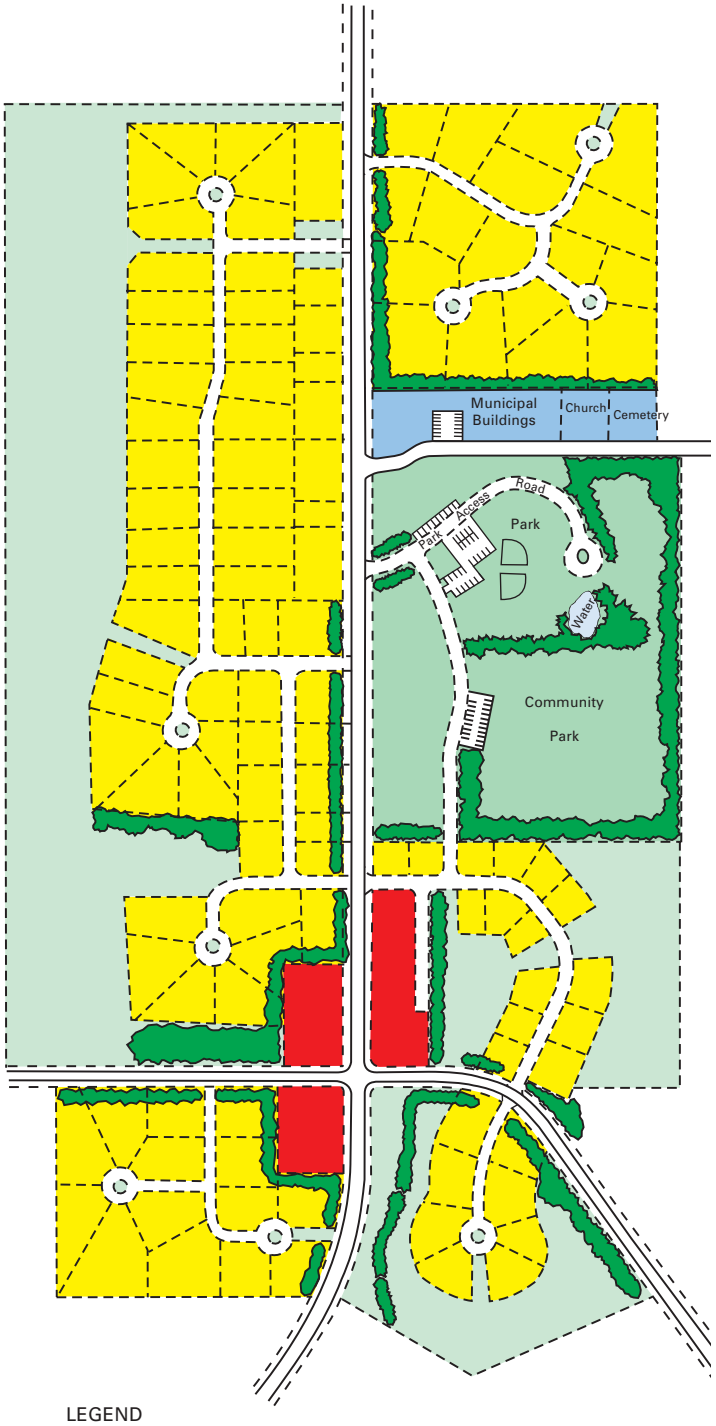
The planning guidelines set forth in Appendix K are an integral part of the land use component of VISION 2050. These guidelines recognize that certain development can be accommodated within environmental corridors and isolated natural resource areas without jeopardizing their overall integrity. They recognize that certain transportation and utility uses may need to be

Figure 3.3
Example of a Rural Area Plan Incorporating Hamlet Design Principles



LEGEND

- RURAL DENSITY RESIDENTIAL (ONE DWELLING UNIT PER FIVE ACRES)
- GOVERNMENTAL/INSTITUTIONAL
- ENVIRONMENTAL CORRIDOR OR ISOLATED NATURAL RESOURCE AREA
- SURFACE WATER
- AGRICULTURAL



LEGEND

- PROPERTY LINES
- HIGHWAY OR STREET RIGHT-OF-WAY
- RESIDENTIAL
- COMMERCIAL
- GOVERNMENTAL/ INSTITUTIONAL
- RECREATION
- COMMON OPEN SPACE
- WOODLANDS, HEDGEROWS, AND LANDSCAPED BUFFERS
- SURFACE WATER
- AGRICULTURAL

Source: SEWRPC

located within such areas and that limited residential and recreational uses may be accommodated within such areas. Under the guidelines, residential development would be limited to upland areas at an overall density of no more than one dwelling per five upland acres, with cluster subdivision designs strongly encouraged where rural density residential development is accommodated.[4] Under the guidelines, in lieu of rural density residential development, up to 10 percent of the upland corridor area in a parcel may be disturbed in order to accommodate urban-density residential, commercial, industrial, or other urban development.

The afore-referenced guideline allowing for a disturbance area of up to 10 percent of the upland environmental corridor in a parcel was first included under the year 2035 regional land use plan. The environmental corridor guidelines set forth in Appendix K include an allowance for a disturbance of up to 10 percent of the upland corridor area in a parcel in order to accommodate urban residential, commercial, or other urban development, provided that the balance of the corridor area is protected from any future disturbance. This allowance would be in lieu of the rural density residential development permitted under prior guidelines. The allowance would be granted only under the following conditions: 1) the area to be disturbed is compact rather than scattered in nature; 2) the disturbance area is located on the edge of a corridor or on marginal resources within a corridor; 3) the development does not threaten the integrity of the remaining corridor; 4) the development does not result in significant adverse water quality impacts; and 5) the development of the remainder of the parcel is prohibited by a conservation easement or deed restriction. All such proposals would be reviewed on a site-by-site basis. The allowance recognizes that, from a resource preservation point of view, preserving a minimum of 90 percent of the environmental corridor in this manner may be preferable to accommodating rural density residential development in the form of scattered homesites and attendant access roads at a density of up to one dwelling unit per five acres within upland corridor areas.

It is not the intent of VISION 2050 to encourage the types of development specified in Appendix K within environmentally significant areas. Rather, the limited development specified is an accommodation that seeks to balance landowner interests in development with natural resource base preservation objectives.

Local Regulatory Measures

Land use regulatory ordinances are an important means available to county and local units of government to shape growth and development in accordance with local and regional land use objectives. Under the State comprehensive planning law, beginning on January 1, 2010, key local land use regulatory ordinances—zoning ordinances, land division ordinances, and official map ordinances—must be consistent with the local comprehensive plan. Accordingly, upon completion of their comprehensive plans, counties, cities, villages, and towns will have to review their ordinances and adjust them as necessary for consistency with their plans. To the extent that counties, cities, villages, and towns incorporate VISION 2050 into their comprehensive

[4] It is recommended that the number of dwelling units to be accommodated be limited to no more than one dwelling unit per five acres of upland corridor in the parcel. It is recognized that, in some situations, it may be appropriate to include certain lowland corridor area in calculating the number of dwellings to be accommodated, particularly where the lowland area comprises a relatively small portion of the development parcel. In any event, in such cases the number of dwelling units should not exceed one dwelling unit per five acres of lowland and upland corridor combined.

plans, VISION 2050 may be expected to be reflected in their various land use regulations. Guidance with respect to local review and adjustment of zoning, land division, and official map ordinances within the framework of VISION 2050 follows.

Zoning Ordinances

Of all the land use plan implementation devices presently available, perhaps the most important and most versatile is the application of local police power to regulate land use development through the adoption of zoning ordinances, including zoning district regulations and zoning district maps. Cities and villages are authorized under the *Wisconsin Statutes* to adopt and administer general zoning within their corporate limits. Counties are authorized to adopt and administer general zoning throughout their unincorporated areas; a county ordinance becomes effective within a given town only after approval by the town board. Towns that are not under county zoning may exercise village powers and thereby adopt and administer general zoning; however, in counties having a county zoning ordinance, no such town ordinance or ordinance amendment may be adopted unless approved by the county board. Towns in counties that have not enacted a county zoning ordinance may also adopt their own zoning ordinances under powers specifically granted to towns, provided that the town first petitions the county to enact a county ordinance and the county fails to do so.[5]

- **Zoning in Urban Areas** – Zoning in urban areas should be administered in accordance with county and local comprehensive plans, which refine the urban area recommendations of VISION 2050.

  The application of zoning districts that accommodate residential, commercial, industrial, and other urban development should be done in a manner that is consistent with any recommendations in the local comprehensive plan regarding the staging of development over the course of the plan period. Where the local comprehensive plan includes staging provisions, the application of zoning districts that accommodate the planned urban uses should be done incrementally in accordance with the timeframe set forth in the comprehensive plan. In the interim, the lands concerned should be placed in zoning districts consistent with their existing use, or, alternatively, placed in an urban land holding district or transition district. This approach can help to avoid premature development and the creation of isolated urban enclaves and incomplete neighborhoods.

  Zoning ordinances should include provisions that allow for a range of development designs, including mixed-use development, TND, and TOD, as discussed earlier in this chapter. Such flexibility in design can be achieved through the inclusion of planned unit development provisions as a basic district or an overlay district in the zoning ordinance. Planned unit development provisions can enable coordinated site planning, allowing for latitude in the location and type of structures and for a

[5] The Wisconsin Statutes enable cities and villages to exercise extraterritorial zoning power within unincorporated town areas located within specified distances of their corporate limits—three miles from the corporate limits of a first-, second-, or third-class city, and one and one-half miles from the limits of a fourth-class city or a village. This extraterritorial zoning power must be exercised through a joint six-member committee composed equally of representatives of the city or village and the concerned town. By statute, the establishment of extraterritorial zoning district regulations and zoning district boundaries and any subsequent amendments requires the favorable vote of a majority of the joint extraterritorial zoning committee.

mixture of compatible residential, commercial, institutional, and open space uses.

It is important to recognize that residential zoning regulations may have a significant influence on housing costs and the supply of affordable housing. In order to enable the provision of affordable housing, all urban communities, especially "developing" communities, should incorporate provisions for a full range of residential structure types—single-family, two-family, and multi-family—as well as a reasonable range of housing sizes within their zoning ordinances. Moreover, urban communities should incorporate provisions for a full range of residential lot sizes and include one or more residential districts specifying lot sizes of no more than 7,200 square feet for single-family detached housing units and 8,000 square feet for two-family structures.

- **Zoning in Rural Areas** – Zoning in rural areas should be administered in accordance with county and local comprehensive plans, which refine the rural area recommendations of VISION 2050. The following is recommended:

  - Prime agricultural lands identified in county and local comprehensive plans should be placed into an exclusive agricultural zoning district that essentially permits only agricultural and agriculture-related uses. Such a district should provide for a residential density of no more than one dwelling unit per 35 acres and should prohibit incompatible urban development.

  - Other areas identified for continued agricultural use in county and local comprehensive plans should be placed into exclusive agricultural districts as defined above or into general agricultural districts with smaller minimum parcel sizes as may be appropriate for smaller agricultural operations, such as hobby farms or other specialty farms.

  - Areas recommended in county and local comprehensive plans for rural residential development should be placed into a rural residential zoning district that limits development to no more than one dwelling unit per five acres and that encourages, or even requires, the use of cluster subdivision designs to accommodate the permitted development.

- **Zoning in Environmentally Significant Areas** – Zoning of environmentally significant lands, including primary environmental corridors, secondary environmental corridors, and isolated natural resource areas, should be administered in accordance with county and local comprehensive plans that refine VISION 2050. At a minimum, zoning should be applied to protect primary environmental corridors; zoning should also be applied to protect secondary environmental corridors and isolated natural resource areas in a manner consistent with county and local comprehensive plans.

  In order to protect environmental corridors and isolated natural resource areas, the component lakes, rivers, and streams, wetlands, and associated undeveloped floodplains and shorelands should be placed in lowland conservancy or floodplain protection districts. Upland wooded areas and areas of steep slope should be placed in appropriate upland conservancy or park and recreation districts. These

various districts should be designed in accordance with the guidelines presented in Appendix K. As previously noted, under those guidelines, development would be confined to necessary transportation and utility uses; limited recreational uses; rural density residential development limited to no more than one dwelling unit per five upland acres; or, in lieu of such rural density residential development, limited urban development confined to no more than 10 percent of the upland area.

Land Division Ordinances

The regulation of land divisions is another important means for shaping development in accordance with adopted plans. Basic regulations governing the division of land are set forth in Chapter 236 of the *Wisconsin Statutes*. Chapter 236 defines the term "subdivision" as a division of a lot, parcel, or tract of land where the act of division creates five or more parcels or building sites of one and one-half acres each or less in area—or where five or more parcels or building sites of one and one-half acres each or less in area are created by successive divisions within a period of five years. Chapter 236 requires that any division of land that results in a subdivision shall be, and provides that any other division may be, surveyed and a plat thereof approved and recorded. Chapter 236 empowers cities, villages, towns, and counties that have established planning agencies to adopt land division ordinances that are more restrictive than the *Wisconsin Statutes*, enabling county and local units of government to regulate all land divisions.[6]

Section 236.10 of the *Wisconsin Statutes* indicates that a plat may not be recorded unless approved by the following:

- If within a city or village: the governing body of the city or village.

- If within a town, outside the extraterritorial plat approval jurisdiction area of a city or village: the town board and the county planning agency, if there is one.

- If within a town, inside the extraterritorial plat approval jurisdiction area of a city or village: the town board; the governing body of the concerned city or village, if it has adopted a land division ordinance or an official map; and the county planning agency if that agency employs full-time staff for the purpose of administering zoning or other planning legislation.

Section 236.12 identifies certain other agencies as having the power to object to a plat. A plat may not be approved until any objections have been satisfied. Section 236.12 designates two State agencies, the Wisconsin Departments of Transportation and Safety and Professional Services, as objecting agencies. County planning agencies are objecting agencies to plats located in cities and villages provided that they employ full-time staff for the purpose of administering planning legislation and provided further that they adopt a policy requiring submission of plats to the planning agency. County planning agencies review proposed plats for potential conflicts with parks, parkways, expressways, major highways, airports, drainage channels, schools, or other planned public developments.

As noted above, cities, villages, towns, and counties that have established planning agencies are authorized to adopt land division ordinances more restrictive than the provisions of Chapter 236. For example, county and local

[6] *Land division control powers and procedures are described in detail in SEWRPC Planning Guide No. 1 (2nd Edition), Land Division Control Guide, July 2001.*

ordinances may adopt a more inclusive definition of the term "subdivision" and may require the recording of certified surveys for land divisions not defined as subdivisions. Such ordinances may establish design guidelines and public improvement requirements consistent with local development objectives. Local units of government may choose to integrate the local regulation of condominium developments, as defined under Chapter 703 of the *Wisconsin Statutes*, into comprehensive land division and land development control ordinances.

County and local units of government should administer their local land division ordinances in a manner consistent with their comprehensive plans prepared within the framework of VISION 2050.

Official Mapping

Official mapping powers granted to cities under Section 62.23(6) of the *Wisconsin Statutes*, by reference under Section 61.35 to villages, and by reference under Section 60.22(3) to towns that have adopted village powers, provide a means for reserving land for future public use as streets, highways, waterways, railways, transit facilities, and parkways. The enabling statutes generally prohibit the issuance of building permits for the construction or enlarging of buildings within the limits of such areas as shown on the official map. However, the statutes include provision for issuance of building permits where it is demonstrated that the lands within the areas designated for future public use are not yielding a fair return. Official maps may show areas designated for future parks and playgrounds, but the enabling legislation does not mention them as protected mapped facilities. State law provides that cities and villages may extend official maps beyond their corporate limits to areas within which they have been granted extraterritorial subdivision plat approval power under Chapter 236 of the *Wisconsin Statutes*.[7]

Official mapping powers represent an effective means of reserving land for future public use in accordance with local comprehensive plans that refine VISION 2050. VISION 2050 recommends that all cities, villages, and towns in the Region prepare and adopt official maps, showing thereon as proposed parkways those environmental corridors that may be proposed for public acquisition along with other proposed public lands as authorized by State statute.

Section 66.1031 of the *Wisconsin Statutes* confers what are, in effect, limited official map powers on counties. County highway width maps adopted under Section 66.1031 may be used to show the proposed widening of existing streets and highways and to show the location and width of proposed future streets and highways. Such maps must have the approval of the governing body of the municipality in which the mapped streets and highways are located. The scope of facilities to be mapped under this statute does not extend beyond streets and highways. This statute does not include the prohibitions on issuance of building permits which are established in the local official mapping statutes. County highway width maps can, nevertheless, help to ensure that planned arterial street and highway improvements are properly taken into account in county and local land use decision-making.

State and Federal Regulatory Measures

State-Local Floodplain and Shoreland Regulations

Section 87.30 of the *Wisconsin Statutes* mandates that cities and villages, as well as counties with respect to unincorporated areas, adopt appropriate

[7] *Official mapping powers and procedures are described in detail in SEWRPC Planning Guide No. 2 (2nd Edition), Official Mapping Guide, June 1996.*

floodplain zoning regulations, basing such regulations on the hydrologic, hydraulic, and other engineering data required to appropriately define flood hazard areas. Minimum standards that city, village, and county floodplain ordinances must meet are set forth in Chapter NR 116 of the *Wisconsin Administrative Code*. All such regulations must govern filling and development activity within the 100-year recurrence interval floodplain. Under minimum State requirements, local floodplain zoning regulations must prohibit nearly all forms of development within the floodway–that is, the area of the floodplain required to convey the 100-year recurrence interval peak flood flow. Local regulation must also restrict filling and development within the flood fringe, or that portion of the floodplain located outside the floodway that would be covered by floodwater during a 100-year flood event. Marginal modifications may be made to flood fringe areas if provided for in local ordinances. VISION 2050 recommends that, where such modifications are allowed, there be a policy or corresponding regulatory provision requiring no loss in floodwater storage volume. Chapter NR 116 also provides for establishment of a flood storage district in areas where storage of floodwaters is accounted for in developing the regional (100-year recurrence interval) flood discharge. Filling in a flood storage district must be offset by the provision of an equal volume of compensatory flood storage.

Section 59.692 of the *Wisconsin Statutes* requires that counties in Wisconsin adopt special regulations governing development within shoreland areas. By statutory definition, shoreland areas are lands within 1,000 feet of the ordinary high water mark (OHWM) of a navigable lake, pond, or flowage, or within 300 feet of the OHWM of a navigable stream, or to the landward side of the floodplain, whichever distance is greater. Standards for county shoreland regulations are set forth in Chapter NR 115 of the *Wisconsin Administrative Code*.[8] Shoreland regulations include requirements for lot size and building setbacks as well as restrictions on removal of vegetation. In addition, the State regulations require that counties place all wetlands at least five acres in size lying in shoreland areas into a protective conservancy zoning district. Under Sections 62.231 and 61.351, respectively, of the *Wisconsin Statutes*, cities and villages in Wisconsin are also required to enact zoning regulations to protect wetlands five acres or greater in size lying in shoreland areas. Administrative rules pertaining to city and village shoreland-wetland conservancy zoning are set forth in Chapter NR 117 of the *Wisconsin Administrative Code*.

Floodplain and shoreland regulations have been applied by counties, cities, and villages throughout the Region in accordance with the *Wisconsin Statutes* and *Administrative Code*. These regulations serve to protect many of the wetlands and other low-lying areas within environmental corridors and isolated natural resource areas, as recommended in VISION 2050.

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[8] The 2015-2017 State Budget (Act 55) changed State law relative to shoreland zoning. Under Act 55, a shoreland zoning ordinance may not regulate a matter more restrictively than it is regulated by a State shoreland zoning standard unless the matter is not regulated by a standard in Chapter NR 115, "Wisconsin's Shoreland Protection Program," of the Wisconsin Administrative Code (examples of unregulated matters may involve wetland setbacks, bluff setbacks, development density, and stormwater standards). In addition, under Act 55, a local shoreland zoning ordinance may not require establishment or expansion of a vegetative buffer on already developed land and may not establish standards for impervious surfaces unless those standards consider a surface to be pervious if its runoff is treated or is discharged to an internally drained pervious area. Additional legislation relative to shoreland zoning enacted after the 2015-2017 State budget legislation includes Act 41, which addresses town shoreland zoning authority relative to county authority (effective date: July 3, 2015), and Act 167, which codifies and revises current DNR shoreland zoning standards.

Federal Wetland Regulatory Program

Under Section 404 of the Clean Water Act as amended, the U.S. Congress has provided for the regulation of most of the wetlands of the Nation. That statute requires the U.S. Army Corps of Engineers (USACE), working in cooperation with the U.S. Environmental Protection Agency (EPA), to regulate the discharge of dredged and fill materials into the waters of the United States, including lakes, rivers, and wetlands. In carrying out this responsibility, the USACE identifies waters of the United States, including wetlands, and determines when permits are required for the discharge of dredged and fill material.

Federal law provides for the involvement of states in the Section 404 program. The Wisconsin Department of Natural Resources (DNR) may deny or grant certification of any proposed discharge of dredged or fill material into a wetland. In considering such certifications, the DNR applies the wetland preservation policies and standards set forth in Section NR 1.95 and Chapter NR 103 of the *Wisconsin Administrative Code*. If the State denies certification, then Federal law requires that the USACE deny the requested Section 404 permit.

The Section 404 regulatory program represents an important means for protecting and preserving wetlands. The continued steadfast administration of this program can contribute significantly to implementation of the VISION 2050 recommendations regarding preservation of environmentally sensitive lands.

Regulation of Public Sanitary Sewerage Systems:
Sanitary Sewer Service Areas

In Wisconsin, the comprehensive water quality management planning program has led to the development of State regulations that have the effect of requiring the preparation of sanitary sewer service area plans for each public sewage treatment plant. In the Region, these plans are prepared cooperatively by the concerned local unit of government and the Regional Planning Commission, with ultimate approval authority resting with the DNR. Sewer service area plans have now been prepared for nearly all of the public sanitary sewerage systems in the Region.[9] These plans define sewer service limits and delineate environmentally sensitive lands within those service limits to which service should not be provided. Chapter NR 110 and Chapter SPS 382 of the *Wisconsin Administrative Code* require that the DNR, with respect to public sanitary sewers, and the Wisconsin Department of Safety and Professional Services (DSPS), with respect to private sanitary sewers, make a finding that all proposed sanitary sewer extensions are in conformance with adopted areawide water quality management plans and the sanitary sewer service areas identified in such plans before approving such extensions.

Under Chapter NR 110, sewer service areas must be sized in a manner that is consistent with long-range population projections. As a practical matter, this requirement is considered to be met if the buildout population of the sewer service area—that is, the population that could be accommodated if the sewer service area were completely developed at locally planned residential densities—is within projection range envisioned under VISION 2050. In sizing their sewer service areas, many communities choose to plan for the high end of the projected population range in order to retain flexibility in terms of the location of future urban growth. The projected population

[9] *The urban service areas shown on the regional land use plan map reflect currently adopted sewer service areas, expanded in some cases in anticipation of future needs.*

ranges for sewer service areas in the Region under VISION 2050 are set forth in Appendix O.

Historically, communities in the Region, with the assistance of the Regional Planning Commission, have amended their sewer service area plans from time to time in response to changing needs and conditions. This may be expected to continue in the years ahead, particularly as communities implement or amend their local comprehensive plans.

As noted above, sanitary sewer service area plans are an important part of the basis for State agency review and approval of proposed sewer extensions. Policies adhered to by the DNR and DSPS prohibit or otherwise limit the extension of sanitary sewers to serve development in certain environmentally significant lands identified in local sewer service area plans. The following restrictions were in effect at the time VISION 2050 was completed in 2016:

- The extension of sanitary sewers to serve new development in primary environmental corridors is confined to limited recreational and institutional uses and rural-density residential development (maximum of one dwelling unit per five acres) in areas other than wetlands, floodplain, shorelands[10], and steep slope (12 percent or greater).

- The extension of sanitary sewers to serve development in portions of secondary environmental corridors and isolated natural resource areas comprised of wetlands, floodplains, shorelands, or steep slope is not permitted.

It should be noted that, under current rules, building sewers that are intended to serve buildings that have fewer than 54 drainage fixture units are exempt from the water quality management plan conformance review process. This provision effectively eliminates from that review process one- and two-family homes and some commercial buildings, potentially including large warehouses. VISION 2050 recommends that DSPS, which has oversight with respect to private sewer extensions, effect an administrative rule change that would eliminate this "loophole"—at least as related to non-residential buildings.

Regulation of Private Sewage Disposal Systems

Large lot and exurban density residential development—that is, development on lots of one-half acre to less than five acres—in outlying areas of the Region, removed from established urban service areas and reliant upon onsite disposal systems for wastewater treatment and disposal, is not recommended under VISION 2050. Such development was once constrained in many areas of the Region owing to soil limitations that prevented such systems from functioning properly. New onsite sewage disposal systems designed to operate in once-limiting soil conditions, along with regulatory changes favorable to the use of the new systems, have increased the area subject to unsewered residential development.

Under Sections 59.70 and 145.01 of the *Wisconsin Statutes*, all counties in Wisconsin except Milwaukee County are required to adopt and enforce a comprehensive private sewage system ordinance that governs the installation and maintenance of onsite sewage disposal systems and sewage holding

[10] *As identified for purposes of delineating environmental corridors, shorelands include a band 50 feet in depth along both sides of intermittent streams; a band 75 feet in depth along both sides of perennial streams; a band 75 feet in depth around lakes; and a band 200 feet in depth along the Lake Michigan shoreline.*

tanks. Within Milwaukee County, this regulatory responsibility is assigned to cities and villages. Under State law, the county and local ordinances generally cannot be more restrictive than the State plumbing code, which has been revised to allow for a greater variety of onsite sewage disposal systems under a wider range of conditions.

Clearly, soil limitations and regulations governing the use of onsite sewage disposal systems have become much less of a constraint on low and sub-urban density residential development in outlying areas detached from planned urban service areas. This situation underscores the importance of local planning and zoning as the primary means to minimize such development.

As an alternative to outlying large lot and exurban density residential development, VISION 2050 recommends meeting the expected continued demand for country living through rural-density residential development (no more than one dwelling unit per five acres), with cluster subdivision designs encouraged to accommodate such development. Sewage treatment for such development could be provided through individual onsite sewage disposal systems or through a larger scale common system or series of such systems serving the entire development. Where larger scale common systems are utilized, VISION 2050 recommends that they be owned and operated by a local sanitary or utility district.

Park and Open Space Acquisition/Conservation Easements

Achievement of the outdoor recreation and open space preservation objectives of VISION 2050 requires continued public interest acquisition of land for outdoor recreation and open space uses. The regional park and open space plan, as refined in county park and open space plans, recommends public interest acquisition (that is, acquisition by local, county, State and Federal government and by private conservancy interests) of substantial amounts of land for recreation and resource protection purposes.[11] The regional natural areas and critical species habitat protection and management plan also includes recommendations for public interest acquisition for most of the natural areas and critical species habitat sites identified in that plan.[12] Moreover, cities, villages, and towns may acquire other lands for park and open space purposes as recom-mended in local comprehensive or park and open space plans. Each of the concerned units and agencies of government should continue or begin land acquisition programs in accordance with such plans. Private conservancy organizations are encouraged to supplement public open space acquisition efforts, as appropriate, to ensure the preservation of important natural areas.

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[11] *SEWRPC Community Assistance Planning Report No.131 (2nd Edition), A Park and Open Space Plan for Kenosha County, April 2012; SEWRPC Community Assistance Planning Report No. 132, A Park and Open Space Plan for Milwaukee County, November 1991; SEWRPC Community Assistance Planning Report No. 133 (3rdEdition), A Park and Open Space Plan for Ozaukee County, June 2011; SEWRPC Community Assistance Planning Report No.134 (3rd Edition), A Park and Open Space Plan for Racine County, February 2013; SEWRPC Community Assistance Planning Report No. 135 (3rd Edition), A Park and Open Space Plan for Walworth County, March 2014; SEWRPC Community Assistance Planning Report No. 136 (3rd Edition), A Park and Open Space Plan for Washington County, March 2004; and Chapter XIII, "Park and Open Space Plan," of SEWRPC Community Assistance Planning Report No. 209, A Development Plan for Waukesha County, Wisconsin, August 1996.*

[12] *SEWRPC Planning Report No. 42, A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, dated September 1997, as amended in 2010.*

Purchase of less than fee simple interest in park and open space lands may be less costly than acquisition of the entire interest. Acquisition of less than fee simple interest may include conservation easements ensuring that the land remains in open space use, easements permitting public access for recreational use, and easements permitting public site management. Easements may achieve the desired recreational and open space preservation objectives at lower cost, with the property concerned remaining on the local tax roll and continuing to generate property tax revenue.

As noted above, specific recommendations for open space acquisition—in fee simple or less than fee simple (easement) interest—are set forth for State, county, and local units of government and private conservancy interests in the regional-county park and open space plan and in the regional natural areas and critical species habitat protection and management plan. Easement programs administered by the NRCS can also help ensure the long-term protection and enhancement of open space lands. The NRCS Wetland Reserve Program provides financial incentives, through the purchase of easements or cost-share agreements, to landowners to restore and protect wetlands in marginal farming areas. The NRCS Farm and Ranch Lands Protection Program provides financial assistance to states, tribes, local governments, and non-profit entities in the acquisition of conservation easements or development rights on productive farmland in order to keep such land in agricultural use.

Purchase of Development Rights[13]

Purchase-of-development-rights programs, or "PDR" programs, represent another potential means to ensure the preservation of agricultural lands. Under a PDR program, landowners are compensated for permanently committing their land to agricultural and open space use. Deed restrictions or easements are used to ensure that the lands concerned remain in agricultural or other open use. Such restrictions are attached to the land and remain in effect regardless of future sale or other transfer of the land.

PDR programs may be administered and funded by State, county, or local units of government, land trusts and other private organizations, or combinations of these. The amounts paid to farmland owners under PDR programs may be calculated on the basis of the number of dwelling units

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[13] Purchase of development rights (PDR) and transfer of development rights (TDR) programs are based upon the premise that development rights are distinct attributes of land ownership that can be sold or otherwise transferred. No widespread agreement exists on the nature or extent of development rights that may be inherent in fee simple ownership of land. There is general agreement that landowners have the right to use their land with the limits set by public regulation. Such regulation must be defensible from a constitutional law standpoint, leaving landowners a reasonable use of their land so as not to constitute a public taking of the land without payment of just compensation.

Some individuals maintain that since zoning ordinances and other land use regulations may legally be, and indeed, historically have been, amended to become more restrictive, there are no development rights inherent in land ownership, the owner being entitled only to a continuation of existing use. Others argue that where zoning and other public land use controls have been in place for a long period of time, a right to develop in accordance with such longstanding zoning regulations becomes effectively attached to the land and that the removal of such development rights—rights which are commonly taken for granted by landowners—through downzoning would constitute a "taking." While the latter position is frequently taken in a political context—as many local elected officials believe that such a position is fair and equitable—the Wisconsin Supreme Court has taken the position that a landowner has no vested right in zoning until proper development and/or building permit applications have been filed.

permitted under existing zoning, on the basis of the difference between the market value of the land and its value solely for agricultural purposes, or on some other basis.

PDR programs provide assurance that farmland will be permanently retained in open use. Landowners receive a potentially substantial cash payment while retaining all other rights to the land, including the right to continue farming. The money paid to the landowner may be used for any purpose, such as debt reduction, capital improvement to the farm, or retirement income. Lands included in a PDR program remain on the tax roll and continue to generate property taxes. Since the land remains in private ownership, the public sector does not incur any land management responsibilities.

PDR programs have not been widely embraced within the Region to this point. The primary drawback of PDR programs is the potentially high cost. Given the attendant costs, PDR programs should be strategically targeted toward agricultural lands where long-term preservation is particularly important. A PDR program could, for example, be directed at existing farmland surrounding a public nature preserve or major park in order to ensure a permanent open space buffer around the park or nature preserve.

Transfer of Development Rights

Under transfer-of-development-rights programs, or "TDR" programs, the right to develop a specified number of dwelling units under existing zoning may be transferred from one parcel, which would be maintained in open space use, to a different parcel, where the number of dwelling units permitted would be correspondingly increased. When the parcels are held by the same owner, the development rights are, in effect, simply transferred from one parcel to the other by the owner; when the parcels are held by different landowners, the transfer of development rights involves a sale of rights from one owner to another, at fair market value. In either case, the result is a shift in density away from areas proposed to be maintained in farming or other open use toward areas recommended for development. The transfer of development rights may be permanent or may be for a specific period of time or set of conditions.

The transfer of development rights may be implemented only if authorized under county or local zoning. To enable the transfer of development rights, the zoning ordinance must establish procedures by which the TDR technique will be administered, including the formula for calculating the number of residential dwelling units that may be transferred from the "sending" area to the "receiving" area. The zoning district map must identify the sending and receiving areas, or at least identify the districts within which development rights can be transferred from one parcel to another.

While the creation and administration of a TDR program is somewhat complicated, the technique remains a potentially effective means for preserving open space and maintaining rural densities, while directing development to areas where it may best be accommodated.

Municipal Boundary and Utility Extension Agreements

The VISION 2050 recommendations concerning the location and density of new urban development are formulated without regard to the location of city, village, and town boundaries. Rather, those plan recommendations are based upon a consideration of such factors as the location of existing utility infrastructure, including public sanitary sewer and water supply systems; the location of environmentally sensitive lands; and the availability of lands

considered to be suitable for urban development. Where cities and villages own and operate essential public utilities not provided by adjacent towns, VISION 2050 assumes that cities and villages will either annex unincorporated territory recommended in VISION 2050 for urban development and provide extensions of essential utility services to serve such development, or that the cities and villages will reach agreement with adjacent unincorporated towns on the extension of those essential services without the need for annexation and municipal boundary change.

The *Wisconsin Statutes* establish a number of arrangements for cooperation among communities with regard to sharing of municipal services and cooperatively determining community boundaries, as indicated below:

- **Section 66.0301** – This section of the *Statutes* provides broad authority for intergovernmental cooperation among local units of government with respect to the provision and receipt of services and the joint exercise of their powers and duties.

- **Section 66.0307** – This section of the *Statutes* allows any combination of cities, villages, and towns to determine the boundary lines between themselves under a cooperative plan, subject to oversight by the Wisconsin Department of Administration. Section 66.0307 envisions the cooperative preparation of a comprehensive plan for the affected area by the concerned local units of government and prescribes in detail the contents of the cooperative plan. Importantly, the cooperative plan must identify any boundary change and any existing boundary that may not be changed during the planning period; identify any conditions that must be met before a boundary change may occur; include a schedule of the period during which a boundary change shall or may occur; and specify arrangements for the provision of urban services to the territory covered by the plan.

- **Section 66.0225** – This section of the *Statutes* allows two abutting communities that are parties to a court action regarding an annexation, incorporation, consolidation, or detachment, to enter into a written stipulation compromising and settling the litigation and determining a common boundary between the communities.

Cooperative approaches to the identification of future corporate limits and the extension of urban services can contribute significantly to attainment of the compact, centralized urban growth recommended in VISION 2050. Conversely, failure of neighboring civil divisions to reach agreement on boundary and service extension matters may result in development at variance with VISION 2050—for example, by causing new development to leap past logical urban growth areas where corporate limits are contested, to outlying areas where sewer and water supply service are not available. Accordingly, VISION 2050 recommends that neighboring incorporated and unincorporated communities cooperatively plan for future land use, civil division boundaries, and the provision of urban services, as provided for under the *Wisconsin Statutes*, within the framework of the land use component of VISION 2050.

Municipal Revenue Sharing

Additional opportunity for intergovernmental cooperation is provided under Section 66.0305 of the *Wisconsin Statutes*, entitled "Municipal Revenue Sharing." Under this statute, two or more cities, villages, and towns may enter into revenue sharing agreements, providing for the sharing of

revenues derived from taxes and special charges. The agreements may address matters other than revenue sharing, including municipal services and municipal boundaries. Municipal revenues sharing can provide for a more equitable distribution of the property tax revenue generated from new commercial and industrial development within metropolitan areas and help reduce tax-base competition among communities, competition that can work against the best interests of the metropolitan area as a whole.

A good example of municipal revenue sharing under this statute is the revenue sharing agreement included in the Racine Area Intergovernmental Sanitary Sewer Service, Revenue Sharing, Cooperation and Settlement Agreement entered into by the City of Racine and neighboring communities in 2002. Under this agreement, the City of Racine receives shared revenue payments from neighboring communities for use in renovating older residential areas, redeveloping brownfield sites, and supporting regional facilities like the City zoo, fine arts museum, and library. In return, the City of Racine agreed to support the incorporation of the two adjacent Towns of Caledonia and Mt. Pleasant; refrain from annexations without the consent of the Towns; refrain from using extra-territorial and plat review powers; and move ahead with sewerage system improvements that will accommodate growth in the Towns. It should be noted that the Towns of Mt. Pleasant and Caledonia were incorporated as villages in 2003 and 2005, respectively.

Capital Improvement Programming

The ability of county and local units of government to implement VISION 2050 as refined and detailed in county and community comprehensive plans depends in part upon the proper timing and coordination of major capital improvements, including major streets and highways, major utility facilities, parks, libraries, and other major public facilities. This can best be accomplished through systematic capital improvement programming, a process involving the scheduling of major public improvements over a specified period of time, taking into account the relative importance of, and need for, those improvements and the financial resources anticipated to be available. Although procedures vary, this process typically involves the preparation of a capital improvement budget for the next fiscal year and a capital improvement program indicating improvements planned for the following four or five years. It is common for the improvement budget to be prepared and the capital improvement program to be revised annually. As part of the capital improvement programming process, every effort should be made to relate major capital improvement to the development objectives set forth in county and local plans that refine VISION 2050.

Brownfield Redevelopment

The Southeastern Wisconsin Region, like many urbanizing regions throughout the Nation, has experienced an increase in vacant or underutilized sites once devoted to industrial, commercial, and related uses. Factors contributing to the abandonment or underutilization of older commercial and industrial sites vary from site to site, but often include structures that are obsolete in terms of accommodating current manufacturing, warehousing, and office needs; inadequate site access to the freeway system; and insufficient site area for horizontally-oriented structures, contemporary parking and loading requirements, and possible future plant expansion needs.

Once abandoned, the re-use of former commercial and industrial sites is frequently constrained by contamination problems created by past industrial and commercial activities, giving rise to the term "brownfields"—sites that are underutilized or abandoned due to known or suspected environmental

contamination. While brownfields tend to be concentrated in older central city areas, they also occur in outlying urban areas. Redevelopment of brownfields is often hindered by high cleanup costs, and, even where contamination is only suspected, the potential for high cleanup costs tends to dampen private-sector interest in redevelopment.

Maintaining the viability of existing urban areas of the Region as recommended in VISION 2050 will require special efforts to promote the reuse of brownfields. Local units of government should include the cleanup and re-use of brownfields as a key element in their planning for the revitalization of urban areas and promote such re-use through such tools as tax-incremental financing. Limited State and Federal financial assistance has been made available in support of the cleanup and re-use of contaminated sites. Local units of government should make full use of, and assist private developers in securing, available State and Federal financial assistance.

The re-use of brownfield sites need not be limited to industrial use, but may include a mix of residential, commercial, recreational, and other development, in accordance with local development objectives. Properly carried out, the cleanup and re-use of brownfields has many potential benefits in addition to the underlying environmental benefits: elimination of blight, increase in the property-tax base, expansion of the housing stock, provision of jobs in close proximity to concentrations of the labor force, and increased use of existing public infrastructure. The redevelopment of such sites should consider the use of sustainable development practices such as green roofs, porous pavement, and rain gardens. Those practices increase stormwater infiltration and/or evapotranspiration, potentially reducing small storm runoff volumes and providing water quality benefits. Such practices must be designed in concert with site remediation measures to ensure the stormwater features function as intended.

Development Design Standards

Achievement of a settlement pattern that is functional, safe, and attractive, as recommended in VISION 2050, ultimately depends upon good design of individual development sites. Local units of government can promote good site design through the establishment of design standards to be adhered to in private-sector development. Adherence to soundly conceived design standards can enhance the visual character of the developed areas, contribute to the long-term stability of the developed areas and the maintenance of property values, and protect the public investment in supporting infrastructure systems.

Design standards should reflect both regional and local development objectives. Regional concerns that should be addressed in such standards include transit serviceability, proper access to arterial streets and highways, and protection of the natural resource base. Local concerns that may be addressed in such standards include, among others, the layout of lots and blocks; provision of off-street parking; building mass, facades, and materials; solar access; grading; drainage; screening or buffering of building appurtenances; landscaping; open space reserves; controlled outdoor lighting; pedestrian and bicycle circulation; access to public transit; and buffering and screening of new development along freeways and other major highways. Some of the design standards may be quantitative in nature, so that compliance is directly measurable. Other standards may be qualitative in nature, so that determination of compliance involves experienced judgment.

Perhaps the best way to ensure compliance with design standards is to incorporate those standards into local land use controls—particularly zoning and land division control ordinances. Zoning ordinances can be expanded by requiring that site plans and building plans be prepared for each proposed development and by specifying the standards that the plans must meet. Land division control ordinances may be expanded to stipulate additional design standards required to be met in the land development process. Freestanding architectural control ordinances may also be used to codify building-related design standards.

With respect to zoning, design standards can be incorporated in several ways. For example, where a zoning ordinance requires site and building plan review by the local plan commission, specific design standards can be included in that section of the ordinance. Design standards can also be incorporated as part of 'form-based' zoning provisions. Still an emerging concept, form-based zoning generally places more emphasis on physical building and site design attributes and less emphasis on the regulation of specific uses than conventional zoning. The use of form-based zoning is likely to have most application to situations where it is desired to accommodate a diversity of uses and to allow buildings to accommodate different uses over time.

VISION 2050 recommends that each county and local unit of government in the Region consider the formulation of a comprehensive set of design standards reflecting regional and local development objectives and determine whether and how existing local land use controls should be amended to ensure adherence to those standards.

Sound Land and Water Management Practices

As previously noted, the land use component of VISION 2050 is a systems level plan. It includes recommendations regarding the general location and intensity of urban lands, the preservation of environmentally significant lands, the preservation of prime agricultural land, and the appropriate use of land in other rural areas. As VISION 2050 is implemented in the years ahead, it is essential that appropriate land and water management practices be planned for and applied, as a complement to the regional plan. A detailed discussion in this regard is beyond the scope of this report. This report can only highlight the types of planning and related management practices that should be considered in planned urban and rural areas.[14]

Stormwater runoff pollution performance standards for new development, existing urban areas, and transportation facilities are set forth in Chapters NR 151 and NR 216 of the *Wisconsin Administrative Code*. Each municipality in the Region should develop a stormwater management plan and adopt a stormwater management ordinance to achieve the standards set forth in the Administrative Code. Stormwater management practices appropriate for each urban area can best be developed through the preparation of a management plan. These practices should be developed in a manner that integrates development needs and environmental protection, including integrated water resources protection. Such practices should reflect both stormwater runoff quantity and quality considerations, as well as groundwater quantity and quality protection. Practices that are designed to maintain the natural hydrology should be considered where appropriate.

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[14] *Detailed information and recommendations regarding land and water management practices are presented in other Regional Planning Commission reports. In addition, information regarding land and water management practices is included in reports and other informational materials prepared by county land and water conservation committees, the Milwaukee Metropolitan Sewerage District, the DNR, and the NRCS.*

Chapter NR 151 of the *Wisconsin Administrative Code*, along with the Wisconsin Uniform Dwelling Code, sets forth regulations relating to construction site erosion. Construction site erosion is one of the leading causes of siltation in waterways. VISION 2050 recommends that each municipality adopt a construction site erosion control ordinance which incorporates the sound erosion control techniques outlined in the rules noted above.

Chapter NR 151 of the *Wisconsin Administrative Code* also includes performance standards in relation to stormwater runoff in agricultural areas. Runoff from agricultural lands may include significant nonpoint source pollutant loadings. In addition, the control of erosion on agricultural lands is important for long-term soil productivity. Consequently, the use of land and water management practices in rural areas is an important adjunct to the recommended land use component of VISION 2050. The management practices to be implemented in agricultural areas should be developed through the preparation of farm plans on a site-specific basis and should be prepared in a manner consistent with each county's land and water resources management plan.

Educational Activities

Planning-related educational efforts directed at county and local units of government and private interests are important to VISION 2050 implementation. Recognizing this, the Regional Planning Commission undertakes a variety of educational efforts to promote implementation of VISION 2050. These efforts include the following: informational meetings and formal public hearings on VISION 2050; presentations to county and local planning committees and commissions; classroom presentations; preparation of a series of planning guides intended to serve as manuals of sound planning practice; sponsorship of conferences and workshops related to special planning and plan implementation issues; publication of newsletters describing Commission planning programs and current issues in planning; publication of an annual report that includes an overview of current Commission planning activities and presents data gathered on an annual basis to help monitor regional plan implementation; and cooperation with the University of Wisconsin-Extension. The Regional Planning Commission's Public Involvement and Outreach Division works directly with other Commission staff on coordinating plan implementation activities.

The Regional Planning Commission's website is an important part of the Commission's education and public information effort. All new Commission publications, and many past publications, are available online through the website. All draft report materials and advisory committee minutes for ongoing regional planning projects are also available on the website. In addition, a website dedicated to VISION 2050 was created at the beginning of the VISION 2050 process and will be a valuable resource going forward.

The University of Wisconsin-Extension also undertakes a variety of planning-related educational activities that promote implementation of VISION 2050 and support local planning efforts to refine VISION 2050. Such efforts, frequently undertaken in cooperation with the Regional Planning Commission, include sponsorship of planning conferences, publication of informational materials on various planning topics, and support of county and local planning activities through Extension community development agents and other specialists.

Technical and Financial Assistance for Planning

As noted above, an important step in the implementation of VISION 2050 is the refinement and detailing of the plan through the preparation of county

and local comprehensive plans. This should be followed by adjustment of zoning and other local land use controls and administration of such controls in accordance with VISION 2050 over time. A number of public agencies provide technical assistance to local units of government in support of such local planning efforts, including county planning agencies, the University of Wisconsin-Extension, and the Regional Planning Commission. Specialized technical assistance on natural resource base-related planning matters may be obtained from county land conservation departments and the NRCS. Limited guidance and assistance may be obtained without cost or for a nominal fee. In some cases, cities, villages, and towns may contract with an agency for extensive technical assistance services. In addition to the aforementioned public agencies, county and local units of government may turn to a number of qualified planning and engineering firms for technical assistance in support of local planning activities.

A number of planning guides have been prepared specifically to assist county and local units of government in the preparation of local comprehensive plans. These guides have been prepared by various agencies, including the Wisconsin Departments of Administration, Transportation, Natural Resources, and Agriculture, Trade, and Consumer protection; The Historical Society of Wisconsin; the University of Wisconsin-Extension; and the Wisconsin Economic Development Institute. To date, guides have been prepared for the housing, land use, transportation, economic development, intergovernmental cooperation, and agricultural, natural, and cultural resources elements of the comprehensive plan.

For the most part, county and local units of government must bear the costs of their local planning activities.

PART II: TRANSPORTATION SYSTEM PLAN IMPLEMENTATION

The transportation component of VISION 2050 has six major elements: public transit, bicycle and pedestrian facilities, transportation systems management, travel demand management, arterial streets and highways, and freight transportation. The specific actions required to implement each of these elements, and the agencies responsible for those actions, are described in the following sections of this chapter.

Public Transit

The public transit element of VISION 2050 recommends a significant improvement and expansion of public transit in Southeastern Wisconsin, including two commuter rail lines, eight rapid transit lines, and significantly expanded local streetcar and bus, express bus, commuter bus, and shared-ride taxi services. Map 1.8 in Chapter 1 of this volume displays the routes and areas served by the various components of the recommended transit element. Altogether, service on the regional transit system would be increased from service levels existing in 2014 by about 117 percent measured in terms of revenue transit vehicle-hours of service provided, from about 4,750 vehicle-hours of service on an average weekday in the year 2014 to 10,310 vehicle-hours of service in the year 2050 (see Table 1.8). The recommended service improvements and expansion include expansion of service area and hours, and significant improvements in the frequency of service. Table 1.9 shows the span of service hours and frequencies under VISION 2050. Table 3.2 identifies the entities and their roles with regard to implementing the public transit recommendations of the plan.

A comparison of estimated plan costs to existing and reasonably expected revenues identified a significant funding shortfall for the public transit element (see Table 1.20). The overall funding gap between the forecast capital and operating costs for the recommended transit system and the forecast revenues for transit is about $161 million annually in year 2015 constant dollars and about $261 million annually in year-of-expenditure dollars. The identified funding gap is a result of significantly constrained funding for public transit. Public transit in Southeastern Wisconsin is funded in a unique way, heavily dependent on Federal and State funding. The local share of funding for public transit in the Region is provided through county or municipal budgets, largely provided by property taxes, with public transit competing annually with mandated services and projects. Increasingly, due to the constraints in property tax-based funding, counties and municipalities have found it difficult to provide funding to address transit needs, and to respond to any shortfalls in Federal and State funding.

Implementation of this proposed expansion will be dependent upon State legislation to create local dedicated transit funding[15] and a renewal of adequate annual State financial assistance to transit. In terms of State financial assistance to transit, the State should consider restoring the cut in transit funding from the 2011-13 State budget, raising funding back to historic levels, and increasing future funding at the rate of inflation. The Wisconsin Transportation Finance and Policy Commission recommended an annual increase in statewide transit funding of $36.3 million along with recommended revenue sources to support the additional funding (including restoring the cut in transit funding from the 2011-13 budget, raising funding back to historic levels, and creating a transit capital program). In the 2015-2017 State budget, the WisDOT Secretary proposed an additional $60.7 million in statewide transit funding during the biennium, including a new capital program and increases to State transit operating assistance.

In addition to providing adequate funding, implementation of the significant improvements and expansion of transit would be bolstered through the creation of a regional transit authority (RTA) with the ability to collect dedicated funding, and construct, manage, and operate the recommended transit system. A number of the recommended transit services extend

[15] With regard to potential new transit revenue sources, a sales tax is the most common dedicated local transit funding source in other areas of the country and has previously been proposed for the Region. A sales tax has the potential to generate the needed revenue to implement the recommended transit improvements. Milwaukee has by far the largest transit system of its peers not supported by dedicated funding. When comparing the Milwaukee metro area to 26 peer metro areas from the midwest and across the nation, two-thirds of the peers have a local dedicated source of funding—typically a sales tax—which provides the bulk of their funding. The other peer metro area transit systems without dedicated funding provide one-half to one-fifth the transit service per capita provided in Milwaukee. In addition, the Milwaukee area is the most dependent on State funding compared to its 26 peers. The transit systems nationwide supported by sales tax revenue typically have a sales tax of 0.25 to 1.0 percent. In some of these areas, the sales tax rate varies by jurisdiction depending on the amount of transit service received by each jurisdiction.

There are a number of other potential revenue sources that could provide additional transit funding in the Region (see Table 1.21). In order to help address the transit funding gap identified for VISION 2050, these sources could be considered. Like the sales tax, the ability to implement most of the identified funding sources would require State legislation. Also like the sales tax, some revenue sources could be levied only in the more urban areas of the Region that would be served by a majority of the recommended transit improvements and expansion, and counties and municipalities may be able to partially eliminate the use of property tax revenues to fund transit.

Table 3.2
Roles with Regard to the Implementation of the Public Transit Element of VISION 2050

Recommendation		Public Entities							Private Entities
		Local			Areawide	State			
		Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
2.1:	Develop a rapid transit network	- -	P	- -	S	- -	- -	E	- -
2.2:	Develop commuter rail corridors and improve and expand commuter bus services	- -	S	- -	S	P	- -	E	- -
2.3:	Improve existing express bus service and add service in new corridors	- -	P	- -	S	- -	- -	E	- -
2.4:	Increase the frequency and expand the service area of local transit	- -	P	- -	S	- -	- -	E	- -
2.5:	Improve intercity transit services and expand the destinations served	- -	P	- -	S	P	- -	- -	- -
2.6:	Implement "transit-first" designs on urban streets	P	S	P	S	S	- -	- -	- -
2.7:	Enhance stops, stations, and park-ride facilities with state-of-the-art amenities	- -	P	- -	S	P	- -	- -	- -
2.8:	Accommodate bicycles on all fixed-route transit vehicles	- -	P	- -	S	- -	- -	- -	- -
2.9:	Implement programs to improve access to suburban employment centers	P	P	P	S	- -	- -	- -	- -
2.10:	Provide information to promote transit use	- -	P	- -	S	P	- -	- -	- -
2.11:	Implement a universal fare system and free transfers across all transit operators	- -	P	- -	S	P	- -	- -	- -
2.12:	Consider implementation of proof-of-payment on heavily-used transit services	- -	P	- -	S	- -	- -	- -	- -
2.13:	Promote and expand transit pricing programs	- -	P	- -	S	P	- -	- -	- -
2.14:	Expand "guaranteed ride home" programs	- -	P	- -	S	- -	- -	- -	- -

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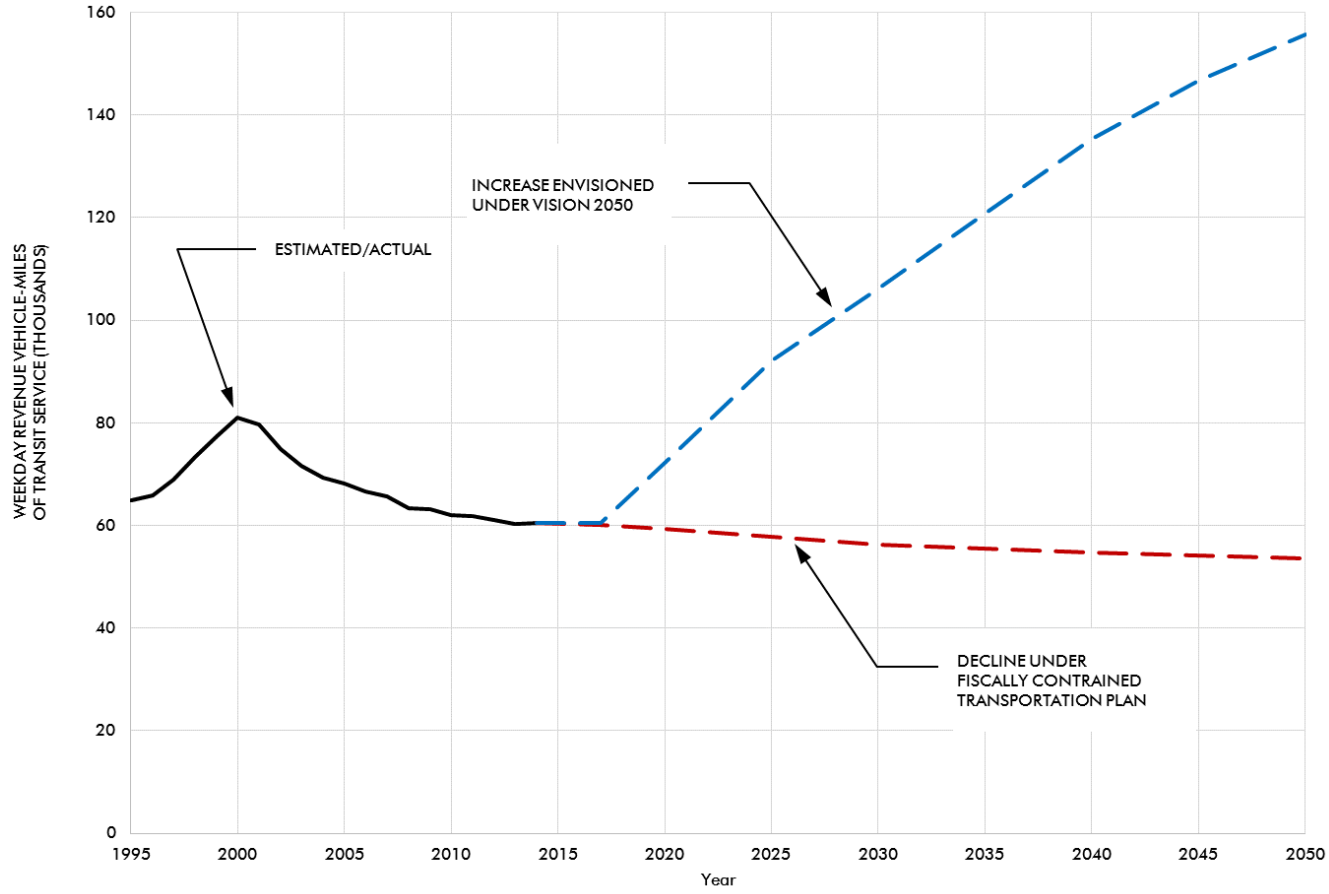
Source: SEWRPC

across city and county boundaries and a regional agency could assist in the implementation of these proposed services. Legislative efforts to create an RTA have not progressed since 2010.

The funding constraints placed on the current operators of public fixed-route transit services in the Region—Ozaukee, Milwaukee, Washington, and Waukesha Counties and the Cities of Kenosha, Racine and Waukesha—will inhibit the implementation of the VISION 2050 recommendations for improvement and expansion of transit services. As such, the Fiscally Constrained Transportation Plan (FCTP), discussed in Chapter 2 of this volume, includes a 9 percent decline in transit service. Figure 3.4 sets forth the schedule of service improvements envisioned under VISION 2050 and the expected service declines anticipated due to transit funding constraints included in the FCTP.

Figure 3.4
Historic and Planned Vehicle-Miles of Public Transit Service Under VISION 2050 and the Fiscally Constrained Transportation Plan



Source: SEWRPC

Bicycle and Pedestrian Element

The bicycle and pedestrian facility element of VISION 2050 is intended to promote safe accommodation of bicycle and pedestrian travel, and encourage bicycle and pedestrian travel as an alternative to personal vehicle travel. The ability to support biking and walking is an important component of improving quality of life and achieving healthy, vibrant communities. While the Region has a colder climate and the proportion of residents that currently travel by bicycle is small, improving the bicycling and walking environment can have numerous benefits to the Region's residents. As the alternatives evaluation showed (presented in Appendix F of Volume II), well-connected infrastructure and a development pattern that provides a mix of uses within short distances make it easier to bike and walk. This encourages people to incorporate active travel into their daily routine, which can improve their health and reduce their healthcare costs. It is also important to integrate bicycle and pedestrian travel and public transit travel, which often begins and ends by either biking or walking. Recognizing the benefits of encouraging active transportation, the bicycle and pedestrian facilities element of VISION 2050 recommends a well-connected bicycle and pedestrian network that improves access to activity centers, neighborhoods, and other destinations in the Region. The element seeks to encourage bicycle and pedestrian travel as a safe, attractive alternative to driving.

Table 3.3
Roles with Regard to the Implementation of the Bicycle and Pedestrian Element of VISION 2050

Recommendation	Public Entities							Private Entities
	Local			Areawide	State			
	Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
3.1: Expand the on-street bicycle network as the surface arterial system is resurfaced and reconstructed	P	- -	P	S	P	- -	- -	- -
3.2: Expand the off-street bicycle path system to provide a well-connected regional network	P	- -	P	S	P	P	- -	- -
3.3: Implement enhanced bicycle facilities in key regional corridors	P	- -	P	S	P	- -	- -	- -
3.4: Expand bike share program implementation	P	- -	P	S	- -	- -	- -	P
3.5: Provide pedestrian facilities that facilitate safe, efficient, and accessible pedestrian travel	P	- -	P	S	P	- -	- -	- -
3.6: Prepare local community bicycle and pedestrian plans	P	- -	P	S	- -	- -	- -	- -

NOTE: P = Primary entity or entities critical to the implementation of a plan recommendation.
S = Supporting entity responsible for providing data, participating in advisory committees, or at the request of a primary agency, the conduct of a study in support of a plan recommendation.
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Source: SEWRPC

Bicycle recommendations for VISION 2050 include providing on-street bicycle accommodations on the arterial street and highway system, expanding the off-street bicycle path system, implementing enhanced bicycle facilities in key regional corridors, and expanding bike share program implementation. As shown in Table 1.10 of Chapter 1 of this volume, VISION 2050 recommends approximately 3,027 miles of standard on-street bicycle accommodations, 363 miles of enhanced bicycle facilities, and 715 miles of off-street bicycle paths. Map 1.11 shows the recommended bicycle network, which identifies on-street bicycle facilities, potential corridors for enhanced bicycle facilities, off-street bicycle paths, and nonarterial street connections to the off-street bicycle network.

VISION 2050 also includes recommendations for the location, design, and construction of pedestrian facilities. The plan further recommends that local communities develop bicycle and pedestrian plans to supplement VISION 2050. A description of the specific recommendations are provided in Chapter 1 of this volume. Table 3.3 identifies the entities and their roles with regard to implementing the bicycle and pedestrian recommendations of VISION 2050. A set of design guidelines for bicycle and pedestrian facilities is provided in Appendix K.

With regard to the on-street bicycle network, including those arterials identified as potential enhanced bicycle facility corridors, the level and unit of government responsible for constructing and maintaining the surface arterial street or highway should also have responsibility for constructing and maintaining the associated bicycle or pedestrian facility, or for entering into construction, operations, and/or maintenance agreements with local units or agencies of government. Accordingly, the Wisconsin Department of Transportation (WisDOT) should assume responsibility for bicycle and pedestrian facilities within the right-of-way of State trunk highways and

connecting streets; the respective county highway, transportation, or public works departments should assume responsibility for bicycle and pedestrian facilities located within the right-of-way of county trunk highways; and the various cities, villages, and towns should assume responsibility for bicycle and pedestrian facilities located within the right-of-way of streets and highways under their jurisdiction. Bicycle and pedestrian facilities should be considered for provision at the time a street or highway is constructed, reconstructed, or resurfaced.

A more detailed evaluation of the proposed accommodation of bicycles on surface arterial streets or highways should necessarily be conducted by the implementing agency as part of the engineering for the resurfacing, reconstruction, and new construction of each segment of surface arterial. Factors to be considered during the detailed evaluation include the availability of right-of-way; the number and type of structures and vegetation that may need to be removed or relocated to provide the bicycle facility; the effects on environmentally sensitive areas, including wetlands; the cost of providing the bicycle facility on a specific street or highway in relation to providing the bicycle-related improvement on a parallel non-arterial street or off-street corridor; and the quality of the alternative locations and the likelihood that bicyclists would use those alternatives, including the potential for a recommended off-street bicycle path to serve as an alternative location. The location and design treatment of the proposed bicycle facility should also be coordinated with the location and design treatment of nearby bicycle facilities.

If the detailed evaluation process indicates that the recommended bicycle way location is not feasible due to site constraints, excessive costs, the traffic and operating characteristics of the roadway, or other factors, the implementing agency should identify an alternative location and evaluate the feasibility of the alternative route. The evaluation of the recommended bicycle accommodation, and, if necessary, the identification and evaluation of alternative locations, should be conducted during the preliminary engineering phase of project design. On all surface arterial streets and highways within the Region, preliminary engineering for rehabilitation, reconstruction, or new construction should consider the provision of the recommended bicycle accommodation, with the bicycle accommodation included as part of the project design, or a commitment to provide an alternative bicycle facility on a parallel non-arterial street or off-street corridor.

The level and unit of government responsible for constructing and maintaining the off-street bicycle facilities are shown on Map 3.1 and summarized in Table 3.4. The recommended year 2050 off-street bicycle path jurisdiction is based on extending to the design year 2050 the year 2035 bicycle and pedestrian facilities system plan for the Southeastern Wisconsin Region.

Subsequent to the completion of VISION 2050, the Regional Planning Commission will, by request, review and update the jurisdictional responsibility of the off-street bicycle facilities as well as conduct an assessment of the priority of need for bicycle accommodation on each segment of the surface arterial street and highway system considering factors including traffic volume, composition, speed, and congestion.

Transportation Systems Management Element

Transportation systems management (TSM) involves managing and operating existing transportation facilities to maximize their carrying capacity and travel efficiency. TSM recommendations for VISION 2050 include freeway traffic

Table 3.4
Distribution of Off-Street Bicycle Facility Mileage within the Region
By County and Jurisdictional Classification: VISION 2050

County	State		County		Local		Total	
	Miles	Percent of Total	Miles	Percent of Total	Miles	Percent of Total	Miles	Percent of Total
Kenosha	4.3	7.2	87.9	16.5	15.6	12.8	107.8	3
Milwaukee	11.0	18.5	120.6	22.6	38.7	31.8	170.3	23.8
Ozaukee	0.0	0.0	44.8	8.4	0.5	0.4	45.3	6.3
Racine	0.0	0.0	75.8	14.2	16.2	13.3	92.0	12.9
Walworth	14.8	24.9	40.8	7.6	6.9	5.7	62.5	8.7
Washington	12.4	20.9	39.9	7.5	7.5	6.2	59.8	8.4
Waukesha	16.9	28.5	124.1	23.2	36.2	29.8	177.2	24.8
Total	59.4	100.0	533.9	100.0	121.6	100.0	714.9	100.0

Source: SEWRPC

management, surface arterial street and highway traffic management, and major activity center parking management and guidance.

Freeway Traffic Management

Freeway traffic management strategies include measures (Recommendations 4.1 to 4.3) that improve the operational control, advisory information, and incident management on the regional freeway system. Some of these measures are currently in use in Southeastern Wisconsin and are recommended to be expanded and enhanced. Several newer technologies, and certain measures not currently used in the Region, are recommended to be considered for implementation. Essential to implementing freeway traffic management measures is the State Traffic Operations Center (STOC) in the City of Milwaukee, from which all freeway segments in the Region are monitored, freeway operational control and advisory information is determined, and incident management detection and confirmation is conducted.

Surface Arterial Street and Highway Traffic Management

Surface arterial street and highway traffic management strategies are measures (Recommendations 4.4 to 4.11) that improve the operation and management of the regional surface arterial street and highway network. Many of these measures are currently in use in the Region and are recommended to be expanded and enhanced. Surface arterial street and highway traffic management measures are described in Chapter 1 of this volume, along with recommendations related to specific measures, including advisory information, traffic signal coordination, intersection traffic engineering improvements, curb-lane parking restrictions, and access management.

Regional Transportation Operations Plan

The current regional transportation operations plan (RTOP), completed in 2012, is a five-year program identifying candidate corridor and intersection TSM projects prioritized for implementation and funding, particularly with respect to Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality Improvement (CMAQ) Program funding. VISION 2050 recommends that Commission staff work with State, county, and municipal governments to review and update the RTOP every four years, with the next update to occur in 2017 following adoption of VISION 2050 (Recommendation 4.12).

Map 3.1
Recommended Off-Street Bicycle Facility Jurisdiction: VISION 2050

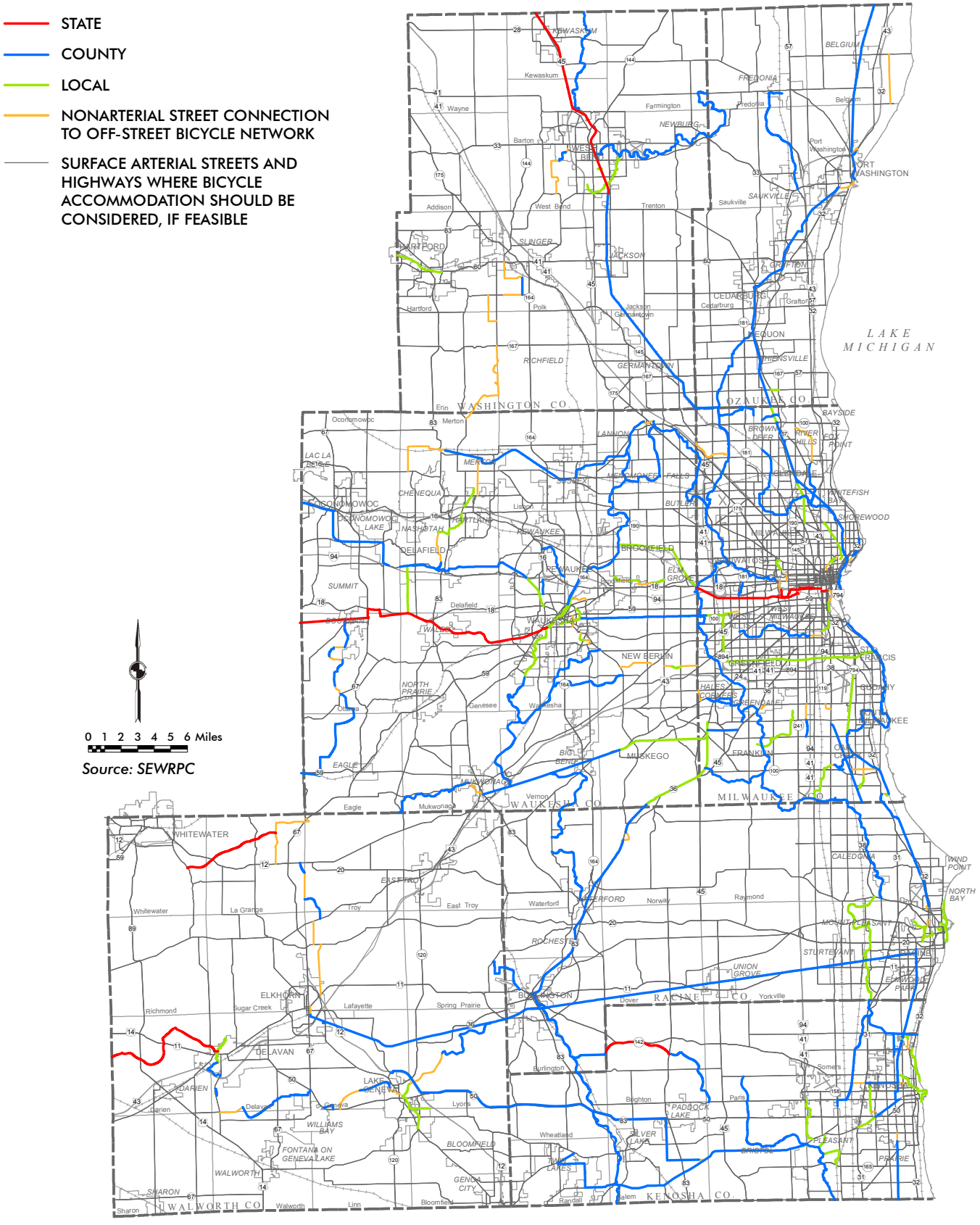

Table 3.5
Roles with Regard to the Implementation of the Transportation Systems Management Element of VISION 2050

Recommendation		Public Entities							Private Entities
		Local			Areawide	State			
		Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
4.1:	Implement freeway operational control measures	- -	- -	- -	- -	P	- -	- -	- -
4.2:	Implement advisory information measures for the Region's freeway system	- -	- -	- -	- -	P	- -	- -	- -
4.3:	Implement incident management measures for the freeway system	- -	- -	- -	- -	P	- -	- -	- -
4.4:	Improve and expand coordinated traffic signal systems	P	- -	P	S	P	- -	- -	- -
4.5:	Improve arterial street and highway traffic flow at intersections	P	- -	P	S	P	- -	- -	- -
4.6:	Expand curb-lane parking restrictions	P	- -	P	S	P	- -	- -	- -
4.7:	Develop and adopt access management standards	P	- -	P	P	P	- -	- -	- -
4.8:	Enhance advisory information for surface arterial streets and highways	- -	- -	- -	S	P	- -	- -	- -
4.9:	Expand the use of emergency vehicle preemption	P	- -	P	S	P	- -	- -	- -
4.10:	Implement parking management and guidance systems in major activity centers	P	- -	P	S	P	- -	- -	- -
4.11:	Implement demand-responsive pricing for parking in major activity centers	P	- -	P	S	- -	- -	- -	P
4.12:	Review and update regional transportation operations plan	S	- -	S	P	S	- -	- -	- -

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Source: SEWRPC

Implementation of the recommended TSM measures within each of the three categories collectively would be expected to result in a more efficient and safer transportation system. The implementation of the TSM recommendations of VISION 2050 will necessarily require the cooperation and coordination of multiple public (State, areawide, county, and local) and private entities. A more detailed description of the specific measures (Recommendations 4.1 to 4.12) are provided in Chapter 1 of this volume. Table 3.5 identifies the entities and their roles with regard to implementing the TSM recommendations of VISION 2050.

Travel Demand Management Element

Travel demand management (TDM) refers to a series of measures or strategies intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. The general intent of such measures is to reduce traffic volume and congestion, and attendant air pollutant

Table 3.6
Roles with Regard to the Implementation of the Travel Demand Management Element of VISION 2050

Recommendation	Public Entities							Private Entities
	Local			Areawide	State			
	Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
5.1: Enhance the preferential treatment for high-occupancy vehicles	P	- -	P	S	P	- -	- -	- -
5.2: Expand the network of park-ride lots	P	P	P	S	P	- -	- -	P
5.3: Implement personal vehicle pricing	- -	- -	- -	S	P	- -	E	P
5.4: Promote travel demand management	- -	- -	- -	P	P	- -	- -	- -
5.5: Facilitate transit, bicycle, and pedestrian movement in local land use plans and zoning	P	- -	P	S	- -	- -	- -	- -

NOTE: P = Primary entity or entities critical to the implementation of a plan recommendation.
S = Supporting entity responsible for providing data, participating in advisory committees, or at the request of a primary agency, the conduct of a study in support of a plan recommendation.
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Source: SEWRPC

emissions and fuel consumption. To be effective, these measures should be technically and politically feasible; integrated with public transit, bicycle and pedestrian, and arterial street and highway improvements; and combined into coherent packages so that a variety of measures are implemented. VISION 2050 recommends TDM measures, including high-occupancy vehicle (HOV) preferential treatment, park-ride lots, personal vehicle pricing, TDM promotion, and detailed site-specific neighborhood and major activity center land use plans. It should be noted that there is an inherent overlap between the TDM and public transit elements of VISION 2050, and the transit element recommends a number of additional measures that would reduce personal and vehicular travel beyond those included in the TDM element. A detailed description of the specific measures or strategies (Recommendations 5.1 to 5.5) are provided in Chapter 1 of this volume. Table 3.6 identifies the entities and their roles with regard to implementing the TDM recommendations of VISION 2050.

Arterial Streets and Highways Element

The arterial street and highway system envisioned in VISION 2050 would consist of 3,670 route miles of facilities. VISION 2050 recommends the construction of 75 route miles of new facilities within the Region. It also recommends the widening with additional traffic lanes of 269 route miles of arterials, including 106 miles of freeways. VISION 2050 does not make any recommendation with respect to whether the 10 miles of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional traffic lanes. It recommends that preliminary engineering conducted for the reconstruction of this segment of IH 43 should include the consideration of alternatives for rebuilding the freeway with additional lanes and rebuilding it with the existing number of lanes. VISION 2050 also calls for pavement resurfacing and reconstruction as necessary to maintain the remaining 3,316 route miles of planned arterial facilities, including rebuilding the regional freeway system to modern design standards as it is reconstructed. A description of the specific

Table 3.7
Roles with Regard to the Implementation of the Arterial Streets and Highways Element of VISION 2050

Recommendation	Public Entities							Private Entities
	Local			Areawide	State			
	Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
6.1: Preserve the Region's arterial street and highway system	P	- -	P	S	P	- -	E	- -
6.2: Incorporate "complete streets" concepts for arterial streets and highways	P	- -	P	S	P	- -	- -	- -
6.3: Expand arterial capacity to address residual congestion	P	- -	P	S	P	- -	E	- -
6.4: Avoid, minimize, or mitigate environmental impacts of arterial capacity expansion	P	- -	P	S	P	- -	- -	- -
6.5: Address safety needs on the arterial street and highway network	P	- -	P	S	P	- -	- -	- -
6.6: Address security needs related to the arterial street and highway system	P	- -	P	S	P	- -	- -	- -

Note: P = Primary entity or entities critical to the implementation of a plan recommendation.
S = Supporting entity responsible for providing data, participating in advisory committees, or at the request of a primary agency, the conduct of a study in support of a plan recommendation.
E = Enabling entity responsible for the enactment of laws to provide a primary agency the authority or funding to implement a plan recommendation.

Source: SEWRPC

recommendations attendant to the arterial streets and highways element are provided in Chapter 1 of this volume. Table 3.7 identifies the entities and their roles with regard to implementing the arterial streets and highways element recommendations of VISION 2050. Additional recommendations as they relate to functional improvements and jurisdiction are as follows.

Functional Improvement Recommendations

VISION 2050 recommends that WisDOT act to maintain, improve, and expand, in accordance with the plan recommendations, the arterial street and highway facilities under State jurisdiction. VISION 2050 also recommends that the county boards of the seven constituent counties in the Region, upon recommendation of their respective county public works, highway, and transportation committees, act to expand, improve, and maintain, in accordance with the plan recommendations, the arterial street and highway facilities under county jurisdiction. VISION 2050 further recommends that the common councils, village boards, and town boards within the Region, upon recommendation of their respective plan commissions and boards of public works, act to expand, improve, and maintain, in accordance with the plan recommendations, the arterial street and highway facilities under local jurisdiction. Jurisdictional classification establishes which level of government—State, county, or local—has or should have, responsibility for the design, construction, maintenance, and operation of each segment of the total street and highway system. Table 3.8 and Figure 3.5 show the anticipated schedule for completion of these improvements.

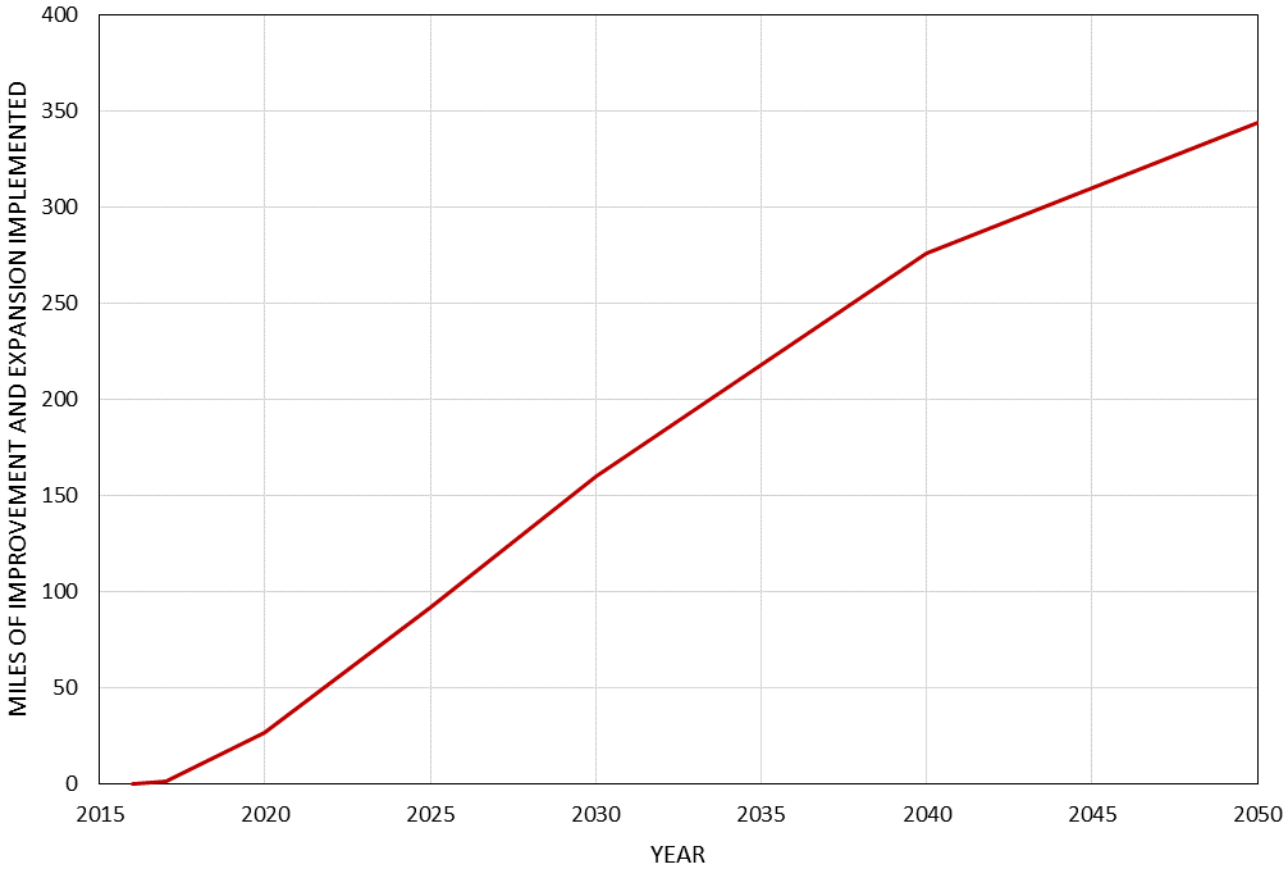
Each recommended arterial street and highway improvement, expansion, and preservation project would need to undergo preliminary engineering and environmental studies by the responsible State, county, or municipal government prior to implementation. The preliminary engineering and

Table 3.8
Implementation Schedule for the Arterial Streets and Highways Element Capacity Improvement and Expansion: 2017, 2020, 2025, 2030, 2040, and 2050

Southeastern Wisconsin Region	Proposed Incremental Arterial System Improvement and Expansion Route Miles						
	2017	2020	2025	2030	2040	2050	Total
State Trunk Highway	0	21	46	34	73	41	215
County and Local Trunk Highway	1	5	19	34	43	27	129
Total Regional Arterial System	1	26	65	68	116	68	344

Source: SEWRPC

Figure 3.5
Cumulative Miles of Planned Arterial Street and Highway System Capacity Improvement and Expansion: 2016-2050



Source: SEWRPC

environmental studies will consider alternative alignments and impacts, including a no-build option, and final decisions as to whether to implement and how a planned project will proceed to implementation will be made by the responsible State, county, or municipal unit of government at the conclusion of preliminary engineering.

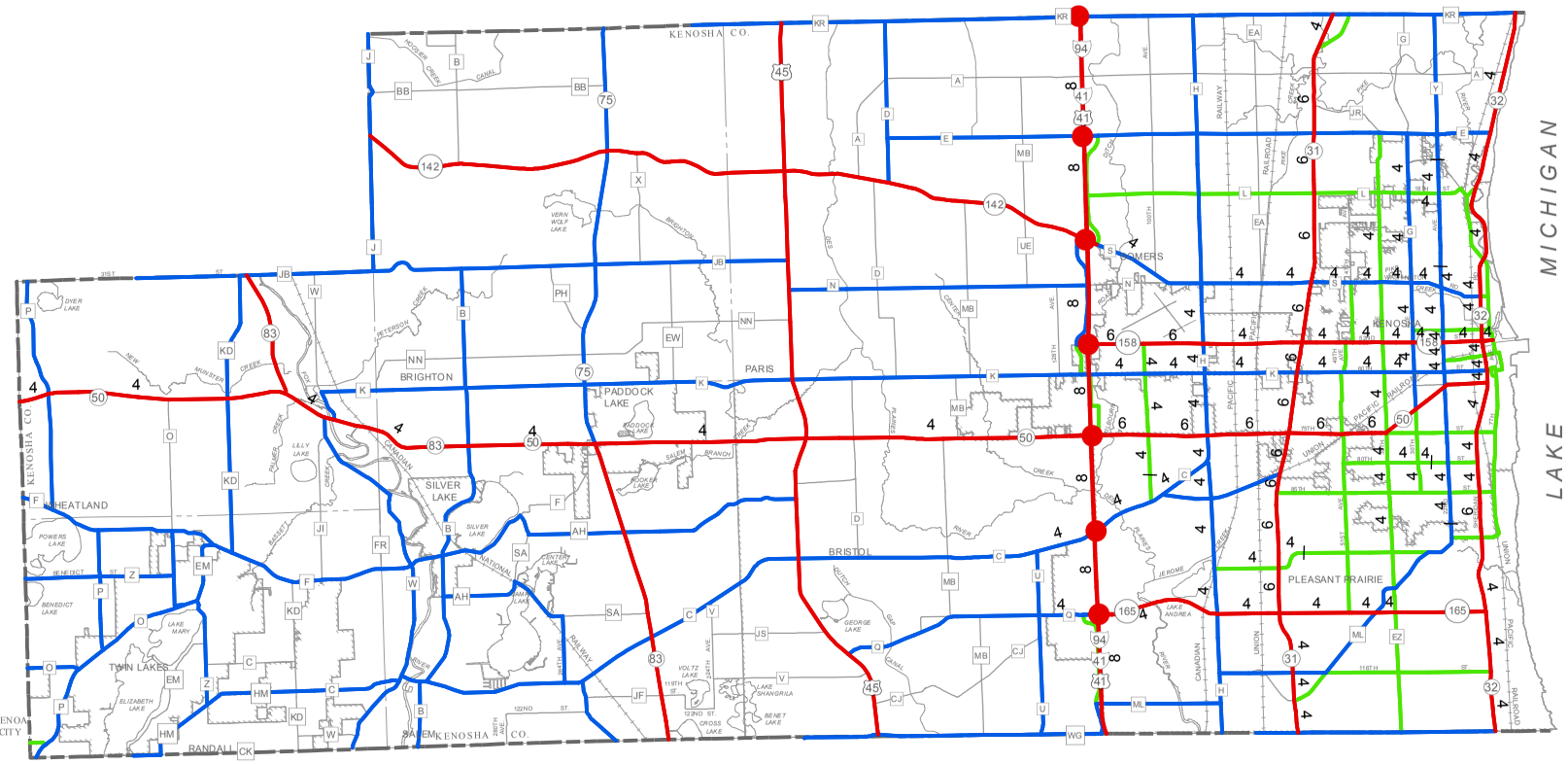
The 106 miles of freeway widening proposed in VISION 2050 will undergo preliminary engineering and environmental impact studies by WisDOT. During preliminary engineering, alternatives will be considered, including rebuild-as-is, various design options of rebuilding to modern design standards, compromises to rebuilding to modern design standards, rebuilding with additional lanes, and rebuilding with the existing number of lanes. Only at the conclusion of preliminary engineering would a determination be made as to how the freeway would be reconstructed.

VISION 2050 does not make any recommendation with respect to whether the 10 miles of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional traffic lanes. It recommends that preliminary engineering conducted for the reconstruction of this segment of IH 43 should include the consideration of alternatives for rebuilding the freeway with additional lanes and rebuilding it with the existing number of lanes. The decision of how this segment of IH 43 would be reconstructed would be determined by WisDOT through preliminary engineering and environmental impact study. During preliminary engineering, WisDOT would consider and evaluate a number of alternatives, 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 preliminary engineering would a determination be made as to how this segment of IH 43 freeway would be reconstructed. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 would be amended to reflect the decision made as to how IH 43 between Howard Avenue and Silver Spring Drive would be reconstructed. Any construction along this segment of IH 43 prior to preliminary engineering—such as bridge reconstruction—should fully preserve and accommodate the future option of rebuilding the freeway with additional lanes.

Jurisdictional Recommendations

Jurisdictional classification is intended to group all streets and highways logically into subsystems under the jurisdiction of a given level of government. Upon completion of the initial regional transportation system plan in 1966, county jurisdictional highway system plans were prepared for each county in the Region. These plans were extended in design year and updated as part of the year 2000 regional transportation system plan completed in 1978, the year 2010 plan completed in 1994, the year 2020 plan completed in 1997, and the year 2035 plan completed in 2006. The recommended jurisdictional arterial street and highway systems for the seven counties for the year 2050, based upon the extension of the year 2035 plan to the year 2050, are shown on Maps 3.2 through 3.8. Table 3.9 sets forth the distribution of planned arterial street and highway mileage among each jurisdictional subsystem within the Region and within each county of the Region. By the year 2050, about 1,152 miles, or about 32 percent of the planned arterial system, are recommended to be classified as State trunk highways, including connecting streets; about 1,514 miles, or 41 percent, are recommended to be classified as county trunk highways; and the remaining 1,004 miles, or about 27 percent, are recommended to be classified as local arterials.

Map 3.2
Recommended Jurisdictional Highway System Plan for Kenosha County: 2050



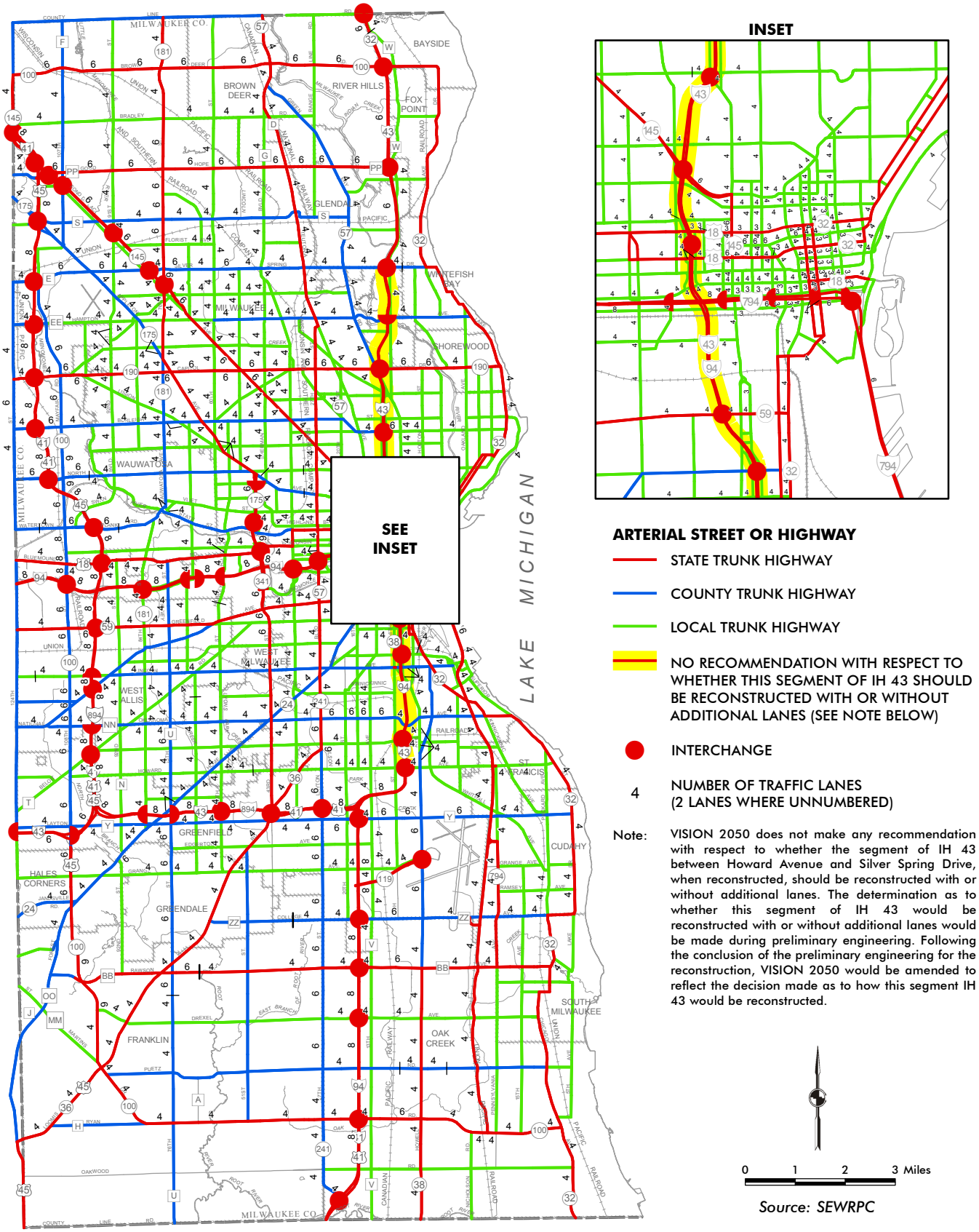
ARTERIAL STREET OR HIGHWAY

- STATE TRUNK HIGHWAY
- COUNTY TRUNK HIGHWAY
- LOCAL TRUNK HIGHWAY
- INTERCHANGE
- 4 NUMBER OF TRAFFIC LANES (2 LANES WHERE UNNUMBERED)

0 1 2 3 Miles

Source: SEWRPC

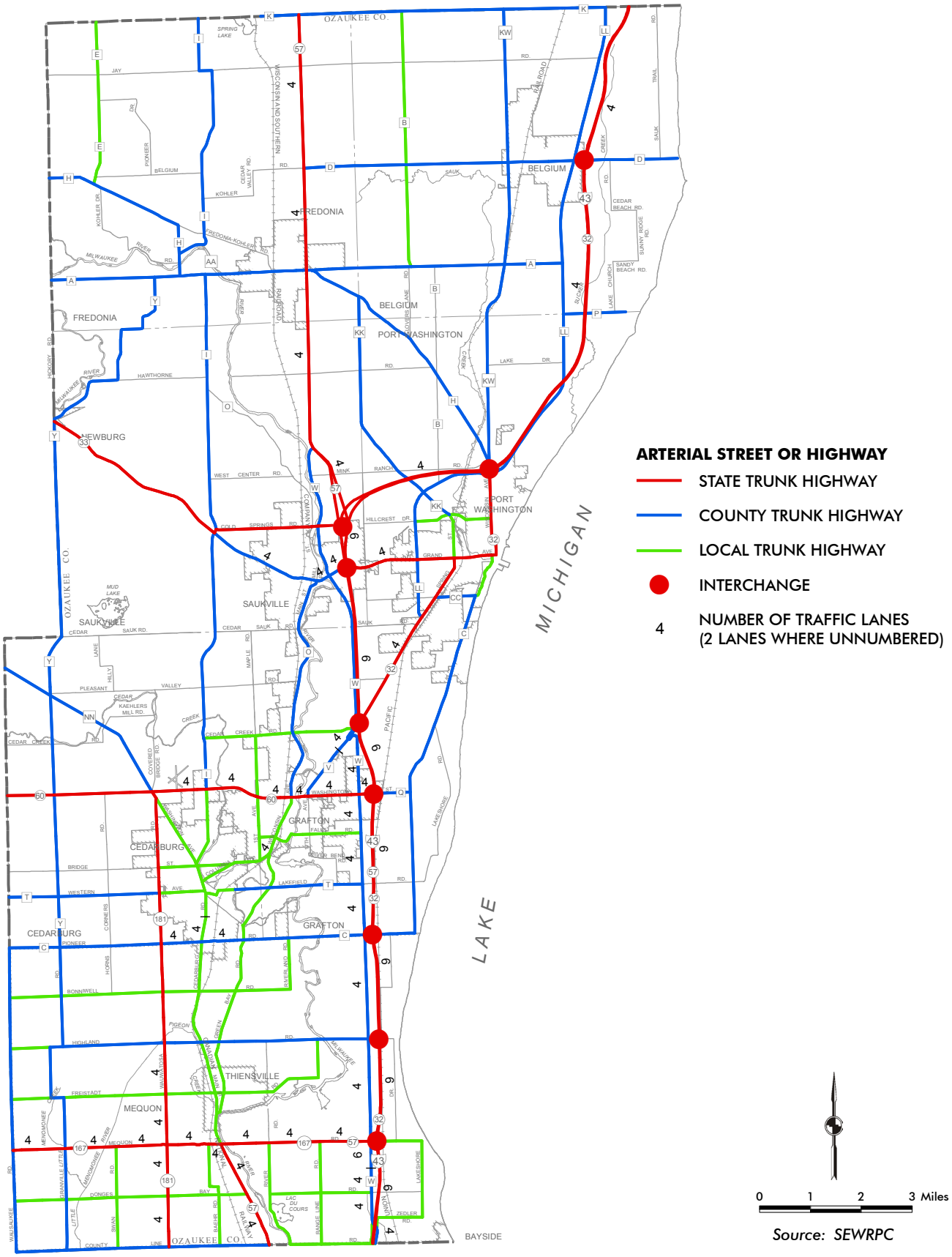
Map 3.3
Recommended Jurisdictional Highway System Plan for Milwaukee County: 2050



Note: VISION 2050 does not make any recommendation with respect to whether the segment of IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional lanes. The determination as to whether this segment of IH 43 would be reconstructed with or without additional lanes would be made during preliminary engineering. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 would be amended to reflect the decision made as to how this segment IH 43 would be reconstructed.

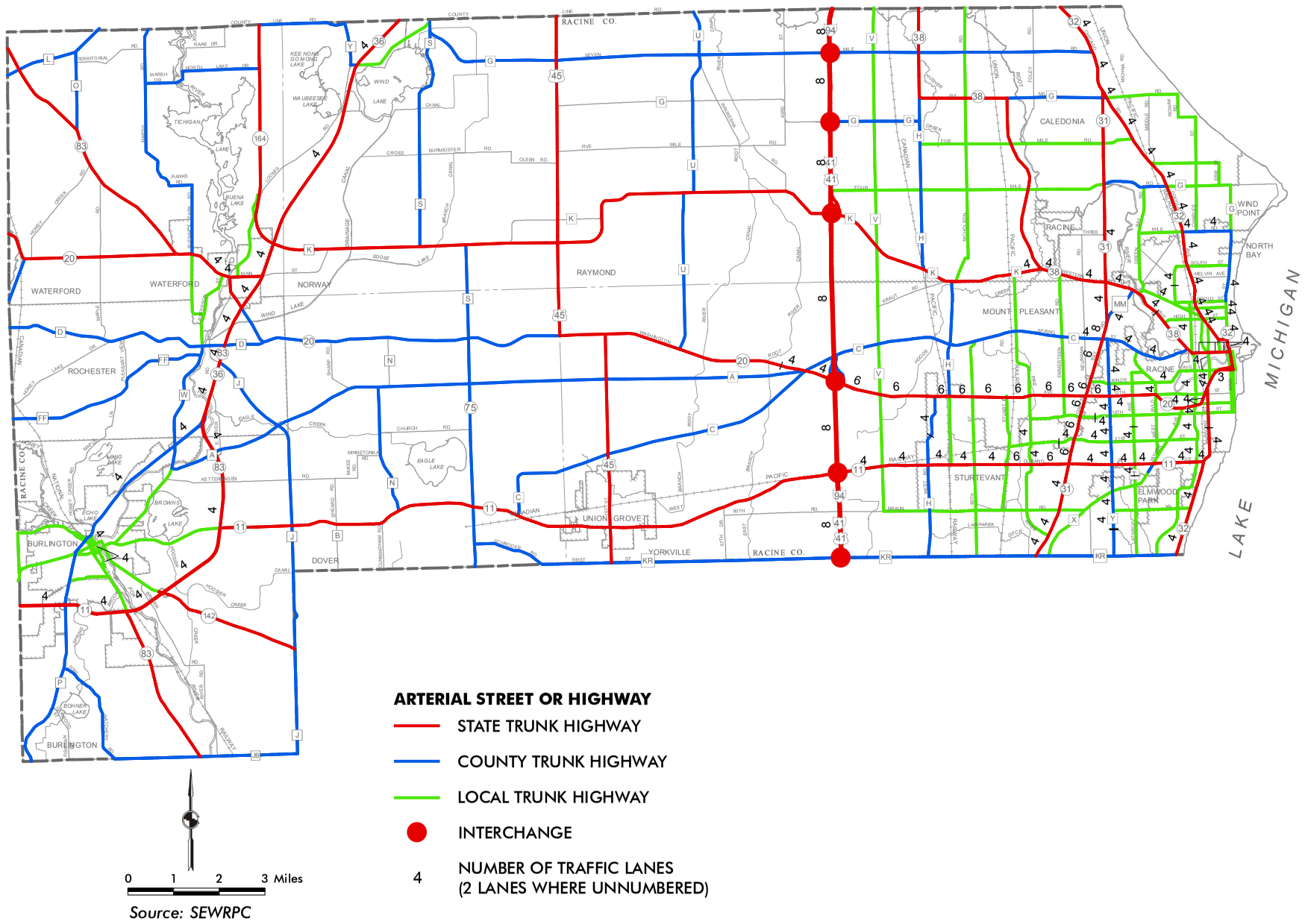
Source: SEWRPC

Map 3.4
Recommended Jurisdictional Highway System Plan for Ozaukee County: 2050



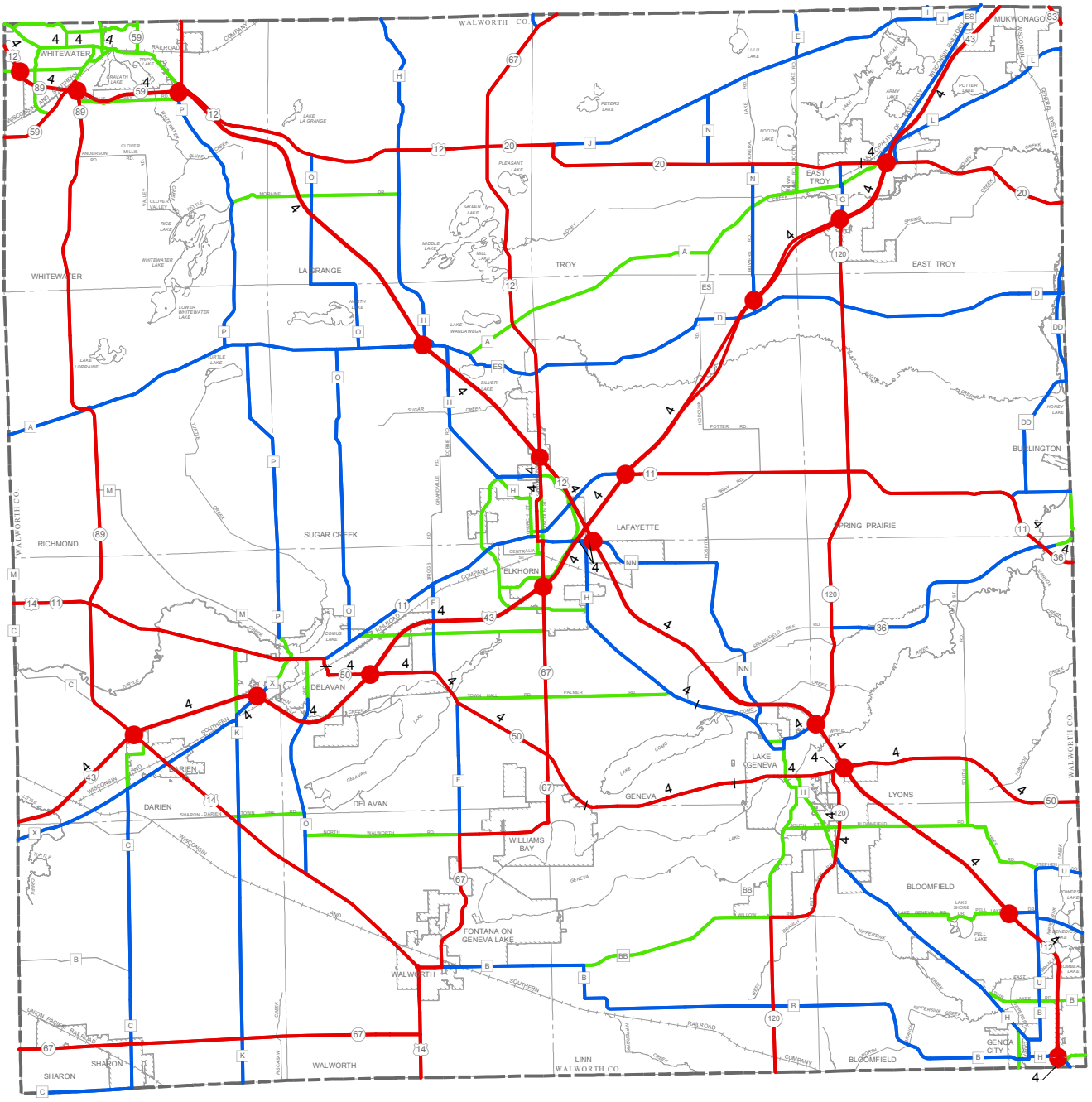
Source: SEWRPC

Map 3.5
Recommended Jurisdictional Highway System Plan for Racine County: 2050



Source: SEWRPC

Map 3.6
Recommended Jurisdictional Highway System Plan for Walworth County: 2050



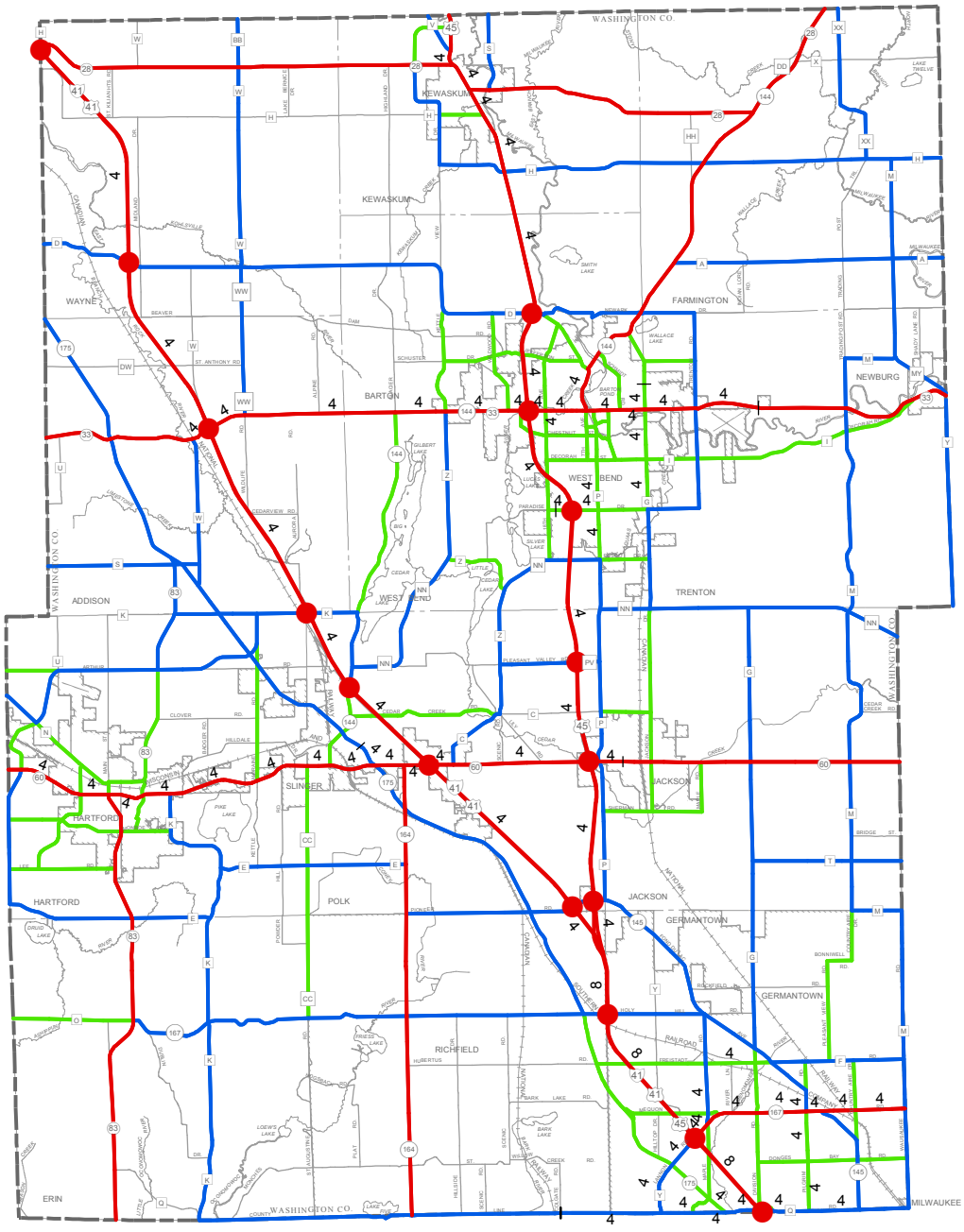
ARTERIAL STREET OR HIGHWAY

- STATE TRUNK HIGHWAY
- COUNTY TRUNK HIGHWAY
- LOCAL TRUNK HIGHWAY
- INTERCHANGE
- 4 NUMBER OF TRAFFIC LANES (2 LANES WHERE UNNUMBERED)

0 1 2 3 Miles

Source: SEWRPC

Map 3.7
Recommended Jurisdictional Highway System Plan for Washington County: 2050



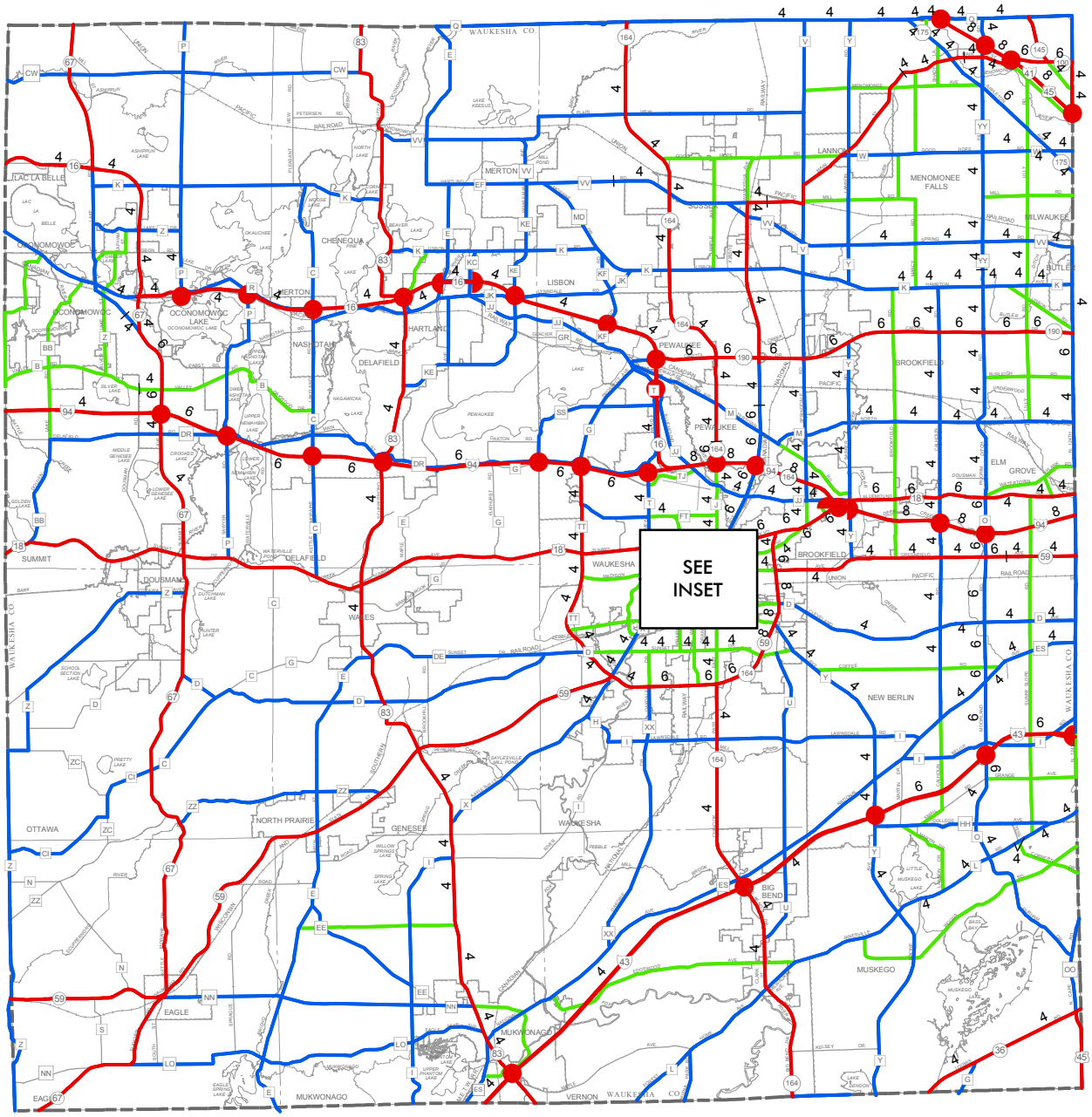
ARTERIAL STREET OR HIGHWAY

- STATE TRUNK HIGHWAY
- COUNTY TRUNK HIGHWAY
- LOCAL TRUNK HIGHWAY
- INTERCHANGE
- 4 NUMBER OF TRAFFIC LANES (2 LANES WHERE UNNUMBERED)

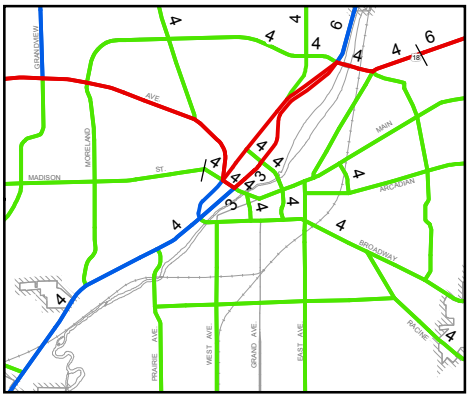
0 1 2 3 Miles

Source: SEWRPC

Map 3.8
Recommended Jurisdictional Highway System Plan for Waukesha County: 2050



INSET



ARTERIAL STREET OR HIGHWAY

- STATE TRUNK HIGHWAY
- COUNTY TRUNK HIGHWAY
- LOCAL TRUNK HIGHWAY
- INTERCHANGE
- 4 NUMBER OF TRAFFIC LANES (2 LANES WHERE UNNUMBERED)

0 1 2 3 Miles

Source: SEWRPC

Table 3.9
Distribution of Arterial Street and Highway Mileage in the Region by County and Jurisdictional Classification: VISION 2050

County	State		County		Local		Total	
	Miles	Percent of Total	Miles	Percent of Total	Miles	Percent of Total	Miles	Percent of Total
Kenosha	108	9.4	200	13.2	58	5.8	366	10.0
Milwaukee	233	20.2	175	11.6	397	39.5	805	21.9
Ozaukee	80	6.9	160	10.6	72	7.2	312	8.5
Racine	159	13.8	159	10.5	131	13.0	449	12.2
Walworth	212	18.4	190	12.5	89	8.9	491	13.4
Washington	132	11.5	213	14.1	112	11.2	457	12.5
Waukesha	228	19.8	417	27.5	145	14.4	790	21.5
Total	1,152	100.0	1,514	100.0	1,004	100.0	3,670	100.0

Source: SEWRPC

Subsequent to Commission adoption of VISION 2050, and at the request of a county, Commission staff will work with the attendant county jurisdictional highway system planning advisory committee to conduct a major review and reevaluation of the jurisdictional transfer recommendations in VISION 2050. This will be an extensive effort that will involve the review and redefinition of the functional criteria used for jurisdictional classification of arterial streets and highways, and the application of those criteria to the arterial street and highway system. This effort may be expected to change the jurisdictional recommendations of VISION 2050. Upon completion, public review, and subsequent adoption of the jurisdictional highway system plans by the Commission, VISION 2050 would then be amended to reflect the recommendations made in each county jurisdictional highway system plan. Since the adoption of the 2035 regional transportation system plan in 2006, the Walworth County and Washington County jurisdictional highway system plans have been updated and the update to the Ozaukee County jurisdictional highway system plan has been initiated and will be completed in 2016. The jurisdictional recommendations from these efforts have been incorporated into VISION 2050.

Freight Transportation Element

The movement of freight is essential for maintaining and growing Southeastern Wisconsin's economy. Truck, rail, water, and air modes of transportation bring raw materials to the Region's manufacturers, and they carry finished goods to domestic and international markets. The Region's freight transportation system is used by the U.S. Postal Service and express parcel service providers, and it supports commerce in the Region by providing for the movement of goods that stock the Region's retail stores. The Region's freight transportation system also supports the movement of building materials needed to construct and maintain the Region's homes and businesses as well as the transportation system itself.

VISION 2050 recommends a multi-modal freight transportation system designed to provide for the efficient and safe movement of raw materials and finished products to, from, and within Southeastern Wisconsin. To achieve this goal, VISION 2050 recommends improvements to the Region's transportation infrastructure as well as intergovernmental cooperation and other actions

Table 3.10
Roles with Regard to the Implementation of the Freight Transportation Element of VISION 2050

Recommendation		Public Entities							Private Entities
		Local			Areawide	State			
		Municipal	Transit Agency	County	Regional Planning Commission	Wisconsin Department of Transportation	Wisconsin Department of Natural Resources	Wisconsin State Legislature	
7.1:	Accommodate truck traffic on the regional highway freight network	P	- -	P	S	P	- -	- -	- -
7.2:	Accommodate oversize/overweight shipments to, from, and within Southeastern Wisconsin	P	- -	P	S	P	- -	- -	- -
7.3:	Pursue development of a new truck-rail intermodal facility in or near Southeastern Wisconsin	P	- -	P	S	P	- -	- -	P
7.4:	Develop truck size and weight regulations in Wisconsin consistent with neighboring states	- -	- -	- -	- -	P	- -	E	- -
7.5:	Construct the Muskego Yard bypass	P	- -	P	P	P	- -	- -	P
7.6:	Address the potential need for truck drivers in Southeastern Wisconsin	- -	- -	- -	S	P	- -	- -	P
7.7:	Address safety needs related to freight transportation	P	- -	P	S	P	- -	- -	- -
7.8:	Address security needs related to freight transportation	P	- -	P	S	P	- -	- -	- -
7.9:	Support efforts in areas outside the Region that improve freight movement to and from the Region	- -	- -	- -	S	P	- -	- -	- -

NOTE: P = Primary entity or entities critical to the implementation of a plan recommendation.
S = Supporting entity responsible for providing data, participating in advisory committees, or at the request of a primary agency, the conduct of a study in support of a plan recommendation.
E = Enabling entity responsible for the enactment of laws to provide a primary agency the authority or funding to implement a plan recommendation.

Source: SEWRPC

to preserve key transportation corridors, address regulatory inefficiencies, meet trucking industry workforce needs, and increase transportation safety and security. A description of the specific recommendations attendant to the freight transportation element are provided in Chapter 1 of this volume. Table 3.10 identifies the entities and their roles with regard to implementing the freight transportation recommendations of VISION 2050.

WisDOT has initiated work on a State Freight Plan, which is expected to be completed by the end of 2016. The Commission is a member, along with other public and private interests, of the advisory committee guiding this effort. At the conclusion of this effort, the Commission will amend the regional freight network to include the priority freight network developed by WisDOT as part of the State Freight Plan. VISION 2050 further recommends that Commission staff continue to work with WisDOT staff to determine the additional elements of the State Freight Plan that would be appropriate to include in the regional freight transportation element.

In 2015, WisDOT created a workgroup to identify and work to preserve oversize/overweight (OSOW) corridors within Southeastern Wisconsin. This workgroup is made up of WisDOT and Commission staff, and has

representation from private and public entities primarily within the Milwaukee Urbanized Area. Any corridors and/or corridor improvements identified by this workgroup will be incorporated, as appropriate, into VISION 2050. VISION 2050 recommends that the Commission continue to work with this workgroup in identifying and working toward the preservation of corridors for the movement of OSOW freight.

Detailed Implementation Planning

More detailed planning will be required prior to the programming of certain elements of VISION 2050. This includes more detailed State, county, and local planning efforts required to refine the basic transit, TSM, and highway improvement recommendations contained in VISION 2050.

Transit Development Planning

VISION 2050 recommends that each of the public transit operators in the Region, with the assistance of the Regional Planning Commission, undertake the preparation of transit development plans and programs as a basis for refining and detailing the recommendations of VISION 2050 and for programming projects to implement the plan. Typically, such plans and programs are prepared with a relatively short term, five year time horizon. These plans and programs provide the basis for day to day decision making on initiation of new transit service and on modifications to existing transit services. These plans provide the basis for the programming of transit projects by each operator in their individual agency budgets.

In addition, VISION 2050 recommends that Commission staff work with public transit operators and human services organizations to periodically update county public transit–human services transportation coordination plans. These plans assess the existing transportation needs and services in each county, identify unmet needs or service gaps, and present a prioritized list of strategies to address those needs transportation in a cost-effective manner to provide a framework to assist community leaders, human services agencies, and public transit agencies to improve transportation services in the Region.

Transportation Systems Management Planning

VISION 2050 recommends that Commission staff work with State and local governments to document existing and planned arterial street and highway system traffic signals and traffic signal systems, and develop recommendations (including prioritization) for improvement and expansion of coordinated signal systems. It also recommends the preparation and implementation of coordinated traffic signal plans along all surface arterial street and highway routes in the Region that have traffic signals located at one-half mile or less spacing. This measure also recommends that agencies coordinate their efforts so that motorists do not experience unnecessary stops or delays due to changes in individual traffic signal jurisdiction authority. The recommended corridor and intersection plans would serve as a basis for prioritizing the corridor and intersection projects included in subsequent updates to the RTOP. Completed in 2012, the RTOP is a five-year program identifying candidate corridor and intersection TSM projects prioritized for implementation and funding, particularly with respect to FHWA CMAQ Program funding. VISION 2050 recommends that Commission staff work with State, county, and municipal governments to review and update the RTOP every four years, with the next update to occur in 2017 following adoption of VISION 2050.

Arterial Street and Highway Planning

County and local public works agencies may also undertake detailed implementation planning attendant to the recommended regional arterial street and highway system. Such planning can serve as a basis for amendment of VISION 2050, and provide for refining and detailing the plan, including identifying recommended arterial street and highway cross-sections and right-of-way requirements for each segment of arterial street. This work can be accomplished as part of jurisdictional highway system planning to be conducted subsequent to the Commission's adoption of VISION 2050.

Upon completion of county jurisdictional highway system plans, or other detailing and refinement of the arterial street and highway element of VISION 2050, including preliminary engineering studies, VISION 2050 recommends that, as appropriate, WisDOT, each county highway and public works agency, and each local public works agency take steps to reserve the required future rights-of-way by means of official mapping, building-setback-line ordinances, land division ordinances, and private deed restrictions. Such prior reservation of right-of-way serves as an expression of governmental intent to acquire land for highway purposes in advance of actual facility construction and thereby not only achieves economies in right-of-way acquisition, but also permits land adjacent to the right of way to be privately purchased and developed or redeveloped with full knowledge of the future highway development proposals. The most effective and efficient means of prior reservation of right of way is the use of official mapping powers granted to WisDOT, as well as to counties, cities, villages, and towns in Wisconsin.

As available Federal, State, and local funding is limited, it is important that the timing and choice of rehabilitation and timing of reconstruction/replacement of various roadway features (pavement, bridges, and other roadway infrastructure) be done consistent with their life cycle in order to utilize the available funding effectively. Thus, sound asset management practices are necessary to effectively utilize the limited funding resources. VISION 2050 recommends that WisDOT's federally required asset management plan also include the State trunk highways that are not on the NHS. The plan also recommends that local governments within the Region develop and implement asset management plans for the arterial and nonarterial roadways under their jurisdiction.

VISION 2050 recommends that the Commission, working with WisDOT and local governments, develop a Regional Safety Implementation Plan (RSIP) that will identify a list of intersections and corridors along the Region's arterial streets and highways with the most severe crash rates in each county. These intersections and corridors would be prioritized based on the nature of the crashes and frequency of the crashes resulting in fatalities and serious injuries. This prioritization would provide a basis for the State and local governments to identify intersections and corridors for further, more detailed safety studies and in the identification and prioritization of projects for Federal and State Highway Safety Improvement (HSIP) funds. The recommended study would also identify a list of corrective measures to reduce the number and severity of crashes.

VISION 2050 recommends that the Commission initiate a study to identify transportation facilities—streets, highways and other transportation facilities (e.g. bus stops and park-ride lots)—located in low-lying areas (e.g. within 100-year flood plains) that are susceptible to flooding and identify potential improvements and adjacent roadway facilities that could serve as alternative routes when flooding occurs that would help the regional transportation system

become more resilient to flooding. Improving the Region's transportation system resiliency to flooding is expected to become increasingly important given the projected increase in frequency of large storm events.

Monitoring of Plan Forecasts, Implementation, and Performance
The Commission has historically monitored the forecasts that underlie its regional land use and transportation plans, the progress made in implementation of these plans, and its forecasts of transportation system performance. Monitoring these forecasts assesses whether the forecasts and the facility plans designed to accommodate forecast conditions remain valid. This monitoring has historically been done annually[16], or every four years as part of routine plan reviews and updates, or approximately every 10 years as part of a major reevaluation of plans. The timing of the monitoring of plan forecasts, implementation, and performance has been based on availability of data to permit this monitoring.

Plan Forecasts
The year 2050 forecasts used to develop and evaluate VISION 2050 include population, household, and employment levels; personal use vehicle availability; total internal person trips, vehicle trips, and transit trips on an average weekday; and average weekday vehicle-miles of travel. As data permits, VISION 2050 recommends that the Commission review these forecasts annually, during the update of the transportation component of VISION 2050 on a four-year cycle, or as part of a major plan update and reevaluation conducted every 10 years with new census and travel survey data. The recommended frequency for evaluating the plan forecasts are presented in Table 3.11.

Plan Implementation
With regard to plan implementation, VISION 2050 recommends that monitoring be performed approximately every four years as part of a plan update, as well as approximately every 10 years as part of a major plan reevaluation. The Commission staff will monitor and present the extent of implementation of each of the six transportation plan elements: public transit, bicycle and pedestrian facilities, TSM, TDM, arterial streets and highways, and freight transportation. The recommended elements and frequency for evaluating plan implementation are presented in Table 3.11.

Plan Performance
In order to evaluate the performance of VISION 2050, the Commission recommends a number of measures to be considered and evaluated.[17] These measures relate to the condition and serviceability of the existing

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[16] Commission monitoring activities are documented annually in "Part Three: Regional Monitoring Activities" of the Commission's Annual Report.

[17] These measures are subject to change based on changes in the availability of data and changes in monitoring requirements included in currently proposed Federal Regulations and requirements in future but not yet proposed Federal and State reporting requirements. FHWA has finalized transportation system performance measures related to safety and has proposed performance measures for pavement condition, bridge condition, and performance of the National Highway System; Freight; and the CMAQ program. The collection of these data will be primarily the responsibility of WisDOT. In addition, WisDOT will be responsible for setting statewide performance targets for each of the performance measures. WisDOT will have one year, once a rule establishing a performance measure has been finalized, to establish the performance targets statewide. The Commission will be responsible to establish and report regionwide targets 180 days after the State has established statewide performance targets. When established, these performance targets will be reported in VISION 2050 updates.

Table 3.11
Recommended Frequency for the Monitoring of Plan Forecasts, Implementation, and Performance

Monitoring Element	Annually	Plan Update (Quadrennially)	Major Plan Reevaluation (Decennially)
Plan Forecasts			
Regional and county population forecasts	X	X	X
Regional and county household forecasts	X	X	X
Regional and county employment level forecasts	X	X	X
Regional and county vehicle availability forecasts	X	X	X
Regional and public transit system ridership forecasts	X	X	X
Regional vehicle-miles of travel forecasts	--	X	X
Regional internal person trips forecast	--	--	X
Regional internal vehicle trips forecast	--	--	X
Plan Implementation			
Level of revenue vehicle-miles of transit service provided on an average weekday	X	X	X
Level of transit passenger fares	X	X	X
Overall assessment of the degree of implementation of the rapid, express, and local transit components of the public transit element	--	X	X
Number of miles and location of off-street bicycle and pedestrian paths provided in the Region	--	X	X
Extent to which bicycle accommodation is being provided on the surface arterial street and highway system in the Region	--	X	X
Number and extent of coverage by variable message signs on the regional freeway system	--	X	X
Number and extent of coverage by closed-circuit television cameras on the regional freeway system	--	X	X
Number and location of ramp-meters on the regional freeway system, including the number and location of those ramp-meter locations which provide for high-occupancy vehicle bypass	--	X	X
Extent of coverage and spacing of freeway traffic detectors on the regional freeway system	--	X	X
Amount of information about current freeway traffic conditions provided by the WisDOT through their website and monitoring deployment of additional methods to provide travel information to the public	--	X	X
Extent of coverage and location of enhanced reference markers on the regional freeway system	--	X	X
Extent and amount of coverage of freeway service patrols on the regional freeway system	--	X	X
Number and location of park-ride lots in the Region, including those served by public transit	X	X	X
Amount and location of reserved bus lanes in the Region	X	X	X
Number and location of transit priority signal systems in the Region	--	X	X
Number of miles and location of arterial street and highway widening to provide additional traffic capacity in the Region	--	X	X
Number of miles and location of new arterial streets and highways constructed in the Region	--	X	X
Plan Performance			
Pavement condition of the existing arterial street and highway system under State, county, and local jurisdiction	X	X	X
Condition of the structures in the Region	X	X	X
Extent of arterial street and highway system and regional highway freight network peak hour traffic congestion	--	X	X
Number of hours of congestion by level of congestion on each segment of the freeway	--	X	X
Peak hour travel times and speeds on selected surface arterial street and highway segments and on the freeway system	--	X	X
Current year and most recent five-year traffic crash history by county (fatal, injury, vehicular, nonmotorized, and transit)	--	X	X
Average weekday and average annual minutes of delay (automobile, transit, and commercial)	--	X	X
Public transit travel times	--	X	X
Transit service quality	--	X	X
Review actual impacts of a number of implemented actions on the natural and manmade environment	--	X	X
Review estimated transportation system air pollutant emissions on a hot summer average weekday	--	X	X

NOTE: The elements and frequency outlined in this table are subject to change based on changes in the availability of data and changes in monitoring requirements included in currently proposed Federal Regulations and requirements in future but not yet proposed Regulations.

Source: SEWRPC

transportation infrastructure in Southeastern Wisconsin, managing congestion in Southeastern Wisconsin, and minimizing disruption of the natural and manmade environment in the Region. The method recommended for measuring the performance and effectiveness of the regional transportation system, and of VISION 2050 recommendations, are presented in Table 3.11 (whether the forecast performance of the regional transportation system in the year 2050 and in interim years will be achieved will be dependent on whether the regional plan is implemented and whether the forecasts underlying the plan remain valid—both of which will also be assessed as part of plan tracking).

The data sets collected for the monitoring of congestion and safety allow for the comparison of historic trends in traffic congestion and traffic safety on the arterial street and highway system in Southeastern Wisconsin. Over time these trends will allow the Commission to develop an assessment of the effectiveness of recommended actions in VISION 2050 that have been implemented. The data sets collected to monitor the impacts of planned improvements on the natural and manmade environment will allow for the comparison of historic trends and the assessment of the ability of the Commission to estimate impacts to the natural and manmade environment at the systems planning level. In addition, during each regional transportation plan update, a few implemented recommendations of VISION 2050—including those projects funded through FHWA CMAQ funding—will be selected for evaluation of their specific impact on system congestion and performance and impacts on the natural and built environment of the Region.

PART III: PLAN ADOPTION, ENDORSEMENT AND INTEGRATION

Upon adoption of the new regional plan by formal resolution of the Southeastern Wisconsin Regional Planning Commission, in accordance with Section 66.0309(10) of the *Wisconsin Statutes*, the Commission will transmit a certified copy of the resolution and adopted plan to all local legislative bodies within the Region and to all concerned local, areawide, State and Federal agencies. VISION 2050 recommends that each of the concerned agencies and units of government endorse VISION 2050 and integrate the findings and recommendations of the plan into their planning, regulatory, and other activities related to land use and transportation.

The importance of integrating the regional plan into county and community planning efforts, in particular, cannot be overstated. The State comprehensive planning law enacted in 1999 effectively required that cities, villages, towns, and counties prepare and adopt long-range comprehensive plans—including nine prescribed plan elements[18]—and further specifies that, beginning in 2010, zoning, land subdivision regulations, and official mapping regulations must be consistent with such plans. VISION 2050 is intended to serve as a regional framework for the required planning. VISION 2050 includes recommendations that relate directly to a number of the required local comprehensive plan elements, including the land use element; the agricultural, natural and cultural resources element; the utilities and community facilities element; and the transportation element. While the State comprehensive planning law does not mandate consistency between local comprehensive plans and the regional land use and transportation

[18] *The nine required elements of a comprehensive plan as prescribed in the State comprehensive planning law include the following: issues and opportunities; housing; transportation; utilities and community facilities; agricultural, natural, and cultural resources; economic development; intergovernmental cooperation; land use; and implementation.*

plan, it is, nonetheless, strongly recommended that cities, villages, towns, and counties use VISION 2050 as a framework for the preparation of their comprehensive plans, integrating the findings and recommendations of VISION 2050 into those plans as appropriate.[19] Additional guidance in this regard is provided throughout this chapter and specific plan adoption, endorsement, and integration responsibilities are listed in Table 3.1.

In addition, several particularly significant aspects of regional plan implementation warrant mention here in summary form. First, VISION 2050 as presented in this report is intended to comprise a guide to certain important aspects of the sound physical development of the Region. As such, the plan is advisory to the local, State, and Federal units and agencies of government concerned as these public bodies consider land use and transportation facility development matters in the Region. VISION 2050 is not to be considered as an inflexible mold to which all future land use and transportation system development within the Region must precisely conform. Rather, it is to be regarded as a point of departure against which land use and transportation system development proposals can be evaluated as they arise and in the light of which better development decisions can be made by all parties concerned.

As well, no plan can be permanent in all its aspects or precise in all its elements. The very definition and characteristics of "regional planning" suggest that a regional plan, to be viable and useful to local, State, and Federal units and agencies of government, be continually adjusted through formal amendments, extensions, additions, and refinements to reflect changing conditions. The Wisconsin Legislature foresaw this when it gave to regional planning commissions the power to "amend, extend or add to the master plan or carry any part or subject matter into greater detail" under Section 66.0309(9) of the *Wisconsin Statutes*. The regional plan is intended to be used as a framework for more detailed county and local planning. Amendments, extensions, and additions to VISION 2050 will be forthcoming, not only from the work of the Commission under the continuing regional planning program, but also from statewide plans and from Federal agencies as national policies are established or modified, new programs created, or existing programs expanded or curtailed. Adjustments will also come from State, subregional, district, and county and local planning programs which, of necessity, must be prepared in greater detail and result in refinement and adjustment of VISION 2050. All refinements and adjustments will require cooperation between local, areawide, State, and Federal agencies, as well as coordination by the Southeastern Wisconsin Regional Planning Commission, which is empowered under Section 66.0309(8) of the *Wisconsin Statutes* to act as a coordinating agency for programs and activities of the county and local units of government concerned. To achieve this coordination among local, areawide, State, and Federal programs most effectively and efficiently and, therefore, assure the timely adjustment of VISION 2050, it is recommended that all the aforementioned agencies having various plan and plan implementation powers transmit all subsequently prepared planning studies, plan proposals and amendments, and plan implementation devices to the Southeastern Wisconsin Regional Planning Commission for consideration regarding integration into the adopted regional plan.

Second, the endorsement of VISION 2050 as a guide to the sound development of the Region by the local units of government and the

[19] Under the State comprehensive planning law, local comprehensive plans must incorporate regional transportation plans. This is the only consistency requirement between local comprehensive plans and regional plans specified in the State comprehensive planning law.

various State and Federal agencies concerned is highly desirable. Indeed, in some cases, that endorsement is essential in order to ensure a common understanding of the areawide development objectives and to permit the necessary plan implementation work to be cooperatively programmed and jointly executed.

Third, plan implementation action policies and programs should not only be preceded by plan endorsement, but should also emphasize the most important and essential elements of the plan and those areas of action that will have the greatest impact on guiding and shaping land use and transportation system development in accordance with VISION 2050. Implementation of the regional transportation system component should focus on those facilities and activities having areawide significance. This implementation will be largely achieved if the rapid and express transit expansion and improvement recommendations are carried out, if the major TSM measures recommended in VISION 2050 are implemented (particularly the freeway system traffic management and surface arterial street and highway traffic management measures), if the freeway system is rebuilt to modern design standards and expanded as recommended, and if improvements to the major surface arterials are implemented.

Fourth, the importance of close coordination and cooperation between the local units of government and between those units of government and the State and Federal agencies concerned in plan implementation cannot be overemphasized. Responsibilities for achieving such coordination and cooperation on a voluntary basis within the traditional framework of government in Wisconsin have been assigned to the Commission by the State Legislature through the regional planning enabling act. In addition, the Federal transportation legislation provides a further basis for coordinating planning and plan implementation efforts by the Commission as the designated metropolitan planning organization. In its capacity as the coordinating agency under both State and Federal law, advisory review of proposed transportation facilities by the Commission is essential for the effective development over time of the regional transportation system. The proper vehicle for the review of proposed transportation facilities is the regional transportation improvement program compiled biannually by the Commission in accordance with the requirements of Federal transportation legislation.

Fifth, implementation of VISION 2050 will not be brought about by a single massive action on the part of one unit or agency of government. Rather, implementation of VISION 2050 will be brought about through many individual development decisions made on a day to day basis over a period of many years by public administrators and elected officials operating at the local, areawide, State, and Federal levels of government. It is extremely important that the individuals and agencies making these decisions be aware of and understand the development proposals set forth in VISION 2050 so that those proposals receive proper consideration as development decisions are made.

Finally, regional plan implementation can only be achieved within the context of a continuing, comprehensive areawide planning effort wherein the planning inventories and forecasts on which the Commission's regional plans are based are updated, monitored, and revised; in which the plans are reappraised and, as necessary, revised to accommodate changing conditions; and through which the plans are interpreted on a day to day basis to the local, State, and Federal units and agencies of government concerned as the

need to make development decisions arises. In this respect, planning does not and cannot concern itself with future decisions; that is, with "things that should be done in the future." Rather, it must be recognized that decisions exist only in the present and that planning is necessary because decisions can be made only in the present, yet should not be made for the present alone. The question, therefore, that faces elected officials and concerned citizens throughout the Region concerning implementation of VISION 2050 is not what should be done tomorrow to bring about the plan, but, rather, what must be done today in light of the plan to be prepared for tomorrow.