



## Thirtieth annual report. July 1991

Waukesha, Wisconsin: Southeastern Wisconsin Regional Planning Commission, July 1991

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# 1990 ANNUAL REPORT

Graduate Research Center  
Dept. of Urban & Regional Planning  
The University of Wisconsin-Madison

**SOUTHEASTERN  
WISCONSIN  
REGIONAL  
PLANNING  
COMMISSION**

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REGIONAL PLANNING COMMISSION**

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## THIRTIETH ANNUAL REPORT

Graduate Research Center  
Dept. of Urban & Regional Planning  
The University of Wisconsin-Madison

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July 1991

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Outside Region \$4.00



# SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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KENOSHA  
MILWAUKEE  
OZAUKEE  
RACINE  
WALWORTH  
WASHINGTON  
WAUKESHA



July 31, 1991

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

In accordance with the requirements of Section 66.945(8)(b) of the Wisconsin Statutes, this Commission each calendar year prepares and certifies an annual report to the State Legislature of Wisconsin and to the legislative bodies of the constituent county and local units of government within the Region. This, the 30th annual report of the Commission, summarizes the work of the Commission in calendar year 1990, and contains a statement of the financial position of the Commission as of the end of that calendar year as certified by an independent auditor.

While the Commission annual report is prepared to meet the legislative requirement noted above, the document also serves as an annual report to the state and federal agencies which fund several aspects of the Commission's work program. Importantly, the annual report is intended to provide county and local public officials and interested citizens with a comprehensive overview of current and proposed Commission activities, and thereby provide a focus for the active participation of those officials and citizens in regional plan preparation and implementation.

As do past annual reports, this report contains much useful information on development trends in the Region. In addition, this report summarizes the progress made during 1990 by the Commission in carrying out its three basic functions—data collection and dissemination, regional plan preparation, and promotion of plan implementation. During 1990, the Commission, working closely with both Washington and Waukesha Counties, completed and adopted new park and open space plans for those counties as amendments to the regional park and open space plan. In the transportation planning program, significant plan updating and extension efforts were completed, importantly including second-generation jurisdictional highway system plans for Racine and Washington Counties, a jurisdictional highway system plan amendment for Kenosha County, and a new transit system development plan and program for the City of Waukesha. During 1990, efforts were also focused on the preparation of detailed sanitary sewer service area plans so important to the preservation of environmentally sensitive lands in the Region. New such plans were prepared for the communities of Franklin in Milwaukee County, Union Grove in Racine County, and Dousman and Mukwonago in Waukesha Counties. Progress in these and other plan development efforts, as well as plan implementation efforts, is summarized in this annual report.

The Commission hopes that the constituent units and agencies of government concerned are pleased with the work of the Commission in 1990. The Commission looks forward to continuing to serve its constituent local units of government and the state and federal agencies concerned by providing the planning services required to address the areawide environmental and developmental problems of southeastern Wisconsin, and by promoting the intergovernmental cooperation needed to resolve these problems.

Very truly yours,

*Frank F. Uttech*

Frank F. Uttech  
Chairman



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# ABOUT THE COMMISSION

## AUTHORITY

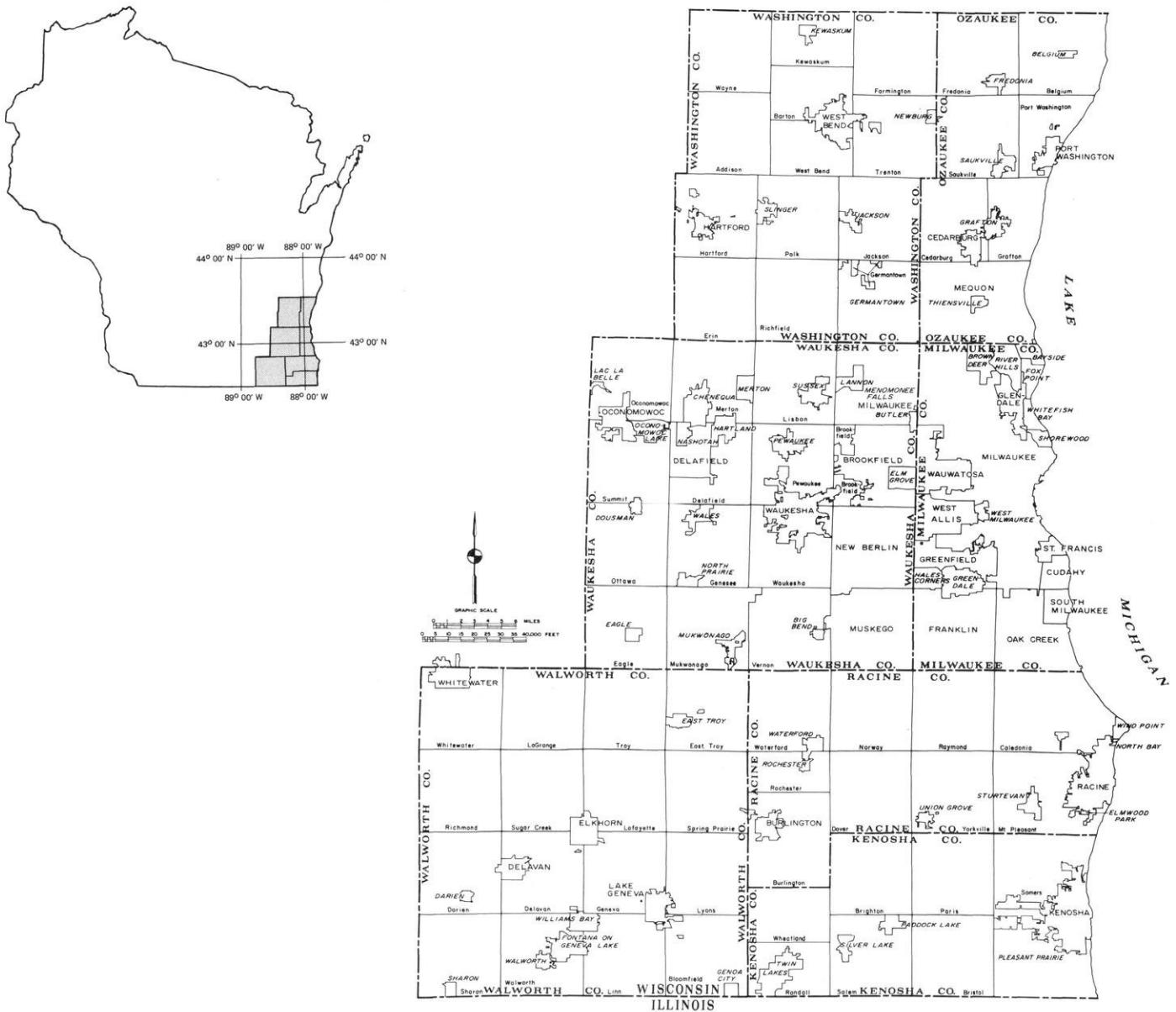
The Southeastern Wisconsin Regional Planning Commission was established in 1960 under Section 66.945 of the Wisconsin Statutes as the official areawide planning agency for the highly urbanized southeastern region of the State. The Commission was created to provide the basic information and planning services necessary to solve problems which transcend the corporate boundaries and fiscal capabilities of the local units of government comprising the Region.

## AREA SERVED

The Commission serves a Region consisting of the seven counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha. These seven counties have an area of about 2,689 square miles, or about 5 percent of the total area of the State. These counties, however, have a resident population of 1.81 million persons, or about 37 percent of the total population of the State. The seven counties provide about 990,300 jobs, or about 38 percent of the total employment of the State,

Map 1

### THE SOUTHEASTERN WISCONSIN REGION



and contain real property worth about \$54.3 billion as measured in equalized valuation, or about 41 percent of all the tangible wealth of the State as measured by such valuation. There are 154 general-purpose local units of government in the seven-county Region, all of which participate in the work of the Commission.

## BASIC CONCEPTS

Regional or areawide planning has become increasingly accepted as a necessary governmental function in the large metropolitan areas of the United States. This acceptance is based, in part, on a growing awareness that problems of physical and economic development and of environmental deterioration transcend the geographic limits and fiscal capabilities of local units of government, and that sound resolution of these problems requires the cooperation of all units and agencies of government concerned and of private interests as well.

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

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

## COMMISSION OFFICES OLD COURTHOUSE WAUKESHA COUNTY



The work of the Regional Planning Commission is entirely advisory in nature. Therefore, the regional planning program in southeastern Wisconsin has emphasized the promotion of close cooperation among the various governmental agencies concerned with land use development and with the development and operation of supporting public works facilities. The Commission believes that the highest form of areawide planning combines accurate data and competent technical work with the active participation of knowledgeable and concerned public officials and private citizens in the formulation of plans that address clearly identified problems. Such planning is intended to lead not only to a more efficient regional development pattern but also to a more desirable environment in which to live and work.

## BASIC FUNCTIONS

The Commission conceives regional planning as having three basic functions. The first involves the collection, analysis, and dissemination of basic planning and engineering data on a uniform, areawide basis in order that better development decisions can be made in both the public and private sectors. The Commission believes that the establishment and utilization of

such data can in and of itself contribute to better development decision-making within the Region. The second function involves the preparation of a framework of long-range areawide plans for the physical development of the Region. This function is mandated by state enabling legislation. While the scope and content of these plans can extend to all phases of regional development, the Commission believes that emphasis should be placed on the preparation of plans for land use and supporting transportation, utility, and community facilities. The third function involves the provision of a center for the coordination of day-to-day planning and plan implementation activities of all of the units and levels of government operating within the Region. Through this function, the Commission seeks to integrate regional and local plans and planning efforts and thereby to promote regional plan implementation.

## ORGANIZATION

The Commission consists of 21 members, three from each of the seven member counties, who serve without pay. One Commissioner from each county is appointed by the county board and is an elected county board supervisor. The remaining two from each county are appointed by the Governor, one from a list prepared by the county board.

The full Commission meets at least four times a year and is responsible for establishing overall policy, adopting the annual budget, and adopting regional plan elements. The Commission has four standing committees—Executive, Administrative, Planning and Research, and Intergovernmental and Public Relations. The Executive Committee meets monthly to oversee the work effort of the Commission and is empowered to act for the Commission in all matters except the adoption of the budget and the adoption of the regional plan elements. The Administrative Committee meets monthly to oversee the routine but essential housekeeping activities of the Commission. The Planning and Research Committee meets as necessary to review all of the technical work carried out by the Commission staff and its consultants. The Intergovernmental and Public Relations Committee serves as the Commission's principal arm in the communication process with the constituent county boards. The Committee meets as necessary to consider intergovernmental problems. The Commission and committee rosters are set forth in Appendix A.

The Commission is assisted in its work by 29 technical, citizen, and intergovernmental coordinating and advisory committees. These committees include both elected and appointed public officials and interested citizens with knowledge in the Commission work areas. The committees perform a significant function in both the formulation and the execution of the Commission work programs. Membership on the advisory committees, which totals 548 persons, is set forth in Appendix B.

## STAFFING

The Commission prepares an annual work program which is reviewed and approved by federal and state funding agencies. This work program is then carried out by a core staff of full-time professional, technical, administrative, and clerical personnel, supplemented by additional temporary staff and consultants as required by the various work programs underway. At the end of 1990, the staff totaled 90, including 68 full-time and 22 part-time employees.

As shown in Figure 1, the Commission is organized into eight divisions. Five of these divisions—Transportation Planning, Environmental Planning, Land Use Planning, Community Assistance Planning, and Economic Development Assistance—have direct responsibility for the conduct of the Commission's major planning programs. The remaining three divisions—Administrative Services, Information Systems, and Cartographic and Graphic Arts—provide day-to-day support of the five planning divisions.

## FUNDING

Basic financial support for the Commission's work program is provided by county tax levies apportioned on the basis of equalized valuation. These basic funds are supplemented by state and federal aids. Revenues received by the Commission during 1990 totaled about \$5.0 million, of which about 35 percent, or \$1.8 million, represented contract revenues for local government data processing services. County tax levies in 1990 totaled about \$1.1 million, or about \$0.61 per capita. The sources of this revenue for 1990 and the trend in funding since the inception of the Commission in 1960 are shown in Figures 2 through 5. It may be seen in Figure 2 that there has been little change in the tax levy for regional planning since 1963 when that levy is expressed in constant 1960 dollars.

**Figure 1**  
**SEWRPC ORGANIZATIONAL STRUCTURE**

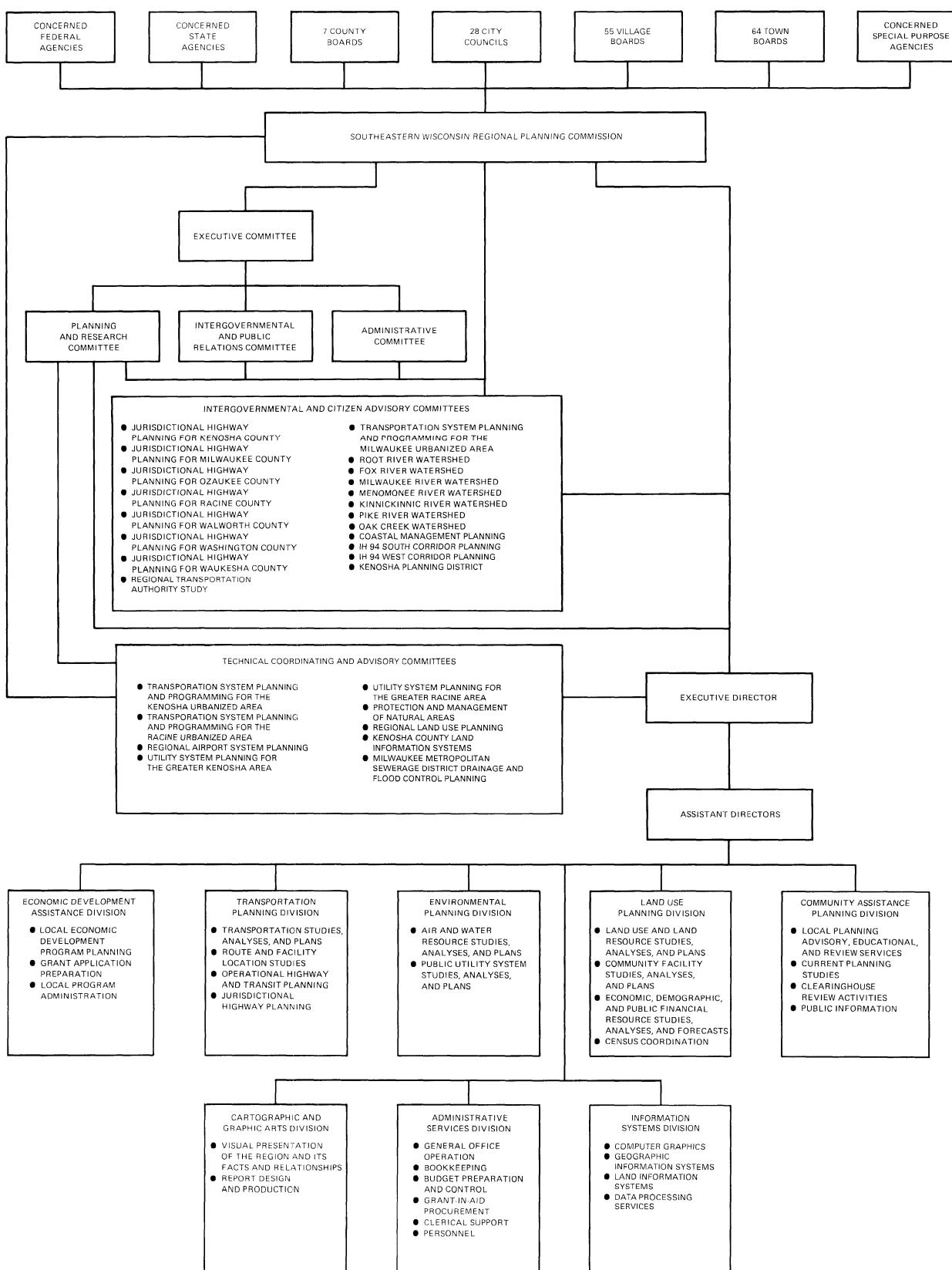


Figure 2

FUNDING TREND: 1961-1990

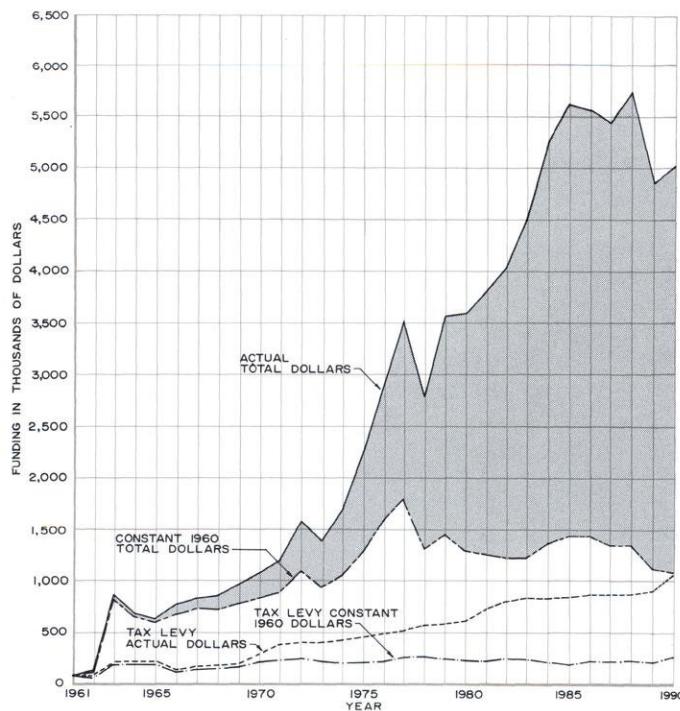


Figure 3

SOURCES OF REVENUES TREND: 1961-1990

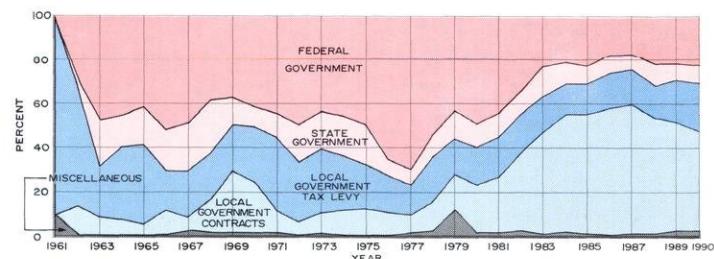


Figure 4

EXPENDITURES TRENDS: 1961-1990

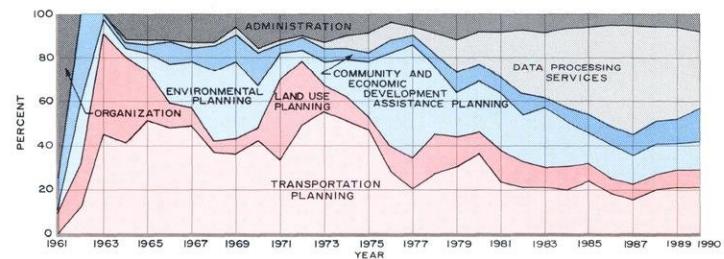
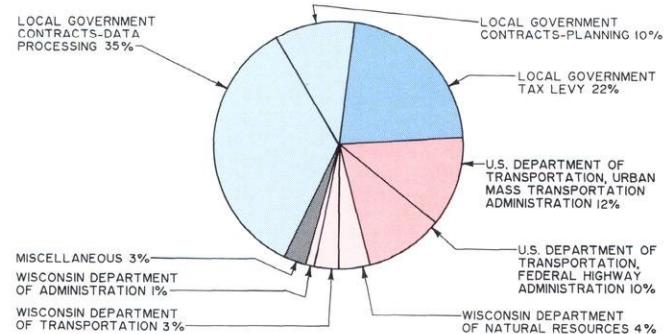


Figure 5

REVENUES AND EXPENDITURES: 1990

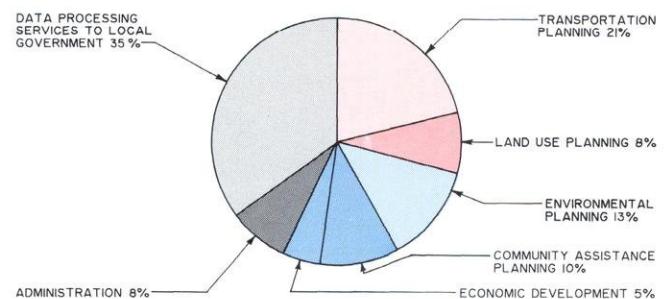
REVENUES

Federal Government .....	\$1,168,072	22%
State Government .....	333,470	8%
Local Government Tax Levy .....	1,101,210	22%
Local Government Contracts .....	2,260,706	45%
Miscellaneous .....	172,179	3%
<b>Total</b>	<b>\$5,035,637</b>	<b>100%</b>



EXPENDITURES

Transportation Planning .....	\$1,059,471	21%
Land Use Planning .....	399,461	8%
Environmental Planning .....	680,897	13%
Community Assistance Planning .....	484,138	10%
Economic Development Assistance .....	242,743	5%
Data Processing Services to Local Governments .....	1,774,905	35%
Administration .....	394,022	8%
<b>Total</b>	<b>\$5,035,637</b>	<b>100%</b>



## 1990 MEETINGS

### COMMISSION AND ADVISORY COMMITTEE MEETINGS

Full Commission . . . . .	5	Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin . . . . .	0
Executive Committee . . . . .	10	Technical Advisory Committee for the Protection and Management of Natural Areas in Southeastern Wisconsin . . . . .	0
Administrative Committee . . . . .	9	Technical Advisory Committee for the Kenosha County Automated Mapping and Land Information System . . . . .	3
Planning and Research Committee . . . . .	5	Advisory Committee on Stormwater Drainage and Flood Control Planning for the Milwaukee Metropolitan Sewerage District and District Service Areas . . . . .	2
Intergovernmental and Public Relations Committee . . . . .	1	Greater Kenosha Area Utility Planning Committee . . . . .	3
Technical Coordinating and Advisory Committee on Regional Airport System Planning . . . . .	0	Greater Racine Area Utility Planning Committee . . . . .	3
Technical Coordinating and Advisory Committees on Jurisdictional Highway Planning		Kenosha Urban Planning District Prospectus Advisory Committee . . . . .	2
Kenosha County . . . . .	1		
Milwaukee County . . . . .	0		
Ozaukee County . . . . .	4		
Racine County . . . . .	1		
Walworth County . . . . .	5		
Washington County . . . . .	0		
Waukesha County . . . . .	0		
Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming			
Kenosha Urbanized Area . . . . .	1	Executive Director . . . . .	230
Milwaukee Urbanized Area . . . . .	1	Assistant Directors . . . . .	225
Racine Urbanized Area . . . . .	1	Cartographic and Graphic Arts Division . . . . .	18
Regional Transportation Authority Study Committee . . . . .	5	Community Assistance Planning Division . . . . .	229
Watershed Committees		Environmental Planning Division . . . . .	96
Root River . . . . .	0	Land Use Planning Division . . . . .	176
Fox River . . . . .	1	Transportation Planning Division . . . . .	69
Milwaukee River . . . . .	0	Economic Development Assistance Division . . . . .	288
Menomonee River . . . . .	0	Information Systems Division . . . . .	45
Kinnickinnic River . . . . .	0		
Pike River . . . . .	0		
Oak Creek . . . . .	0		
Intergovernmental Coordinating and Technical Advisory Committee for the IH 94 South Freeway Corridor Development Plan . . . . .	2		
Intergovernmental Coordinating and Technical Advisory Committee for the IH 94 West Freeway Corridor Development Plan . . . . .	2		
Technical Coordinating and Advisory Committee on Regional Land Use Planning . . . . .	5		

### STAFF TECHNICAL MEETINGS

Executive Director . . . . .	230
Assistant Directors . . . . .	225
Cartographic and Graphic Arts Division . . . . .	18
Community Assistance Planning Division . . . . .	229
Environmental Planning Division . . . . .	96
Land Use Planning Division . . . . .	176
Transportation Planning Division . . . . .	69
Economic Development Assistance Division . . . . .	288
Information Systems Division . . . . .	45

### STAFF SPEAKING ENGAGEMENTS

Executive Director . . . . .	52
Assistant Directors . . . . .	18
Community Assistance Planning Division . . . . .	1
Environmental Planning Division . . . . .	19
Land Use Planning Division . . . . .	22
Transportation Planning Division . . . . .	7
Economic Development Assistance Division . . . . .	9
Information Systems Division . . . . .	7

The Commission has a complete financial audit performed each year by a certified public accountant. The report of this audit for 1990 is set forth in full in Appendix E. Under the federal Single Audit Act of 1984, the Commission's audit is subject to the review and approval of the Commission's federal cognizant agency, the Federal Highway Administration.

## DOCUMENTATION

Documentation in the form of published reports is considered very important, if not absolutely essential, to any public planning effort. Printed planning reports represent the best means for disseminating inventory data that have permanent historic value and for promulgating plan recommendations and alternatives to such recommendations. Published reports are intended to serve as important references for public officials at the federal and state levels, as well as at the local level, when considering important development decisions. Perhaps most importantly, however, published reports are intended to provide a focus for generating enlightened citizen interest in, and action on, plan recommendations. Accordingly, the Commission has established a series of published reports.

The first and most important type of report in the series is the planning report. The planning report is intended to document the adopted elements of the comprehensive plan for the physical development of the Region. As such, these reports constitute the official recommendations of the Regional Planning Commission. Each planning report is carefully reviewed and formally adopted by the Commission.

The second type of report in the series is the planning guide. Planning guides are intended to constitute manuals of local planning practice. As such, planning guides are intended to help improve the overall quality of public planning within the Region, and thereby to promote sound community development properly coordinated on a regionwide basis. The guides discuss basic planning and plan implementation principles, contain examples of good planning practice, and provide local governments with model ordinances and forms to assist them in their everyday planning efforts.

The third type of report in the series is the technical report. Technical reports are intended to make available to various public and private

agencies within the Region valuable information assembled by the Commission staff during the course of its planning work on a work progress basis. Technical reports document the findings of such important basic inventories as detailed soil surveys, stream water quality surveys, potential park and open space site inventories, and horizontal and vertical control surveys.

The fourth type of report in the series is similar to the technical report and is known as the technical record. This journal is published on an irregular basis and is intended primarily to document technical procedures utilized in the Commission planning programs. The documentation of such procedures assists other planning and engineering technicians in more fully understanding the Commission work programs and contributes toward advancing the science and art of planning.

The fifth type of report in the series is the community assistance planning report. These reports are intended to document local plans prepared by the Commission at the request of one or more local units of government. Occasionally, these local plans constitute refinements of, and amendments to, adopted regional and subregional plans, and are then formally adopted by the Regional Planning Commission.

The sixth type of report in the series is the planning program prospectus. Prospectuses are prepared by the Commission as a matter of policy as the initial step in the undertaking of any new major planning program. The major objective of the prospectus is to achieve a consensus among all of the interests concerned on the need for, and objectives of, a particular proposed planning program. The prospectus documents the need for a planning program; specifies the scope and content of the work required to be undertaken; recommends the most effective method for establishing, organizing, and accomplishing the required work; recommends a practical time sequence and schedule for the work; provides sufficient cost data to permit the development of an initial budget; and suggests how to allocate costs among the various levels and units of government concerned. Importantly, the prospectuses serve as the basis for the review, approval, and funding of the proposed planning programs by the constituent county boards.

The seventh type of report in the series is the annual report. The annual report has served an

increasing number of functions over the period of the Commission's existence. Originally, and most importantly, the Commission's annual report was, and still is, intended to satisfy a very sound legislative requirement that a regional planning commission each calendar year prepare, publish, and certify to the State Legislature of Wisconsin and to the legislative bodies of the local units of government within the Region an annual report summarizing the activities of the Commission. In addition, the annual report documents activities under the continuing regional land use-transportation study and as such serves as an annual report to the federal and state Departments of Transportation. The Commission's annual report is also intended to provide local public officials and interested citizens with a comprehensive overview of the Commission's activities and thereby to provide a focal point for the promotion of regional plan implementation.

The eighth type of report in the series is the memorandum report. These reports are intended to document the results of locally requested

special studies. These special studies usually involve relatively minor work efforts of a short duration and are not normally intended to document formally adopted plans.

In addition to the eight basic types of reports described above, the Commission documents its work in certain miscellaneous publications, including the bimonthly newsletter, regional planning conference proceedings, study designs, public hearing and public informational meeting minutes, transportation improvement programs, and staff memoranda.

While many of the Commission's publications are relatively long and are, necessarily, written in a technical style, they do provide the conscientious, concerned citizen and elected official, as well as concerned technicians, with all of the data and information needed to comprehend fully the scope and complexity of the areawide developmental and environmental problems and of the Commission's recommendations for the resolution of those problems. A complete publication list is set forth in Appendix D.

# THE EVOLVING COMPREHENSIVE PLAN FOR THE REGION

## PLAN DESIGN FUNCTION

The Commission is charged by law with the function and duty of "making and adopting a master plan for the physical development of the Region." The permissible scope and content of this plan, as outlined in the enabling legislation, extend to all phases of regional development, implicitly emphasizing, however, the preparation of alternative spatial designs for the use of land and for supporting transportation and utility facilities.

The scope and complexity of areawide development problems prohibit the making and adopting of an entire comprehensive development plan at one point in time. The Commission has, therefore, determined to proceed with the preparation of individual plan elements which together can comprise the required comprehensive plan. Each element is intended to deal with an identified areawide developmental or environmental problem. The individual elements are coordinated by being related to an areawide land use plan. Thus, the land use plan comprises the most basic regional plan element, an element on which all other elements are based. The Commission believes the importance of securing agreement upon areawide development plans through the formal adoption of such plans not only by the Commission but also by county and local units of government and state agencies cannot be overemphasized.

The Commission has placed great emphasis upon the preparation of a comprehensive plan for the physical development of the Region in the belief that such a plan is essential if land use development is to be properly coordinated with the development of supporting transportation, utility, and community facility systems; if the development of each of these individual functional systems is to be coordinated with the development of the others; if serious and costly environmental and developmental problems are to be minimized; and if a more healthful, attractive, and efficient regional settlement pattern is to be evolved. Under the Commission's approach, the preparation, adoption, and use of the comprehensive plan are considered to be the

primary objectives of the planning process; and all planning and plan implementation techniques are based upon, or related to, the comprehensive plan.

The validity of the concept of the comprehensive plan has been questioned in recent years and its application, in fact, opposed by some segments of the planning profession. The Commission believes, however, that the comprehensive plan remains a viable and valid concept, a concept essential to coping with the developmental and environmental problems generated by areawide urbanization. The comprehensive plan not only provides the necessary framework for coordinating and guiding growth and development within a multi-jurisdictional urbanizing region having essentially a single community of interest, but provides the best conceptual basis available for the application of systems engineering skills to the growing problems of such a region. This is because systems engineering basically must focus upon a design of physical systems. It seeks to achieve good design by setting good objectives; determining the ability of alternative plans to meet these objectives through quantitative analyses; cultivating interdisciplinary team activity; and considering all of the relationships involved both within the system being designed and between the system and its environment.

## ADOPTED PLAN ELEMENTS—1990

The Commission initiated the important plan design function in 1963 when it embarked upon a major program to prepare a regional land use plan and a regional transportation plan. Since that time, increasing emphasis has been placed on the plan design function. Beginning in the early 1970s, this plan design function has included major plan reappraisal as well as the preparation of new plan elements.

By the end of 1990, the adopted regional plan consisted of 23 individual plan elements. These plan elements are identified in Table 1. Four of these elements are land use related: the regional land use plan, the regional housing plan, the regional library facilities and services plan, and the regional park and open space plan.

**Table 1**  
**THE ADOPTED REGIONAL PLAN—1990**

Functional Area	Plan Element	Plan Document	Date of Adoption
Land Use, Housing, and Community Facility Planning	Regional Land Use Plan <sup>a</sup>	Planning Report No. 25, <u>A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	December 19, 1977
	Amendment—Kenosha County	Community Assistance Planning Report No. 45, <u>A Farmland Preservation Plan for Kenosha County, Wisconsin</u>	June 17, 1982
	Amendment—Racine County	Community Assistance Planning Report No. 46, <u>A Farmland Preservation Plan for Racine County, Wisconsin</u>	June 17, 1982
	Amendment—Ozaukee County	Community Assistance Planning Report No. 87, <u>A Farmland Preservation Plan for Ozaukee County, Wisconsin</u>	June 16, 1983
	Amendment—Pewaukee Area	Community Assistance Planning Report No. 76, <u>A Land Use Plan for the Town and Village of Pewaukee: 2000, Waukesha County, Wisconsin</u>	December 1, 1983
	Amendment—Town of Pleasant Prairie	Community Assistance Planning Report No. 88, <u>A Land Use Management Plan for the Chiwaukee Prairie-Carol Beach Area of the Town of Pleasant Prairie, Kenosha County, Wisconsin</u>	March 11, 1985
	Regional Library Facilities and Services Plan	Planning Report No. 19, <u>A Library Facilities and Services Plan for Southeastern Wisconsin</u>	September 12, 1974
	Regional Housing Plan	Planning Report No. 20, <u>A Regional Housing Plan for Southeastern Wisconsin</u>	June 5, 1975
	Regional Park and Open Space Plan	Planning Report No. 27, <u>A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000</u>	December 1, 1977
	Amendment—Ozaukee County Park and Open Space Plan	Community Assistance Planning Report No. 133, <u>A Park and Open Space Plan for Ozaukee County</u>	September 14, 1987
	Amendment—Kenosha County Park and Open Space Plan	Community Assistance Planning Report No. 131, <u>A Park and Open Space Plan for Kenosha County</u>	December 5, 1988
	Amendment—Racine County Park and Open Space Plan	Community Assistance Planning Report No. 134, <u>A Park and Open Space Plan for Racine County</u>	March 6, 1989
	Amendment—Washington County Park and Open Space Plan	Community Assistance Planning Report No. 136, <u>A Park and Open Space Plan for Washington County</u>	March 7, 1990
	Amendment—Waukesha County Park and Open Space Plan	Community Assistance Planning Report No. 137, <u>A Park and Open Space Plan for Waukesha County</u>	March 7, 1990
Transportation Planning	Regional Transportation Plan <sup>b</sup>	Planning Report No. 25, <u>A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	June 1, 1978
	Amendment—Lake Freeway South Corridor	Amendment to the <u>Regional Transportation Plan—2000, Lake Freeway South Corridor</u>	June 18, 1981
	Amendment—Milwaukee Area Primary Transit System	Planning Report No. 33, <u>A Primary Transit System Plan for the Milwaukee Area</u>	June 17, 1982
	Amendment—Racine County	Amendment to the <u>Regional Transportation Plan—2000, Racine County</u>	December 2, 1982
	Amendment—Waukesha County	Amendment to the <u>Regional Transportation Plan—2000, Waukesha County</u>	December 2, 1982
	Amendment—Milwaukee Northwest Side/Ozaukee County	Planning Report No. 34, <u>A Transportation System Plan for the Milwaukee Northwest Side/Ozaukee County Study Area</u>	September 8, 1983
	Amendment—Lake Freeway North/Park Freeway East	Amendment to the <u>Regional Transportation Plan—2000, Lake Freeway North/Park Freeway East</u>	December 1, 1983
	Amendment—Stadium Freeway South Corridor	Amendment to the <u>Regional Transportation Plan—2000, Stadium Freeway South Corridor</u>	March 11, 1985

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Transportation Planning (continued)	Amendment—Waukesha County	<u>Amendment to the Regional Transportation Plan—2000, Waukesha County</u>	June 20, 1988
	Amendment—Washington County	<u>Amendment to the Washington County Jurisdictional Highway System Plan—2000</u>	June 20, 1990
	Amendment—Racine County	<u>Amendment to the Racine County Jurisdictional Highway System Plan—2000</u>	December 5, 1990
	Amendment—Kenosha County	<u>Amendment to the Regional Transportation Plan—2000, Kenosha County</u>	December 5, 1990
	Racine Area Transit Development Plan	Community Assistance Planning Report No. 3, <u>Racine Area Transit Development Program: 1975-1979</u>	September 12, 1974
	Regional Airport System Plan <sup>c</sup>	Planning Report No. 38, <u>A Regional Airport System Plan for Southeastern Wisconsin: 2010</u>	June 15, 1987
	Kenosha Area Transit <sup>d</sup> Development Plan	Community Assistance Planning Report No. 101, <u>Kenosha Area Transit System Plan and Program: 1984-1988</u>	March 11, 1985
	Transportation Systems Management Plan	Community Assistance Planning Report No. 50, <u>A Transportation Systems Management Plan for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981</u>	December 4, 1980
	Amendment—Milwaukee Northwest Side/ Ozaukee County	Planning Report No. 34, <u>A Transportation System Plan for the Milwaukee Northwest Side/Ozaukee County Study Area</u>	September 8, 1983
	Amendment—Milwaukee Area	Planning Report No. 39, <u>A Freeway Traffic Management System Plan for the Milwaukee Area</u>	December 5, 1988
	Elderly-Handicapped Transportation Plan	Planning Report No. 31, <u>A Regional Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982</u>	April 13, 1978
	Amendment—Racine Area	SEWRPC Resolution No. 78-17	December 7, 1978
	Amendment—Racine Area	Community Assistance Planning Report No. 39, <u>A Public Transit System Accessibility Plan, Volume Three, Racine Urbanized Area</u>	September 11, 1980
	Amendment—Racine Area	Memorandum Report No. 24, <u>A Public Transit Program for Handicapped Persons—City of Racine Transit System</u>	December 7, 1987
	Amendment—Milwaukee County	Community Assistance Planning Report No 39, <u>A Public Transit System Accessibility Plan, Volume Two, Milwaukee Urbanized Area/Milwaukee County</u>	June 20, 1980
	Amendment—Milwaukee County	Memorandum Report No. 21, <u>A Public Transit Program for Handicapped Persons—Milwaukee County Transit System</u>	December 7, 1987
	Amendment—Kenosha Area	Community Assistance Planning Report No. 39, <u>A Public Transit System Accessibility Plan, Volume One, Kenosha Urbanized Area</u>	September 11, 1980
	Amendment—Kenosha Area	Memorandum Report No. 23, <u>A Public Transit Program for Handicapped Persons—City of Kenosha Transit System</u>	December 7, 1987
	Amendment—Waukesha County	Community Assistance Planning Report No. 39, <u>A Public Transit System Accessibility Plan, Volume Four, Milwaukee Urbanized Area/Waukesha County</u>	September 11, 1980
	Amendment—Waukesha County	Memorandum Report No. 22, <u>A Public Transit Program for Handicapped Persons—Waukesha County Transit System</u>	December 7, 1987
	Amendment—City of Waukesha	Amendment to the Public Transit Accessibility Plan for the Milwaukee Urbanized Area/Waukesha County, <u>City of Waukesha Transit System Utility</u>	June 18, 1981
	Amendment—City of Waukesha	Memorandum Report No. 17, <u>A Public Transit Program for Handicapped Persons—City of Waukesha Transit System Utility</u>	December 7, 1987
	Waukesha Transit Development Plan	Community Assistance Planning Report No. 154, <u>A Transit System Development Plan for the City of Waukesha, 1988-1992</u>	June 20, 1990

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning	Root River Watershed Plan	Planning Report No. 9, <u>A Comprehensive Plan for the Root River Watershed</u>	September 22, 1966
	Fox River Watershed Plan	Planning Report No. 12, <u>A Comprehensive Plan for the Fox River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan</u>	June 4, 1970
	Amendment—Water Pollution Control Time Schedule	<u>Amendment to the Comprehensive Plan for the Fox River Watershed</u>	September 13, 1973
	Amendment—Lower Watershed Drainage Plan	Community Assistance Planning Report No. 5, <u>Drainage and Water Level Control Plan for the Waterford-Rochester-Wind Lake Area of the Lower Fox River Watershed</u>	June 5, 1975
	Amendment—Pewaukee Flood Control Plan	Community Assistance Planning Report No. 14, <u>Floodland Management Plan for the Village of Pewaukee</u>	June 1, 1978
	Milwaukee River Watershed Plan	Planning Report No. 13, <u>A Comprehensive Plan for the Milwaukee River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan</u>	March 2, 1972
	Amendment—Lincoln Creek Flood Control Plan	Community Assistance Planning Report No. 13 (2nd Edition), <u>Flood Control Plan for Lincoln Creek, Milwaukee County, Wisconsin</u>	December 1, 1983
	Amendment—Milwaukee Harbor Estuary Plan	Planning Report No. 37, <u>A Water Resources Management Plan for the Milwaukee Harbor Estuary, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	December 7, 1987
	Menomonee River Watershed Plan	Planning Report No. 26, <u>A Comprehensive Plan for the Menomonee River Watershed, Volume One, Inventory Findings and Forecasts; Volume Two, Alternative Plans and Recommended Plan</u>	January 20, 1977
	Amendment—Milwaukee Harbor Estuary Plan	Planning Report No. 37, <u>A Water Resources Management Plan for the Milwaukee Harbor Estuary, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	December 7, 1987
	Wastewater Sludge Management Plan	Planning Report No. 29, <u>A Regional Wastewater Sludge Management Plan for Southeastern Wisconsin</u>	September 14, 1978
	Kinnickinnic River Watershed Plan	Planning Report No. 32, <u>A Comprehensive Plan for the Kinnickinnic River Watershed</u>	March 1, 1979
	Amendment—Milwaukee Harbor Estuary Plan	Planning Report No. 37, <u>A Water Resources Management Plan for the Milwaukee Harbor Estuary, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	December 7, 1987
	Regional Water Quality Management Plan <sup>e</sup>	Planning Report No. 30, <u>A Regional Water Quality Management Plan for Southeastern Wisconsin, Volume One, Inventory Findings; Volume Two, Alternative Plans; Volume Three, Recommended Plan</u>	July 12, 1979
	Amendment—Root River Watershed	Community Assistance Planning Report No. 37, <u>A Nonpoint Source Water Pollution Control Plan for the Root River Watershed</u>	March 6, 1980
	Amendment—Walworth County Metropolitan Sewerage District	Community Assistance Planning Report No. 56, <u>Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District</u>	December 3, 1981
	Amendment—Cities of Brookfield and Waukesha	<u>Amendment to the Regional Water Quality Management Plan—2000, Cities of Brookfield and Waukesha</u>	December 3, 1981
	Amendment—Kenosha County	Community Assistance Planning Report No. 45, <u>A Farmland Preservation Plan for Kenosha County, Wisconsin</u>	June 17, 1982
	Amendment—Racine County	Community Assistance Planning Report No. 46, <u>A Farmland Preservation Plan for Racine County, Wisconsin</u>	June 17, 1982
	Amendment—City of Muskego	Community Assistance Planning Report No. 64 (2nd Edition), <u>Sanitary Sewer Service Area for the City of Muskego</u>	March 3, 1986

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Ashippun Lake, Waukesha County	Community Assistance Planning Report No. 48, <u>A Water Quality Management Plan for Ashippun Lake, Waukesha County, Wisconsin</u>	September 9, 1982
	Amendment—Okauchee Lake, Waukesha County	Community Assistance Planning Report No. 53, <u>A Water Quality Management Plan for Okauchee Lake, Waukesha County, Wisconsin</u>	September 9, 1982
	Amendment—Lac La Belle, Waukesha County	Community Assistance Planning Report No. 47, <u>A Water Quality Management Plan for Lac La Belle, Waukesha County, Wisconsin</u>	September 9, 1982
	Amendment—North Lake, Waukesha County	Community Assistance Planning Report No. 54, <u>A Water Quality Management Plan for North Lake, Waukesha County, Wisconsin</u>	December 2, 1982
	Amendment—City of West Bend	Community Assistance Planning Report No. 35, <u>Sanitary Sewer Service Area for the City of West Bend, Washington County, Wisconsin</u>	December 2, 1982
	Amendment—Village of Grafton	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Grafton</u>	December 2, 1982
	Amendment—City of Brookfield	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Brookfield</u>	December 2, 1982
	Amendment—Village of Sussex	Community Assistance Planning Report No. 84, <u>Sanitary Sewer Service Area for the Village of Sussex, Waukesha County, Wisconsin</u>	June 16, 1983
	Amendment—Ozaukee County	Community Assistance Planning Report No. 87, <u>A Farmland Preservation Plan for Ozaukee County, Wisconsin</u>	June 16, 1983
	Amendment—Village of Germantown	Community Assistance Planning Report No. 70, <u>Sanitary Sewer Service Area for the Village of Germantown, Washington County, Wisconsin</u>	September 8, 1983
	Amendment—Village of Saukville	Community Assistance Planning Report No. 90, <u>Sanitary Sewer Service Area for the Village of Saukville, Ozaukee County, Wisconsin</u>	December 1, 1983
	Amendment—City of Port Washington	Community Assistance Planning Report No. 95, <u>Sanitary Sewer Service Area for the City of Port Washington, Ozaukee County, Wisconsin</u>	December 1, 1983
	Amendment—Pewaukee	Community Assistance Planning Report No. 76, <u>A Land Use Plan for the Town and Village of Pewaukee: 2000, Waukesha County, Wisconsin</u>	December 1, 1983
	Amendment—Belgium Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Onion River Priority Watershed Plan</u>	December 1, 1983
	Amendment—Geneva Lake Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Geneva Lake Area Communities</u>	December 1, 1983
	Amendment—Village of Butler	Community Assistance Planning Report No. 99, <u>Sanitary Sewer Service Area for the Village of Butler, Waukesha County, Wisconsin</u>	March 1, 1984
	Amendment—City of Hartford	Community Assistance Planning Report No. 92, <u>Sanitary Sewer Service Area for the City of Hartford, Washington County, Wisconsin</u>	June 21, 1984
	Amendment—Mukwonago Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Mukwonago, Towns of East Troy and Mukwonago</u>	June 21, 1984
	Amendment—Village of Fredonia	Community Assistance Planning Report No. 96, <u>Sanitary Sewer Service Area for the Village of Fredonia, Ozaukee County, Wisconsin</u>	September 13, 1984
	Amendment—Village of East Troy	Community Assistance Planning Report No. 112, <u>Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin</u>	September 13, 1984
	Amendment—City of Milwaukee	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Milwaukee</u>	September 13, 1984
	Amendment—Town of Pleasant Prairie	Community Assistance Planning Report No. 88, <u>A Land Use Management Plan for the Chiwaukee Prairie-Carol Beach Area of the Town of Pleasant Prairie, Kenosha County, Wisconsin</u>	March 11, 1985
	Amendment—Village of Belgium	Community Assistance Planning Report No. 97 (2nd Edition), <u>Sanitary Sewer Service Area for the Village of Belgium, Ozaukee County, Wisconsin</u>	June 15, 1987

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Town of Addison	Community Assistance Planning Report No. 103, <u>Sanitary Sewer Service Area for the Allenton Area, Washington County, Wisconsin</u>	March 11, 1985
	Amendment—Town of Yorkville	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Yorkville</u>	March 11, 1985
	Amendment—Village of Williams Bay	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Williams Bay/Walworth County Metropolitan Sewerage District</u>	March 11, 1985
	Amendment—Town of Trenton City of West Bend	<u>Amendment to the Regional Water Quality Management Plan—2000, City of West Bend/Town of Trenton</u>	March 11, 1985
	Amendment—Village of Hartland	Community Assistance Planning Report No. 93, <u>Sanitary Sewer Service Area for the Village of Hartland, Waukesha County, Wisconsin</u>	June 17, 1985
	Amendment—Village of Jackson	Community Assistance Planning Report No. 124, <u>Sanitary Sewer Service Area for the Village of Jackson, Washington County, Wisconsin</u>	June 17, 1985
	Amendment—Pewaukee Area	Community Assistance Planning Report No. 113, <u>Sanitary Sewer Service Area for the Town of Pewaukee Sanitary District No. 3, Lake Pewaukee Sanitary District, and Village of Pewaukee, Waukesha County, Wisconsin</u>	June 17, 1985
	Amendment—City of Waukesha	Community Assistance Planning Report No. 100, <u>Sanitary Sewer Service Area for the City of Waukesha and Environs, Waukesha County, Wisconsin</u>	December 2, 1985
	Amendment—Village of Slinger	Community Assistance Planning Report No. 128, <u>Sanitary Sewer Service Area for the Village of Slinger, Washington County, Wisconsin</u>	December 2, 1985
	Amendment—DelafIELD/ Nashotah Area	Community Assistance Planning Report No. 127, <u>Sanitary Sewer Service Area for the City of DelafIELD and the Village of Nashotah and Environs, Waukesha County, Wisconsin</u>	December 2, 1985
	Amendment—Kenosha Area	Community Assistance Planning Report No. 106, <u>Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u>	December 2, 1985
	Amendment—Town of Eagle	<u>Amendment to the Regional Water Quality Management Plan—2000, Eagle Spring Lake Sanitary District</u>	December 2, 1985
	Amendment—Town of Salem	Community Assistance Planning Report No. 143, <u>Sanitary Sewer Service Area for the Town of Salem Utility District No. 2, Kenosha County, Wisconsin</u>	March 3, 1986
	Amendment—Friess Lake, Washington County	Community Assistance Planning Report No. 98, <u>A Water Quality Management Plan for Freiss Lake, Washington County, Wisconsin</u>	March 3, 1986
	Amendment—Geneva Lake Walworth County	Community Assistance Planning Report No. 60, <u>A Water Quality Management Plan for Geneva Lake, Walworth County, Wisconsin</u>	March 3, 1986
	Amendment—Pewaukee Lake Waukesha County	Community Assistance Planning Report No. 58, <u>A Water Quality Management Plan for Pewaukee Lake, Waukesha County, Wisconsin</u>	March 3, 1986
	Amendment—Waterford/ Rochester Area	Community Assistance Planning Report No. 141, <u>Sanitary Sewer Service Area for the Waterford/Rochester Area, Racine County, Wisconsin</u>	June 16, 1986
	Amendment—City of Burlington	Community Assistance Planning Report No. 78, <u>Sanitary Sewer Service Area for the City of Burlington, Racine County, Wisconsin</u>	June 16, 1986
	Amendment—City of Waukesha/ Town of Pewaukee	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Waukesha/Town of Pewaukee</u>	December 1, 1986
	Amendment—Salem/Paddock Lake/Bristol Area	Community Assistance Planning Report No. 145, <u>Sanitary Sewer Service Area for the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B, Kenosha County, Wisconsin</u>	December 1, 1986
	Amendment—Racine Area	Community Assistance Planning Report No. 147, <u>Sanitary Sewer Service Area for the City of Racine and Environs, Racine County, Wisconsin</u>	December 1, 1986

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Town of Lyons	<u>Amendment to the Regional Water Quality Management Plan—2000, Country Estates Sanitary District/Town of Lyons</u>	March 2, 1987
	Amendment—Village of Silver Lake	<u>Community Assistance Planning Report No. 119, Sanitary Sewer Service Area, Village of Silver Lake, Kenosha County, Wisconsin</u>	June 15, 1987
	Amendment—Village of Twin Lakes	<u>Community Assistance Planning Report No. 149, Sanitary Sewer Service Area, Village of Twin Lakes, Kenosha County, Wisconsin</u>	June 15, 1987
	Amendment—Cedarburg/Grafton Area	<u>Community Assistance Planning Report No. 91, Sanitary Sewer Service Area, City of Cedarburg, Village of Grafton, Ozaukee County, Wisconsin</u>	June 15, 1987
	Amendment—Town of Walworth	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Walworth Utility District No. 1/Walworth County Metropolitan Sewerage District</u>	June 15, 1987
	Amendment—City of West Bend	<u>Amendment to the Regional Water Quality Management Plan—2000, City of West Bend</u>	June 15, 1987
	Amendment—City of Whitewater	<u>Community Assistance Planning Report No. 94, Sanitary Sewer Service Area for the City of Whitewater, Walworth County, Wisconsin</u>	September 14, 1987
	Amendment—Town of Lyons	<u>Community Assistance Planning Report No. 158, Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin</u>	September 14, 1987
	Amendment—City of Hartford	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Hartford</u>	September 14, 1987
	Amendment—Milwaukee Harbor Estuary Plan	<u>Planning Report No. 37, A Water Resources Management Plan for the Milwaukee Harbor Estuary, Volume One, Inventory Findings; Volume Two, Alternative and Recommended Plans</u>	December 7, 1987
	Amendment—City of New Berlin	<u>Community Assistance Planning Report No. 157, Sanitary Sewer Service Area for the City of New Berlin, Waukesha County, Wisconsin</u>	December 7, 1987
	Amendment—Village of Sussex	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Sussex</u>	December 7, 1987
	Amendment—Kenosha Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Kenosha and Environs</u>	December 7, 1987
	Amendment—Village of Kewaskum	<u>Community Assistance Planning Report No. 161, Sanitary Sewer Service Area for the Village of Kewaskum, Washington County, Wisconsin</u>	March 7, 1988
	Amendment—Town of Darien	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Darien/Walworth County Metropolitan Sewerage District</u>	June 20, 1988
	Amendment—Village of Sussex	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Sussex</u>	June 20, 1988
	Amendment—Village of Darien	<u>Community Assistance Planning Report No. 123, Sanitary Sewer Service Area for the Village of Darien, Walworth County, Wisconsin</u>	June 20, 1988
	Amendment—West Bend Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of West Bend/Town of West Bend</u>	September 12, 1988
	Amendment—Hartford Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Hartford</u>	September 12, 1988
	Amendment—Town of Waterford	<u>Amendment to the Regional Water Quality Management Plan—2000, Western Racine County Sewerage District</u>	September 12, 1988
	Amendment—Hartford Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Hartford</u>	December 5, 1988
	Amendment—City of Waukesha	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Waukesha</u>	December 5, 1988
	Amendment—Oconomowoc Area	<u>Community Assistance Planning Report No. 172, Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin</u>	March 6, 1989
	Amendment—Village of Genoa City	<u>Community Assistance Planning Report No. 175, Sanitary Sewer Service Area for the Village of Genoa City, Kenosha and Walworth Counties, Wisconsin</u>	March 6, 1989

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Village of Germantown	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Germantown</u>	March 6, 1989
	Amendment—Racine Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Racine and Environs</u>	March 6, 1989
	Amendment—Upper Fox River Watershed	<u>Amendment to the Regional Water Quality Management Plan—2000, Upper Fox River Watershed—Brookfield and Sussex Sewage Treatment Plants</u>	May 15, 1989
	Amendment—Racine Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Racine and Environs</u>	June 19, 1989
	Amendment—Lake Geneva Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Lake Geneva and Environs</u>	June 19, 1989
	Amendment—Town of Geneva	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Geneva, Walworth County Metropolitan Sewerage District</u>	November 6, 1989
	Amendment—Town of Waterford	<u>Amendment to the Regional Water Quality Management Plan—2000, Western Racine County Sewerage District</u>	December 4, 1989
	Amendment—Delavan Lake Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Delavan Lake Sanitary District/Walworth County Metropolitan Sewerage District</u>	December 4, 1989
	Amendment—East Troy Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Towns of East Troy, Lafayette, and Spring Prairie, and Village of East Troy</u>	December 4, 1989
	Amendment—Waukesha Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Waukesha and Town of Waukesha</u>	June 20, 1990
	Amendment—Village of Silver Lake	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Silver Lake and Salem Utility District No. 2</u>	June 20, 1990
	Amendment—Village of Union Grove	<u>Community Assistance Planning Report No. 180, Sanitary Sewer Service Area for the Village of Union Grove and Environs, Racine County, Wisconsin</u>	September 12, 1990
	Amendment—Town of Somers	<u>Amendment to the Regional Water Quality Management Plan—2000, Kenosha and Racine Sanitary Sewer Service Areas</u>	September 12, 1990
	Amendment—City of Franklin	<u>Community Assistance Planning Report No. 176, Sanitary Sewer Service Area for the City of Franklin, Milwaukee County, Wisconsin</u>	December 5, 1990
	Amendment—Village of Mukwonago	<u>Community Assistance Planning Report No. 191, Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin</u>	December 5, 1990
	Amendment—Village of Dousman	<u>Community Assistance Planning Report No. 192, Sanitary Sewer Service Area for the Village of Dousman, Waukesha County, Wisconsin</u>	December 5, 1990
	Amendment—Towns of Yorkville and Mt. Pleasant	<u>Amendment to the Regional Water Quality Management Plan—2000, Towns of Yorkville and Mt. Pleasant</u>	December 5, 1990
Regional Air Quality Plan		<u>Planning Report No. 28, A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000</u>	June 20, 1980
	Amendment—Emission Reduction Credit Banking and Trading System	<u>Amendment to the Regional Air Quality Attainment and Maintenance Plan: 2000, Emission Reduction Credit Banking and Trading System</u>	December 1, 1983
Pike River Watershed Plan		<u>Planning Report No. 35, A Comprehensive Plan for the Pike River Watershed</u>	June 16, 1983
	Amendment—Town of Mt. Pleasant	<u>Amendment to the Pike River Watershed Plan, Town of Mt. Pleasant</u>	June 15, 1987
	Amendment—City of Kenosha/Town of Somers	<u>Amendment to the Pike River Watershed Plan, City of Kenosha/Town of Somers</u>	June 15, 1987
Oak Creek Watershed Plan		<u>Planning Report No. 36, A Comprehensive Plan for the Oak Creek Watershed</u>	September 8, 1986

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Community Assistance Planning	Kenosha Planning District Comprehensive Plan  Racine Urban Planning District Comprehensive Plan	Planning Report No. 10, <u>A Comprehensive Plan for the Kenosha Planning District, Volumes One and Two</u>  Planning Report No. 14, <u>A Comprehensive Plan for the Racine Urban Planning District, Volume One, Inventory Findings and Forecasts; Volume Two, The Recommended Comprehensive Plan; Volume Three, Model Plan Implementation Ordinances</u>	June 1, 1972  June 5, 1975

<sup>a</sup>The regional land use plan is a second-generation plan. The initial regional land use plan was adopted by the Commission on December 1, 1966, and documented in SEWRPC Planning Report No. 7, Land Use-Transportation Study, Volume Three, Recommended Regional Land Use and Transportation Plans—1990.

<sup>b</sup>The regional transportation plan is a second-generation plan. The initial regional transportation plan was adopted by the Commission on December 1, 1966, and documented in SEWRPC Planning Report No. 7, Land Use-Transportation Study, Volume Three, Recommended Regional Land Use and Transportation Plans—1990, and was subsequently amended by the adoption on June 4, 1970, of the Milwaukee County jurisdictional highway system plan documented in SEWRPC Planning Report No. 11, A Jurisdictional Highway System Plan for Milwaukee County; the adoption on March 2, 1972, of the Milwaukee area transit plan set forth in the document entitled, Milwaukee Area Transit Plan; the adoption on March 4, 1973, of the Walworth County jurisdictional highway system plan documented in SEWRPC Planning Report No. 15, A Jurisdictional Highway System Plan for Walworth County; the adoption on March 7, 1974, of the Ozaukee County jurisdictional highway system plan documented in SEWRPC Planning Report No. 17, A Jurisdictional Highway System Plan for Ozaukee County; the adoption on June 5, 1975, of the Waukesha County jurisdictional highway system plan documented in SEWRPC Planning Report No. 18, A Jurisdictional Highway System Plan for Waukesha County; the adoption on September 11, 1975, of the Washington County jurisdictional highway system plan documented in SEWRPC Planning Report No. 23, A Jurisdictional Highway System Plan for Washington County; the adoption on September 11, 1975, of the Kenosha County jurisdictional highway system plan documented in SEWRPC Planning Report No. 24, A Jurisdictional Highway System Plan for Kenosha County; and the adoption on December 4, 1975, of the Racine County jurisdictional highway system plan documented in SEWRPC Planning Report No. 22, A Jurisdictional Highway System Plan for Racine County.

<sup>c</sup>The regional airport system plan is a second-generation plan. The initial plan was adopted by the Commission on March 4, 1976, and is documented in SEWRPC Planning Report No. 21, A Regional Airport System Plan for Southeastern Wisconsin.

<sup>d</sup>The Kenosha area transit development plan is a second-generation plan. The initial plan was adopted by the Commission on June 3, 1976, and documented in SEWRPC Community Assistance Planning Report No. 7, Kenosha Area Transit Development Plan: 1976-1980.

<sup>e</sup>The regional water quality management plan is a second-generation plan. The initial plan was adopted by the Commission on May 13, 1974, and documented in SEWRPC Planning Report No. 16, A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin.

Seven of the plan elements relate to transportation. These consist of the regional transportation plan (highway and transit), the regional airport system plan, the transportation systems management plan, the elderly and handicapped transportation plan, and detailed transit development plans for the Kenosha, Racine, and Waukesha urban areas.

Ten of the adopted plan elements fall within the broad functional area of environmental planning. These consist of the regional water quality management plan, the regional wastewater sludge management plan, the regional air quality attainment and maintenance plan, and comprehensive watershed development plans for the Root, Fox, Milwaukee, Menomonee, Kinnickinnic, and Pike River watersheds, and for the Oak Creek watershed.

The final two plan elements consist of comprehensive community development plans for the Kenosha and Racine urbanized areas.

During 1990, the Commission added one new element to the regional plan, a detailed transit development plan for the Waukesha urban area, and adopted 13 amendments to previously adopted regional plan elements. The latter consisted of eight amendments to the regional water quality management plan dealing with changes to sanitary sewer service areas at various locations throughout the Region; two amendments to the regional park and open space plan which took the form of updated park and open space plans for Washington and Waukesha Counties, respectively; and three amendments to the regional transportation (arterial street and highway) system plan, including new jurisdic-

tional highway plans for Racine and Washington Counties and an amendment to the jurisdictional highway plan for Kenosha County. As appropriate, each of these plan elements and amendments is discussed in a subsequent section of this Annual Report.

## THE CYCLICAL NATURE OF THE PLANNING PROCESS

The Commission views the planning process as cyclical in nature, alternating between system, or areawide, planning, and project, or local, planning. For example, with respect to transportation planning, under this concept transportation facilities development and management proposals are initially advanced at the areawide systems level of planning, and then an attempt is made to implement the proposals through local project planning. If for whatever reasons a particular facility construction or management proposal advanced at the areawide systems planning level cannot be implemented at the project level, that determination is taken into account in the next phase of systems planning. A specific example of this is the Milwaukee River Parkway arterial facility included in the initial regional transportation system plan but rejected in the project planning phase of the cycle. Similar examples could be given for land use development, park and open space facilities, library facilities, flood control facilities, water pollution abatement facilities, or any of the other types of facilities or services that are the subject of Commission plan elements.

By the end of 1979, the second cycle of areawide systems planning for land use, transportation, and water quality management programs had been completed. The resultant plans represent "second-generation" plans for the Region, incorporating the "feedback" from the intensive project and facilities planning efforts completed by local agencies after, and in implementation of, the first-generation areawide system plans.

The second-generation regional land use plan is based upon the same three basic concepts that formed the basis of the initial regional land use plan; namely, the centralization of new urban land development to the greatest degree practicable, the preservation and protection of primary environmental corridor lands, and the preservation and protection of prime agricultural lands. While the second-generation regional land use plan is thus conceptually identical to the origi-

nal regional land use plan, it does differ in the detailed application of these concepts throughout the seven-county Southeastern Wisconsin Region, taking into account land use decisions that were made following adoption of the initial plan, sometimes at variance with that plan, as well as forecasts of reduced regional population and household growth. This second-generation regional land use plan for the design year 2000 was adopted in December 1977.

The second-generation regional transportation plan differs in some important respects from the first-generation regional transportation plan, reflecting decisions made during the project planning phase of the first cycle of planning. For example, planned freeway segments, the Park Freeway-West in its entirety and the Stadium Freeway-North in its entirety, the Bay Freeway from Pewaukee to Whitefish Bay, the Metropolitan Belt Freeway in its entirety, and the Racine Loop Freeway, as well as one major transit proposal, the exclusive freeway in the east-west travel corridor of Milwaukee County, were deleted from the second regional transportation plan. This second-generation transportation plan for the design year 2000 was adopted in June 1978.

The initial cycle of water quality management planning consisted of the regional sanitary sewerage system plan adopted by the Commission in 1974 and the project level planning carried out by local water quality management agencies since that time. In July 1979 the Commission adopted a second-generation regional water quality management plan, taking into account the results of the project and facility level planning efforts of the first cycle. This second-generation plan differed from the first-generation plan primarily in scope and complexity, the second-generation plan dealing with such areas as regional sludge management and the control of water pollution from nonpoint sources, as well as with the control of water pollution from point sources which was the focus of the first systems level planning effort.

## PLAN ELEMENTS UNDER PREPARATION

At the end of 1990, the Commission had underway a number of programs designed to refine, detail, amend, or extend the existing plan elements. These work efforts included the following:

- The preparation of a third-generation regional land use plan. This plan will be based upon new forecasts of regional population and economic activity to the design year 2010.
- The preparation of a third-generation regional transportation system plan. Like the land use plan, this work effort would extend the transportation plan to the design year 2010. Work is being done first on a subregional basis, with particular concentration on county level and corridor studies, all intended to be integrated into a new regional plan. Updated jurisdictional highway system plans for Ozaukee and Walworth Counties were under way at the end of the year, as were corridor plans for the IH 94 South freeway in Kenosha, Milwaukee, and Racine Counties and the IH 94 West freeway in Waukesha County.
- An update of the regional park and open space plan being carried out by preparing seven individual but coordinated county park and open space plans. By the end of 1989, such new plans had been completed and adopted for all but Milwaukee and Walworth Counties. Draft plans for those two counties were in preparation.
- Additional sanitary sewer service area plans being prepared to refine, detail, and amend the regional water quality management plan. At the end of 1990, such locally focused planning efforts were under way for the communities of Mequon and Thiensville in Ozaukee County; Brookfield, Elm Grove, and Menomonee Falls in Waukesha County; and Norway in Racine County.
- The preparation of coordinated sanitary sewer and water supply system plans for the Greater Kenosha and Racine areas. When complete, these plans can be expected to refine, detail, and amend the regional water quality management plan and also the comprehensive plans for the Kenosha and Racine urbanized areas.
- A composite stormwater drainage and flood control system plan for the Milwaukee Metropolitan Sewerage District and its contract service areas in Ozaukee, Racine, Washington, and Waukesha Counties. This work effort is reevaluating and updating

prior Commission recommendations attendant to drainage and flood control in the Milwaukee, Menomonee, Kinnickinnic, and Root River watersheds and Oak Creek watershed, and extending those plans as necessary to develop definitive drainage and flood control recommendations for all streams and watercourses for which the MMSD has taken jurisdiction. At the end of 1990 all technical work on this program had been completed and the report was in the process of being published.

## FUTURE WORK PROGRAMS

The Commission is committed to carrying out a series of continuing planning efforts designed to ensure that the already adopted plan elements are kept up-to-date and extended in terms of design year. Thus, the Commission carries on annually a continuing regional land use planning program designed in part to update and extend the regional land use and regional park and open space plans; a continuing regional transportation planning program designed to update and extend the regional highway, transit, and airport system plans; and a continuing regional environmental planning program designed to update, amend, and extend the series of watershed plans and the regional water quality management plan.

In addition to these major continuing planning efforts, the Commission from time to time prepares supplemental plan elements as a part of the master plan for the physical development of the Region. In so doing, the Commission follows an established policy of preparing a prospectus and/or study design prior to undertaking any major new planning efforts.

During 1990, the Commission completed, at the request of the City of Kenosha, the Village of Pleasant Prairie, and the Town of Somers, a prospectus for the preparation of a new comprehensive plan for the Kenosha Urban Planning District east of IH 94 in Kenosha County. The prospectus recommends that a new comprehensive plan be prepared to replace the plan prepared by the Commission and adopted by the local units of government concerned in 1972. At year's end, the Commission had transmitted the prospectus to Kenosha County and the local units of government concerned for consideration and funding.

In addition, during 1990 the Commission continued efforts to secure funding to carry out a program that would identify the remaining unique and outstanding natural resources and critical species habitat in the Region and to prepare recommendations for the protection of such areas from urban and rural development.

At years end, negotiations were underway with the Wisconsin Department of Natural Resources to secure state support for this program. In addition, the individual counties in the Region were giving consideration to providing the funds necessary to carry out this program. This program is scheduled to get under way in 1991.

# LAND USE PLANNING DIVISION

## DIVISION FUNCTIONS

The Land Use Planning Division conducts studies and prepares plan recommendations concerning the physical aspects of land use development within the Region. The Division is also responsible for developing demographic, economic, and public financial resource data that serve as the basis for the preparation of regional and subregional plans by the Commission. The kinds of basic questions addressed by this Division include:

- How many people live and work in the Region? How are these levels of population and employment changing over time?
- Where in the Region do people live and work? How are these distribution patterns changing over time?
- What is the most probable future level of population and employment in the Region? Where will people live and work in the future?
- What is the existing pattern of land use development in the Region? How is this pattern changing over time?
- Where are the significant natural resource areas of the Region located, including the wetlands, wildlife habitat areas, and prime agricultural lands? What is happening to these resources over time?
- What are the probable future demands within the Region for each of the land use categories, and what appears to be the best way to accommodate these demands?
- How can new urban development and redevelopment be adjusted to the limitations of the natural resource base?
- What is the demand for outdoor recreation in the Region, and how can this demand best be met through the provision of park and open space facilities?

In an attempt to provide answers to these and similar questions, the Land Use Planning Division, during 1990, conducted a number of activities in three identifiable areas: economic

and demographic base data collation and analysis, land use planning, and park and open space planning.

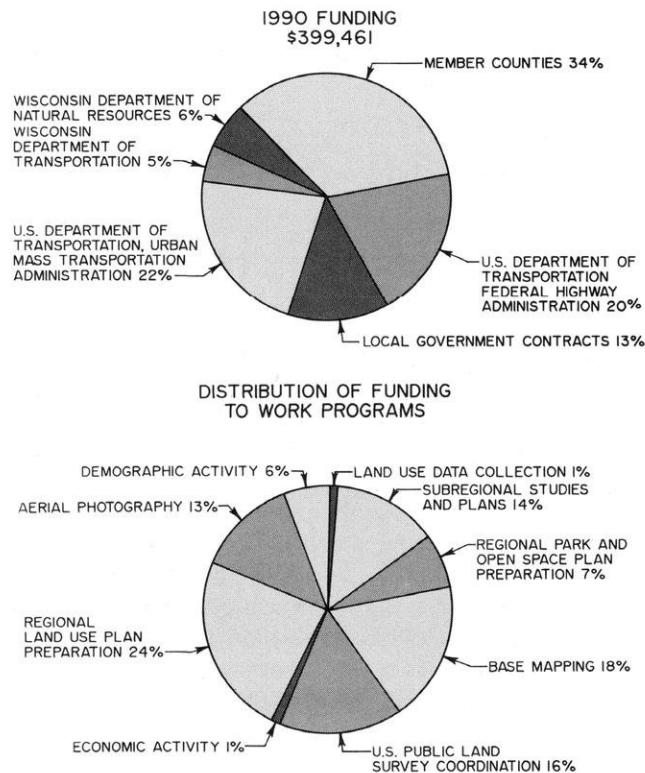
## ECONOMIC AND DEMOGRAPHIC BASE ANALYSIS

During 1990, the Division continued to monitor secondary data sources on changes in population, employment, and school enrollment levels and to provide pertinent socioeconomic data in support of the work of the Land Use, Transportation, and Environmental Planning Divisions.

### Number of Available Jobs

An important measure of economic activity within the Region is the number of available jobs. Since jobs are enumerated at their location, they are often referred to as "place-of-work" employment data. It should be noted that the enumeration of jobs does not distinguish between full- and part-time jobs or indicate

Figure 6  
LAND USE PLANNING DIVISION



**Table 2**  
**REGIONAL EMPLOYMENT BY CATEGORY: 1970, 1980, AND 1990**

Employment Category	1970	1980	1990 <sup>a</sup>	1970-1980		1980-1990	
				Number	Percent	Number	Percent
Agriculture . . . . .	11,900	12,800	9,800	900	7.6	-3,000	-23.4
Construction . . . . .	27,200	25,800	32,500	-1,400	-5.1	6,700	26.0
Manufacturing							
Food and Kindred Products . . . . .	18,900	20,900	17,000	2,000	10.6	-3,900	-18.7
Printing and Publishing . . . . .	14,900	16,300	23,500	1,400	9.4	7,200	44.2
Primary Metals . . . . .	22,500	16,600	11,700	-5,900	-26.2	-4,900	-29.5
Fabricated Metals . . . . .	24,600	31,800	27,500	7,200	29.3	-4,300	-13.5
Nonelectrical Machinery . . . . .	68,100	73,100	57,100	5,000	7.3	-16,000	-21.9
Electrical Machinery . . . . .	36,500	40,100	24,000	3,600	9.9	-16,100	-40.1
Transportation Equipment . . . . .	22,000	21,500	8,700	-500	-2.3	-12,800	-59.5
Other Manufacturing . . . . .	44,800	41,500	57,600	-3,300	-7.4	16,100	38.8
Manufacturing Subtotal	252,300	261,800	227,100	9,500	3.8	-34,700	-13.3
Transportation, Communication, and Utilities . . . . .	36,700	39,600	40,900	2,900	7.9	1,300	3.3
Wholesale Trade . . . . .	35,300	43,500	50,900	8,200	23.2	7,400	17.0
Retail . . . . .	115,700	131,900	155,700	16,200	14.0	23,800	18.0
Finance, Insurance, and Real Estate . . . . .	32,800	41,200	49,900	8,400	25.6	8,700	21.1
Services . . . . .	119,600	158,200	218,700	38,600	32.3	60,500	38.2
Government and Education . . . . .	83,300	120,700	139,500	37,400	44.9	18,800	15.6
Self Employed, Except Farm . . . . .	37,200	46,200	63,000	9,000	24.2	16,800	36.4
Miscellaneous <sup>b</sup> . . . . .	1,700	2,500	2,300	800	47.1	-200	-8.0
Total Jobs	753,700	884,200	990,300	130,500	17.3	106,100	12.0

<sup>a</sup>On January 1, 1988, the Wisconsin Department of Industry, Labor and Human Relations adopted a revised and updated Standard Industrial Classification (SIC) system. The primary effect of this update was a reclassification of some jobs previously coded as electrical machinery to other manufacturing.

<sup>b</sup>Includes agricultural services, forestry, commercial fishing, mining, and unclassified jobs.

whether or not the job is held by a resident of the jurisdiction in which the job is enumerated or by a commuter. The number of jobs available in the Region in the years 1970, 1980, and 1990 is set forth in Table 2 by employment category.

The number of jobs in the Region in 1990 was estimated at 990,300, an increase of 15,700 jobs, or 2 percent, over the 1989 level of 974,600 jobs. As shown in Table 2, a majority of the employment sectors continued to provide more jobs in 1990 than in 1980. There still were, however, about 34,700 fewer manufacturing jobs within

the Region in 1990 than in 1980. Within the manufacturing category, only the printing and publishing and "other" manufacturing sectors provided more jobs in 1990 than in 1980.

Employment distribution by county is shown in Table 3. In six counties, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha, there were more jobs in 1990 than in 1980: about 35,900, 6,600, 6,100, 6,000, 10,400, and 44,700, respectively. In Kenosha County there were about 3,600 fewer jobs in 1990 than in 1980, a loss of about 7 percent.

**Table 3**  
**REGIONAL EMPLOYMENT BY COUNTY: 1970, 1980, AND 1990**

County	1970	1980	1990	1970-1980		1980-1990	
				Number	Percent	Number	Percent
Kenosha . . . . .	40,000	50,100	46,500	10,100	25.3	-3,600	-7.2
Milwaukee . . . . .	507,100	542,300	578,200	35,200	6.9	35,900	6.6
Ozaukee . . . . .	19,800	25,600	32,200	5,800	29.3	6,600	25.8
Racine . . . . .	62,700	76,100	82,200	13,400	21.4	6,100	8.0
Walworth . . . . .	24,500	31,100	37,100	6,600	26.9	6,000	19.3
Washington . . . . .	23,100	31,400	41,800	8,300	35.9	10,400	33.1
Waukesha . . . . .	76,500	127,600	172,300	51,100	66.8	44,700	35.0
Region	753,700	884,200	990,300	130,500	17.3	106,100	12.0

*Comparison of Estimated and Projected Employment Levels*

As reported in the Commission's 1984 Annual Report, the Commission in 1984 developed a new set of projections of regional employment change. These projections are for the design year 2010 and will provide one of the bases upon which adopted regional plan elements, particularly the adopted regional land use, regional transportation system, and regional water quality management plans, will be reappraised and extended to the design year 2010. These projections are documented in SEWRPC Technical Report No. 10 (2nd edition), The Economy of Southeastern Wisconsin.

Because of the increasing uncertainty surrounding future population levels, the Commission adopted an "alternative futures" approach in preparing a set of projections of regional employment levels for the year 2010. Three alternative regional economic scenarios were developed. Two of these were intended to represent "pessimistic" and "optimistic" extremes of future regional employment levels; the third was intended to identify an intermediate future, that is, a future that lies between the two extremes. While carried out under an alternative futures approach, the regional employment projections presented in Technical Report No. 10 were developed using an approach similar to that used successfully by the Commission in its previous employment projection efforts, that is, by preparing a range of projections for each of the dominant and subdominant industry groups within the Region in order to arrive at projec-

tions of total regional employment levels to the year 2010 under the most optimistic and most pessimistic futures that could be reasonably envisioned for the economy of southeastern Wisconsin. This range of employment projections allows for the development of system plans at the regional level, as well as facility plans at the local level, that may be expected to remain viable under greatly varying future conditions.

Employment in the Region in 1990 was anticipated to total 987,900 jobs under the optimistic scenario; 880,900 jobs under the intermediate scenario; and 811,200 jobs under the pessimistic scenario. The estimated 1990 level of 990,300 jobs is approximately the level anticipated under the optimistic scenario and lies about 12 percent and 22 percent, respectively, above the levels anticipated under the intermediate and pessimistic scenarios. The 1990 employment levels projected for each of the Region's seven counties under each of the three alternative futures and the 1990 estimated county employment levels are set forth in Table 4 and Figures 7 through 14.

**Civilian Labor Force Levels**

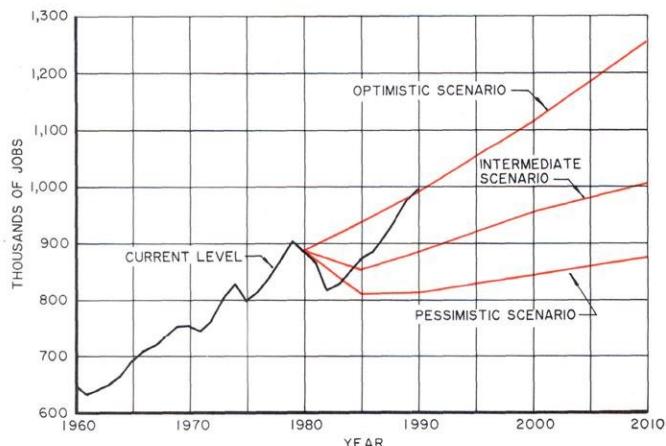
Another important measure of economic activity within the Region is the composition of the Region's civilian labor force. By definition, the civilian labor force of an area consists of all of its residents 16 years of age and older who are either employed at one or more jobs or temporarily unemployed. Civilian labor force data are often referred to as "place-of-residence" employment data. Because of the different definitions and estimation procedures utilized in their

**Table 4**  
**EXISTING AND PROJECTED NUMBER OF AVAILABLE JOBS BY COUNTY: 1990**

County	Estimated 1990 Jobs	Projected 1990 Jobs		
		Pessimistic Scenario	Intermediate Scenario	Optimistic Scenario
Kenosha . . . . .	46,500	45,400	50,200	56,300
Milwaukee . . . . .	578,200	484,300	518,000	573,000
Ozaukee . . . . .	32,200	23,600	26,400	31,600
Racine . . . . .	82,200	72,200	81,900	94,800
Walworth . . . . .	37,100	30,000	34,400	40,500
Washington . . . . .	41,800	31,600	36,100	41,500
Waukesha . . . . .	172,300	124,100	133,900	150,200
Region	990,300	811,200	880,900	987,900

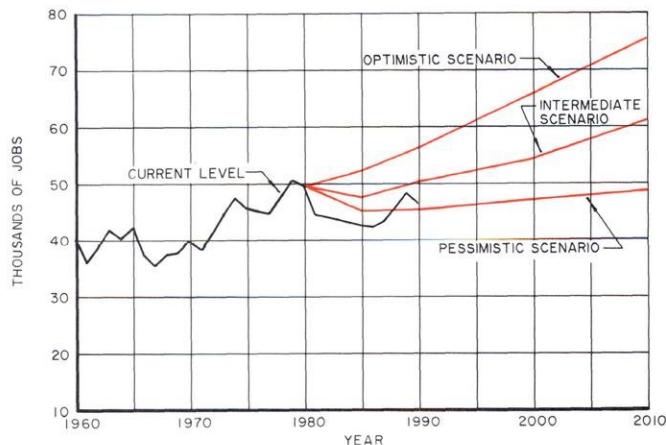
**Figure 7**

**CURRENT AND ALTERNATIVE  
FUTURE NUMBER OF AVAILABLE  
JOBS FOR THE REGION: 1960-2010**



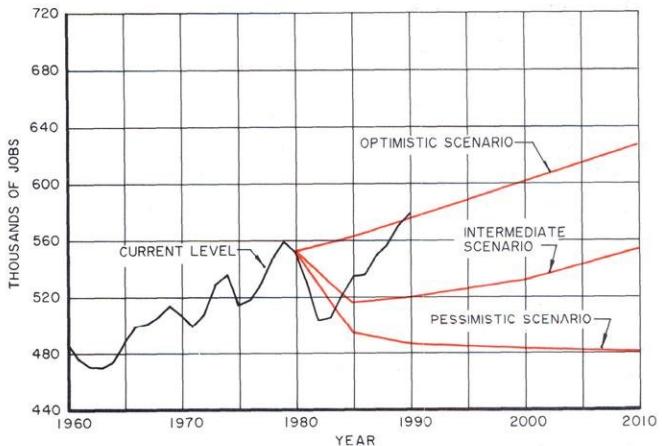
**Figure 8**

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
KENOSHA COUNTY: 1960-2010**



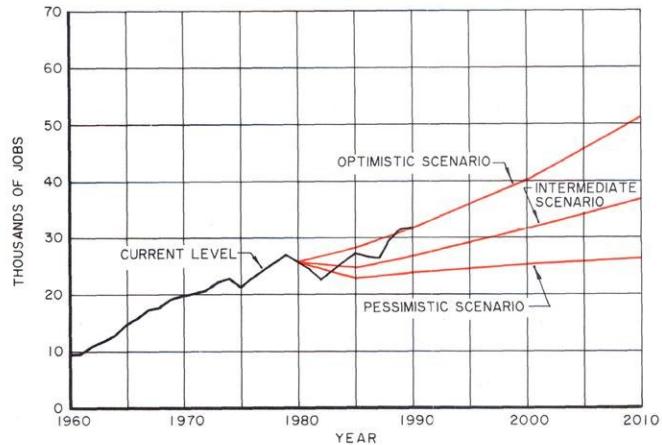
**Figure 9**

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
MILWAUKEE COUNTY: 1960-2010**



**Figure 10**

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
OZAUKEE COUNTY: 1960-2010**



preparation, place-of-work and place-of-residence employment data for a particular geographic area will often differ in absolute values, but generally exhibit similar trends, as shown in Figures 15 through 22. In addition to providing information about regional economic activity, comparisons between place-of-work and place-of-residence employment data can provide important insights into such characteristics of the resident population of the Region as labor force participation and work trip commutation, and, when compared with changes in population levels, can provide indirect evidence of population migration.

The regional civilian labor force was estimated at 952,900 persons in 1990. Between 1989 and 1990, the civilian labor force decreased by about 7,500 persons, or about 1 percent. During the same time period, the number of employed members of the civilian labor force decreased from about 920,900 in 1989 to about 915,600 in 1990, a decrease of 5,300 persons, or about 1 percent. The number of unemployed members of the civilian labor force decreased from about 39,500 in 1989 to about 37,300 in 1990, a decrease of about 2,200, or about 6 percent. The unemployment rate in 1990 was 3.9 percent, in comparison to 4.1 percent in 1989.

Figure 11

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
RACINE COUNTY: 1960-2010**

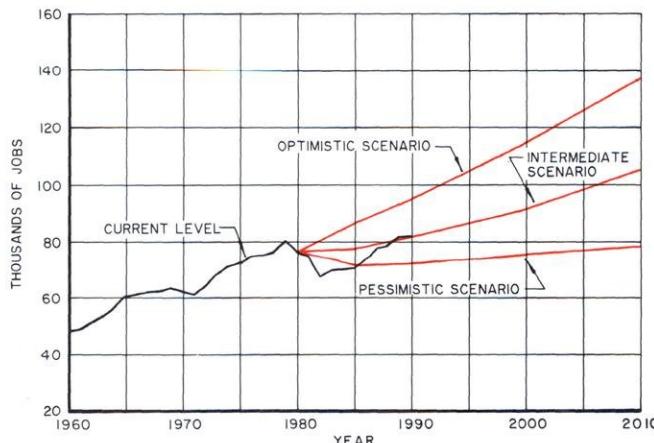


Figure 12

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
WALWORTH COUNTY: 1960-2010**

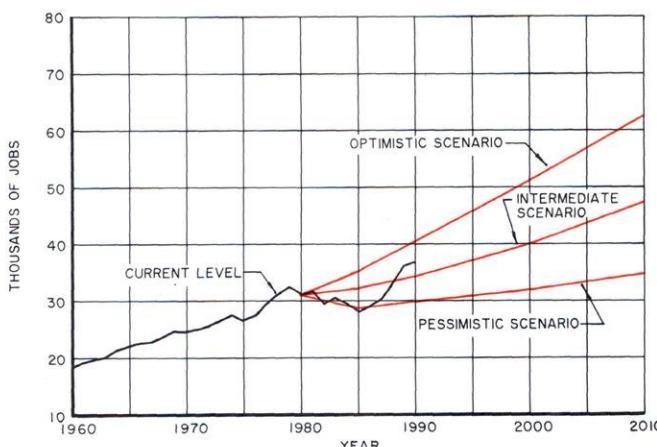


Figure 13

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
WASHINGTON COUNTY: 1960-2010**

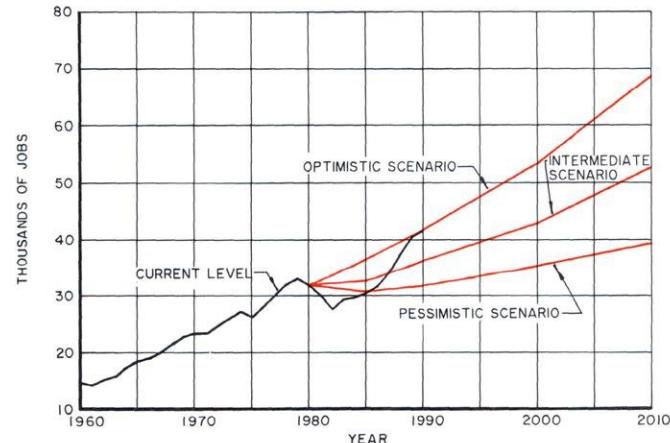


Figure 14

**CURRENT AND ALTERNATIVE FUTURE  
NUMBER OF AVAILABLE JOBS FOR  
WAUKESHA COUNTY: 1960-2010**

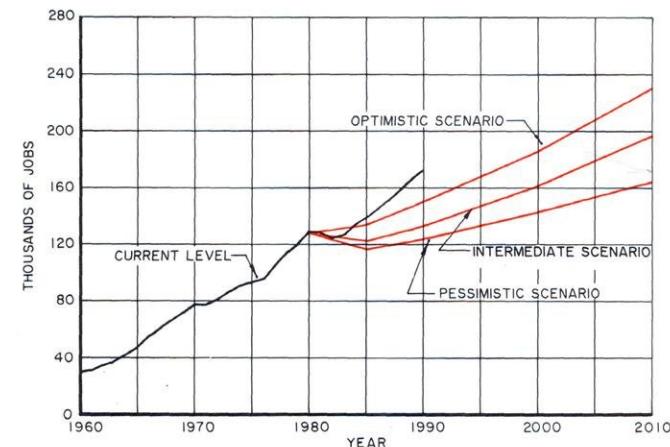


Figure 15

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR THE REGION: 1975-1990**

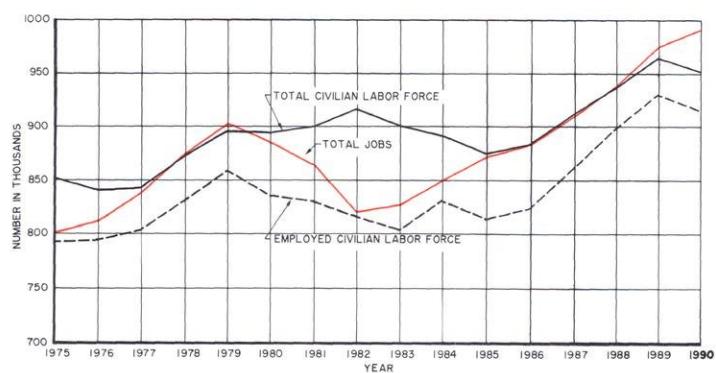


Figure 16

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR KENOSHA COUNTY: 1975-1990**

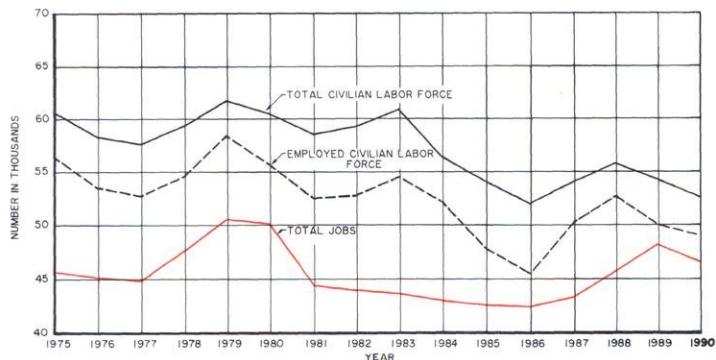


Figure 17

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR MILWAUKEE COUNTY: 1975-1990**

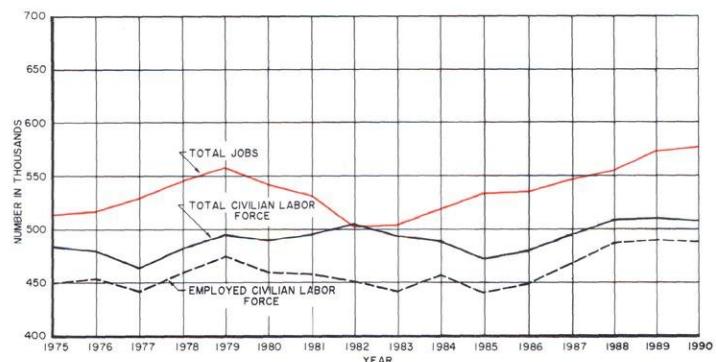


Figure 18

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR OZAUKEE COUNTY: 1975-1990**

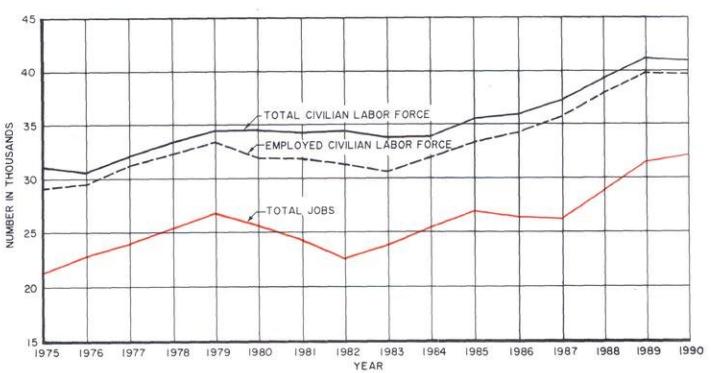


Figure 19

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR RACINE COUNTY: 1975-1990**

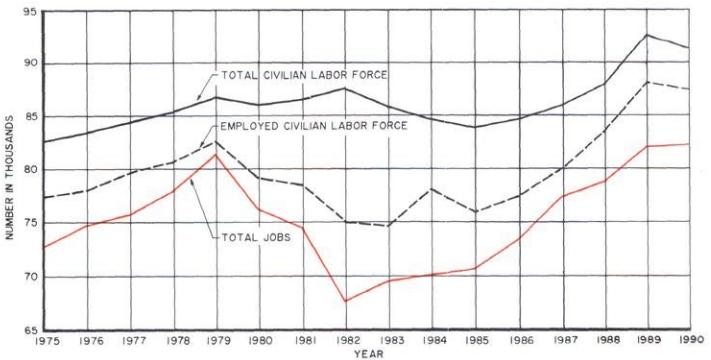


Figure 20

**TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR WALWORTH COUNTY: 1975-1990**

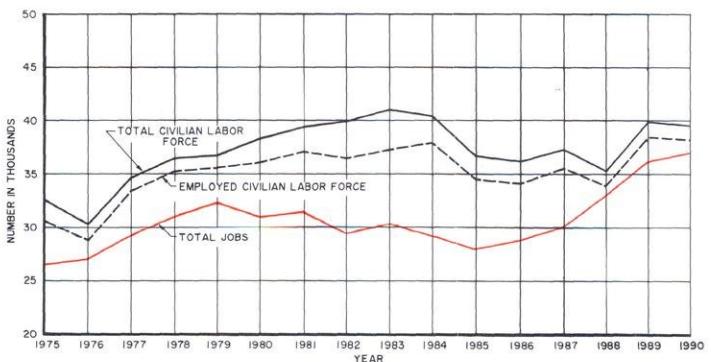


Figure 21

TRENDS IN SELECTED  
MEASURES OF EMPLOYMENT FOR  
WASHINGTON COUNTY: 1975-1990

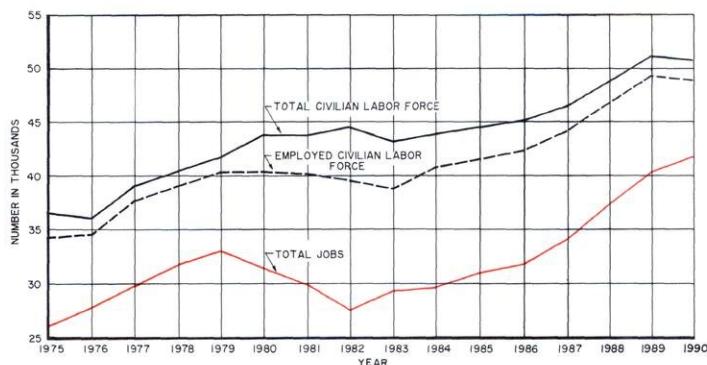
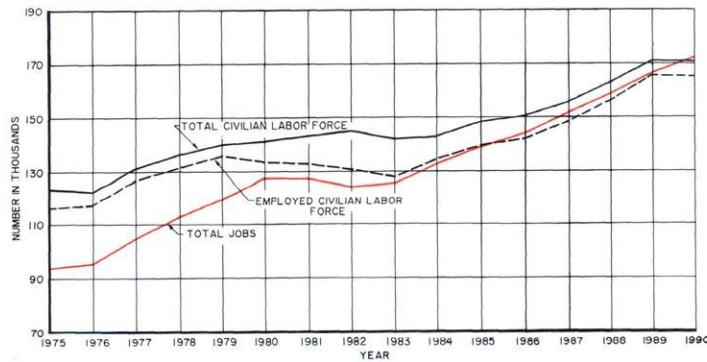


Figure 22

TRENDS IN SELECTED  
MEASURES OF EMPLOYMENT FOR  
WAUKESHA COUNTY: 1975-1990



### Current Population Levels

The 1990 resident population of the Region as enumerated by the U. S. Bureau of the Census in the 1990 United States Census of Population and Housing is 1,810,400 persons. The population of the Region increased by almost 45,600 persons, or about 3 percent, between 1980 and 1990, an increase which was larger than the 8,700 person increase experienced between 1970 and 1980, but significantly less than the 182,500 persons increase experienced between 1960 and 1970. As indicated in Table 5, only Milwaukee County experienced a population decline between 1980 and 1990, decreasing by about 5,700 persons, or about 1 percent. This represents a significantly smaller decline, however, than the decrease of about 89,300 persons, or about

9 percent experienced by Milwaukee County between 1970 and 1980. Washington County experienced the largest percentage increase in population in the Region between 1980 and 1990, about 12 percent, representing the fifth largest percentage increase of all counties in the state of Wisconsin. Waukesha County experienced the largest absolute increase in population in the Region, about 24,500 persons, between 1980 and 1990, representing the second largest absolute increase of all counties in the State. The remaining four counties in the Region experienced population increases ranging from a low of about 1,900, or about 1 percent, in Racine County to a high of about 5,900 persons, or about 9 percent, in Ozaukee County.

It may be concluded from a review of Table 5 that the significantly higher increase in population in the Region during the 1980-1990 time period compared to the 1970-1980 time period, 45,600 persons to 8,700 persons, respectively, occurred not as a result of significant population growth in the outlying counties, indeed, all counties experienced lower population increases in the 1980s than in the 1970s, but rather as a result of the significant decline in the loss of population in Milwaukee County during the 1980 to 1990 decade.

The population of an area such as southeastern Wisconsin is constantly changing with the occurrence of vital events such as births and deaths, and through the inflow and outflow of persons migrating from one area to another. Population increases result from births and in-migration of persons; population decreases result from deaths and out-migration of persons. Thus, population change is not a simple phenomenon but comprises four major components: births, deaths, in-migration, and out-migration. The balance between births and deaths is termed "natural increase" and the balance between in-migration and out-migration is termed "net migration." Trends in natural increase and net migration over time thus provide one important basis for the evaluation of changes in resident population levels.

The measurement of natural increase is straightforward and subject to relatively little error since the registration of births and deaths is virtually complete in Wisconsin. The measurement of migration, however, is indirect, since there are no records kept on the movement of persons between places. For small areas such as counties, migra-

Table 5

## POPULATION IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 1970, 1980, AND 1990

County	Population			1970-1980 Change		1980-1990 Change	
	1970 Census	1980 Census	1990 Census	Number	Percent	Number	Percent
Kenosha . . . . .	117,900	123,100	128,200	5,200	4.4	5,100	4.1
Milwaukee . . . . .	1,054,300	965,000	959,300	-89,300	-8.5	-5,700	-0.6
Ozaukee . . . . .	54,500	67,000	72,900	12,500	22.9	5,900	8.8
Racine . . . . .	170,800	173,100	175,000	2,300	1.3	1,900	1.1
Walworth . . . . .	63,500	71,500	75,000	8,000	12.6	3,500	4.9
Washington . . . . .	63,800	84,900	95,300	21,100	33.1	10,400	12.2
Waukesha . . . . .	231,300	280,200	304,700	48,900	21.1	24,500	8.7
Region	1,756,100	1,764,800	1,810,400	8,700	0.5	45,600	2.6

tion generally must be measured as the net balance between total population change from a given date to a subsequent date and the computed natural increase between the two dates.

Between 1980 and 1990, the total population increase of 45,600 persons resulted from a natural increase of about 124,400 persons and a net out-migration of about 78,800 persons. Natural increase in the Region has been relatively stable since 1980, ranging from about 12,000 to 14,000 persons yearly.

Net out-migration was recorded in Milwaukee County during the 1960s and in Kenosha, Milwaukee, and Racine Counties during the 1970s. Between 1980 and 1990, Kenosha, Milwaukee, and Racine Counties recorded net out-migration levels of about 2,900 persons, about 73,500 persons, and about 11,600 persons, respectively. During the same decade, Ozaukee, Walworth, Washington, and Waukesha Counties each recorded net in-migration levels of about 800 persons, about 600 persons, about 2,900 persons, and about 4,900 persons, respectively.

#### *Comparison of Actual and Projected Population Levels*

As reported in the Commission's 1984 Annual Report, the Commission in 1984 developed a new set of projections of regional population change. Like the previously described employment projections, these projections are for the design year 2010, and will provide one of the bases upon

which all adopted regional plan elements, particularly the adopted regional land use and regional transportation system plans, will be reappraised and extended to the year 2010. These projections are documented in SEWRPC Technical Report No. 11 (2nd Edition), The Population of Southeastern Wisconsin.

As in the preparation of employment projections, the conceptual framework used by the Commission to develop the population projections was the "alternative futures" method. Three alternative regional population scenarios were developed, each of which is closely linked to a corresponding economic scenario for the Region. Two of these were intended to represent "pessimistic" and "optimistic" extremes of future regional population levels; the third was intended to identify an intermediate future, that is, a future that lies between the two extremes. While carried out under an alternative futures approach, the regional population projections were developed using a cohort-component procedure similar to that used by the Commission in its previous population projection efforts.

Under the optimistic scenario, the population level of the Region was anticipated to be 1.93 million persons in 1990. The 1990 regional population level of 1.81 million persons noted above is about 6 percent below this anticipated level. Under the pessimistic scenario, the population level of the Region was anticipated to be 1.60 million persons in 1990. The 1990 population level is about 13 percent above this level.

Table 6

## EXISTING AND PROJECTED RESIDENT POPULATION LEVELS BY COUNTY: 1990

County	Projected 1990 Population			Optimistic Scenario
	1990 Population	Pessimistic Scenario	Intermediate Scenario	
Kenosha . . . . .	128,200	109,900	117,300	135,700
Milwaukee . . . . .	959,300	861,700	924,300	964,900
Ozaukee . . . . .	72,900	60,500	69,700	84,000
Racine . . . . .	175,000	152,900	165,200	188,400
Walworth . . . . .	75,000	66,900	78,200	85,600
Washington . . . . .	95,300	78,000	97,500	114,300
Waukesha . . . . .	304,700	267,700	302,000	353,800
Region	1,810,400	1,597,600	1,754,200	1,926,700

The regional population level of about 1.75 million persons anticipated in 1990 under the intermediate scenario differs from the 1990 regional population level by about 3 percent. The 1990 population levels projected for each of the Region's seven counties under each of the three alternative futures and the 1990 county population levels are set forth in Table 6 and Figures 23 through 30.

### School Enrollment

Enrollment in public and nonpublic schools within the Region totaled 348,900 students in 1990, representing an increase of about 5,900 students, or about 1.7 percent, over the 1989 level of 343,000 students. As indicated in Table 7, the 1990 regional school enrollment was about 20,400 students, or about 6 percent, below the 1980 level of 369,300. Enrollment in public schools was about 283,200 students in 1990, about 11,800 students, or 4 percent, below the 1980 level of 295,000. Enrollment in nonpublic schools was about 65,700 students in 1990, about 8,600 students, or 12 percent, below the 1980 level of 74,300.

Map 2 shows public school enrollment changes between 1980 and 1990 for public high school districts operating wholly or partially within the Region. Union high school districts and their constituent feeder K-8 school districts have been combined into a single district for the purpose of preparing this map. Some 47 districts, or about 85.5 percent of the public K-12 and the combined

union high school and K-8 districts, have experienced enrollment declines since 1980. The remaining eight districts, Franklin, Kettle Moraine, Lake Geneva, Milwaukee, Mukwonago, Pewaukee, Wilmot, and Waterford, experienced an enrollment gain during this period.

### Census Coordination

The Commission serves a coordinating function for the U. S. Bureau of the Census in the seven-county Southeastern Wisconsin Region. Under agreements between the Commission and the Census Bureau, the Commission provides staff services to Census Statistical Areas Committees in each county. In this regard, the Commission serves as the census "Key Person" for Kenosha, Ozaukee, Walworth, Washington, and Waukesha Counties; provides direct staff support services to the census Key Person for Racine County; and serves as a member of the Census Statistical Areas Committee for Milwaukee County.

The Commission also participates in the U. S. Census Bureau State Data Center Program, a nationwide program under which the governor of each state designates an agency or group of agencies within the state government to serve as the lead agency within that state, the State Data Center, for the dissemination of the large volume of information collected and reported by the Census Bureau. Within the State of Wisconsin, the State Data Center is a joint function of the Wisconsin Department of Administration and the University of Wisconsin-Madison. Under an

Figure 23

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
THE REGION: 1950-2010**

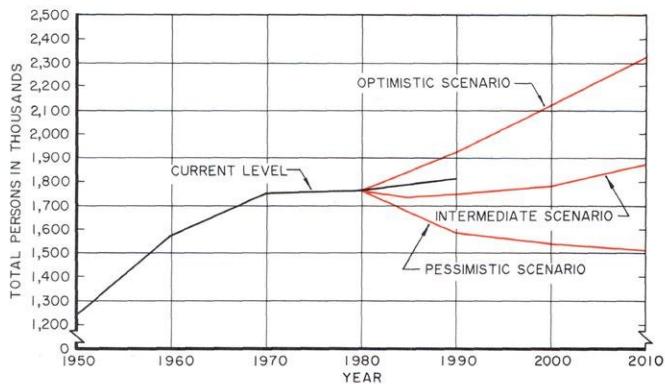


Figure 24

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
KENOSHA COUNTY: 1950-2010**

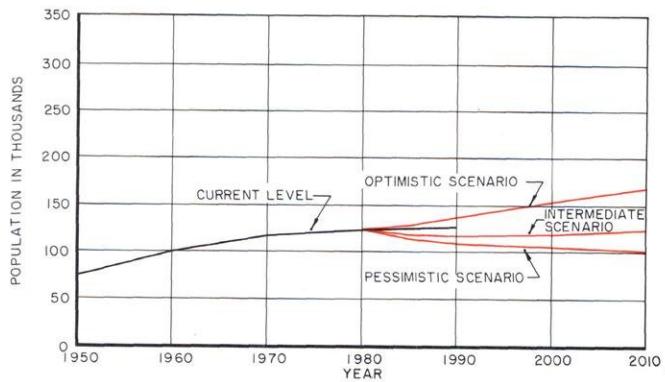


Figure 25

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
MILWAUKEE COUNTY: 1950-2010**

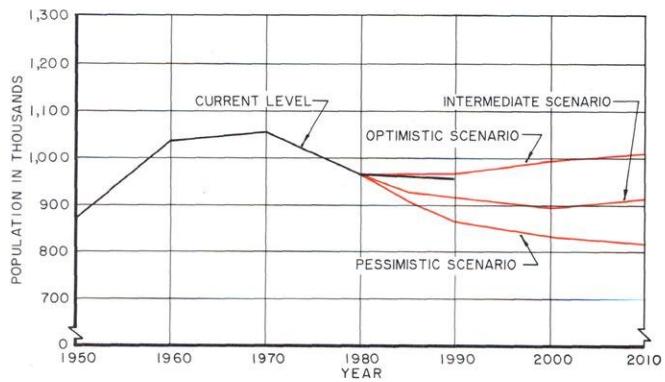


Figure 26

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
OZAUKEE COUNTY: 1950-2010**

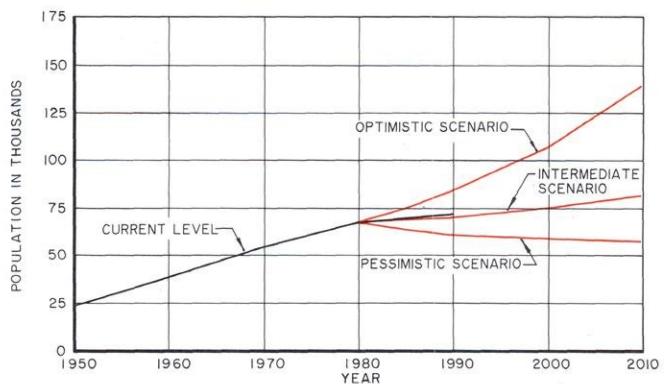


Figure 27

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
RACINE COUNTY: 1950-2010**

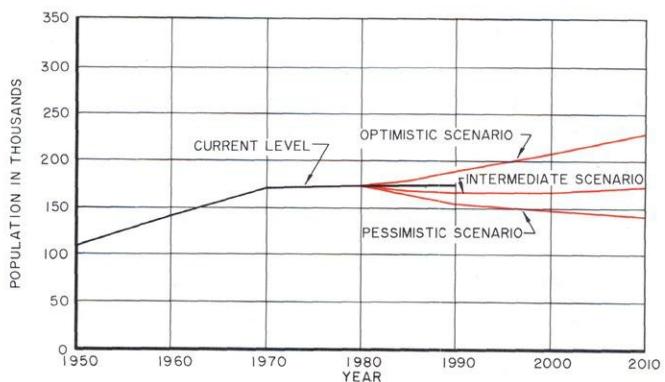


Figure 28

**CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
WALWORTH COUNTY: 1950-2010**

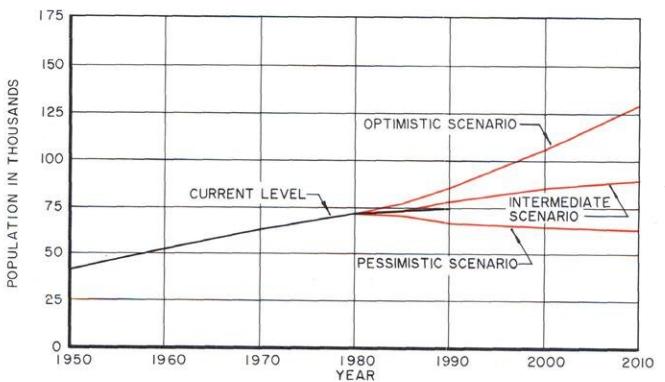


Figure 29

CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
WASHINGTON COUNTY: 1950-2010

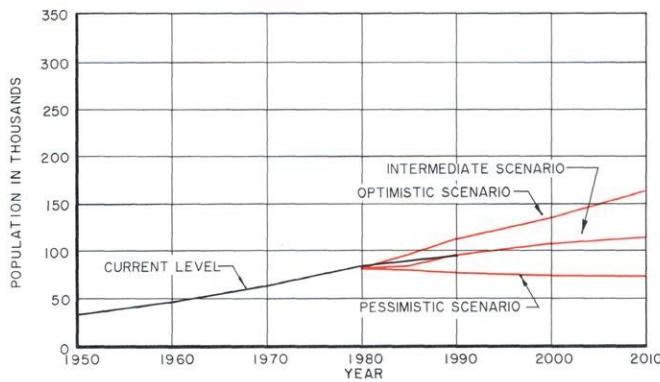
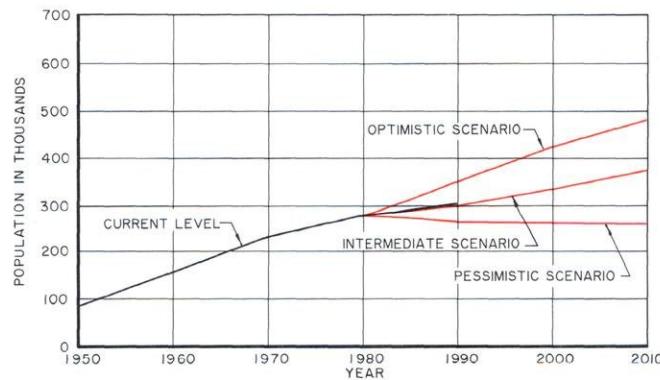


Figure 30

CURRENT AND ALTERNATIVE  
FUTURE POPULATION LEVELS FOR  
WAUKESHA COUNTY: 1950-2010



agreement between the Commission and the Wisconsin State Data Center, the Commission serves as an affiliate member of the Data Center and supplies census data access and technical assistance to census data users in the seven-county Southeastern Wisconsin Region.

In 1990, the Commission, together with the U. S. Bureau of the Census and the Wisconsin State Data Center, cosponsored a workshop to instruct local units of government on how to perform a review of post-census preliminary housing unit counts to be provided by the U. S. Bureau of the Census as part of the conduct of the 1990 Census of Population and Housing.

As part of its continuing census coordinating function within the Region, the Commission also serves as a clearinghouse and central repository for a wide variety of census data holdings. A computer-readable geographic base file containing street address changes and census statistical tabulating and reporting unit boundaries is maintained by the Commission for portions of the Region. Included in the census material held by the Commission are all published reports, maps, and microfiche cards which contain data for the Southeastern Wisconsin Region. Also included is a complete set of computer-readable summary tape files for the State of Wisconsin as produced by the Census Bureau. Assistance is provided to local units of government, the public, and local businesses in accessing these materials.

## LAND USE PLANNING

During 1990, the Division efforts in land use planning were directed toward implementation of the regional land use plan through the application of regional land use plan data to subregional and local planning programs being prepared by the Commission and by local units of government in the Region. The Division also initiated work on updating the regional land use inventory. In addition, the Division continued to monitor residential subdivision platting and farmland preservation activity within the seven-county Region during 1990.

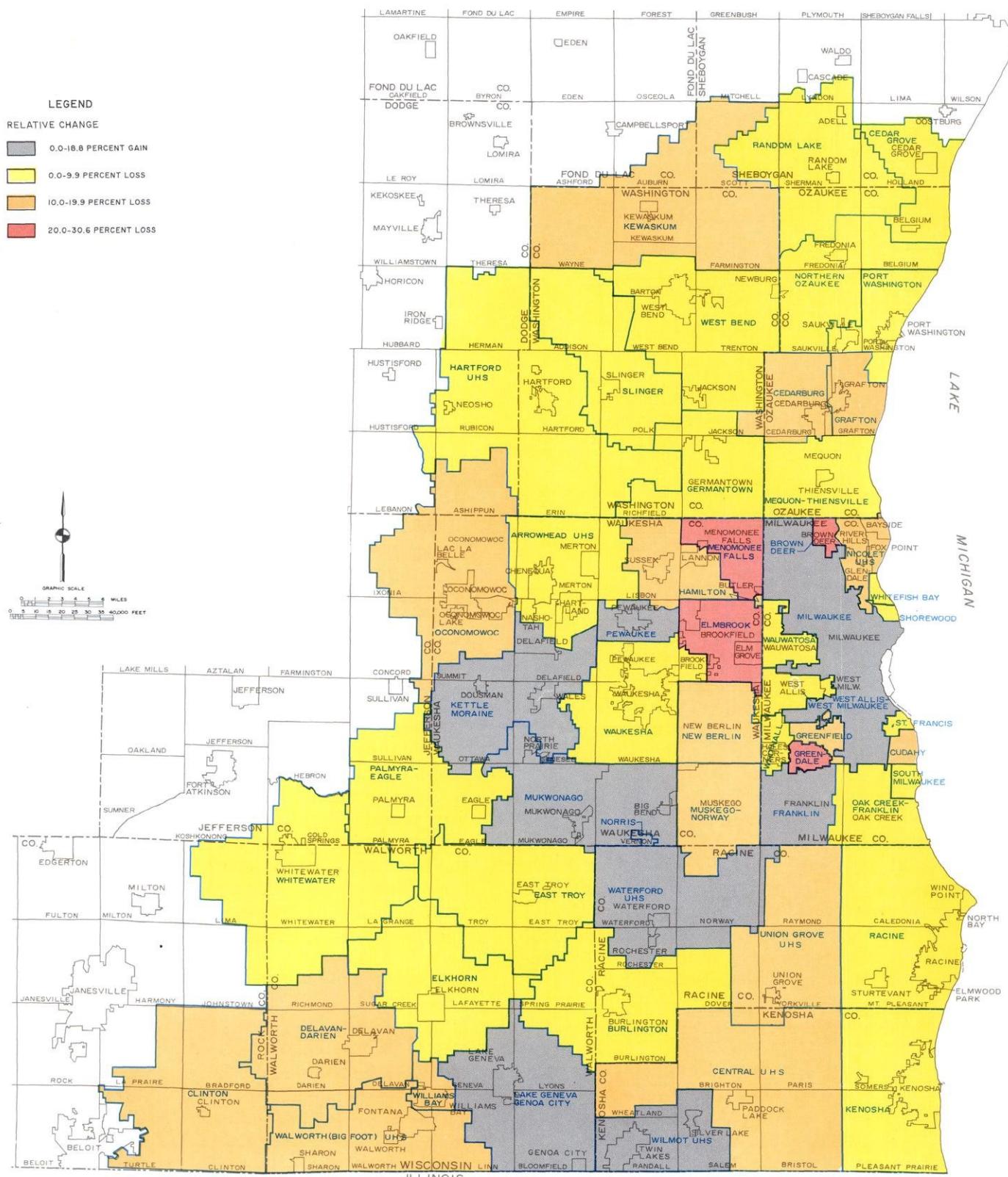
### Regional Land Use Plan—An Overview

The second-generation regional land use plan, documented in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume Two, Alternative and Recommended Plans, was formally adopted by the Commission in December 1977, published in the spring of 1978, and subsequently certified to various units and agencies of government for adoption and implementation.

The recommended regional land use plan for the year 2000 is shown in graphic summary form on Map 3. The basic concepts underlying the land use plan are essentially the same as those underlying the first-generation regional land use plan for the year 1990. That plan had been adopted by the Commission in 1966. Like the year 1990 plan, the year 2000 land use plan advocates a return to the historic development trends that were evident within the Region prior

## Map 2

## RELATIVE PUBLIC SCHOOL ENROLLMENT CHANGES IN THE REGION: 1980-1990



**Table 7**  
**REGIONAL SCHOOL ENROLLMENT BY COUNTY: 1970, 1980, AND 1990**

County	1970	1980	1990	Difference			
				1970-1980		1980-1990	
				Number	Percent	Number	Percent
Kenosha . . . . .	32,300	26,700	25,000	-5,600	-17.3	-1,700	-6.4
Milwaukee . . . . .	267,900	184,900	178,700	-83,000	-31.0	-6,200	-3.4
Ozaukee . . . . .	15,900	15,000	13,700	-900	-5.7	-1,300	-8.7
Racine . . . . .	48,600	38,800	35,200	-9,800	-20.2	-3,600	-9.3
Walworth . . . . .	15,600	13,700	13,200	-1,900	-12.2	-500	-3.6
Washington . . . . .	19,200	21,500	20,000	2,300	12.0	-1,500	-7.0
Waukesha . . . . .	73,100	68,700	63,100	-4,400	-6.0	-5,600	-8.2
Region	472,600	369,300	348,900	-103,300	-21.9	-20,400	-5.5

to 1950, with new urban development proposed to occur largely in concentric rings along and outward from the full periphery of the established urban centers of the Region.

The recommended land use plan seeks 1) to centralize land use development to the greatest degree practicable; 2) to encourage new urban development to occur at densities consistent with the provision of public centralized sanitary sewer, water supply, and mass transit facilities and services; 3) to encourage new urban development to occur only in areas covered by soils well suited to urban use and not subject to special hazards such as flooding and erosion; and 4) to encourage new urban development and redevelopment to occur in areas in which essential urban facilities and services are available, particularly the existing urban centers of the Region, or into which such facilities and services can be readily and economically extended. In short, the plan seeks to promote a more orderly and economic settlement pattern; to avoid the intensification of existing and the creation of new areawide developmental and environmental problems; and generally to guide the operation of market forces into conformance with sound areawide land use development activities.

The recommended regional land use plan envisions converting about 113 square miles of land from rural to urban use from 1970 through 2000,

less than half of the approximately 235 square miles that would have to be converted if decentralization of urban development were allowed to continue unrestrained; and seeks to encourage new urban development to occur primarily in planned neighborhood development units at medium-density population levels, that is, about four dwelling units per net residential acre, or about 5,000 persons per gross square mile. The plan envisions that by the year 2000, about 92 percent of all urban land and 93 percent of all the people in the Region will be served with public sanitary sewer service.

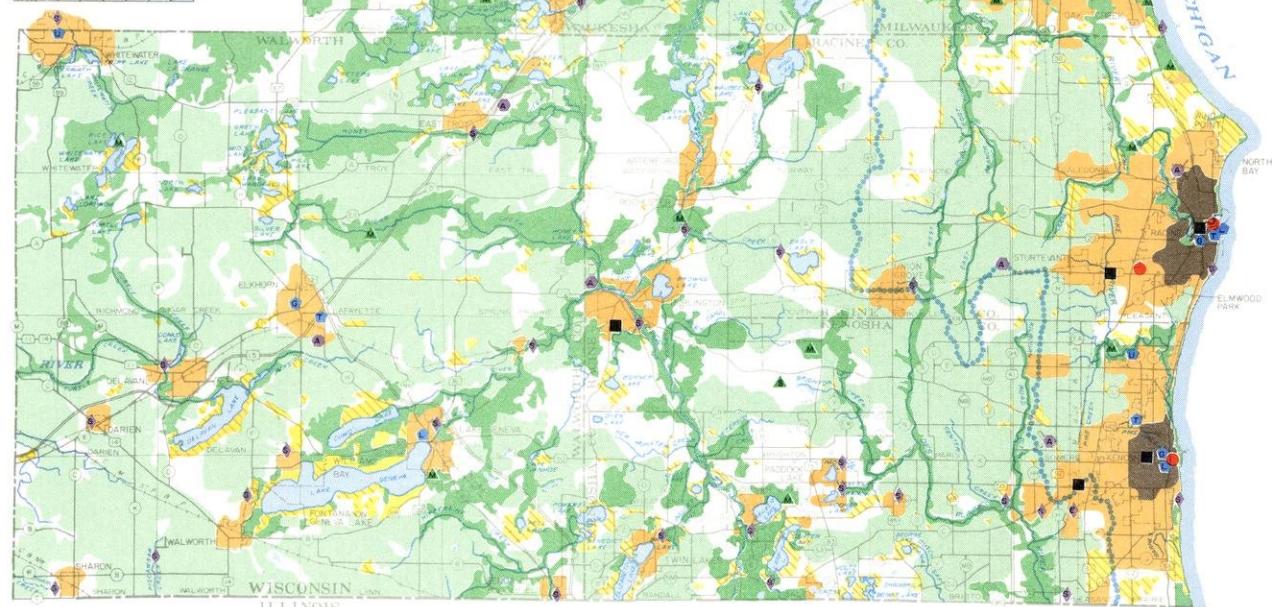
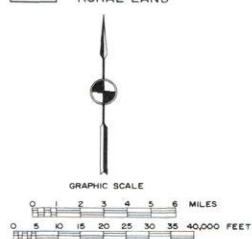
The most important elements of the natural resource base of the Region, including the best remaining woodlands; wetlands; wildlife habitat areas; surface waters and associated shorelands and floodlands; areas covered by organic soils; areas containing rough topography and significant geological formations; scenic, historic, and scientific sites; groundwater recharge and discharge areas; existing park sites; and potential park and related open space sites, have been found to occur largely together in linear patterns termed primary environmental corridors by the Commission. Like the year 1990 regional land use plan, the design year 2000 regional land use plan proposes that these environmental corridors be protected and preserved in essentially natural, open uses. Such protection and preservation is considered essential to the protection

Map 3

ADOPTED REGIONAL LAND USE PLAN FOR SOUTHEASTERN WISCONSIN: 2000

LEGEND

- [Yellow Box] SUBURBAN RESIDENTIAL (0.2-0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Yellow Box with diagonal lines] LOW DENSITY URBAN (0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Orange Box] MEDIUM DENSITY URBAN (2.3-6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Dark Brown Box] HIGH DENSITY URBAN (7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- [Red Circle] MAJOR RETAIL AND SERVICE CENTER
- [Black Square] MAJOR INDUSTRIAL CENTER
- [Green Triangle] MAJOR PUBLIC OUTDOOR RECREATION CENTER
- M - MULTI-USE SITE
- S - SPECIAL PURPOSE SITE
- [Purple Circle] MAJOR TRANSPORTATION CENTER
  - A - AIRPORT
  - B - BUS TERMINAL
  - R - PASSENGER RAIL TERMINAL
  - S - SEAPORT
- [Purple Diamond] MAJOR UTILITY CENTER
  - S - PUBLIC SEWAGE TREATMENT PLANT
  - E - ELECTRIC POWER GENERATION PLANT
- [Blue Circle] MAJOR GOVERNMENTAL OR INSTITUTIONAL CENTER
  - G - COUNTY, STATE, OR FEDERAL ADMINISTRATIVE OFFICE
  - M - MEDICAL
  - U - UNIVERSITY
  - T - TECHNICAL / VOCATIONAL
  - L - LIBRARY
  - C - CULTURAL/ENTERTAINMENT
- [Green Box] PRIMARY ENVIRONMENTAL CORRIDOR
- [Light Green Box] PRIME AGRICULTURAL LAND
- [White Box] OTHER AGRICULTURAL AND RURAL LAND



and wise use of the natural resource base; to the preservation of the Region's cultural heritage and natural beauty; and to the enrichment of the physical, intellectual, and spiritual development of the resident population. In addition, protecting and preserving the natural resource base serves to prevent the creation of new problems such as flooding and water pollution. The topography, soils, and flood hazards existing in these corridors, moreover, make them poorly suited to intensive urban development of any kind, but well suited to recreational and conservancy uses. The intrusion of urban development into these corridors may be expected to result in costly environmental and developmental problems, including flooding; water pollution; failing foundations for buildings, pavements, and other structures; wet basements; excessive operation of sump pumps; and excessive infiltration of clear water into sanitary sewers. Together, the primary environmental corridors encompass about 500 square miles, or about one-fifth of the total area of the Region.

Also like the year 1990 regional land use plan, the design year 2000 regional land use plan proposes to preserve, to the greatest extent practicable, those areas identified as prime agricultural lands. In 1970 these lands totaled about 746 square miles, or 28 percent of the area of the Region. The year 2000 plan proposes that only those prime agricultural lands that have already been, in effect, committed to urban development because of their proximity to expanding concentrations of urban uses and the prior commitment of heavy capital investments in utility extensions be converted to urban uses. Only about 13 square miles, or 2 percent, of the prime agricultural lands would be converted to urban use under the plan.

By the end of 1990, the year 2000 regional land use plan had been adopted by the Kenosha, Racine, Walworth, and Waukesha County Boards of Supervisors; the Common Councils of the Cities of Burlington and Milwaukee; the Village Board of the Village of River Hills; the Town Board of the Town of Norway; and the Kenosha County Park Commission, the City of Oconomowoc Plan Commission, and the Town of Dover Plan Commission. In addition, the plan had been endorsed by the U. S. Department of Housing and Urban Development; the U. S. Department of Transportation, Federal Highway Administration and Urban Mass Transportation

Administration; the U. S. Department of Agriculture, Soil Conservation Service; the Wisconsin Department of Transportation; and the Wisconsin State Board of Soil and Water Conservation Districts (now the Wisconsin Land Conservation Board).

### **Preservation of Farmland**

As already noted, a major recommendation of the regional land use plan is the preservation of the remaining prime agricultural lands in the Southeastern Wisconsin Region. Planning for the preservation of agricultural lands and implementation of such planning efforts through zoning received major impetus in 1977 with the passage of the Wisconsin Farmland Preservation Program, a program that combines planning and zoning provisions with tax incentives for the purpose of ensuring the preservation of farmland. The program is intended to help county and local units of government preserve farmland through local plans and zoning and to provide tax relief, in the form of state income tax credits, to farmland owners who participate in the program. The following is a description of the Wisconsin Farmland Preservation Program and the status of farmland preservation planning within the Region.

#### *Wisconsin Farmland Preservation Program*

The Wisconsin Farmland Preservation Program provides property tax relief in the form of state income tax credits to eligible owners of farmland who decide to participate. Owners of farmland in "urban" counties, including all counties in southeastern Wisconsin, are eligible to participate in the program if their land has been placed in a state-certified exclusive agricultural zoning district and if certain other program eligibility requirements are met. For example, the farm must be at least 35 acres in size and must have produced a value of farm product of at least \$6,000 in the last year or \$18,000 in the past three years. In addition, all participants in the farmland preservation program are required to adhere to sound soil conservation practices. A farmland owner who claims a farmland preservation tax credit on the basis of exclusive agricultural zoning must include in his state income tax return a certificate from the local zoning administrator verifying that his land is located within an exclusive agricultural zoning district.

Table 8

## PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM: TAX YEAR 1989

County	Participants				Acres of Farmland			
	Zoning Certificates	Long-Term Agreements	Total		Zoning Certificates	Long-Term Agreements	Total	
			Number	Percent of Region			Number	Percent of Region
Kenosha . . . . .	49	6	55	4.1	6,905	1,267	8,172	4.5
Milwaukee . . . . .	4	0	4	0.3	263	0	263	0.1
Ozaukee . . . . .	247	1	248	18.5	30,735	80	30,815	17.0
Racine . . . . .	25	3	28	2.1	4,986	547	5,533	3.1
Walworth . . . . .	722	0	722	54.0	100,608	0	100,608	55.5
Washington . . . . .	127	21	148	11.1	15,532	2,868	18,400	10.1
Waukesha . . . . .	129	4	133	9.9	16,980	540	17,520	9.7
Region	1,303	35	1,338	100.0	176,009	5,302	181,311	100.0

NOTE: The total number of agreements by county as shown on this table may differ from Map 4 in cases where a single agreement pertains to lands located in more than one civil division.

Program changes enacted in 1988 also allow farmers in urban counties to participate on the basis of long-term agreements with the State that limit the use of their land to agricultural use. Farmers in urban counties may apply for such agreements between July 1, 1988, and June 30, 1991. After that period, the requirement of exclusive agricultural zoning for tax credit eligibility in urban counties will be restored. Tax credits through long-term agreements in urban counties could be claimed for the first time for tax year 1989.

Under the Farmland Preservation Program, the level of income tax credit for which a farmland owner is eligible is determined in part by a formula which takes into account the owner's household income and the property tax on his farm. In general, the higher the property tax and the lower the household income, the higher the income tax credit. The level of tax relief for which a farmland owner is eligible is also dependent upon planning and zoning actions taken by county and local units of government to preserve agricultural lands. The highest tax credits are available where a county has prepared and adopted a farmland preservation plan and implemented that plan through the application of exclusive agricultural zoning.

The level of participation in the Farmland Preservation Program for tax year 1989 is presented in Table 8, Figure 31, and Map 4. Based upon the number of zoning certificates

issued and the number of long-term preservation agreements in effect, a total of 1,338 farms encompassing 181,311 acres were included in the Program in tax year 1989. Among the seven counties in the Region, Walworth County had the highest level of participation: 722 farms encompassing 100,608 acres.

The vast majority of participants in the Farmland Preservation Program qualified on the basis of exclusive agricultural zoning. Thus, a total of 1,303 zoning certificates for farms encompassing 176,009 acres were issued in the Region for tax year 1989. In contrast, long-term farmland preservation agreements were in effect on only 35 farms encompassing 5,302 acres for tax year 1989. That year, as was previously noted, was the first year in which owners of farmland in southeastern Wisconsin could qualify for tax credits on the basis of such agreements.

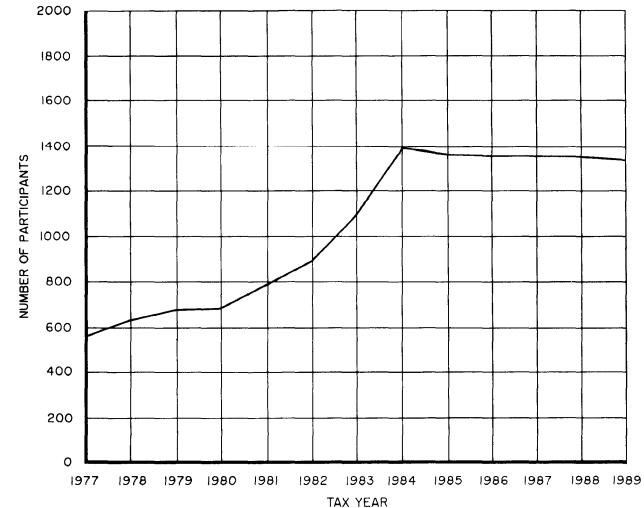
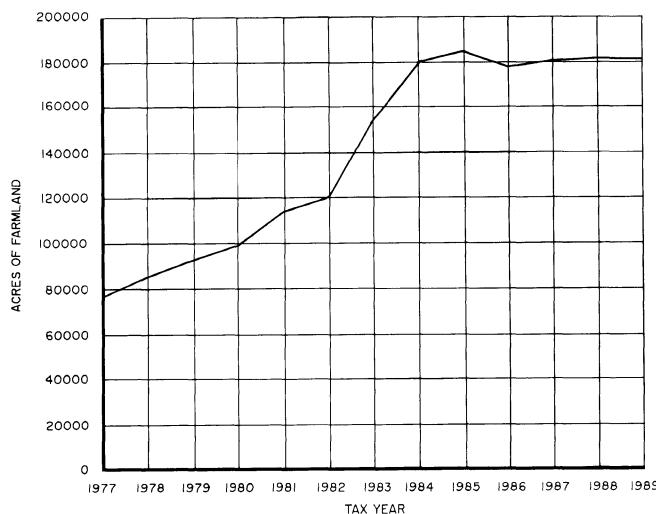
In tax year 1989, the average tax credit for participating landowners in southeastern Wisconsin was \$1,170, or 29 percent of the average property tax of \$4,016. Among the seven counties in the Region, the average tax credit level ranged from \$424 in Milwaukee County to \$1,422 in Kenosha County (see Table 9).

#### *Farmland Preservation Planning*

Considerable progress has been made in planning for the preservation of farmland within the Southeastern Wisconsin Region since the pas-

Figure 31

PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION  
PROGRAM FOR THE REGION: TAX YEARS 1977-1989



sage of the Wisconsin Farmland Preservation Act by the State Legislature in 1977. Six counties in the Region—Kenosha, Ozaukee, Racine, Walworth, Washington, and Waukesha—have adopted farmland preservation plans which were subsequently certified by the Wisconsin Land Conservation Board (see Map 5).

*Farmland Preservation Zoning*

Under Chapter 91 of the Wisconsin Statutes, exclusive agricultural zoning is defined as zoning which limits the use of land to agricultural use; specifies a minimum parcel size of 35 acres for a residence or farm operation; and prohibits structures or improvements on the land unless consistent with agricultural uses. By the end of 1990, exclusive agricultural zoning ordinances certified by the Wisconsin Land Conservation Board were in effect in 41 local units of government in the Region. Twenty-three towns, three in Kenosha County, two in Racine County, 16 in Walworth County, and two in Waukesha County, have adopted exclusive agricultural zoning under county-enacted zoning ordinances. Fourteen towns, six in Ozaukee County, five in Washington County, and three in Waukesha County, have applied exclusive agricultural zoning under town-enacted zoning ordinances. The City of Franklin in Milwaukee County, the City of Muskego in Waukesha County, the Village of Germantown in Washington County, and the Village of Pleasant Prairie in Kenosha

Table 9  
AVERAGE TAX CREDIT LEVELS UNDER THE  
WISCONSIN FARMLAND PRESERVATION  
PROGRAM: TAX YEAR 1989

County	Average Property Tax	Average Tax Credit	
		Amount	Percent of Property Tax
Kenosha . . . . .	\$4,243	\$1,422	33.5
Milwaukee . . . . .	2,431	424	17.4
Ozaukee . . . . .	3,996	1,018	25.5
Racine . . . . .	4,300	1,194	27.8
Walworth . . . . .	4,005	1,261	31.5
Washington . . . . .	4,289	1,020	23.8
Waukesha . . . . .	3,993	1,290	32.3
Region	\$4,016	\$1,170	29.1

NOTE: Tax and tax credit levels presented in this table are based upon the county of residence of the landowner, which may be different from the county in which the land is located. Data for corporate landowners are not included.

County have also adopted exclusive agricultural zoning in conformance with the standards of the Farmland Preservation Act (see Map 5).

*Regional Land Use Inventory*

Reliable basic planning and engineering data, collected on a uniform, areawide basis, are essential to the formulation of workable develop-

## Map 4

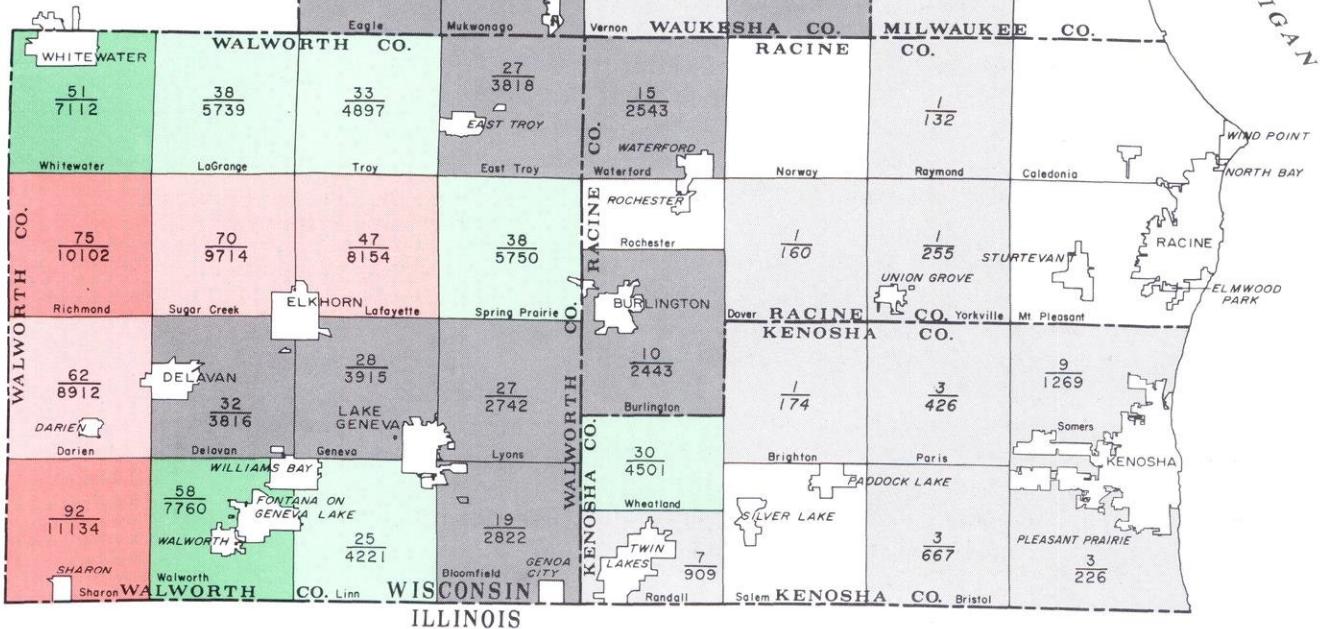
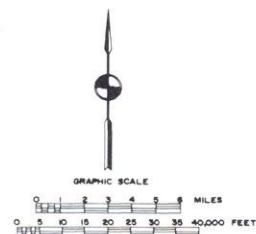
**PARTICIPATION IN THE WISCONSIN  
FARMLAND PRESERVATION  
PROGRAM BY MINOR CIVIL DIVISION  
IN THE REGION: TAX YEAR 1989**

## LEGEND

10 NUMBER OF ZONING CERTIFICATES ISSUED  
2504 NUMBER OF ACRES CERTIFIED

6  
739      NUMBER OF LONG-TERM AGREEMENTS  
              NUMBER OF ACRES UNDER LONG-TERM  
              AGREEMENTS

ACRES CERTIFIED OR UNDER  
LONG-TERM AGREEMENTS



Map 5

CERTIFICATION STATUS OF  
FARMLAND PRESERVATION PLANS  
AND EXCLUSIVE AGRICULTURAL  
ZONING IN THE REGION  
TAX YEAR 1990

LEGEND

EXCLUSIVE AGRICULTURAL ZONING CERTIFIED  
BY THE WISCONSIN LAND CONSERVATION BOARD

COUNTY - ENACTED ZONING

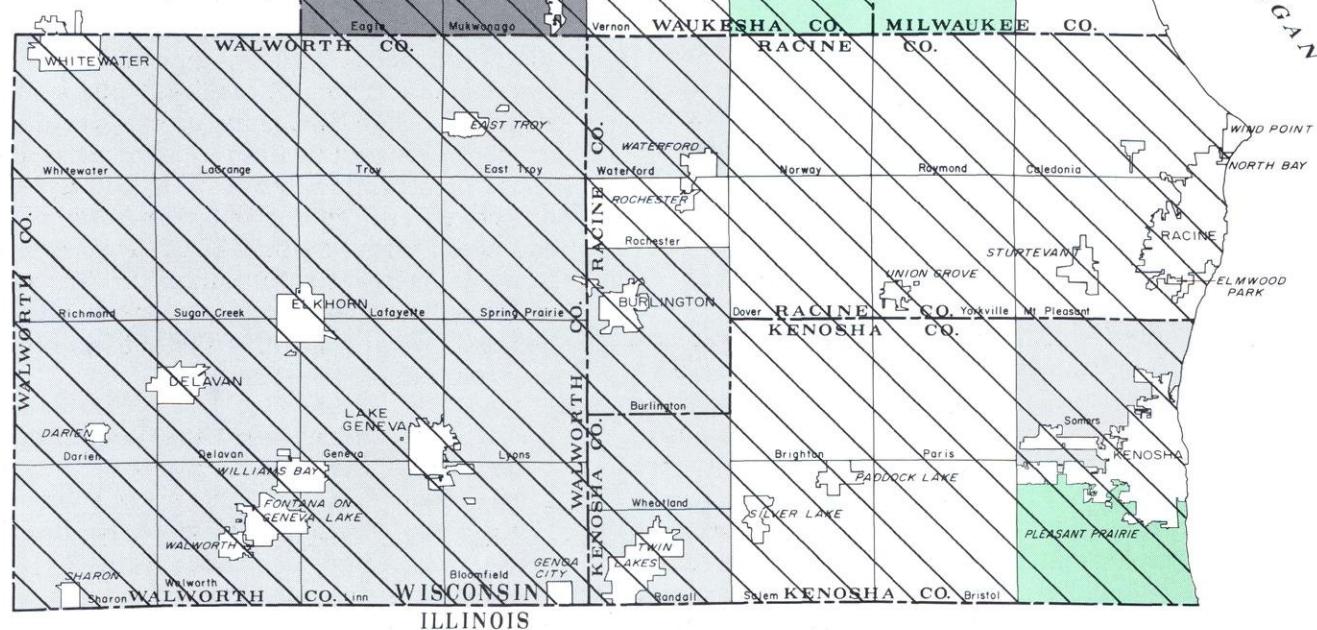
TOWN - ENACTED ZONING

CITY / VILLAGE - ENACTED ZONING

COUNTY FARMLAND PRESERVATION PLAN  
CERTIFIED BY THE WISCONSIN LAND  
CONSERVATION BOARD



GRAPHIC SCALE  
0 1 2 3 4 5 MILES  
0 5 10 15 20 25 30 35 40,000 FEET



ment plans and monitoring the implementation of such plans. Particularly important for land use planning is up-to-date information regarding the amount and spatial distribution of the various categories of land use in the Region. Such data were initially developed by the Commission in 1963, with re-inventories completed in 1970, 1975, 1980, and 1985. In 1990, the Land Use Division began work on a re-inventory of land use in the Region based upon new aerial photography taken in Spring 1990. The inventory update involves a visual comparison of 1990 aerial photographs and corresponding 1985 photographs and delineation of any changes, field inspection of areas as necessary to ensure accurate identification of new land uses, and encoding of all identified changes on the Commission computer graphics system. Such encoding allows for automated reproduction of land use inventory maps and related data analysis functions.

### **Residential Subdivision Platting Activity**

The Commission annually monitors land subdivision activities in the Region. A total of 3,218 residential lots were created in the Region during 1990 through subdivision plats, compared with 2,740 lots platted in 1989. Of the total residential lots created in 1990, 2,947 lots, or about 92 percent, were served by public sanitary sewers, and the remaining 271 lots, or 8 percent, were designed to be served by onsite septic tank sewage disposal systems (see Table 10 and Map 6). With respect to the seven counties in southeastern Wisconsin, the number of residential lots created through subdivision plats in 1990 ranged from a low of 218 lots in Kenosha County to a high of 1,397 lots in Waukesha County. The historic trend in residential platting activity since 1960 is shown for the Region and by county in Figures 32 through 39.

### **PARK AND OPEN SPACE PLANNING**

The Commission adopted a regional park and open space plan for southeastern Wisconsin on December 1, 1977. The plan consists of two basic elements: an open space preservation element and an outdoor recreation element. The open space preservation element consists of recommendations for the preservation of primary environmental corridors and prime agricultural land. The outdoor recreation element consists of: 1) a resource-oriented outdoor recreation plan,

which provides recommendations for the number and location of large parks, recreation corridors to accommodate trail-oriented activities, and water access facilities to enable the recreational use of rivers, inland lakes, and Lake Michigan; and 2) an urban outdoor recreation plan, which provides recommendations for the number and distribution of local parks and outdoor recreational facilities required in urban areas of the Region. The plan is documented in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, and is graphically summarized on Map 7.

The regional park and open space plan was certified to various governmental units and agencies for adoption and implementation early in 1978. Five of the seven constituent counties in southeastern Wisconsin, Kenosha, Milwaukee, Racine, Washington, and Waukesha Counties, adopted the regional plan as their county plan in 1978. In addition, the Commission prepared a refinement of the regional plan as it relates specifically to Ozaukee County. That plan was adopted by Ozaukee County in 1978. Thus, all the counties in southeastern Wisconsin except Walworth County have adopted the regional park and open space plan or a refinement of that plan. In addition, the plan was endorsed by the Wisconsin Natural Resources Board in January 1979.

During 1990, Division efforts on park and open space planning were directed primarily toward the implementation of the regional park and open space plan. Implementation activities consisted of preparing detailed local park and open space plans consistent with the guidelines provided by the regional plan. These local plans are documented in SEWRPC community assistance planning reports and contain a set of park and open space preservation, acquisition, and development objectives and supporting standards relative to the needs of the citizens of the local community; present pertinent information on the supply of and need for park and open space sites in the community; and identify the actions required to meet park and open space needs.

Specifically, during 1990 the Commission published SEWRPC Community Assistance Planning Report No. 71, A Park and Open Space Plan for the Town of Waterford, Racine County, Wisconsin. Adoption of such plans by the local communities and approval of the plans by the Wisconsin Department of Natural Resources

Table 10  
RESIDENTIAL SUBDIVISION PLATTING ACTIVITY IN THE REGION: 1990

County	Sewered Lots		Unsewered Lots		Total Lots	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Region
Kenosha . . . . .	218	100.0	0	--	218	6.8
Milwaukee . . . . .	368	100.0	0	--	368	11.4
Ozaukee . . . . .	292	100.0	0	--	292	9.1
Racine . . . . .	299	100.0	0	--	299	9.3
Walworth . . . . .	280	83.3	56	16.7	336	10.4
Washington . . . . .	258	83.8	50	16.2	308	9.6
Waukesha . . . . .	1,232	88.2	165	11.8	1,397	43.4
Region	2,947	91.6	271	8.4	3,218	100.0

Map 6

RESIDENTIAL PLATTING ACTIVITY IN THE REGION: 1990

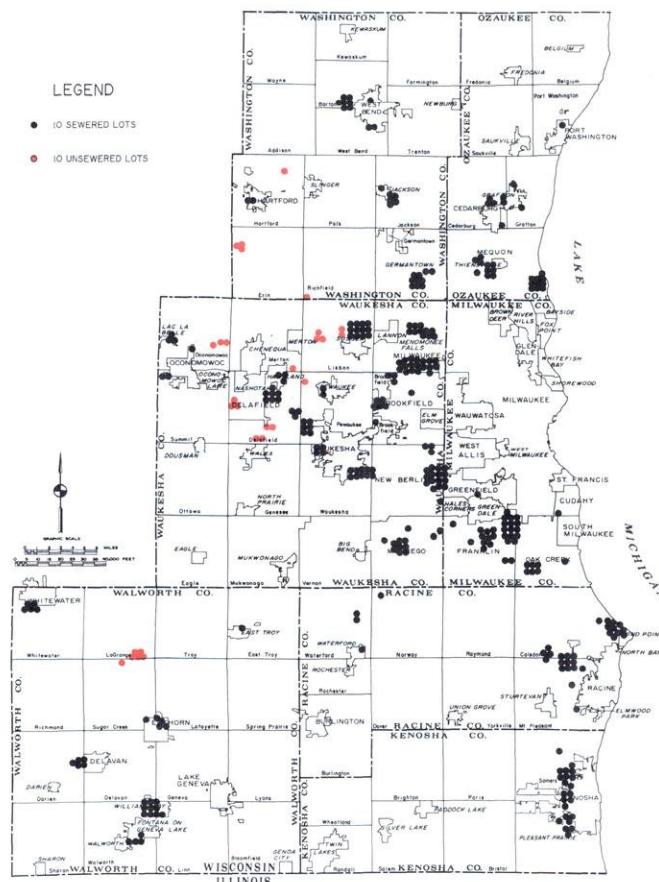


Figure 32

RESIDENTIAL LOTS PLATTED IN THE REGION: 1960-1990

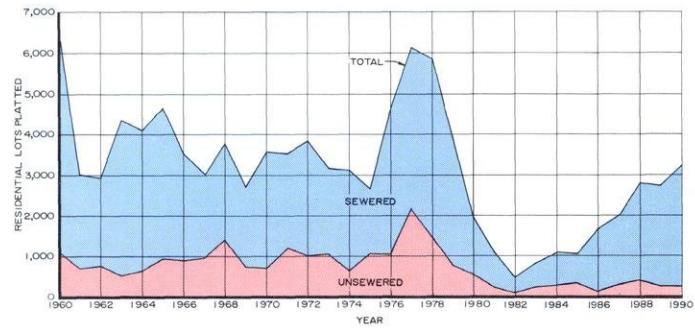


Figure 33

RESIDENTIAL LOTS PLATTED IN KENOSHA COUNTY: 1960-1990

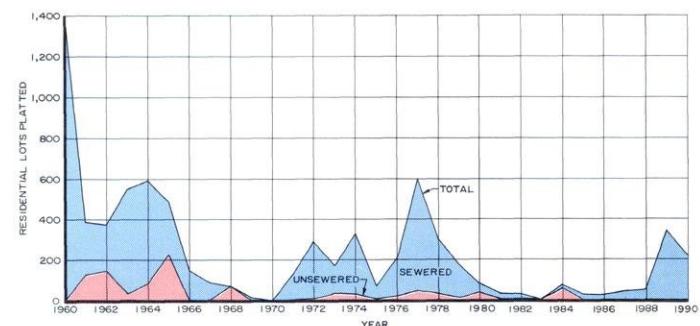


Figure 34

**RESIDENTIAL LOTS PLATTED IN  
MILWAUKEE COUNTY: 1960-1990**

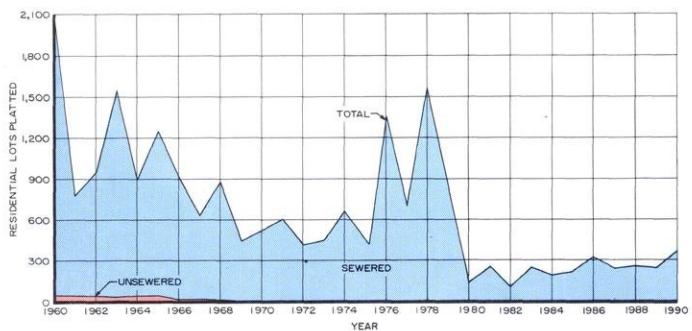


Figure 35

**RESIDENTIAL LOTS PLATTED IN  
OZAUKEE COUNTY: 1960-1990**

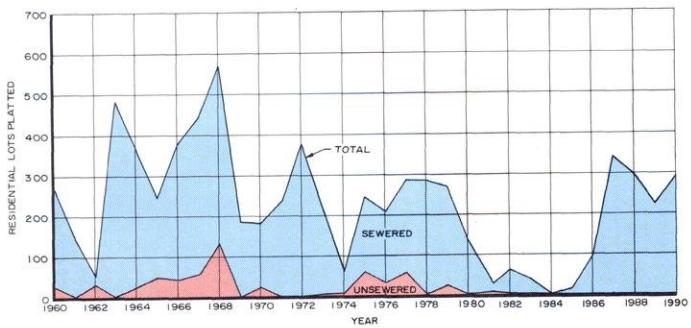


Figure 36

**RESIDENTIAL LOTS PLATTED IN  
RACINE COUNTY: 1960-1990**

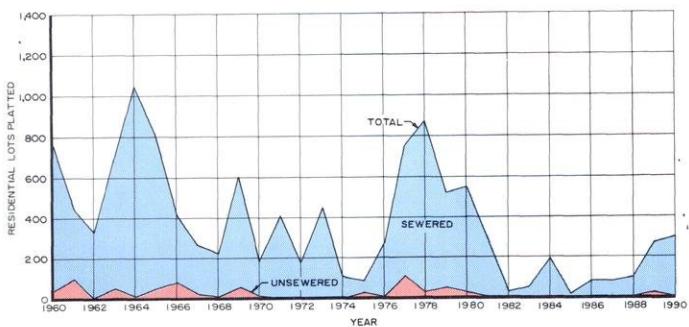


Figure 37

**RESIDENTIAL LOTS PLATTED IN  
WALWORTH COUNTY: 1960-1990**

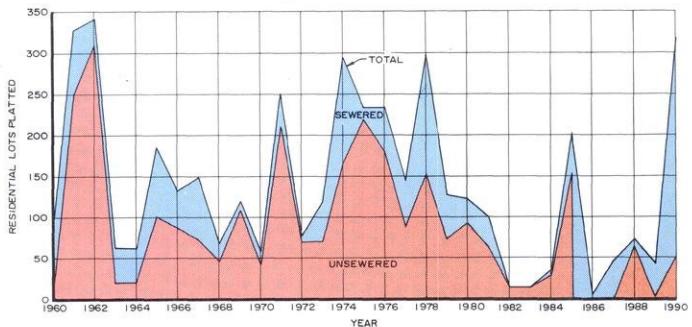


Figure 38

**RESIDENTIAL LOTS PLATTED IN  
WASHINGTON COUNTY: 1960-1990**

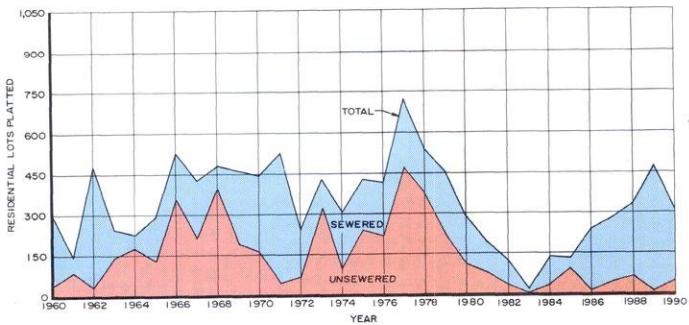
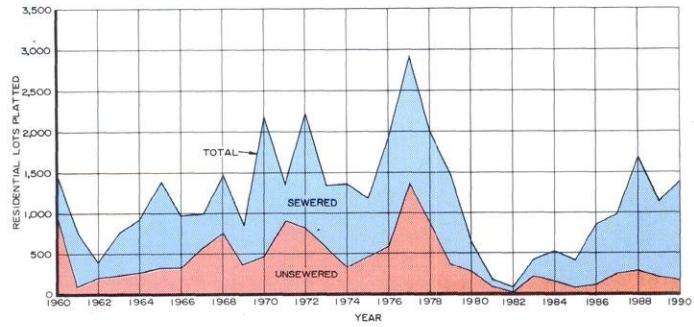


Figure 39

**RESIDENTIAL LOTS PLATTED IN  
WAUKESHA COUNTY: 1960-1990**



Map 7

REGIONAL PARK AND OPEN SPACE PLAN: 2000

LEGEND

OPEN SPACE PRESERVATION ELEMENT

PRIMARY ENVIRONMENTAL CORRIDOR COMPONENT

EXISTING STATE OWNERSHIP	PROPOSED STATE OWNERSHIP
EXISTING LOCAL OWNERSHIP	PROPOSED LOCAL OWNERSHIP
EXISTING COMPATIBLE PRIVATE OUTDOOR RECREATION USE (PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION)	
PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION	

PRIME AGRICULTURAL LAND COMPONENT

PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION	
--	--

OUTDOOR RECREATION ELEMENT

RESOURCE ORIENTED COMPONENT

MAJOR PUBLIC PARK SITE—TYPE I (250 OR MORE ACRES)

EXISTING STATE OWNERSHIP	PROPOSED STATE OWNERSHIP
EXISTING LOCAL OWNERSHIP	PROPOSED LOCAL OWNERSHIP
EXISTING STATE OWNERSHIP	PROPOSED LOCAL OWNERSHIP
EXISTING LOCAL OWNERSHIP	

RECREATION CORRIDOR (TRAIL)

— PROPOSED STATE RESPONSIBILITY

- - - PROPOSED LOCAL RESPONSIBILITY

PROPOSED RECREATIONAL BOATING WATER ACCESS POINT

■ MAJOR INLAND LAKE OR RIVER

■ LAKE MICHIGAN

URBAN ORIENTED COMPONENT

EXISTING OR PLANNED URBAN DEVELOPMENT REQUIRING  
TYPE III AND TYPE IV PUBLIC PARK SITES

MAJOR PUBLIC PARK SITE—TYPE III (25-99 ACRES)

● EXISTING	● PROPOSED
● EXISTING	● PROPOSED

OTHER PUBLIC PARK SITE—TYPE IV (5-24 ACRES)

● EXISTING	● PROPOSED
------------	------------

OTHER OUTDOOR RECREATION SITE OR LAND USE

● EXISTING MAJOR SPECIAL PURPOSE STATE  
OUTDOOR RECREATION SITE

● EXISTING MAJOR SPECIAL PURPOSE  
LOCAL OUTDOOR RECREATION SITE

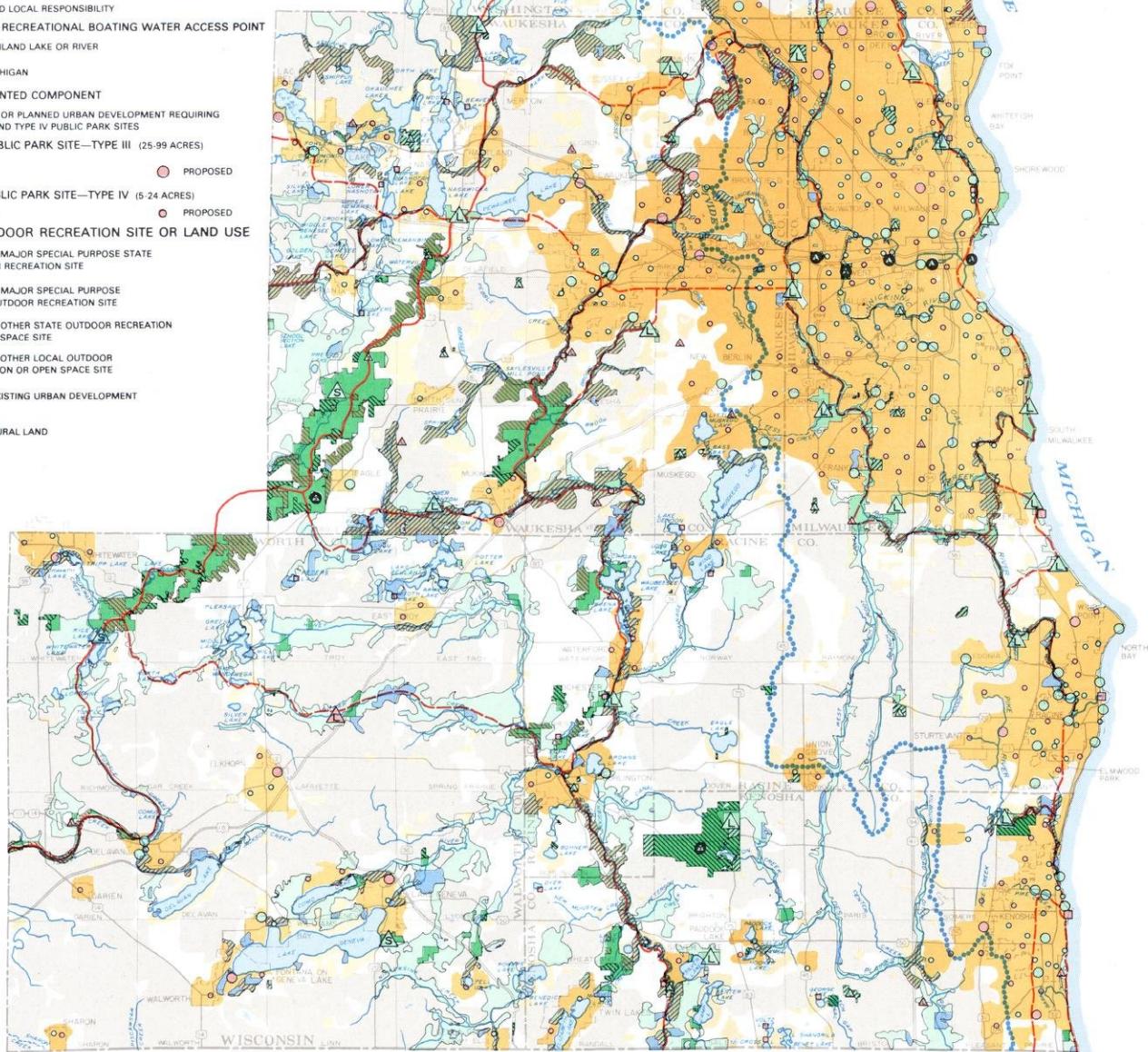
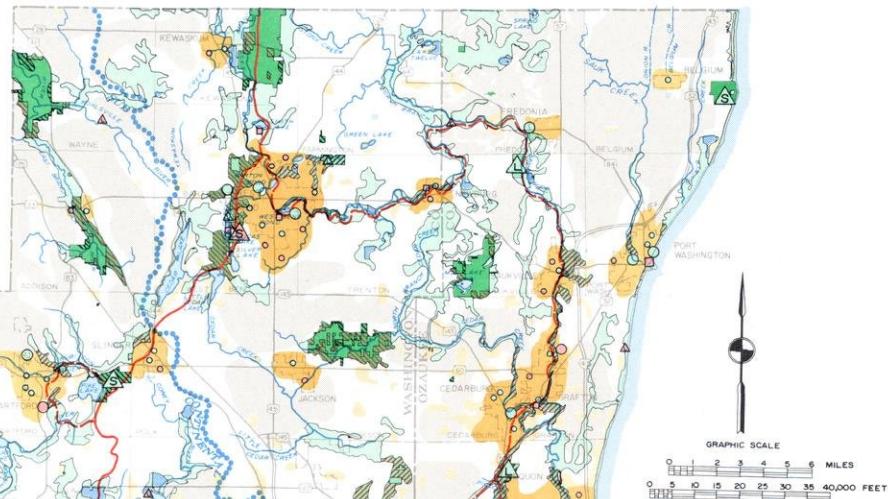
■ EXISTING OTHER STATE OUTDOOR RECREATION  
OR OPEN SPACE SITE

■ EXISTING OTHER LOCAL OUTDOOR  
RECREATION OR OPEN SPACE SITE

■ OTHER EXISTING URBAN DEVELOPMENT

■ OTHER RURAL LAND

■ WATER



make the local units of government eligible to apply for up to 50 percent state and federal assistance for the acquisition and development of the outdoor recreation and open space sites and related facilities proposed in the plans.

The Commission also continued work on the refinement of the regional park and open space plan as that plan relates to the county and state levels and agencies of government. A preliminary draft of each individual county park and open space plan was completed in 1986 and transmitted to the respective county park agencies and the Wisconsin Department of Natural Resources for review. The county plans are being documented in a series of seven community assistance planning reports. During 1990, the Waukesha County plan, documented in SEWRPC Community Assistance Planning Report No. 137, A Park and Open Space Plan for Waukesha County, and published in 1989, was adopted by the Waukesha County Board of Supervisors on February 20, 1990, and by the Regional Planning Commission on March 7, 1990. In addition, the Washington County plan, documented in SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County, published in 1989 and adopted by the Washington County Board of Supervisors on December 12, 1989, was also adopted by the Regional Planning Commission on March 7, 1990. The Racine County plan was published in 1988 and adopted in 1989; the Kenosha County plan was published and adopted in 1988; and the Ozaukee County plan was published and adopted in 1987. The remaining two county reports are scheduled for completion in 1991. Adoption of each county plan by the county board of supervisors and approval by the Wisconsin Department of Natural Resources make each county eligible to apply for state and federal assistance for the acquisition of sites and development of facilities recommended in the plan.

## **DATA PROVISION AND TECHNICAL ASSISTANCE**

### **Economic and Demographic Data**

The Land Use Division directs considerable time each year to answering requests for demographic, economic, and related data. This function includes the provision of technical

assistance to local units of government, public agencies, and school districts in the conduct of special data acquisition activities and in the analysis of data. During 1990, the Division prepared letter responses to 176 requests for population, economic, and related information from the Commission data files. In addition, 69 requests were handled by telephone and 57 requests were accommodated through personal visits to the Commission offices. These requests came from county and local units of government, federal and state agencies, private firms, and individual citizens. The following are some examples of Division activity during 1990 in performing this function:

- Provision of data on the age of the housing stock within communities throughout the State through a special data processing extraction from the 1980 U. S. Census of Population and Housing to the City of West Allis for use in determining state housing program eligibility.
- Provision of existing and historic population, housing, and income data to the City of Lake Geneva for use in city planning activities.
- Provision of demographic and economic data to the Waukesha County Community Development Block Grant Coordinator for use in preparing grant applications.
- Provision of population and wage data to the Ozaukee County League of Women Voters.
- Provision of forecast employment data to a consultant preparing a STH 45 interchange improvement plan for the Wisconsin Department of Transportation.
- Provision of estimates of population by race to the Hartford Community Development Council for use in the preparation of a federal grant application.
- Provision of forecast population data by age in Racine County to the Racine County Department of Planning and Development.
- Provision of existing and forecast population, employment, and land use data to a consultant conducting a light real feasibility study for the City of Milwaukee.

## **Land Use and Park and Open Space Data**

The land use and park and open space files are used extensively by state, county, and local governmental units and agencies and by private interests. Examples of the provision of land use and park and open space data during 1990 include the following:

- Provision of existing and planned land use data to the Village of Pleasant Prairie for use in an analysis of the need for extraterritorial zoning adjacent to the Village.
- Provision of natural resource data on the loss of woodlands in the City of Franklin to a planning consultant to the City for use in the revision of the City's zoning ordinance to include an upland or woodland conservancy zoning district.
- Provision of land use and natural resource data in the Town of Vernon to a planning consultant to the Town for use in the preparation of a comprehensive land use plan for the Town and for the revision of the Town's zoning ordinance.
- Provision of technical assistance to Milwaukee County in an evaluation of county golf courses under consideration for redevelopment and improvement to accommodate championship tournament play.
- Provision of data on industrial lands in the Region to the Wisconsin Department of Transportation for use in an economic development needs study, including freight rail access needs.
- Provision of data on natural resources within the primary environmental corridor along the Lake Michigan shoreline in the Village of Bayside to the Village for use in the evaluation of a request for a change in zoning within the environmental corridor.
- Provision of data on wetlands and the loss of wetlands over time in the Region to the Wisconsin Department of Natural Resources for use in a study on the need for additional wetlands protection legislation.

## **Special Environmental Inventories, Assessments, and Evaluations**

A growing demand is being placed upon the Commission to help federal, state, and local units and agencies of government by evaluating and assessing the environmental significance and quality of specific sites throughout the Region. Each of these evaluations involves field inspection work and requires that a report be prepared and transmitted to the requesting party. During 1990, the Commission fulfilled a total of 171 requests for such information. This work effort may be divided into the following categories:

- Requests for the field identification and staking of wetland and/or primary environmental corridor boundaries in order to facilitate sound consideration by local governments of proposals for private development. A total of 141 such requests were fulfilled during the year at sites in the City of Kenosha, and the Villages of Pleasant Prairie and Silver Lake, and the Towns of Bristol, Randall, Salem, Somers, and Wheatland in Kenosha County; in the Cities of Cudahy, Franklin, Greenfield, and St. Francis in Milwaukee County; in the Cities of Mequon and Port Washington and the Village of Grafton in Ozaukee County; in the Cities of Burlington and Racine, the Village of Waterford, and the Towns of Burlington, Caledonia, Dover, Mt. Pleasant, Norway, Raymond, Waterford, and Yorkville in Racine County; in the Cities of Lake Geneva and Whitewater in Walworth County; in the Cities of Hartford and West Bend, the Villages of Germantown and Slinger, and the Town of Trenton in Washington County; and in the Cities of Brookfield, Muskego, New Berlin, Oconomowoc and Waukesha, the Villages of Menomonee Falls, Mukwonago, Pewaukee, and Sussex, and the Towns of Pewaukee and Waukesha in Waukesha County. Each of these 141 requests was made by a county or local planner or engineer who needed detailed field information in order to properly carry out local planning and land use control responsibilities. Once staked in the field by the Commission staff, the precise bounda-

ries of environmentally significant areas were surveyed by private land surveyors retained by the landowner and/or developer and the results of the survey placed on the face of subdivision plats, certified survey maps, and plats of survey.

- Requests for the field identification and evaluation of environmentally sensitive sites associated with transportation improvement projects. A total of eight such project-related requests were fulfilled during the year, with requests coming from the Wisconsin Department of Transportation, county highway departments, and local departments of public works. These eight requests were related to a runway expansion at the General Mitchell International Airport, a proposed bridge replacement project over the Root River in the City of Oak Creek, a proposed bridge replacement project over the Root River in the City of Franklin, a proposed bridge replacement project over the Root River in the City of Greendale, and a proposed widening of W. Layton Avenue in the City of Greenfield, all in Milwaukee County; a proposed STH 59 expansion project in the Town of Waukesha in Waukesha County; and a proposed interchange project at USH 41 and CTH K in the Towns of Polk and Addison and a proposed interchange project at USH 41 and STH 28 in the Town of Wayne in Washington County.
- Requests for the field evaluation of sites to survey and identify the flora and fauna on the site, including a determination as to whether or not any rare or endangered species are on the subject site. A total of 20 such requests were fulfilled during the year at the request of federal and state agencies, as well as county and local units of government. These consisted of field inspections of the forest management site at the Glacier Hills County Park located in the Town of Richfield in Washington County; a field inspection and refinement of the environmental corridor boundary on the Eugene Saltzmann property in the Town of Waterford at the request of Racine County; a field inspection of Milwaukee County Park lands proposed for a horse racing track in the City of Franklin, a field inspection and delineation of the wetland boundaries on proposed

soccer park sites on Milwaukee County park lands located in the Cities of Oak Creek and Franklin, a delineation of the wetland and environmental corridor boundaries for the proposed Cudahy Gun Club site located adjacent to the Root River Parkway in the City of Oak Creek, and a field inspection of the woodlands and wetlands in Holt Park in the City of Greenfield, all at the request of Milwaukee County; a field inspection of proposed pond site locations in the Hunters Ridge Subdivision in the City of Kenosha at the request of the City; a field inspection of the City of Burlington Park lands to assist in the location of future park facilities, and minimize impacts on the wooded environmental corridor lands; a field inspection of a wooded wetland area in the City of Brookfield to assess current and future changes, due to increased water levels and adjacent urban runoff, at the request of the City; a field inspection of plant communities in and adjacent to Powers Lake and Wind Lake to assist in local lake management planning; a field inspection of the Moss American Superfund site in the City of Milwaukee and the Hunts Disposal Superfund site in the Town of Caledonia, at the request of the Department of Natural Resources and U. S. Environmental Protection Agency; a field inspection and delineation of the wetland boundaries at the proposed Emerald Park landfill site in the City of Muskego at the request of the U. S. Department of the Army, Corps of Engineers; a review and field inspection of sites adjacent to Jerome Creek for proposed detention basins, at the request of the Village of Pleasant Prairie; a field inspection and delineation of the wetland boundary on several lots in the proposed Rolling Ridge Subdivision, at the request of the Town of Pewaukee; a field inspection and delineation of the environmental corridor boundary for a proposed business and industrial development in the City of Burlington at the request of Racine County; a review and field inspection of the wetland and environmental corridor boundaries located on the Mound Zion Cemetery property at the request of the City of Brookfield and the Department of Natural Resources; a field inspection and delineation of the wetland boundaries for selected lots located

in the Carol Beach Subdivision in the Village of Pleasant Prairie at the request of the U. S. Department of the Army, Corps of Engineers.

- Special projects that frequently involve the preparation of recommendations for land vegetation enhancement, as well as mitigation efforts associated with unavoidable destructive activities. A total of two such requests were fulfilled during the year. These consisted of the preparation of a wetland mitigation plan for a portion of the lower reach of the Pike River in the City of Kenosha as compensation for a wetland fill which will accommodate a runway expansion at the Kenosha Regional Airport, at the request of the City; and field inspections at the John H. Batten Airport, Racine, to help oversee wetland mitigation activities at the airport, at the request of the U. S. Department of the Army, Corps of Engineers.

In addition to the foregoing, the Commission worked closely with Milwaukee County in carrying out an environmental assessment process attendant to proposals from the private sector for the acquisition of lands acquired in past years by

Milwaukee County for park and parkway purposes. The environmental assessment process is intended to ensure that the County Board and County Executive have all available information before any County-owned lands are declared excess and sold for private development. In carrying out this assessment, the Commission staff not only conducts biological field surveys of the land parcel concerned but also compiles information attendant to the subject parcel from the Commission data bank. In addition, the Commission is responsible under the process for soliciting the comments of other parties concerned, including the Milwaukee Public Museum, the State Historical Society of Wisconsin, and the Bureau of Endangered Resources in the Wisconsin Department of Natural Resources. During 1990, five such environmental assessments and reviews were conducted by the Commission at the request of Milwaukee County: 1) a 130-acre parcel of land in the Root River Parkway in the City of Oak Creek, 2) the 24-acre undeveloped Holt Park site in the City of Greenfield, 3) a two-acre parcel in the Kinnickinnic River Parkway in the City of Milwaukee, 4) a 460-acre parcel in the Root River Parkway in the City of Franklin, and 5) an 80-acre parcel in Falk Park in the City of Oak Creek.



# TRANSPORTATION PLANNING DIVISION

## DIVISION FUNCTIONS

The Commission's Transportation Planning Division makes recommendations concerning various aspects of transportation system development within the Region. The kinds of basic questions addressed by the Division include:

- What are the travel habits and patterns in the Region? How are these changing over time?
- What is the existing supply of transportation facilities and services?
- How can existing transportation facilities best be used and transportation demand managed to avoid new capital investment?
- How much travel in the future will likely be accommodated by the various travel modes, particularly the private automobile and public transit?
- What new transportation facilities are needed to accommodate existing and anticipated future travel demand?
- Who should be responsible for providing needed transportation facilities?
- What are the relationships between land use and travel demand?

In attempting to find sound answers to these and other questions, to formulate plans containing recommendations concerning these questions, and to monitor transportation system development activities in the Region, the Transportation Planning Division during 1990 conducted a number of activities in eight identifiable areas: data collection, collation, and development; long-range planning; transportation systems management planning and traffic engineering; transportation improvement programming; elderly and handicapped transportation planning; rail transportation planning; air transportation planning; and data provision and technical assistance.

As the official metropolitan planning organization for transportation planning in the South-eastern Wisconsin Region, the Commission not only conducts transportation planning work programs with its own staff and with consul-

tants, but also oversees related subregional transportation planning by other governmental agencies. In 1990 Milwaukee County undertook such planning work related to transit operations. The Commission is ultimately responsible for all transportation-related planning work funded by federal agencies. Accordingly, all transportation planning activities bearing upon the Commission's overall work program are reported herein, irrespective of whether they are directly conducted by the Commission.

## DATA COLLECTION, COLLATION, AND DEVELOPMENT

During 1990, the Division continued to monitor secondary data sources for changes in automobile and truck availability; mass transit ridership; carpool parking facility capacity and use; and traffic volumes.

Figure 40  
TRANSPORTATION PLANNING DIVISION

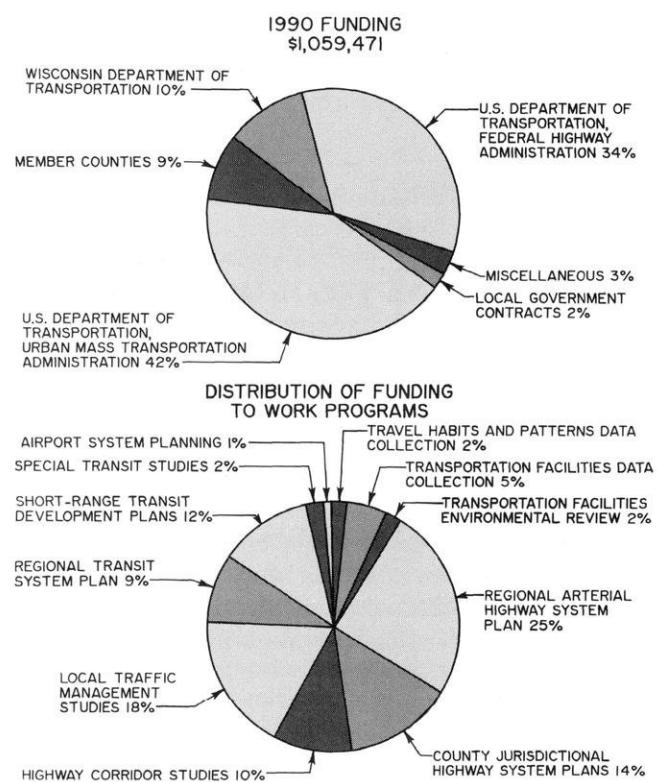


Table 11  
AUTOMOBILE AVAILABILITY

County	1963	1972	1989	1990
Kenosha . . . . .	35,160	48,010	65,180	66,900
Milwaukee . . . . .	304,120	397,690	448,920	454,050
Ozaukee . . . . .	14,320	24,430	40,840	42,200
Racine . . . . .	47,580	68,270	89,710	91,660
Walworth . . . . .	19,440	27,430	41,600	42,660
Washington . . . . .	16,240	27,030	49,060	50,970
Waukesha . . . . .	61,900	102,910	173,790	178,690
Total	498,760	695,770	909,100	927,130

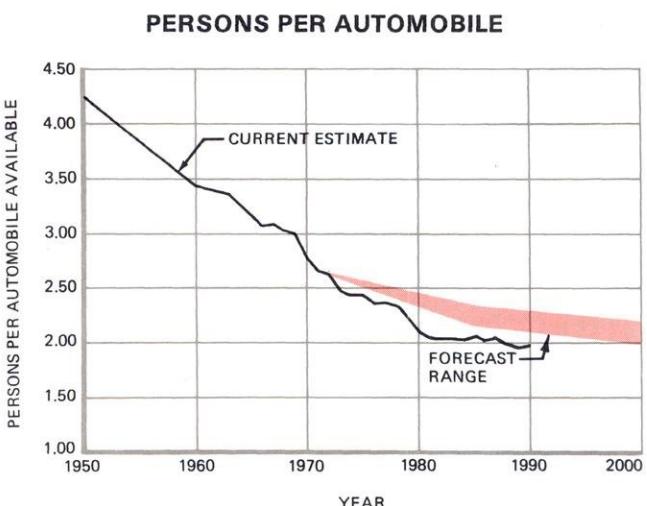
### Automobile and Truck Availability

The number of automobiles available to residents of the Region in 1990 totaled 927,130. This represents an increase of 18,030, or about 2.0 percent, over the 1989 level of 909,100 (see Table 11). Increases in automobile availability in 1990 were experienced within each County in the Region, continuing the generally steady, long-term trend of continued increases in the number of automobiles available to residents of the Region over the past 30 years. The average annual rate of growth in automobile availability within the Region from 1963 through 1990 was 2.3 percent.

The number of persons per automobile within the Region was estimated to be 1.95 in 1990, slightly higher than the estimated 1.94 in 1989, as shown in Figure 41. The estimated number of automobiles available within the Region in 1990 may be compared to the forecast range of automobile availability as developed under the long-range regional transportation system plan, as shown in Figure 42, which depicts the historical and forecast growth in automobile availability. The 1990 forecast automobile availability ranged from 920,000 under the adopted regional transportation system plan to 957,000 under the "no build" alternative. Thus, the 1990 regional automobile availability of 927,130 was about 3.1 percent lower than the "no build" forecast, and about 0.8 percent higher than the automobile availability envisioned under the adopted regional transportation system plan.

The number of motor trucks available in the Region during the year totaled about 177,930, an increase of about 7,800, or 4.6 percent, over the

Figure 41



1989 level of 170,130 trucks (see Table 12 and Figure 43). The increase in 1990 motor truck availability follows the trend of annually increasing vehicle availability in spite of declines observed in 1961, 1962, and 1985. Light trucks accounted for about 57 percent of all trucks in 1960, 60 percent of all trucks in 1970, 74 percent of all trucks in 1980, and 78 percent of all trucks in 1990. The number of light trucks available in 1990 totaled about 139,230, an increase of 8,150, or about 6.2 percent, over the number of light trucks available in 1989. The number of heavy trucks and municipal trucks totaled 38,700 in 1990, a decrease of about 350 trucks, or about 0.9 percent, from the 1989 level of 39,050. The average annual rate of growth in motor truck availability within the Region from 1963 to 1990 was 4.4 percent.

Table 12  
TRUCK AVAILABILITY

County	1963	1972	1989	1990
Kenosha . . . . .	4,860	7,040	15,980	17,100
Milwaukee . . . . .	25,870	33,350	60,460	62,830
Ozaukee . . . . .	2,290	3,290	7,660	8,030
Racine . . . . .	6,200	9,140	20,250	21,330
Walworth . . . . .	4,490	6,430	14,010	14,560
Washington . . . . .	3,410	5,400	13,940	14,190
Waukesha . . . . .	8,280	15,060	37,830	39,890
Total	55,400	79,710	170,130	177,930

Figure 42

FORECAST RANGE OF AUTOMOBILE AVAILABILITY

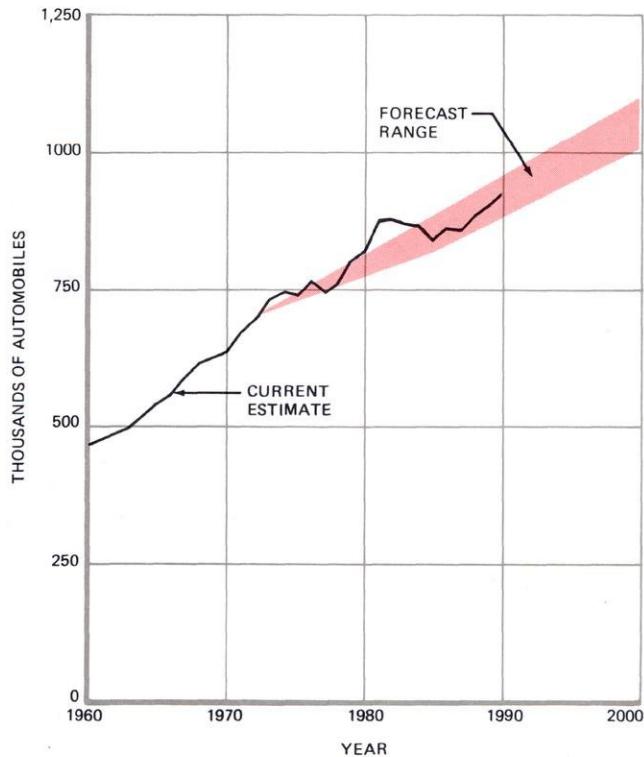
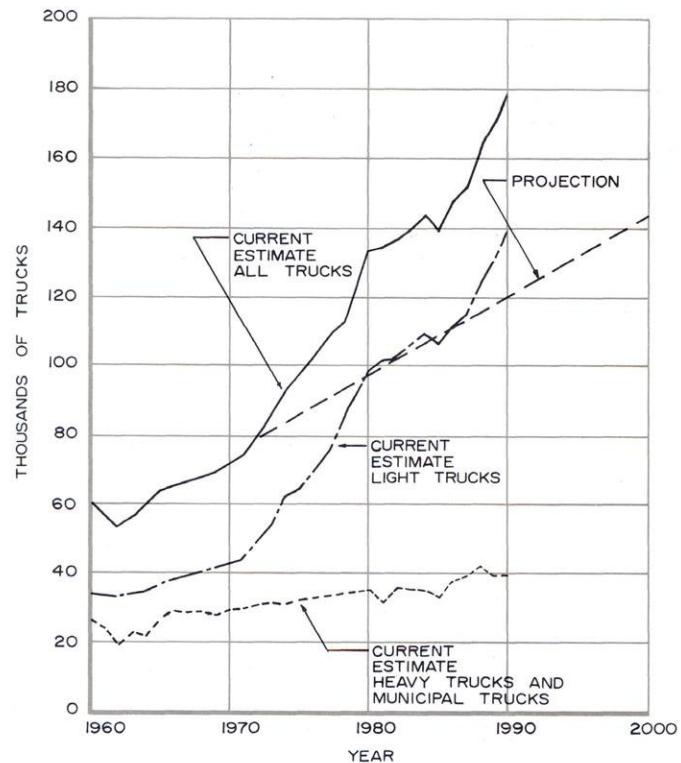


Figure 43

TRUCK AVAILABILITY



Public Transit Ridership

Publicly owned mass transit service is provided in the Region in the Kenosha, Racine, and Milwaukee urbanized areas, and in nonurbanized portions of the Region in the Cities of Hartford and Whitewater (see Table 13 and Figure 44).

In the Kenosha urbanized area, ridership on the fixed-route public transit system serving the City of Kenosha decreased during 1990 (see Figure 45). Ridership during the year approximated 1,169,000 revenue passengers, a decrease of about 3 percent from the 1989 ridership level of about 1,205,800 revenue passengers. The number of bus miles operated in revenue service totaled

Table 13  
PUBLIC TRANSIT RIDERSHIP

Transit Operators By Area	1963	1972	1989	1990	Percent Change 1988-1990
Urbanized Areas					
Kenosha					
City of Kenosha . . . . .	1,876,000	503,000	1,205,800	1,169,000	-3.1
Milwaukee					
Milwaukee County . . . . .	88,546,000	52,141,000	48,878,000	48,096,000	-1.6
Waukesha County . . . . .	--	--	288,400	303,000	5.1
City of Waukesha . . . . .	451,000	227,000	383,100	397,100	3.7
Subtotal	88,997,000	52,368,000	49,549,500	48,796,000	-1.5
Racine					
City of Racine—					
Local Bus . . . . .	2,907,000	526,000	1,962,700	1,941,000	-1.1
City of Racine—					
Commuter Bus . . . . .	165,000	153,000	68,300	73,600	7.8
Subtotal	3,072,000	679,000	2,031,000	2,014,600	-0.8
Urbanized Area Total	93,945,000	53,600,000	52,786,300	51,979,700	-1.5
Nonurbanized Areas					
City of Hartford . . . . .	--	--	12,900	9,500	-26.4
City of Whitewater . . . . .	--	--	41,600	36,600	-12.0
Nonurbanized Area Total	--	--	54,500	46,100	-15.4
Total Region	93,945,000	53,600,000	52,840,800	52,025,800	-1.5

about 634,300, a decrease of about 7 percent from the 683,300 bus miles operated during 1989. The basic fare for the Kenosha system increased from \$0.55 in 1989 to \$0.60 in 1990.

To assist in the public operation of the transit system, the Commission prepared, at the request of the City, a five-year transit development plan in 1976 for the years 1976 to 1980.<sup>1</sup> Many of the plan's recommendations regarding transit route layout and scheduling were implemented in the mid-1970s as ridership increased on the system. In 1984, the Commission completed work on another transit development plan for the City of Kenosha transit system for the period 1984 to

1989.<sup>2</sup> Virtually all of the routing changes recommended under the new plan were implemented by the transit system in late December 1984. During 1990, the Commission began work on another transit development plan for the period 1991 to 1995.

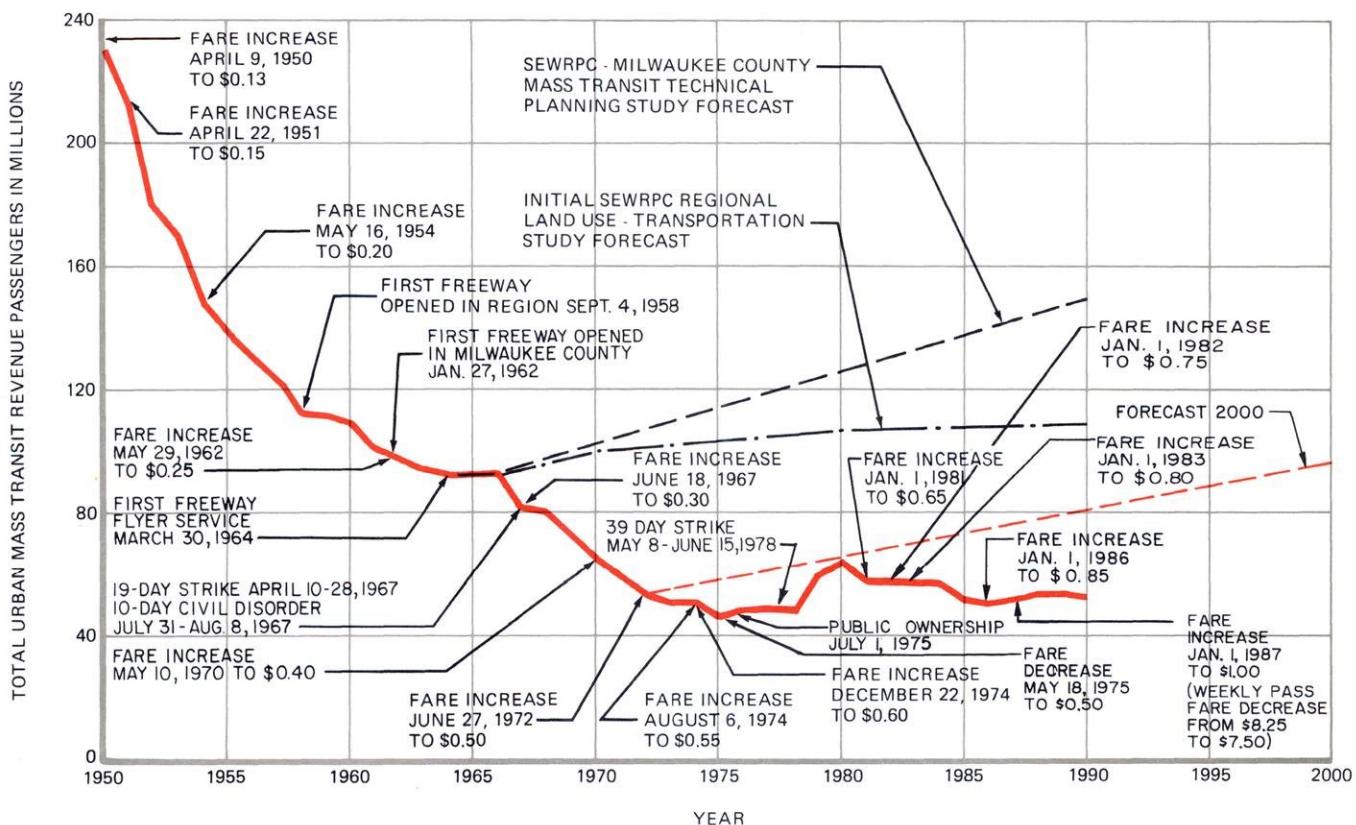
Ridership on the fixed-route public transit system serving the City of Racine decreased during 1990 approximately 1 percent, from the 1989 level of approximately 1,962,700 revenue passengers to about 1,941,000 revenue passengers in 1990. The number of bus miles operated in revenue service increased by less than 1 percent during 1990, from about 1,249,900

<sup>1</sup>See SEWRPC Community Assistance Planning Report No. 7, Kenosha Area Transit Development Program: 1976-1980.

<sup>2</sup>See SEWRPC Community Assistance Planning Report No. 101, Kenosha Area Transit System Plan and Program: 1984-1989.

Figure 44

HISTORICAL TREND IN MASS TRANSIT RIDERSHIP IN THE REGION



NOTE: FARE INCREASES AND DECREASES SHOWN IN THIS FIGURE REFER ONLY TO THE MILWAUKEE COUNTY TRANSIT SYSTEM AND TO THE SINGLE-RIDE ADULT CASH FARE FOR LOCAL SERVICE.

bus miles in 1989 to about 1,251,400 bus miles in 1990. The basic fare for the Racine transit system was \$0.50 in 1990, unchanged from 1989.

Transit ridership declines on the City of Racine transit system during 1982 and 1983 and again during the years 1985 through 1990 broke a trend of increasing ridership which began in July 1975 with the public acquisition and operation of the formerly privately operated system. To guide the public acquisition of the system and its initial years of operation, the Commission prepared, at the request of the City of Racine, a transit development plan covering the years 1975 to 1979.<sup>3</sup> Nearly all of the plan

recommendations for transit route layout, schedule, fare structure, and service levels were implemented in the first years of public operation. In 1984, the Commission completed work on another transit development program for the City of Racine transit system for the period 1984 to 1989.<sup>4</sup> Several of the routing changes recommended under the new plan were implemented by the transit system by December 1985.

During 1990, the City of Racine, in a joint effort with the City of Kenosha and Racine and Kenosha Counties, also provided commuter bus service between downtown Milwaukee and the Cities of Racine and Kenosha. The commuter

<sup>3</sup>See SEWRPC Community Assistance Planning Report No. 3, Racine Area Transit Development Program: 1975-1979.

<sup>4</sup>See SEWRPC Community Assistance Planning Report No. 79, Racine Area Transit System Plan and Program: 1984-1989.

Figure 45

MASS TRANSIT RIDERSHIP  
KENOSHA URBANIZED AREA

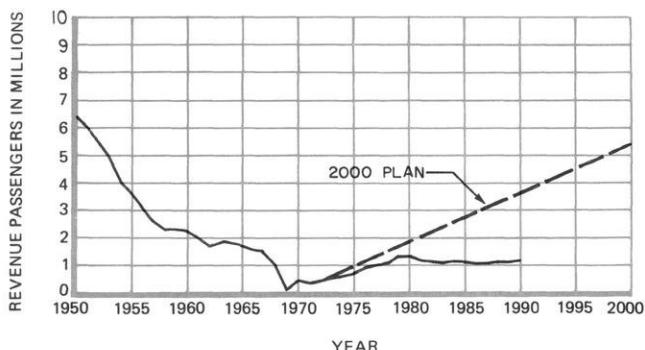
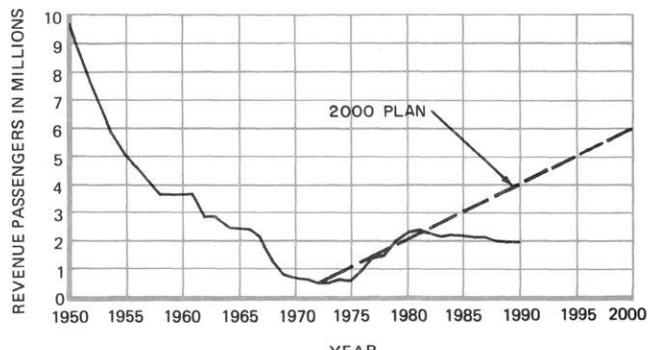


Figure 46

MASS TRANSIT RIDERSHIP  
RACINE URBANIZED AREA



bus service was provided by a private transit operator, Wisconsin Coach Lines, Inc. Until 1984, the route was operated without public subsidy, the passenger and freight revenues being sufficient to offset the operating costs. More recently, however, the operation of the route entailed a loss. During 1984, the Company approached the four governmental units and asked for financial assistance to subsidize the operation of the route. As a result, the four local units of government joined to help provide the Company with the financial assistance necessary to operate the bus service through the State of Wisconsin.

The City of Racine has assumed responsibility as the lead agency for the commuter bus project by acting as the applicant/grantee for the state urban transit assistance funds needed to subsidize the operation of the service. State transit assistance funds are the only public monies being used to subsidize the operating costs of the service. Ridership on the service approximated 73,600 revenue passengers during 1990, an increase of about 8 percent over the 1989 ridership level of about 68,300 revenue passengers. The number of bus miles operated in revenue service was virtually unchanged from 1989 to 1990, at about 213,900 bus miles. Total transit ridership within the Racine urbanized area, including the City of Racine transit system and the special commuter bus service, decreased less than 1 percent, from the 1989 ridership level of 2,031,000 revenue passengers to about 2,014,600 revenue passengers in 1990 (see Figure 46).

In the Milwaukee urbanized area, publicly subsidized, fixed-route transit service was pro-

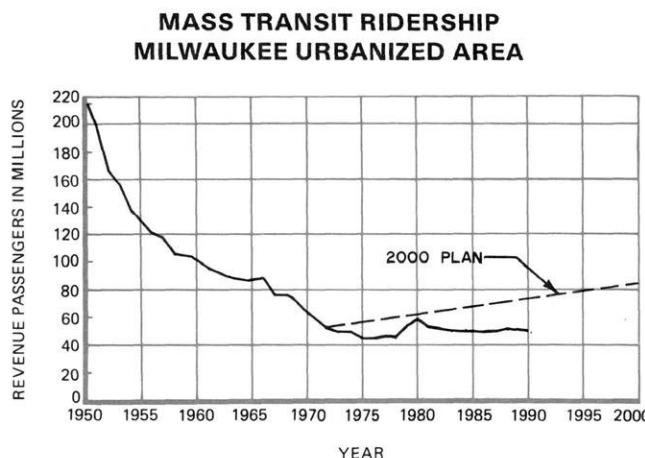
vided during 1990 by the Milwaukee County Transit System, Waukesha County, and the City of Waukesha.

Ridership on the Milwaukee County Transit System decreased during 1990 by about 2 percent from the 1989 level of about 48,878,000 revenue passengers to 48,096,000 revenue passengers. The basic cash fare for the Milwaukee County Transit System remained unchanged at \$1.00 in 1990; the price of a weekly pass or a book of 10 fare tickets remained unchanged at \$8.50 in 1990.

During 1990, Waukesha County continued to provide publicly supported, fixed-route bus service between Waukesha and Milwaukee Counties. Operated for Waukesha County on a contract basis by both the Milwaukee County Transit System and Wisconsin Coach Lines, Inc., bus service included the commuter-oriented service supported by the County since 1977 between the City of Milwaukee central business district and the Cities of Oconomowoc and Waukesha, and additional service provided over three bus routes initiated by the County during 1981. These three bus routes were originally part of a total of seven new routes implemented by Waukesha County on April 1, 1981. The Commission identified these seven routes in 1980 at the request of Waukesha County and proposed that any service implemented be on a trial basis.<sup>5</sup>

<sup>5</sup>See SEWRPC Community Assistance Planning Report No. 44, Proposed Public Transit Service Improvements—1980, Waukesha County, Wisconsin.

Figure 47



The three routes which continued to be operated during all or part of 1990 included two routes providing modified rapid, or "freeway flyer," transit service between the Milwaukee central business district and the Village of Menomonee Falls and the City of Oconomowoc and one route providing local bus service from Milwaukee County to the Brookfield Square Shopping Center. Bus service was reduced during 1988 between the City of Oconomowoc and the Goerke's Corners public transit station over one of the original express bus routes subsidized by the County since 1977. This service change was based upon the analyses and recommendations presented in a new transit service plan for Waukesha County completed by the Commission during 1988.<sup>6</sup> Ridership on the Waukesha County transit system increased by about 5 percent in 1990, from 288,400 trips in 1989 to 303,000 trips in 1990. Transit fares on the Waukesha County Transit System, which are distance-related, were between \$1.25 and \$2.50 in 1990, a decrease from the 1989 fares of between \$1.25 and \$3.35.

Local bus service was reestablished in the City of Waukesha in August 1981, when the City placed into full-scale operation a new fixed-route transit system. The community had previously been without public transit service since June 1976, when local bus service provided by a

private transit operator was discontinued. The reinstitution of transit service was guided by a transit development plan prepared by the Regional Planning Commission in 1980 at the request of the City of Waukesha.<sup>7</sup> The new Waukesha transit system, its routes, schedule, service levels, and fare structure, were implemented essentially as recommended by that plan. In December 1989 the Commission completed work on another transit development plan for the period 1988 to 1992.<sup>8</sup> During calendar year 1990, the system carried approximately 397,100 revenue passengers, an increase of about 4 percent over the 383,100 revenue passengers carried on the system during 1989. The basic fare for the City of Waukesha transit system was \$0.60, unchanged from 1989.

The number of bus miles operated in revenue service in the Milwaukee urbanized area during the year totaled about 17.80 million, an increase of less than 1 percent over the approximately 17.74 million bus miles operated during 1989. Total transit ridership within the Milwaukee urbanized area decreased by about 1.5 percent in 1990, from about 49.5 million revenue passengers in 1989 to about 48.8 million in 1990 (see Figure 47). This ridership decrease may be attributed primarily to the decrease in ridership on the Milwaukee County Transit System.

During 1990, rapid transit service in the Milwaukee urbanized area was provided by freeway flyer bus service operated by both Milwaukee and Waukesha Counties from 19 outlying parking terminals to the Milwaukee central business district. Ridership on the freeway flyer bus service totaled about 1,232,600 passengers in 1990, representing a decrease of about 3 percent from the 1,267,400 passengers carried in 1989 (see Figure 48). This decrease in freeway flyer ridership may be attributed in part to continued low fuel prices.

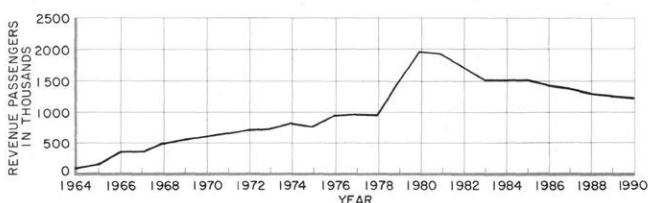
<sup>6</sup>See SEWRPC Community Assistance Planning Report No. 105, Waukesha County Transit Plan: 1989-1992.

<sup>7</sup>See SEWRPC Community Assistance Planning Report No. 31, Waukesha Area Transit Development Program: 1981-1985.

<sup>8</sup>See SEWRPC Community Assistance Planning Report No. 154, A Transit System Development Plan for the City of Waukesha: 1988-1992.

Figure 48

MILWAUKEE URBANIZED AREA  
FREEWAY FLYER RIDERSHIP



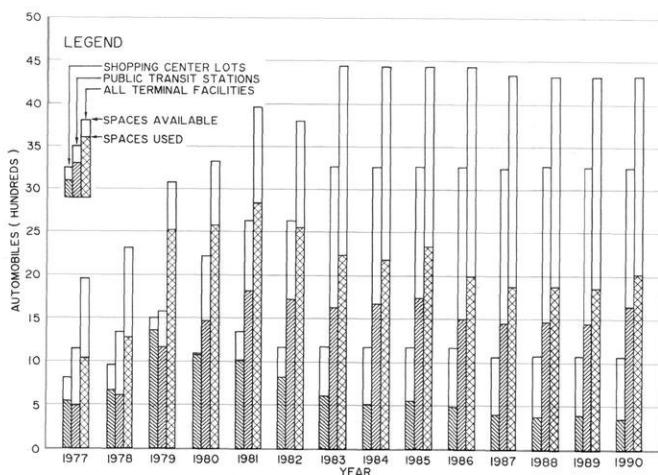
Progress in providing the public transit stations recommended in the adopted year 2000 transportation plan is summarized on Map 8. During 1990, no new public transit stations were constructed to add to those which existed during 1989. Table 14 and Figure 49 provide data on both the number of parking spaces available and the number of parking spaces used on an average weekday in 1990 at all transit stations by patrons of freeway flyer bus service and carpoolers. As shown in the table, transit service was provided at 12 of the 14 public transit/park-ride stations and at seven shopping center lots. The total of 21 freeway flyer terminal facilities represents no change from the number of facilities that existed in 1989. The number of spaces available at public transit/park-ride stations, 3,265 spaces, and at shopping center lots, 1,075 spaces, remained unchanged from 1989 to 1990.

Of the 3,265 spaces available at the 14 public transit/park-ride stations, 1,655 spaces were used on an average weekday during the fourth quarter of 1990, representing a utilization rate of about 51 percent. Of the 1,075 spaces available at the seven shopping center lots, 362 spaces were utilized during the last quarter of 1990, representing a utilization rate of about 34 percent. In total, about 46 percent of all available parking spaces were used on an average weekday during the last quarter of 1990.

Publicly operated transit service was also provided in the nonurbanized portion of the Region during 1990 by the City of Hartford in Washington County, which operated a shared-ride taxicab service and a special commuter shuttle bus service. Operated by the City of Hartford Municipal Recreation Department, the taxicab service was initiated in 1981 and is available to the public seven days a week for travel primarily within the City of Hartford and environs. The special commuter bus service was initiated in late

Figure 49

FREEWAY FLYER PARKING LOT USE  
FOURTH QUARTER: 1977-1990



1982 and is operated to shuttle passengers from Hartford and West Bend to and from a transit stop used by an intercity bus operator serving the Milwaukee urbanized area. The services are provided using funds available for capital and operating assistance under the federal Section 18 rural transportation assistance program. During 1990, the Hartford taxicab and shuttle bus services carried approximately 9,500 revenue passengers and operated about 41,800 total vehicle miles. These figures represent a decrease of about 26 percent from the 12,900 revenue passengers carried in 1989, and a decrease of about 34 percent from the 63,800 total vehicle miles operated during 1989.

In January 1986, the City of Whitewater in Walworth County initiated operation of a shared-ride taxicab service. Operated by Brown's Cab Service, based in Fort Atkinson, the taxicab service is available seven days a week for travel primarily within the Whitewater area. Adult fares for the service were established at \$2.00 per one-way trip, with a half-fare program provided for students and elderly and handicapped users. The service was initiated using federal funds available for capital and operating assistance under the federal Section 18 rural transportation assistance program. During 1990, the Whitewater taxicab service carried approximately 36,600 revenue passengers, a decrease of about 12 percent from the 41,600 revenue passengers carried in 1989, and operated about 76,600 total vehicle miles, a decrease of about 3 percent from the 79,100 total vehicle miles operated in 1989.

Map 8

PRIMARY TRANSIT SYSTEM  
PLAN FOR THE REGION: 2000

LEGEND

EXISTING SYSTEM

○ LOADING AND UNLOADING POINT

▲ TRANSIT STATION

— PRIMARY TRANSIT ROUTE

— NONFREEWAY EXTENSION

2000 ADOPTED PLAN

▲ PROPOSED BUS TRANSIT STATION

— PROPOSED BUS PRIMARY TRANSIT ROUTE

— PROPOSED NONFREEWAY EXTENSION

— PROPOSED MAJOR ARTERIAL EXPRESS BUS ROUTE



GRAPHIC SCALE  
0 2 3 4 5 6 MILES  
0 5 10 15 20 25 30 35 40 000 FEET

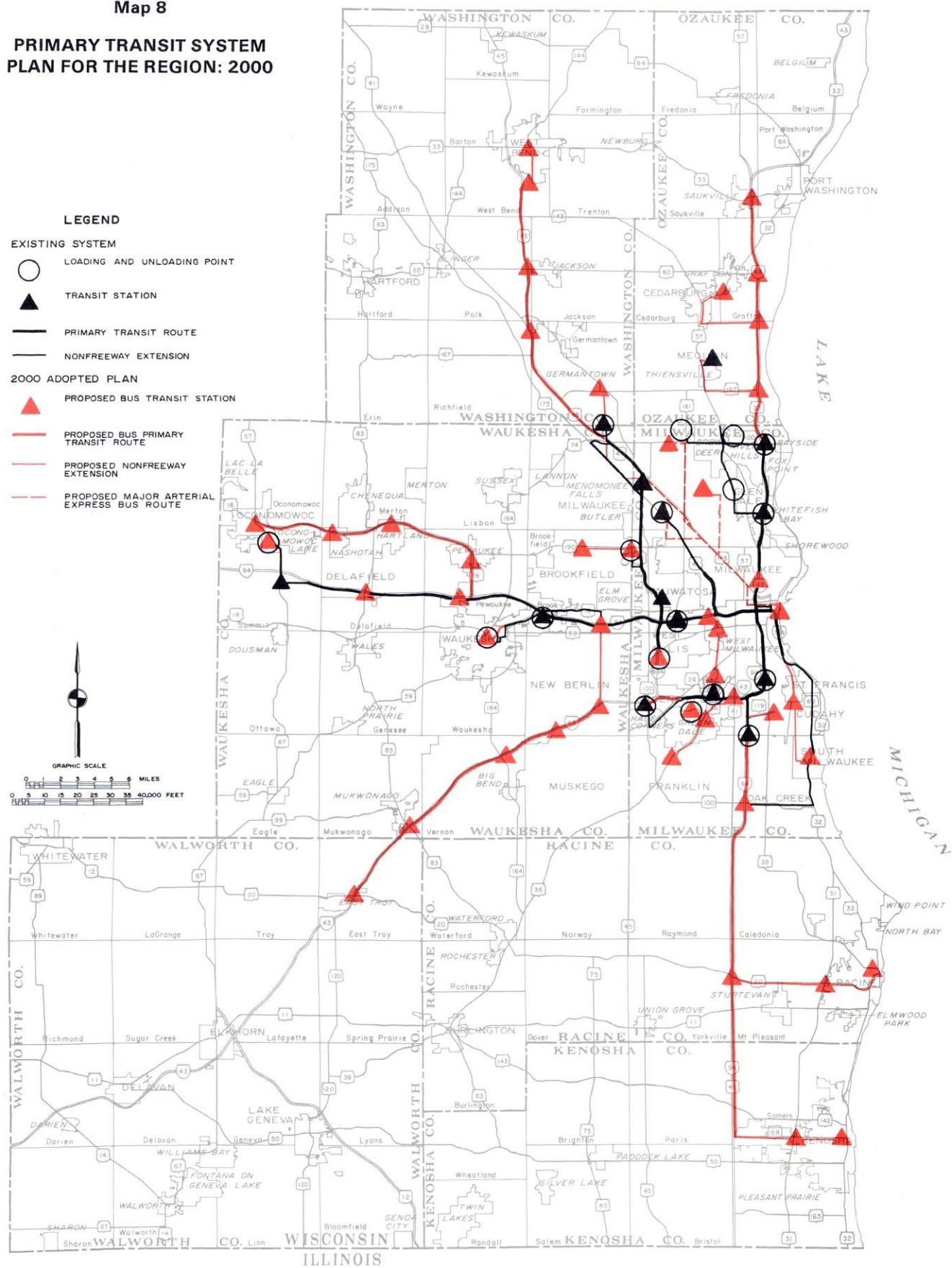


Table 14

## USE OF PARKING AT FREEWAY FLYER TERMINALS: FOURTH QUARTER 1990

Location	Available Parking Spaces	Autos Parked on an Average Weekday—Fourth Quarter: 1990	Percent of Spaces Used
<b>Public Transit Stations</b>			
W. College Avenue (Milwaukee) . . . . .	530	311	59
W. Watertown Plank Road (Wauwatosa) . . . . .	200	102	51
North Shore (Glendale) . . . . .	190	124	65
Brown Deer (River Hills) . . . . .	250	127	51
Goerkes Corners (Brookfield) . . . . .	250	146	58
Milwaukee Area Technical College (Mequon) . . . . .	200	5 <sup>a</sup>	3 <sup>a</sup>
W. Holt Avenue (Milwaukee) . . . . .	240	110	46
Whitnall (Hales Corners) . . . . .	370	282	76
Pilgrim Road (Menomonee Falls) . . . . .	65	59	91
STH 67 and IH 94 (Summit) . . . . .	80	51	64
State Fair Park (West Allis) . . . . .	200	173	87
Timmerman Field (Milwaukee) . . . . .	140	44	31
W. Loomis Road (Greenfield) . . . . .	415	105	25
W. Good Hope Road . . . . .	135	16 <sup>a</sup>	12 <sup>a</sup>
<b>Subtotal</b>	<b>3,265</b>	<b>1,655</b>	<b>51</b>
<b>Shopping Center Lots</b>			
Silver Mill (Milwaukee) . . . . .	100	17	17
Kohls (West Allis) . . . . .	250	101	40
Phar Mor (Brookfield) . . . . .	200	81	41
Southridge (Greendale) . . . . .	250	83	33
Northridge (Milwaukee) . . . . .	100	18	18
Target (Brown Deer) . . . . .	125	62	50
Olympia (Oconomowoc) . . . . .	50	-- <sup>b</sup>	-- <sup>b</sup>
<b>Subtotal</b>	<b>1,075</b>	<b>362</b>	<b>34</b>
<b>Total</b>	<b>4,340</b>	<b>2,017</b>	<b>46</b>

<sup>a</sup>Public transit service to this station was not provided during 1990. The number of autos parked represents use by carpoolers.

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

Transit operating subsidies in the Region during 1990 totaled about \$53.0 million, as compared with about \$47.6 million during 1989, as shown in Table 15. The overall public operating subsidy per ride in the Kenosha urbanized area increased from about \$1.38 in 1989 to about \$1.40 in 1990 (see Figure 50). In the Racine urbanized area, the overall operating subsidy per ride increased from about \$1.37 in 1989 to about \$1.54 in 1990 (see Figure 51). In the Milwaukee urbanized area, the overall operating subsidy per ride increased from about \$0.87 in 1989 to about \$0.99 in 1990 (see

Figure 52). By individual operator in the Milwaukee urbanized area, the per-ride subsidies in 1989 and 1990 were as follows: Milwaukee County Transit System, \$0.85 and \$0.97; Waukesha County, \$3.14 and \$3.27; and City of Waukesha, \$2.23 and \$2.45. The overall operating subsidy per ride for the taxicab and shuttle bus services operated by the City of Hartford increased markedly from about \$6.48 per ride in 1989 to about \$11.49 per ride in 1990 (see Figure 53). In Whitewater, the per-ride subsidy increased from \$1.31 in 1989 to \$1.58 in 1990 (see Figure 54).

**Table 15**  
**PUBLIC TRANSIT OPERATING SUBSIDIES WITHIN THE REGION: 1989-1990**

Area	Public Transit Operating Assistance (dollars)							
	1989 Actual				1990 Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Urbanized Areas								
Kenosha								
City of Kenosha . . . . .	579,400	815,100	271,300	1,665,800	576,800	822,000	245,100	1,643,900
Milwaukee								
Milwaukee County . . . . .	5,291,100	27,724,400	8,262,800	41,278,300	5,244,400	30,095,700	10,833,200	46,173,300
Waukesha County . . . . .	286,400	493,900	127,000	907,300	289,100	541,500	159,700	990,300
City of Waukesha . . . . .	181,400	395,400	280,700	857,500	174,000	452,400	344,100	970,500
Subtotal	5,758,900	28,613,700	8,670,500	43,043,100	5,707,500	31,089,600	11,337,000	48,134,100
Racine								
City of Racine—								
Local Bus . . . . .	967,700	1,254,700	230,800	2,453,200	868,700	1,366,800	516,200	2,751,700
City of Racine—								
Commuter Bus . . . . .	0	203,800 <sup>a</sup>	117,100 <sup>a</sup>	320,900 <sup>a</sup>	0	221,500	129,700	351,200
Subtotal	967,700	1,458,500	347,900	2,774,100	868,700	1,588,300	645,900	3,102,900
Urbanized Area Subtotal	7,306,000	30,887,300	9,289,700	47,483,000	7,153,000	33,499,900	12,228,000	52,880,900
Nonurbanized Areas								
City of Hartford . . . . .	32,700	38,500	12,500	83,700	37,400	50,500	21,200	109,100
City of Whitewater . . . . .	14,600	39,900	0	54,500	18,700	39,300	0	58,000
Subtotal	47,300	78,400	12,500	138,200	56,100	89,800	21,200	167,100
Total	7,353,300	30,965,700	9,302,200	47,621,200	7,209,100	33,589,700	12,249,200	53,048,000

Area	Operating Subsidy per Ride (cents)							
	1989 Actual				1990 Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Urbanized Areas								
Kenosha								
City of Kenosha . . . . .	48	68	22	138	49	70	21	140
Milwaukee								
Milwaukee County . . . . .	11	57	17	85	11	63	23	97
Waukesha County . . . . .	99	171	44	314	95	179	53	327
City of Waukesha . . . . .	47	103	73	223	44	114	87	245
Average	12	58	17	87	12	64	23	99
Racine								
City of Racine—								
Local Bus . . . . .	49	64	12	125	45	70	27	142
City of Racine—								
Commuter Bus . . . . .	0	298 <sup>a</sup>	171 <sup>a</sup>	469 <sup>a</sup>	0	301	176	477
Average	48	72	17	137	43	79	32	154
Nonurbanized Areas								
City of Hartford . . . . .	253	298	97	648	394	532	223	1,149
City of Whitewater . . . . .	35	96	0	131	51	107	0	158
Nonurbanized Area Average	87	144	23	254	122	195	46	363

<sup>a</sup>Estimated.

Figure 50

MASS TRANSIT OPERATING SUBSIDIES IN THE KENOSHA URBANIZED AREA: 1975-1990

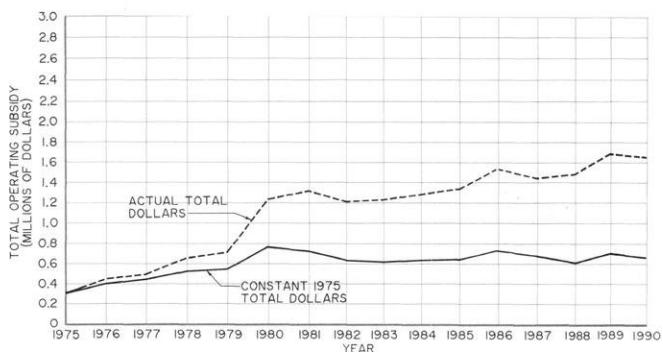
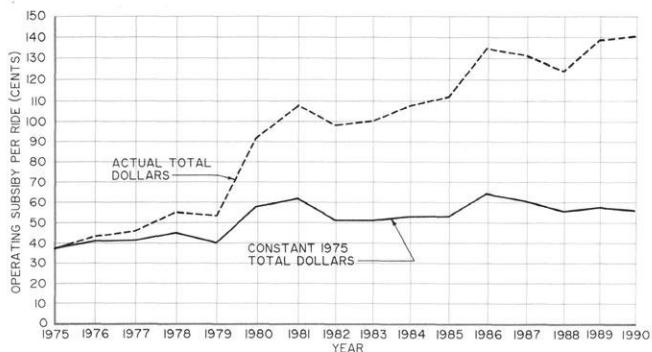
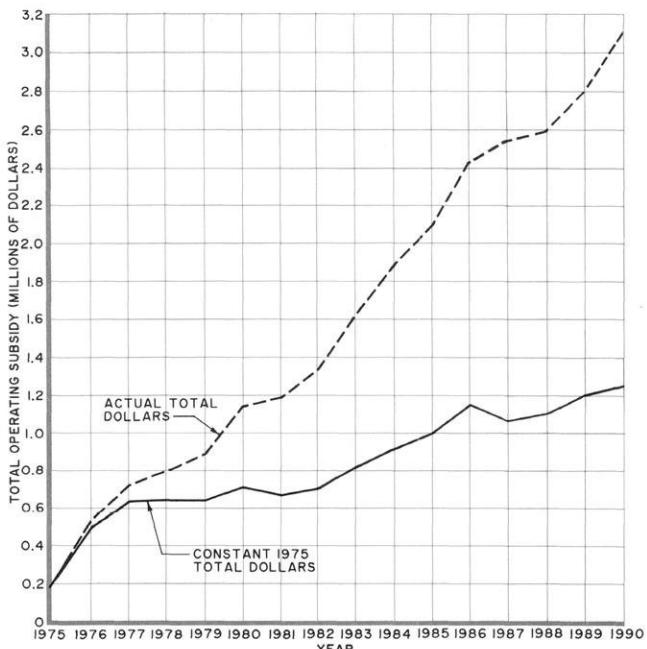
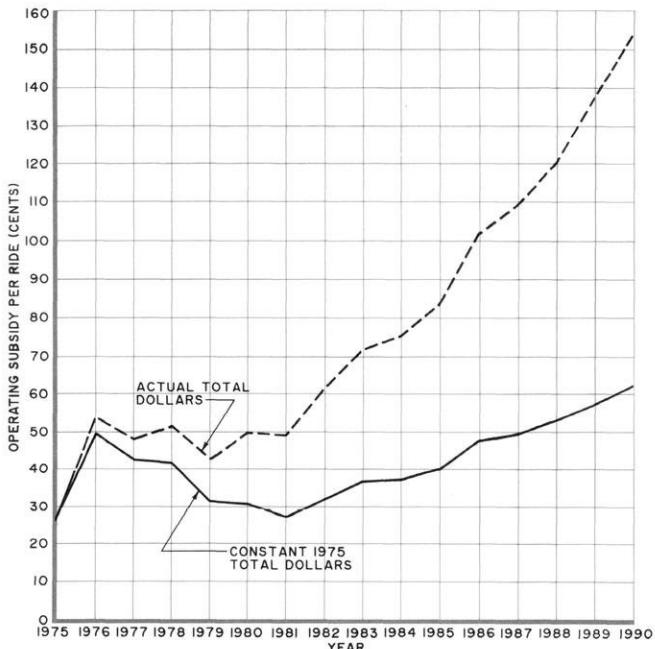


Figure 51

MASS TRANSIT OPERATING SUBSIDIES IN THE RACINE URBANIZED AREA: 1975-1990



### Carpool Parking Facilities

During 1990, the Commission collected data on the use of available parking supply at carpool parking facilities within the Region. As shown in Table 16, 18 publicly owned carpool parking facilities were in operation at key freeway interchanges in the outlying areas of the Region in 1990. This number represents an increase of one new parking facility over the number of facilities available in 1989. During 1990, a new

carpool parking facility was constructed at the IH 43 and STH 32/STH 84 interchange north of the City of Port Washington in Ozaukee County. During the fourth quarter of 1990, about 441 of the total 1,270 parking spaces available were used on an average weekday (see Figure 55). This represents a utilization rate of 35 percent in 1990, compared with a utilization rate of 32 percent in 1989. The progress in providing the carpool parking lots recommended in the adopted year 2000 regional transportation plan is summarized on Map 9.

Figure 52

MASS TRANSIT OPERATING SUBSIDIES IN THE MILWAUKEE URBANIZED AREA: 1975-1990

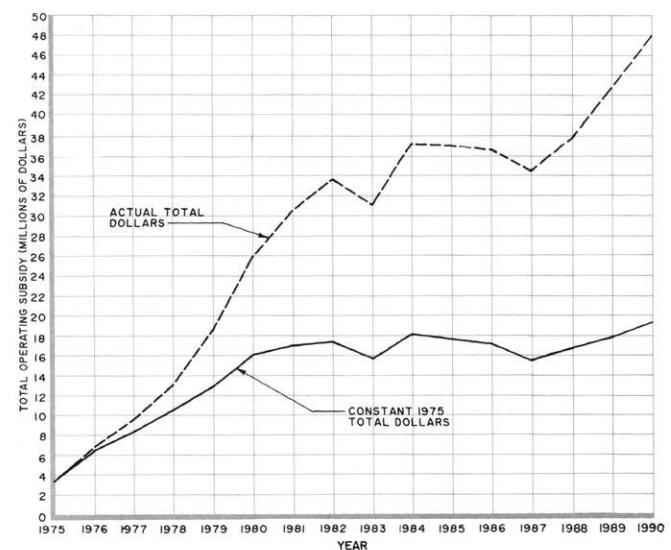
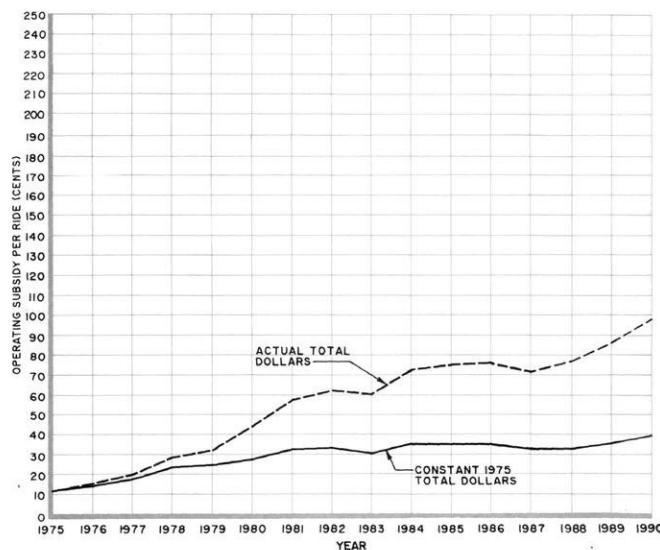


Figure 53

MASS TRANSIT OPERATING SUBSIDIES IN THE CITY OF HARTFORD: 1982-1990

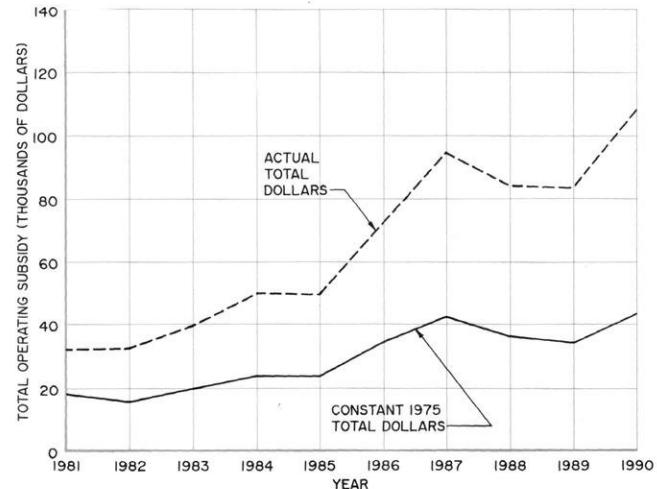
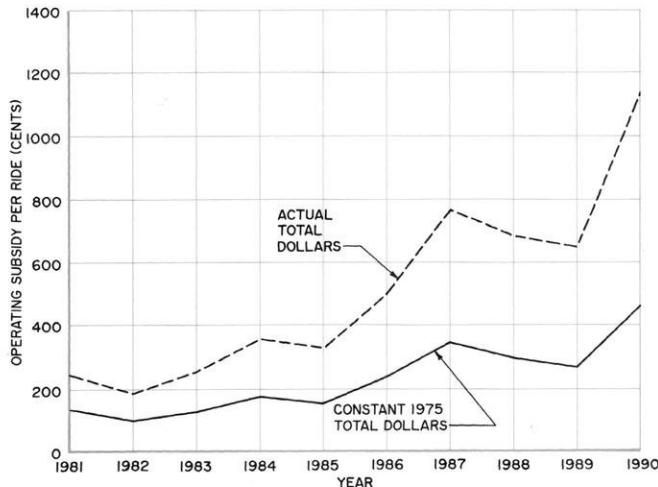


Figure 54

MASS TRANSIT OPERATING SUBSIDIES IN THE CITY OF WHITEWATER: 1986-1990

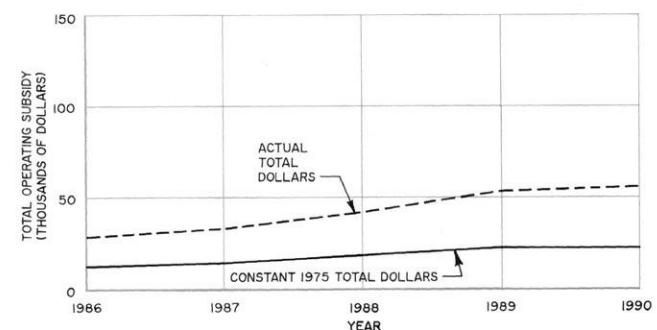
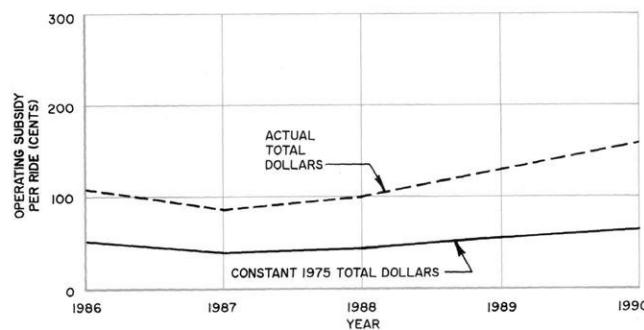


Table 16

## USE OF PARKING SUPPLY AT CARPOOL PARKING LOTS: FOURTH QUARTER 1990

Location	Available Parking Spaces	Autos Parked on an Average Weekday Fourth Quarter 1989	Percent of Spaces Used
Ozaukee County			
IH 43 and STH 32/STH 84 (Port Washington) . . . . .	50	4	8
IH 43 and STH 57 (Saukville) . . . . .	100	16	16
IH 43 and CTH C (Grafton) . . . . .	50	27	54
STH 57 and STH 84 (Fredonia) . . . . .	20	8	40
Washington County			
USH 41 and CTH Y (Germantown) . . . . .	100	25	25
STH 60 and CTH P (Jackson) . . . . .	30	16	53
Waukesha County			
STH 16 and CTH C (Nashotah) . . . . .	50	11	22
STH 16 and STH 83 (Chenequa) . . . . .	65	9	14
IH 94 and STH 67 (Oconomowoc) . . . . .	80	51	64
STH 16 and CTH P (Oconomowoc) . . . . .	40	10	25
IH 94 and CTH CC (Delafield) . . . . .	30	17	57
IH 94 and CTH G (Pewaukee) . . . . .	50	16	32
IH 94 and STH 164 (Pewaukee) . . . . .	80	52	65
IH 43 and STH 83 (Mukwonago) . . . . .	95	36	38
IH 43 and STH 164 (Big Bend) . . . . .	100	35	35
IH 43 and CTH Y (New Berlin) . . . . .	60	19	32
IH 43 and CTH O (New Berlin) . . . . .	200	30	15
USH 41 and Pilgrim Road (Menomonee Falls) . . . . .	70	59	84
Total	1,270	441	35

## Traffic Count Data

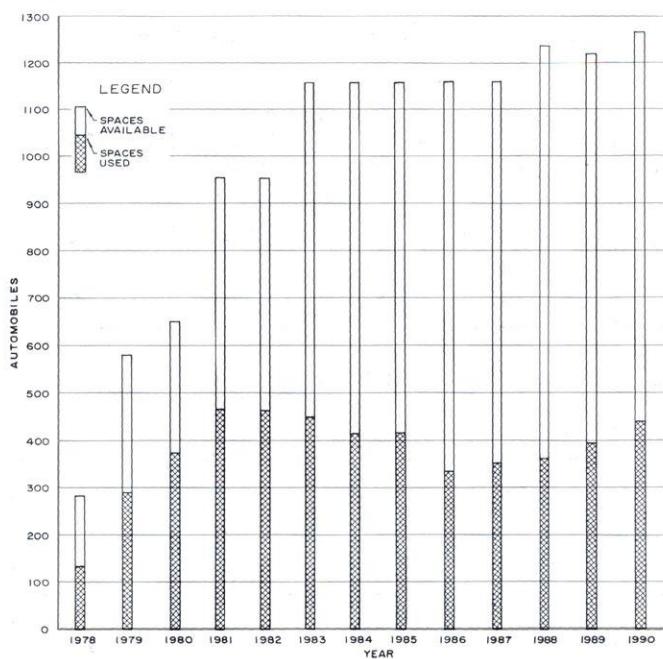
The Commission collates on a continuing basis traffic count data collected by other state, county, and local agencies during the year. These data are essential to monitoring changes in travel occurring in the Region and to determining levels of, and trends in, vehicle miles of travel, as reported, for example, in SEWRPC Newsletter, Vol. 30, No. 3, May-June 1990. During 1990 traffic volume data were collected from the Wisconsin Department of Transportation, the Milwaukee County Department of Public Works, and the City of Milwaukee, all of which operate regular traffic-counting programs. In addition, during the year the Commission conducted traffic counts for use in the analysis and planning activities of the community assistance and traffic engineering services provided to municipalities within the Region. At selected

sites, data were collected on vehicle classification, turning movements, peak-hour factors, and other traffic engineering considerations.

An estimate of the amount of travel occurring on the arterial street and highway system within the Region was prepared for the year 1988 using collated traffic count data. For purposes of comparison, the historic and forecast levels of travel measured in terms of vehicle miles of travel per average weekday are shown on Table 17 and Figure 56. The data indicated that traffic on the arterial street and highway system has exceeded forecast levels. Arterial street and highway traffic in southeastern Wisconsin, measured in terms of vehicle miles of travel per average weekday, increased between 1972 and 1988 at an average annual rate of 2.7 percent, as opposed to the forecast rate of 1.5 percent. As a result, arterial traffic in the Region has reached

Figure 55

CARPOOL PARKING LOT USE: 1978-1990



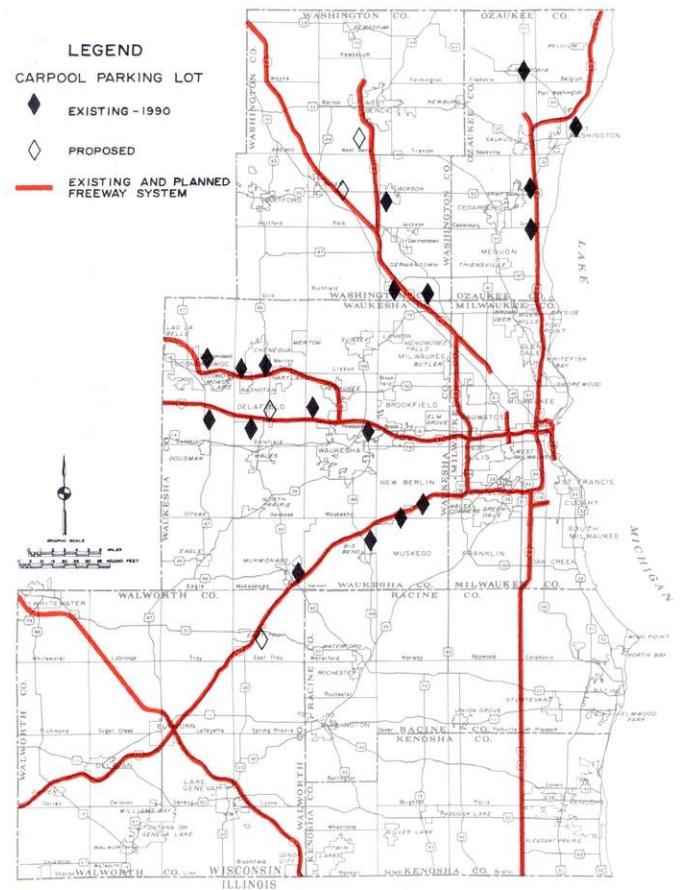
a level not anticipated to occur until the year 2000. In particular, freeway system traffic and traffic congestion have grown rapidly since 1972, as shown on Maps 10 and 11 and in Table 18.

The faster-than-anticipated growth in arterial street and highway traffic since 1972 may be attributed in part to the failure to implement the transit system improvements recommended in the adopted regional transportation system plan; in part to a decline in carpooling and vanpooling and in automobile occupancy, which may, in turn, be attributed to a failure to implement recommended carpooling and vanpooling incentives and promotion; and the continuing occurrence of some land use development in the Region at variance with the adopted regional land use plan, principally sub-urban sprawl and the growth of unplanned major commercial centers in freeway corridors.

It is important to note that the higher-than-forecast levels of arterial traffic are not a result of overall economic and demographic growth in the Region exceeding forecast levels. Analyses show that actual levels of household and employment growth in the Region from 1970 to 1988 closely conformed to forecast levels. Also,

Map 9

EXISTING 1990 AND PROPOSED CARPOOL PARKING LOTS



estimated total person-trip generation on an average weekday within southeastern Wisconsin has increased as forecast, that is, from about 4.5 million person trips in 1972 to about 5.3 million person trips in 1988. This current level of trip-making is below the forecast year 2000 level of 5.7 million person trips, and is about the level that was projected to occur in 1988. Also, the higher than planned levels of highway traffic are not a result of unanticipated increases in suburb-to-suburb traffic. Such increases were specifically foreseen in the first-generation plan adopted in 1966. Nearly 80 percent of the residential development in the Region and most of the commercial and industrial development has taken place in conformance with the adopted regional land use plan, and the adopted transportation plan was carefully designed to serve that plan. Thus, the first- and second-generation transportation system plans anticipated a substantial increase in traffic in the

Table 17

## HISTORIC AND FORECAST ARTERIAL STREET AND HIGHWAY SYSTEM VEHICLE MILES OF TRAVEL ON AN AVERAGE WEEKDAY IN SOUTHEASTERN WISCONSIN

Facility Type	Average Weekday Vehicle Miles of Travel				Average Annual Rate of Increase		
	Estimated Actual			Planned 2000 (thousands)	Actual 1963-1972 (percent)	Actual 1972-1988 (percent)	Planned 1972-2000 (percent)
	1963 (thousands)	1972 (thousands)	1988 (thousands)				
Kenosha County							
Freeway . . . . .	204	382	582	881	7.2	2.7	3.0
Standard Arterial . . .	734	1,046	1,520	1,948	4.0	2.4	2.2
Subtotal	938	1,428	2,102	2,829	4.8	2.4	2.5
Milwaukee County							
Freeway . . . . .	531	3,977	6,295	5,894	25.1	2.9	1.4
Standard Arterial . . .	6,817	6,718	8,341	6,477	-0.2	1.4	-0.1
Subtotal	7,348	10,695	14,636	12,371	4.3	2.0	0.5
Ozaukee County							
Freeway . . . . .	20	223	711	682	30.7	7.5	4.1
Standard Arterial . . .	464	627	925	837	3.4	2.5	1.0
Subtotal	484	850	1,636	1,519	6.5	4.2	2.1
Racine County							
Freeway . . . . .	203	415	634	1,177	8.3	2.7	3.8
Standard Arterial . . .	922	1,398	2,012	1,903	4.7	2.3	1.1
Subtotal	1,125	1,813	2,646	3,080	5.4	2.4	1.9
Walworth County							
Freeway . . . . .	0	56	338	1,236	--	11.9	11.7
Standard Arterial . . .	685	817	1,198	1,214	2.0	2.4	1.4
Subtotal	685	873	1,536	2,450	2.7	3.4	3.8
Washington County							
Freeway . . . . .	0	190	462	852	--	5.7	5.5
Standard Arterial . . .	696	961	1,441	1,147	3.6	2.6	0.6
Subtotal	696	1,151	1,903	1,999	5.8	3.2	2.0
Waukesha County							
Freeway . . . . .	159	970	2,149	1,887	22.2	5.1	2.4
Standard Arterial . . .	1,637	2,344	4,255	3,997	4.1	3.8	1.9
Subtotal	1,796	3,314	6,404	5,884	7.0	4.2	2.1
Region							
Freeway . . . . .	1,462	6,213	11,171	12,609	17.4	3.7	2.6
Standard Arterial . . .	11,610	13,911	19,692	17,523	2.0	2.2	0.8
Total	13,072	20,124	30,863	30,132	4.9	2.7	1.5

outlying portions of Milwaukee County and the adjacent portions of Ozaukee, Washington, and Waukesha Counties, and in portions of Racine and Kenosha Counties as well.

The particularly substantial increase in freeway traffic may be attributed in part to factors already noted: lack of public transit and travel demand management plan implementation; the

variance of some land use development from the adopted regional land use plan; and, importantly, the failure to date to implement many required arterial street improvements recommended in the adopted regional transportation plan. Such improvements include the extension of the Lake Arterial in Racine and Milwaukee Counties; the improvement of Ryan Road and Rawson Avenue in Milwaukee County; the

improvement of Moorland Road and Pilgrim Road in Waukesha County; the improvement of Racine Avenue and extensions of Barker Road in Waukesha County; the completion of the Waukesha area bypass in Waukesha County; the improvement of Capitol Drive, Blue Mound Road, and Greenfield Avenue in Waukesha County; the improvement of Mequon Road in Washington and Ozaukee Counties; the improvement of Wauwatosa Road in Ozaukee County; and the improvement of STH 164 and of CTH K in Waukesha and Racine Counties. The improvement of these arterials was recommended in the regional plan to provide attractive standard arterial street alternatives to the area freeway system. Lack of implementation of plans for these arterials has resulted in such traffic being too highly concentrated on the freeway system.

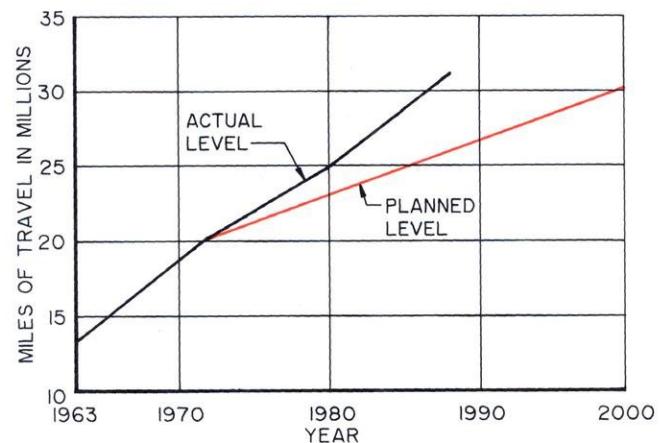
## LONG-RANGE PLANNING

### Long-Range Transportation System Plan

On June 1, 1978, the Commission adopted a long-range regional transportation system plan for the design year 2000. This plan is documented in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume Two, Alternative and Recommended Plans. The plan extends and amends the regional transportation system plan for the design year 1990 adopted in 1966. The adopted plan is graphically summarized on Map 12. The long-range regional transportation system plan was prepared to accommodate the existing and probable future travel demand in the Region. Such demand is expected to increase by about 28 percent, from a total of about 4.5 million person trips per average weekday in 1972 to about 5.7 million such trips by the year 2000. Total vehicle mileage of travel on an average weekday is anticipated to increase by more than 49 percent, from about 20.1 million to about 30.1 million. The design year 2000 regional transportation system plan seeks to provide the Region with a safe, efficient, and economical transportation system which can effectively serve the existing and probable future travel demand within the Region, which will meet the recommended regional transportation system development objectives, and which will serve and promote implementation of the adopted regional land use plan.

The plan did not include a number of previously planned freeways, including the Milwaukee Metropolitan Belt Freeway, the Bay Freeway

Figure 56  
HISTORIC AND FORECAST ARTERIAL  
STREET AND HIGHWAY SYSTEM VEHICLE  
MILES OF TRAVEL ON AN AVERAGE WEEKDAY  
IN SOUTHEASTERN WISCONSIN



from Pewaukee to Whitefish Bay, the Stadium Freeway-North, the Park Freeway-West, and the Racine Loop Freeway. It did, however, include the following freeways: the West Bend Freeway (USH 45), the USH 41 Freeway conversion in Washington County, the STH 16 Freeway in Waukesha County, the USH 12 Freeway in Walworth County, the Lake Freeway-South, the Milwaukee Downtown Loop Freeway, and the Stadium Freeway-South.

In 1981 the plan was amended to replace the Lake Freeway-South with a four-lane, limited access surface arterial. In 1983 the plan was further amended to remove the Milwaukee Downtown Loop Freeway and to add in its place a connection of the Park Freeway-East leg of that loop to N. Jefferson Street and a permanent connection of the East-West Freeway and Lake Freeway-North to N. Harbor Drive. Construction of the recommended permanent treatments at the end of the Park Freeway-East and the Lake Freeway-North and East-West Freeway to the surface arterial system began in 1984. The connections of the Lake Freeway-North and East-West Freeway were opened to traffic in December 1985.

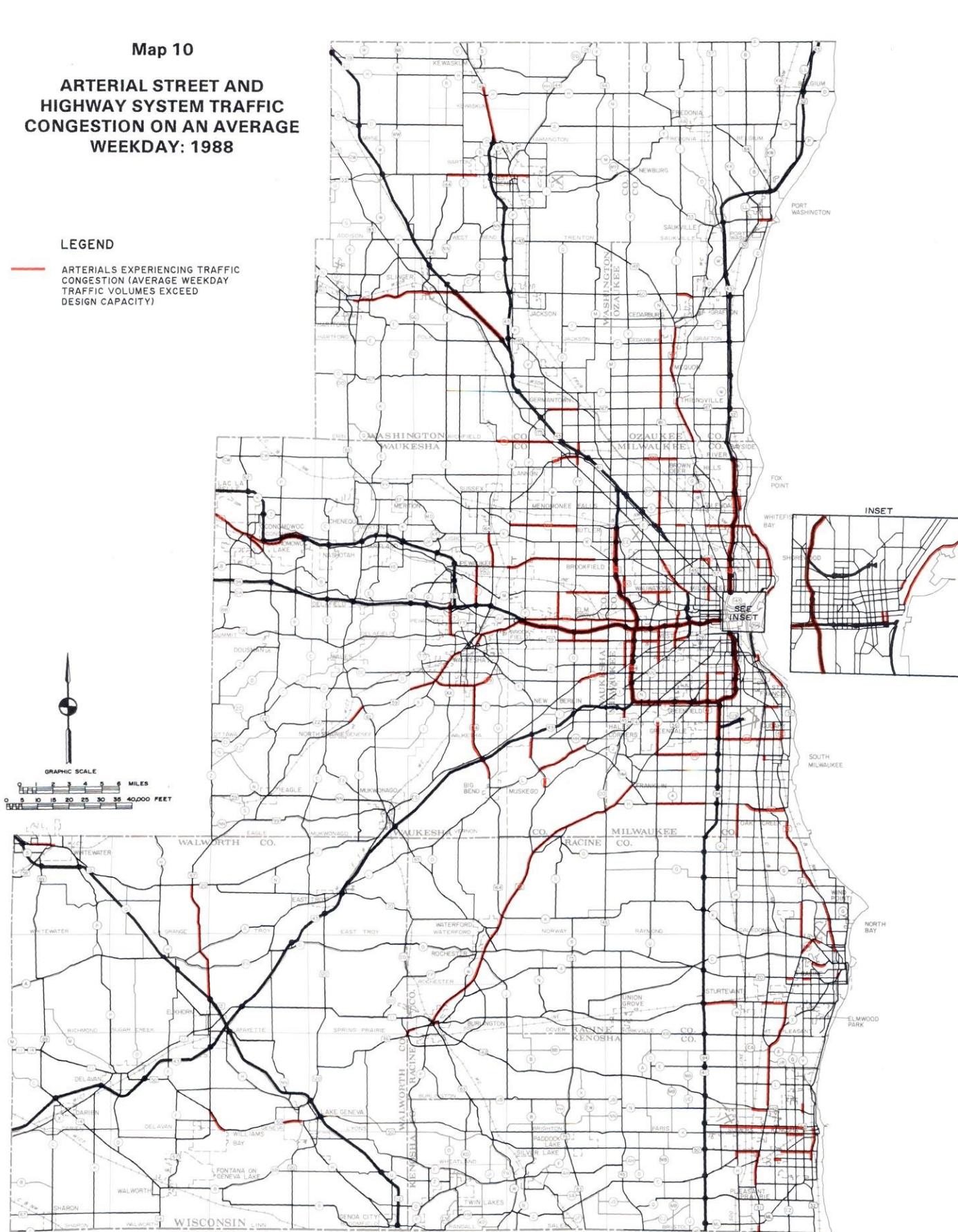
In March 1985, the Commission further amended the plan to incorporate recommended changes in the Stadium Freeway-South corridor. These changes consist of the deletion from the plan of the Stadium Freeway-South from W. National Avenue to the Airport Freeway and

Map 10

ARTERIAL STREET AND  
HIGHWAY SYSTEM TRAFFIC  
CONGESTION ON AN AVERAGE  
WEEKDAY: 1988

LEGEND

— ARTERIALS EXPERIENCING TRAFFIC CONGESTION (AVERAGE WEEKDAY TRAFFIC VOLUMES EXCEED DESIGN CAPACITY)



Map 11

HISTORIC TRENDS IN REGION FREEWAY SYSTEM TRAFFIC CONGESTION: 1972 AND 1988



LEGEND

TRAFFIC CONGESTION

— MODERATE (TRAFFIC VOLUMES OVER DESIGN CAPACITY)

— SEVERE (TRAFFIC VOLUMES SUBSTANTIALLY OVER DESIGN CAPACITY AND AT OR APPROACHING MAXIMUM CAPACITY)

NOTE: TRAFFIC CONGESTION OCCURS WHEN ARTERIAL FACILITIES CARRY TRAFFIC VOLUMES WHICH EXCEED THEIR DESIGN CAPACITY. SUCH TRAFFIC CONGESTION TYPICALLY OCCURS ONLY DURING THE MORNING AND EVENING PEAK TRAFFIC HOURS OR, IN SOME CASES, DURING THE THREE-HOUR MORNING AND EVENING PEAK TRAFFIC PERIODS. DURING MIDDAY, EVENING, AND EARLY MORNING HOURS, THERE WILL GENERALLY BE LITTLE, IF ANY, TRAFFIC CONGESTION AND DELAY. ALSO, ON MOST URBAN ARTERIAL HIGHWAYS, WEEKEND TRAFFIC PEAKS WILL BE LESS THAN WEEKDAY TRAFFIC PEAKS.

FREeways WHICH CARRY TRAFFIC VOLUMES WHICH MODESTLY EXCEED THEIR DESIGN CAPACITY—BY 10 TO 15 PERCENT OR LESS—TYPICALLY EXPERIENCE REDUCED SPEEDS OF ABOUT 40 TO 50 MILES PER HOUR. SUCH FREEWAYS ALSO EXPERIENCE SEVERE LIMITATIONS ON FREEDOM TO MANEUVER, AND MINOR INCIDENTS CAN CAUSE STOP-AND-GO TRAFFIC. FREEWAYS WHICH CARRY TRAFFIC VOLUMES WHICH SUBSTANTIALLY EXCEED THEIR DESIGN CAPACITY—BY 15 PERCENT AND MORE—EXPERIENCE STOP-AND-GO TRAFFIC AND AVERAGE SPEEDS OF 30 TO 40 MILES PER HOUR OR LESS.

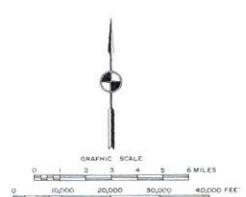


Table 18

**ARTERIAL STREET AND HIGHWAY SYSTEM TRAFFIC CONGESTION ON AN  
AVERAGE WEEKDAY: HISTORIC 1963, 1982, AND 1988 AND PLANNED 2000**

Facility Type	Arterial Facilities Carrying Average Weekday Traffic Volumes Exceeding Design Capacity and Experiencing Traffic Congestion							
	Historical and Existing						Planned 2000	
	1963		1972		1988			
	Mileage	Percent of Total System	Mileage	Percent of Total System	Mileage	Percent of Total System	Mileage	Percent of Total System
Kenosha County								
Freeway . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard Arterial . . .	13.5	5.0	22.0	8.2	20.8	6.5	3.2	1.0
Subtotal	13.5	4.8	22.0	7.9	20.8	6.3	3.2	0.9
Milwaukee County								
Freeway . . . . .	0.0	0.0	5.3	8.3	41.2	60.4	5.3	7.8
Standard Arterial . . .	116.3	14.9	55.7	8.3	55.9	8.2	26.3	3.7
Subtotal	116.3	14.7	61.0	8.3	97.1	12.9	31.6	4.1
Ozaukee County								
Freeway . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	1.9	7.2
Standard Arterial . . .	8.3	3.1	5.5	2.3	12.6	4.6	0.0	0.0
Subtotal	8.3	3.1	5.5	2.2	12.6	4.2	1.9	0.6
Racine County								
Freeway . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard Arterial . . .	13.6	4.0	20.3	6.0	31.5	8.0	0.0	0.0
Subtotal	13.6	3.9	20.3	5.8	31.5	7.7	0.0	0.0
Walworth County								
Freeway . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard Arterial . . .	5.3	1.3	4.8	1.2	11.1	2.8	0.0	0.0
Subtotal	5.3	1.3	4.8	1.2	11.1	2.5	0.0	0.0
Washington County								
Freeway . . . . .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard Arterial . . .	0.0	0.0	9.1	2.7	22.5	5.3	0.0	0.0
Subtotal	0.0	0.0	9.1	2.7	22.5	5.1	0.0	0.0
Waukesha County								
Freeway . . . . .	0.0	0.0	0.0	0.0	5.3	9.3	0.0	0.0
Standard Arterial . . .	34.8	5.0	42.9	7.0	66.3	9.8	9.2	1.3
Subtotal	34.8	5.0	42.9	6.6	71.6	9.7	9.2	1.2
Region								
Freeway . . . . .	0.0	0.0	5.3	3.3	46.5	19.3	7.2	2.5
Standard Arterial . . .	191.8	6.1	160.3	5.6	220.7	6.9	38.7	1.2
Total	191.8	6.0	165.6	5.5	267.2	7.8	45.9	1.3

Map 12

REGIONAL TRANSPORTATION SYSTEM PLAN FOR THE SOUTHEASTERN WISCONSIN REGION: 2000

LEGEND

ARTERIAL STREET AND HIGHWAY SYSTEM

JURISDICTIONAL CLASSIFICATION

- STATE TRUNK - FREEWAY
- STATE TRUNK - NONFREEWAY
- COUNTY TRUNK
- LOCAL TRUNK
- FREEWAY - NONFREEWAY INTERCHANGE

URBAN MASS TRANSIT SYSTEM

SERVICE AREA

TRANSIT STATION

P - WITH PARKING

PARK AND POOL LOT

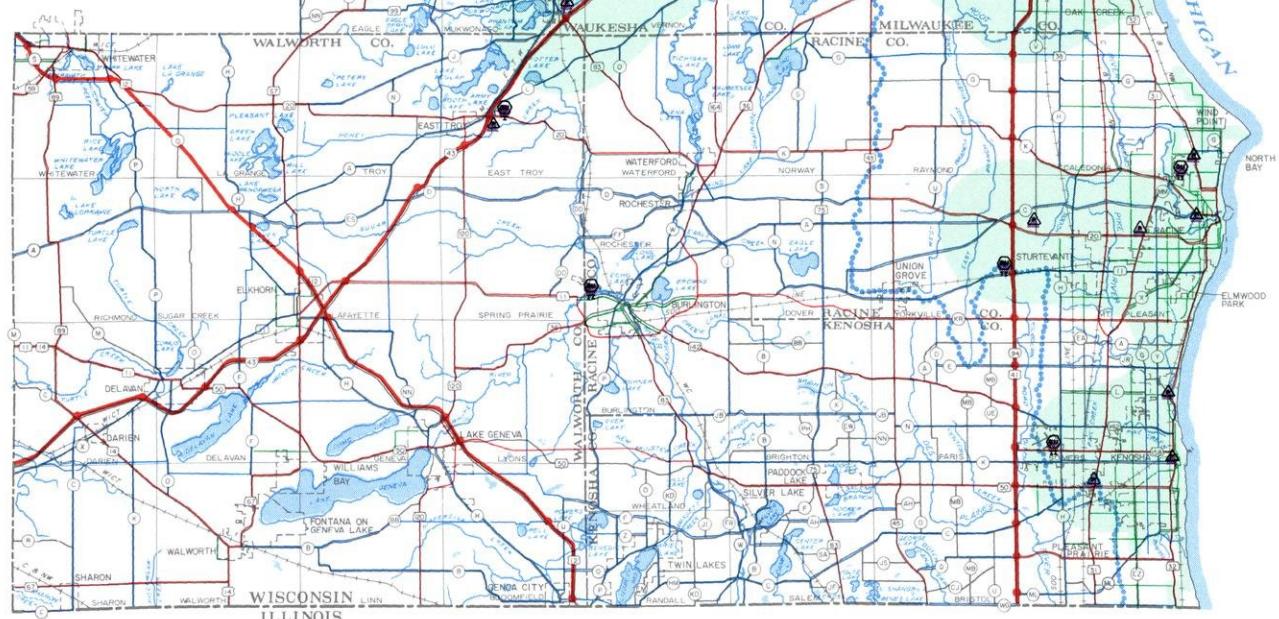
AIRPORT SYSTEM CLASSIFICATION

T TRANSPORT

GU-II GENERAL UTILITY STAGE II

GU-I GENERAL UTILITY STAGE I

BU-II BASIC UTILITY STAGE II



the addition of a freeway "stub end" improvement at W. National Avenue, consisting of a new at-grade intersection directly connecting to S. 43rd Street. From that intersection, S. 43rd Street would be improved to a divided boulevard section south to W. Lincoln Avenue. These Stadium Freeway-South improvements are more fully described in the 1984 Annual Report, and were opened to traffic late in 1988.

After review of alternatives and their estimated impacts, a 28-member Task Force created by the Commission acted to recommend construction of a four-lane arterial connection from the southern end of the Hoan Bridge to and along the Chicago & North Western Railway right-of-way to a connection with S. Pennsylvania Avenue at E. Layton Avenue. The new facility as proposed by the Task Force would be developed with special attention to aesthetics, including extensive plantings of trees and shrubs and the use of stone facings on structures and retaining walls.

The final environmental impact statement for the proposed facility was completed in the fall of 1987 by the Wisconsin Department of Transportation. Construction is set to begin in 1991, and the facility is anticipated to be completed and open to traffic in 1994. The work of the Task Force and its recommendations are presented in SEWRPC Memorandum Report No. 6, Report of the Hoan Bridge South Task Force.

#### **New County Highway System Plan Adopted for Washington County**

During 1990, work was completed on a new highway system plan for Washington County. A public hearing was held on September 12, 1989, to present the preliminary recommendations of the new plan to public officials and concerned citizens for consideration and comments. Based upon review of the public reaction to the preliminary plan, the Technical Coordinating and Advisory Committee, at a meeting held on October 31, 1989, approved the recommended plan. That plan was briefly described in the 1989 Annual Report.

The recommended amendments to the Washington County jurisdictional highway system plan were formally adopted by the Washington County Board of Supervisors on April 17, 1990, and by the Commission on June 20, 1990. The recommendations are set forth in a Commission Report entitled, Amendment to the Washington

County Jurisdictional Highway System Plan—2000, dated November 1989. Following Commission adoption, the new plan was formally certified to the federal and state Departments of Transportation and to the local governments in Washington County.

#### **New County Highway System Plan Completed and Adopted for Racine County**

In 1987, Racine County requested that the Commission undertake the preparation of a new county highway system plan for Racine County. The new plan was to take into account the arterial street improvement recommendations for eastern Racine County as set forth in SEWRPC Memorandum Report No. 9, An Arterial Highway System Plan for Eastern Racine County, as well as proposals for changes to the current plan affecting the western portion of the County. In response, the Commission reconvened the Technical Coordinating and Advisory Committee on Jurisdictional Highway Planning for Racine County, began both the study efforts necessary to address the needs that were perceived throughout Racine County and the work of preparing a new county highways system plan.

The Advisory Committee met four times over the period 1988 through 1990 to review the adopted Racine County jurisdictional highway system plan, to review the actions which have been taken to date to implement that plan, to identify and evaluate potential amendments to the plan, to consider comments made by public officials and concerned citizens during a public hearing held to present preliminary recommendations for amendments to the plan, and to make a final recommendation to the Racine County Board of Supervisors and the Commission.

Public hearings were held on January 17 and January 24, 1990, to present the findings and preliminary recommendations of the new Racine County jurisdictional highway system plan to public officials and concerned citizens for their consideration and comments. Based upon review of the public reaction to the preliminary plan, the Advisory Committee, at a meeting held on March 22, 1990, approved a recommended plan that included the changes to the current plan as shown on Table 19.

The final second-generation Racine County jurisdictional highway system plan as recommended by the Technical Coordinating and

Table 19

RECOMMENDED AMENDMENTS TO THE RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN

Functional Plan Amendments

- Add to the plan as a state trunk highway the Burlington area outer bypass to provide four travel lanes
- Add to the plan as a state trunk highway Washington Avenue between marquette Street and 6th Street
- Add to plan the reconstruction of the STH 38-CTH MM-Rapids Drive intersection to provide direct movement between CTH MM and Rapids Drive
- Add to plan as local arterials Five Mile Road between Charles Street and Erie Street, Erie Street between Five Mile Road and Four Mile Road, Wisconsin Avenue between 2nd Street and 6th Street, 2nd Street between Lake Avenue and Wisconsin Avenue, Lake Avenue between State Street and 2nd Street, and Kinzie Avenue between STH31 and West Boulevard
- Add to plan as a local arterial an extension of 21st Street from STH 31 to the proposed Lake Arterial
- Add to plan as a local arterial the extension of Memorial Drive between Chickory Road and CTH KR
- Add to the plan the improvement of CTH KR from IH 94 to STH 32 to provide four travel lanes
- Add to the plan the improvement of STH 20 from Stuart-Willow Roads to the proposed Lake Arterial facility to provide six travel lanes
- Add to the plan the improvement of CTH C from CTH V to the proposed Lake Arterial facility to provide four travel lanes
- Add to the plan the improvement of CTH K from IH 94 to CTH H at Franksville to provide four travel lanes
- Add to the plan the improvement of STH 31 from Three Mile Road to Four Mile Road to provide four travel lanes
- Change the proposed improvement of STH 38 from CTH K to STH 31 to provide for maintaining the current four travel lanes rather than improving to six travel lanes
- Change the proposed improvement in the plan of CTH K from STH 38 to the proposed Lake Arterial facility to provide four travel lanes, rather than six travel lanes
- Delete from the plan the proposed interchange of Four Mile Road and IH 94; and add to the plan the extension of Four Mile Road to CTH K east of IH 94
- Delete CTH V as arterial between Seven Mile Road and STH 20 from the plan
- Delete from plan the extension of Three Mile Road between Green Bay Road and STH 31
- Delete from plan the extension of Melvin Street between Green Bay Road and Mt. Pleasant Street and the extension of Mt. Pleasant Street from its northerly terminus to Three Mile Road
- Delete from the plan Graceland Boulevard and its extension between STH 31 and Lathrop Avenue
- Delete from plan the extension of Chickory Road between Meachem Road and Taylor Avenue
- Delete from the plan the extension of main Street to Lake Street between 11th Street and 10th Street
- Delete from plan as arterial facilities the existing and proposed segments of Eight Mile Road between IH 94 and USH 45
- Delete from plan the State Street extension and inner bypass extension between STH 83 and STH 36 in the Burlington area

Table 19 (continued)

Jurisdictional Plan Amendments

- Change the recommended jurisdiction of CTH K from IH 94 to STH 38 from county to state trunk highway
- Change the recommended jurisdiction of Four Mile Road from CTH K to STH 31 from state to county trunk highway
- Change the recommended jurisdiction from state to local arterial of Marquette Street between Washington Avenue and State Street, State Street between Marquette Street and Washington Avenue, Lake Avenue between State Street and 7th Street, State Street between Lake Avenue and Main Street, and 7th Street between Lake Avenue and Main Street
- Change the recommended jurisdiction of Four Mile Road from STH 32 to Main Street and Main Street from Four Mile Road to Three Mile Road from county to local arterial
- Change the recommended jurisdiction of Three Mile Road from STH 32 to Green Bay Road from county to local arterial
- Change the recommended jurisdiction from county to local trunk highway of Three Mile Road from STH 31 west to Johnson Park Road; Johnson Park Road and its extension along the eastern boundary of Johnson Park; Emmertsen Road from STH 38 south to 16th Street; and 16th Street east from Emmertsen Road to STH 31
- Change the recommended jurisdiction of CTH H between STH 20 and STH 11 from local to county trunk highway and of West Road between STH 20 and STH 11 from county to local trunk highway
- Change the recommended jurisdiction from county to local arterial of Main Street between 7th Street and 16th Street, Wisconsin Avenue between 6th Street and 16th Street, and 16th Street between Main Street and STH 31
- Change recommended jurisdiction from county to local arterial of proposed arterial between STH 32 and Four Mile Road routed along Charles Street, Five and One-Half Mile Road, Novak Road, and Six Mile Road
- Change the recommended jurisdiction of CTH KR from STH 31 to STH 32 from county to state trunk highway
- Change recommended jurisdiction of Six Mile Road between CTH H and STH 32 from local to county trunk highway
- Change the recommended jurisdiction of the following arterial facilities located within the Burlington area bypass from recommended state to county trunk highways: STH 36 from the eastern segment of the bypass to McHenry Street; from state to local trunk highways: STH 11, STH 142, STH 83, and STH 36 from McHenry Street to the western segment of the bypass; and from county to local trunk highways: Market Street and its extension to the western segment of the bypass and CTH W from CTH A to STH 11

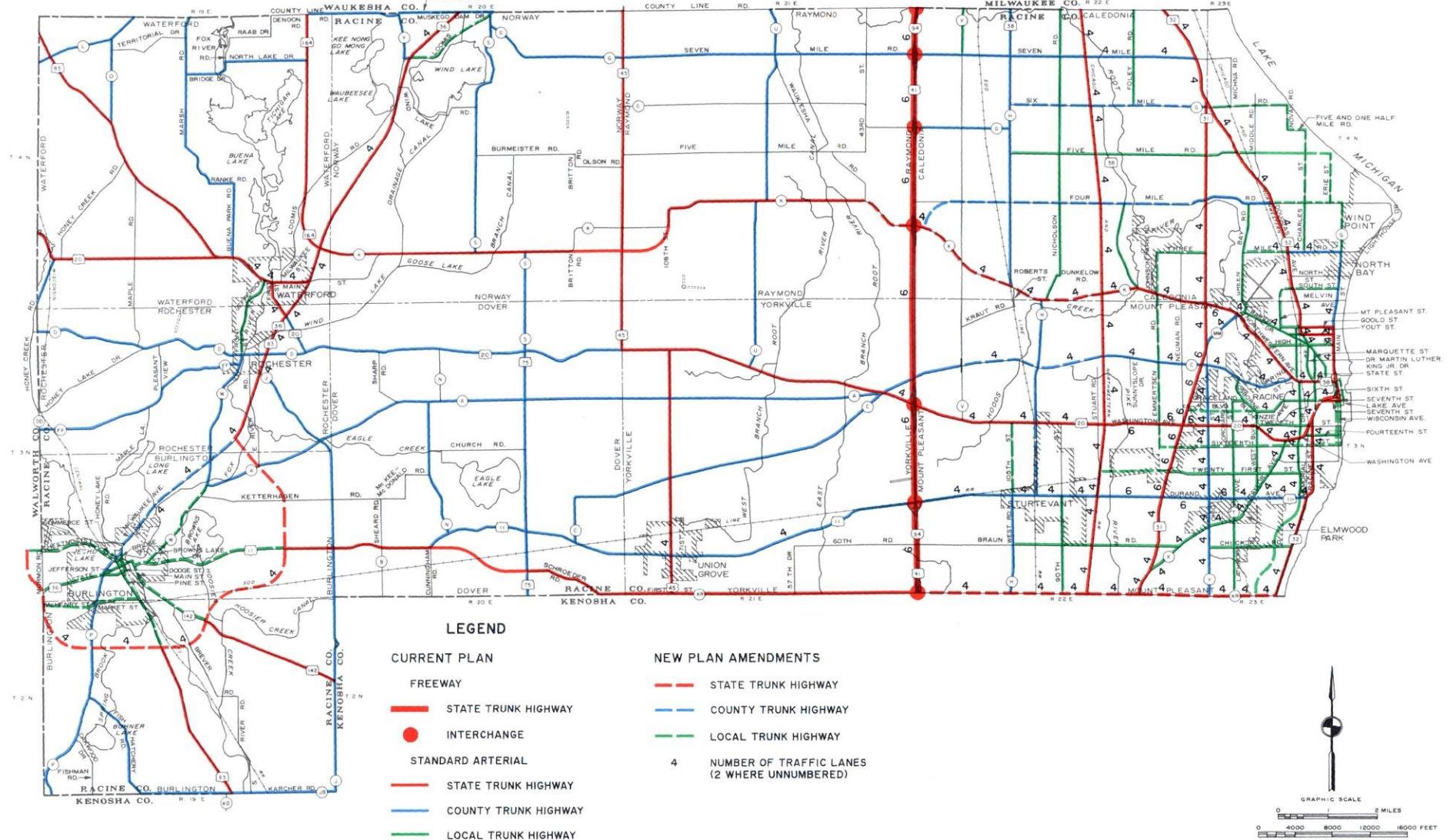
Advisory Committee on Jurisdictional Highway Planning for Racine County is shown on Map 13. The plan envisions a proposed system of arterial facilities in Racine County that can meet existing and probable future traffic demands at an adequate level of service. The plan identifies the location and configuration of the various facilities constituting the arterial system and recommends the number of traffic lanes required on each segment of the system.

The plan also recommends the level of government that should be responsible for the construction, operation, and maintenance of each facility making up the arterial system.

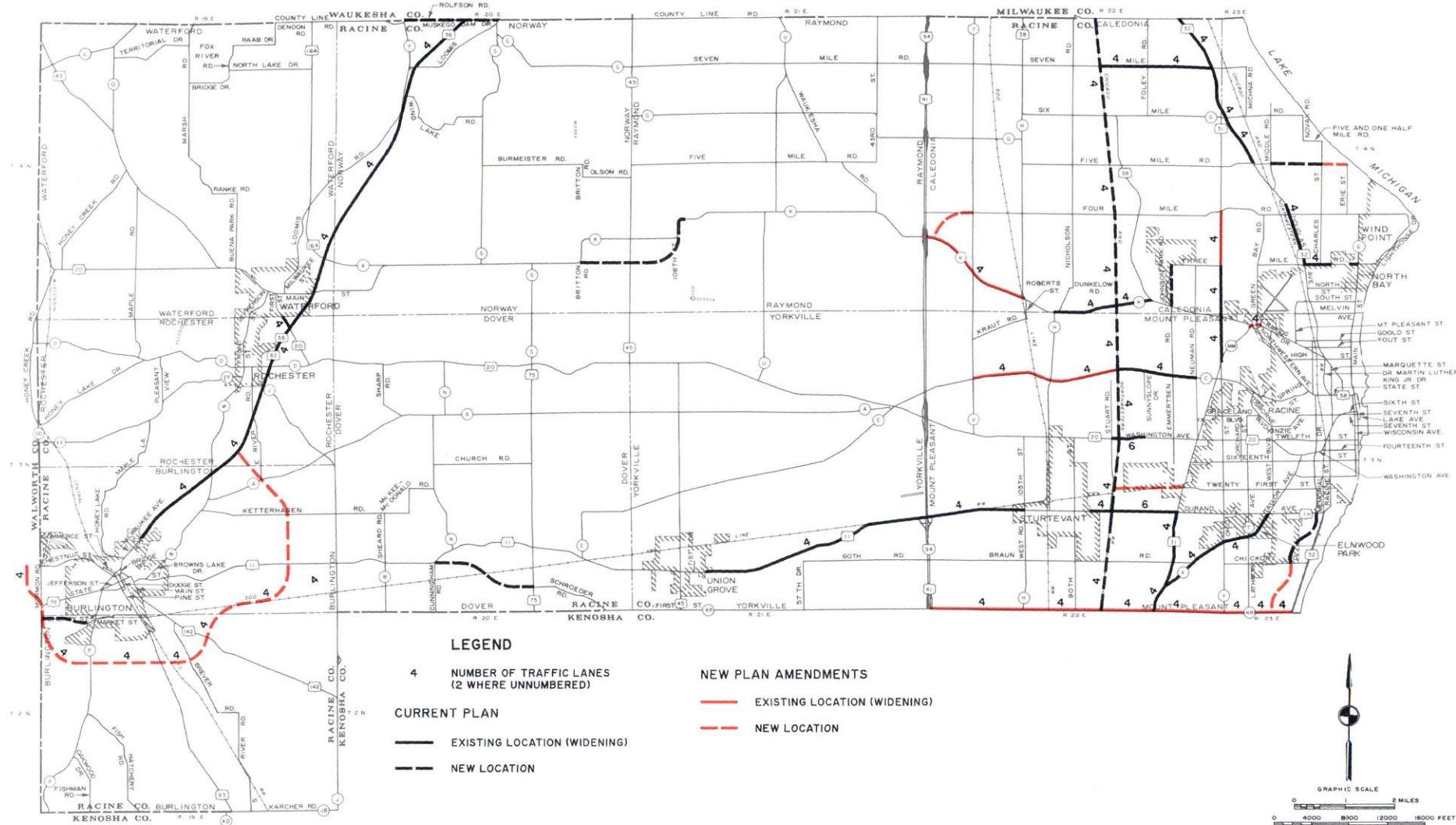
The major capacity improvements recommended under the new plan are shown on Map 14. These capacity improvements include widening of existing facilities to provide additional traffic

Map 13

FINAL RECOMMENDED RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN



Map 14

CAPACITY IMPROVEMENTS RECOMMENDED UNDER THE FINAL  
NEW RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN

lanes and the construction of new arterial facilities. The recommended changes in jurisdictional responsibility are shown on Map 15.

The recommended arterial system in the jurisdictional highway system plan as amended would include 438 miles of streets and highways, or about 35 percent of the expected 1,250-mile year 2000 total street and highway system in Racine County. The recommended state trunk highway element of the plan would include 156 miles of arterial facilities, or about 36 percent of the 438-mile planned arterial system. The recommended county trunk highway element of the plan would include 178 miles of arterial facilities, or about 40 percent of the 438-mile planned arterial system. The recommended local trunk highway element of the plan would include 104 miles of arterial facilities, or about 24 percent of the 438-mile planned arterial system. Under the plan, the total mileage of state trunk highways in the County would remain at about 156 miles and the total mileage of county trunk highways would increase from 150 to 178 miles, or by about 19 percent.

Of the total 438 miles of the planned arterial system in Racine County, a total of 353 miles would require only preservation, or resurfacing and reconstruction; 50 miles would require improvement, or widening to provide additional traffic lanes; and 35 miles would consist of new facilities. Of the 50 miles of proposed improvement projects, 29 miles, or 58 percent, would be on the planned state trunk highway system; 18 miles, or the remaining 36 percent, would be on the planned county trunk highway system, and three miles, or 6 percent, on the planned local trunk highway system. Of the 35 miles of proposed new arterial facilities, 25 miles, or 71 percent, would be on the state trunk element of the plan; two miles, or 6 percent, on the county trunk element of the plan; and eight miles, or 23 percent, on the local trunk element of the plan.

The report documenting the foregoing recommendations of the Advisory Committee was completed, published, and transmitted to the Racine County Public Works Committee. That report is entitled, Amendment to the Racine County Jurisdictional Highway System Plan—2000. The recommended amendments to the Racine County jurisdictional highway system plan were formally adopted by the Racine County Board of Supervisors on October 9, 1990, and by the Commission on December 5, 1990.

The new plan was then certified to the federal and state Departments of Transportation and to the local units of government in Racine County.

### **New County Highway System Plan Under Preparation for Walworth County**

Work continued during 1990 on the task of updating the Walworth County jurisdictional highway system plan. During 1990, the Technical and Intergovernmental Coordinating and Advisory Committee on Jurisdictional Highway Planning for Walworth County met twice to review Commission staff analyses of proposals to amend the current plan. These proposals included the addition to the plan of a new interchange at the intersection of USH 12 and Springfield Road and the addition of a bypass of the Villages of Walworth and Fontana on Geneva Lake. At year's end, the Committee had formulated its preliminary recommendations and directed that the recommended plan amendments be taken to public hearing early in 1991.

### **New County Highway System Plan Under Preparation for Ozaukee County**

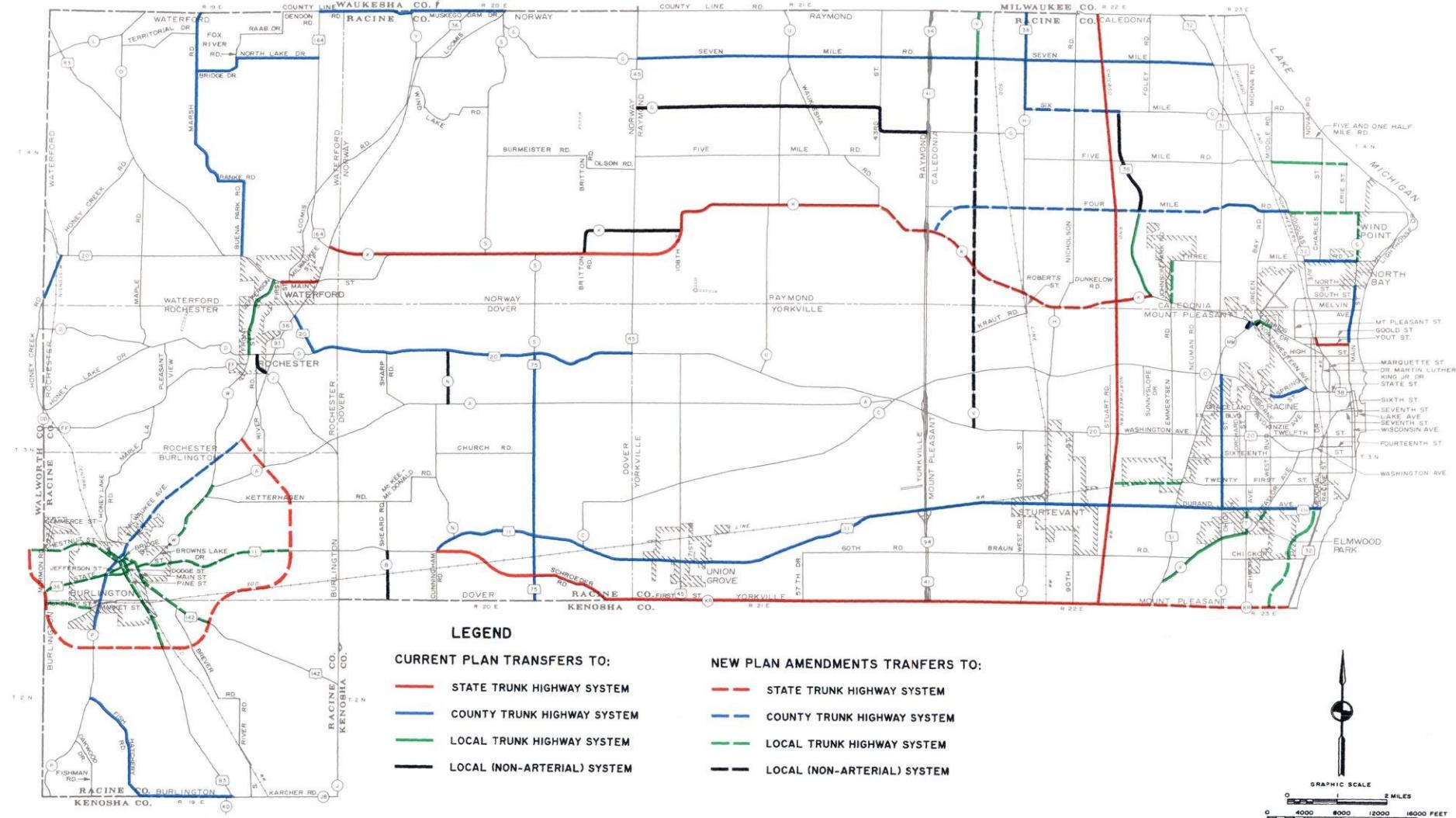
In January 1990, the Commission initiated work on updating the Ozaukee County jurisdictional highway system plan. This work was requested by the Ozaukee County Highway Committee. By the end of the year, work had been completed on a review of the progress to date in implementing the original Ozaukee County jurisdictional highway system plan adopted in December 1973. That information was considered by the Ozaukee County Jurisdictional Highway Planning Advisory Committee in June 1990. In November and December 1990, the Commission met with the Advisory Committee to review the suggested plan amendments proposed by the Advisory Committee.

### **Kenosha County Jurisdictional Highway System Plan Amendments**

At the request of Kenosha County, the Commission in 1990 prepared an assessment of certain potential amendments to the Kenosha County jurisdictional highway system plan suggested by the County, the City of Kenosha, the Village of Pleasant Prairie, and the Wisconsin Department of Transportation. The potential amendments addressed the jurisdictional responsibility for selected arterial streets in Kenosha County. The assessment included a reapplication of the

Map 15

**CHANGES IN HIGHWAY SYSTEM JURISDICTIONAL RESPONSIBILITY UNDER THE FINAL RECOMMENDED RACINE COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN**



adopted jurisdictional classification criteria to the selected arterial facilities based upon the year 2010 regional land use plan under preparation, including the IH 94 corridor land use plan under preparation in Kenosha, Racine, and Milwaukee Counties. The amendments were adopted by the Kenosha County Board of Supervisors on October 4, 1990, and by the Regional Planning Commission on December 5, 1990. Following adoption, the amendments were certified to the federal and state Departments of Transportation and to the concerned local units of government in Kenosha County.

The amendments to the adopted Kenosha County jurisdictional highway system plan are as follows. The recommended jurisdictional classification of CTH Q between IH 94 and STH 32 is that of state trunk highway rather than county trunk highway. CTH Q will directly serve what is projected to be the largest industrial park in the State, Lake View Corporate Park. Lake View Corporate Park is planned to accommodate a total of 12,000 industrial jobs upon completion. Industries with current or planned operations in the industrial park include Manu-Tronics, Inc., Rust-Oleum Corporation, Super Valu Stores, Inc., Alfa-Laval Food and Dairy Group, Wrought Washer Manufacturing, Inc., and Calumet Diversified Meats, Inc. CTH Q will also serve a proposed regional level office park planned to accommodate 7,500 employees.

Five other changes to the county jurisdictional highway system plan were also identified, including a proposal for STH 158 to remain a state trunk highway, rather than be converted to a county trunk highway as recommended in the adopted Kenosha County jurisdictional highway system plan; for STH 142 from IH 94 to STH 32, to become a proposed county trunk highway rather than remain a state trunk highway, as recommended in the adopted plan; for the proposed Twin Lakes area state trunk highway from USH 12 to STH 50 to remain a county trunk highway rather than to become a state trunk highway, as recommended in the adopted plan; and for CTH HH from CTH C to STH 158 and CTH T from CTH H to STH 174, to become local trunk highways rather than remain county trunk highways, as recommended in the adopted plan. The Kenosha County jurisdictional highways system plan as amended is presented in Map 16.

## **Development Plan for the IH 94 South Corridor**

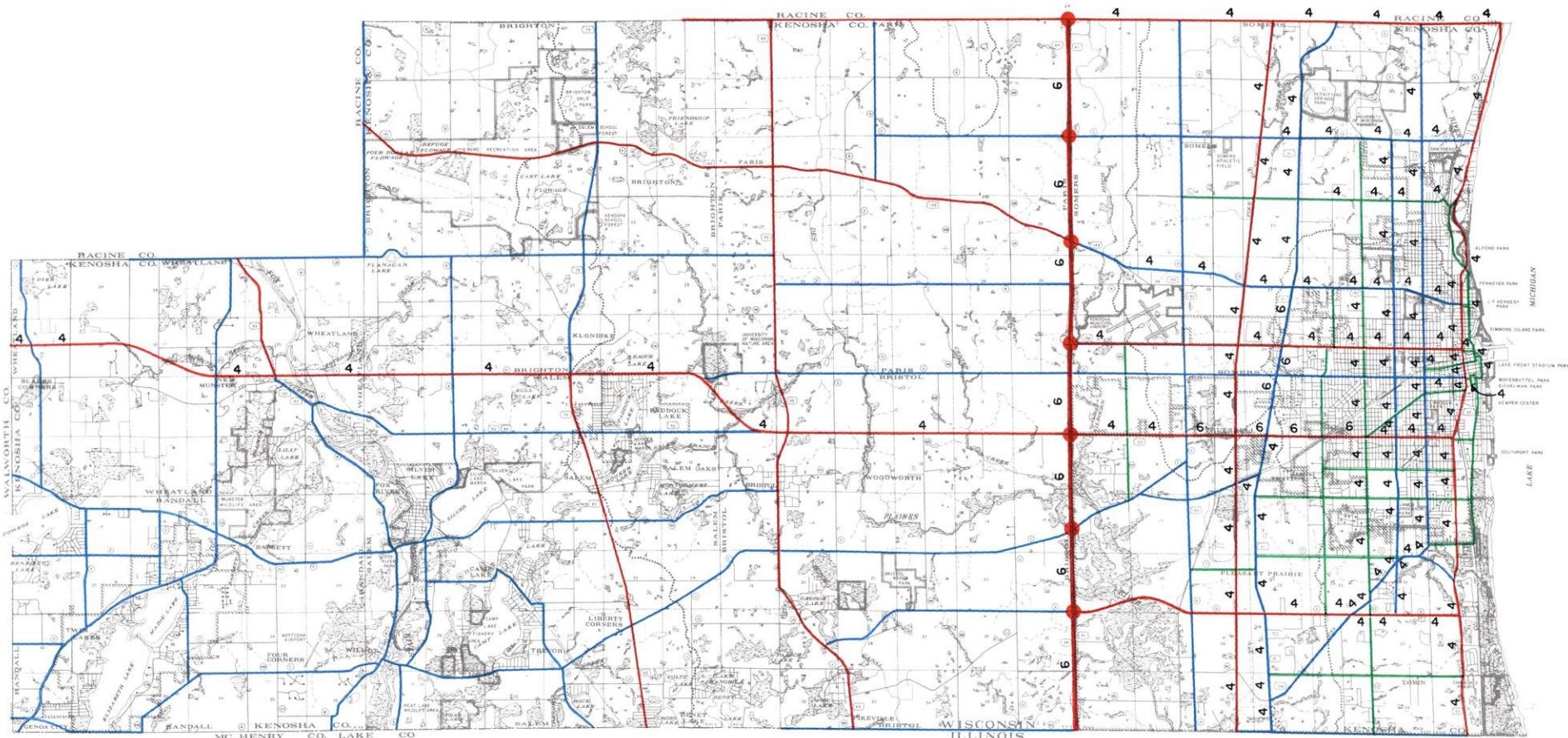
Work continued during 1990 on the preparation of a land use and supporting transportation system plan for the IH 94 South Corridor. The corridor lies on either side of IH 94, extending from General Mitchell International Airport on the north to the Wisconsin-Illinois state line on the south. The corridor extends through three counties and encompasses portions of the Cities of Kenosha, Franklin, and Oak Creek; the Villages of Greendale, Pleasant Prairie, and Sturtevant; and the Towns of Bristol, Paris, Somers, Caledonia, Mount Pleasant, Raymond, and Yorkville. Work on this subregional planning effort is being overseen by a 25-member Intergovernmental Coordinating and Technical Advisory Committee.

During 1990, the Commission completed all work on two alternative land use development plans for the corridor for the design year 2010. One plan is based upon an intermediate growth and centralized land use scenario for the Region, while the other plan is based upon an optimistic growth and decentralized land use scenario. From these two plans, the Advisory Committee formulated a recommended land use plan. That plan was reviewed by each of the local units of government concerned and adjusted to reflect the comments of local officials.

During 1990, work was completed on the preparation of forecast average weekday and evening peak-hour traffic volumes for the arterial street and highway system alternatively based on the year 2010 intermediate growth scenario and the year 2010 optimistic growth scenario. The arterial street and highway system was reviewed under both growth scenarios to identify those segments anticipated to be congested by the year 2010. Finally, a set of improvements, including surface street and freeway widenings and freeway interchange modifications, was developed to abate congestion on the arterial system under each alternative future, and traffic volumes were reassessed on the basis of reduced congestion brought about by proposed improvements. A chapter documenting the transportation improvement plans under the two alternative development scenarios was prepared and provided to the Advisory Committee. The costs of implementing each plan were also prepared. At year's end, the Advisory Committee was in the process of reviewing these alternative plans.

Map 16

## KENOSHA COUNTY JURISDICTIONAL HIGHWAY SYSTEM PLAN AS AMENDED: DECEMBER 1980



## LEGEND

## ARTERIAL STREET AND HIGHWAY SYSTEM

## JURISDICTIONAL CLASSIFICATION

STATE TRUNK FREEWAY

STATE TRUNK NONFREEWAY

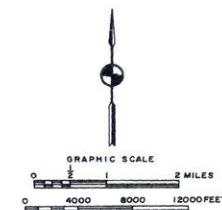
COUNTY TRUNK

LOCAL TRUNK

● FREEWAY-NONFREEWAY INTERCHANGE

4 NUMBER OF TRAFFIC LANES  
(TWO LANES WHERE UNNUMBERED)

4|6 CHANGE IN NUMBER OF TRAFFIC LANES



## **Development Plan for the IH 94 West Corridor**

Work began during 1990 on the preparation of a land use and supporting transportation system plan for the IH 94 West corridor in Waukesha County. The corridor extends west from the CTH T interchange in the City of Waukesha and Town of Pewaukee to the Waukesha County line. The study is being undertaken at the request of the Wisconsin Department of Transportation. The Department's request was precipitated by concerns at the state level that land use changes were occurring rapidly in this corridor, that such changes were contributing to increased traffic congestion in the corridor, and that there was a need to seek cooperative agreement among Waukesha County and several local governments concerned as to future land use patterns for the corridor. Based upon that future land use pattern, supporting arterial highway and transit system plans would be developed, giving due consideration to the need for additional freeway interchanges and the reconfiguration of existing freeway interchanges and frontage roads.

Work on this subregional planning effort is being overseen by a 14-member Intergovernmental Coordinating and Technical Advisory Committee. The Committee met twice during 1990 to begin its work and to consider initial report materials developed by the Commission staff setting forth inventory findings on such items as population, housing units, employment, land use, natural resource base, transportation facilities, public utility facilities, and local plans and zoning within the corridor. At year's end, the Commission staff had work underway to prepare alternative land use development plans for the corridor for the design year 2010.

## **Regional Transportation Authority Study**

At the request of Milwaukee County and the City of Milwaukee, the Commission in 1990 undertook and completed a study of the possible creation of a regional transportation authority for southeastern Wisconsin. To oversee the requested study, the Commission created the Regional Transportation Authority Study Committee. The Committee included prominent elected officials of each of the seven counties, as well as the State Secretary of Transportation. The Committee was chaired by Mr. Richard W. Cutler, a former Regional Planning Commissioner from Milwaukee County. The Committee's findings and recom-

mendations were documented in SEWRPC Memorandum Report No. 38, A Regional Transportation Authority Feasibility Study for Southeastern Wisconsin, and were summarized in a widely distributed Commission Newsletter.

After extensive analyses and an intensive series of meetings, and after basing a number of conclusions on the findings, the Study Committee made the following recommendations:

**Recommendation No. 1: Increase STH Funding**

**State government should increase significantly its investment of state and federal funds for state trunk highway development in the Southeastern Wisconsin Region.**

This recommendation was based upon a Committee finding that it will be necessary for state government to increase its level of expenditure in southeastern Wisconsin for state trunk highways if the improvements needed to serve the Region are to be made. Based upon the adopted regional transportation plan, about \$70.8 million will be required annually over the next 20 years to improve and maintain the planned state trunk highway system. About \$55.4 million annually in state and federal funds are being spent in southeastern Wisconsin on state trunk highways. This results in a projected average annual shortfall ranging from \$13.4 to \$15.4 million, depending upon the extent to which the state policy on local cost-sharing is implemented. Eliminating the shortfall will require about a 28 percent increase in funds.

**Recommendation No. 2: Create State Transit Capital Program**

**State government should establish a program to fund major transit capital projects in the Southeastern Wisconsin Region and perhaps elsewhere in the State.**

This recommendation was based upon a finding by the Committee that, unlike highway transportation, where a state trunk highway program has long been in place, there is no existing state program to fund the capital investment necessary to provide transit facilities to serve travel movements across county lines in metropolitan areas. Accordingly, state government should recognize the need for the equivalent of a state trunk highway system for transit system development. The Committee suggested that the planned light rail and commuter rail transit

systems in southeastern Wisconsin are the transit equivalent of the state trunk highway system. Like state trunk highways, the rail transit systems in southeastern Wisconsin should be funded by state government. In addition, state government should establish a 50 percent matching transit capital grant program to support bus transit systems. The cost of such a program as applied to southeastern Wisconsin over the next 20 years is estimated at from \$13.3 million to \$19.5 million annually, depending upon the extent of state participation in the rail system costs.<sup>9</sup>

**Recommendation**  
**No. 3: Continue**  
**State Transit**  
**Operating Assistance Program**

State government should continue its commitment to help fund the operating costs of urban transit systems, the expansion of such systems in the Southeastern Wisconsin Region being anticipated.

Presently, state government funds 38.5 percent of the operating costs of urban transit systems in Wisconsin. In southeastern Wisconsin that commitment presently amounts to about \$30.5 million annually. As the transit element of the adopted regional plan is implemented over the next 20 years, including the rail transit systems referred to above, it should be expected that an additional \$16.8 million annually in state funds will be required to meet transit system operating expenses. This estimate is based upon an assumption that the level of cost reimbursement by the State will be maintained at 38.5 percent.

**Recommendation**  
**No. 4: Create**  
**an RTA**

The county and local governments in the Southeastern Wisconsin Region should petition the State Legislature and the Governor to create a regional transportation authority.

This recommendation was based upon three important findings made by the Committee. First, there is an inordinate burden on the local property taxpayer for the support of county and local arterial highways and public transit.

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<sup>9</sup>Assumes a 14-mile light rail line at an estimated capital cost of \$250 million; a 33-mile Milwaukee-to-Kenosha commuter rail line at an estimated capital cost of \$70 million; and federal funding of 25 percent of those facilities.

Second, the heavy reliance on the property tax has retarded the proper development of the county and local arterial highway and mass transit systems to the point where traffic congestion is increasing; where the mobility needs of many people are not being met; and where, therefore, the socioeconomic development of the Region is threatened. Third, the inherent geographic limitations of the current governance structure for transit, namely, selected counties and cities, makes it unlikely that needed areawide transit facilities and services can be thus provided. A regional transportation authority would furnish the basis for addressing both the non-property tax revenue needs of the county and local transportation system and the lack of a proper governance structure to bring about areawide transit system development.

**Recommendation**  
**No. 5: RTA**  
**Transportation**  
**Mission**

Initially, a regional transportation authority for southeastern Wisconsin should be dual mode in nature, having responsibilities for both arterial highways and transit. Ultimately, such an authority might become responsible also for airports and seaports.

While the Committee found that a need existed to create a regional transportation authority for southeastern Wisconsin, that need at present is confined to county and local arterial highways and public transit. No similar need exists at this time with respect to airports and seaports, the Committee having found that the counties and local governments presently responsible for those functions are exhibiting good stewardship, and that a variety of fiscal resources exist to ensure continued investment in such facilities according to adopted plans.

With respect to highways, it was not recommended that the authority be empowered with operational responsibilities. Rather, the authority would be structured solely to distribute dedicated non-property tax based revenues to existing county and local highway agencies. With respect to transit, it was envisioned that the authority would not only be empowered to distribute dedicated revenues to local transit agencies, but also to build and operate a regional transit system. The authority should also be

enabled to assume the operational responsibilities of local transit agencies on a voluntary, negotiated basis.

With respect to both highways and transit, a regional transportation authority would become an important plan implementation agency, supplementing the state, county, and local highway and transit agencies. As such, the authority would be an important participant in the areawide planning and programming processes conducted by the Regional Planning Commission. Such planning and programming is done in a cooperative and collegial manner and, importantly, is fully coordinated with areawide land use planning and with planning for such other areawide public works systems as sanitary sewerage, water supply, and drainage and flood control.

**Recommendation**

**No. 6: RTA**

**Geographic Scope**

The geographic scope of a regional transportation authority for southeastern Wisconsin should be the entire seven-county Region.

This recommendation recognizes the socioeconomic interdependence of the seven southeastern Wisconsin counties that have for 30 years cooperatively planned for the provision of transportation facilities and services through the Southeastern Wisconsin Regional Planning Commission. Given the dual mode, highway and transit, nature of the proposed RTA (Regional Transportation Authority), the Committee believed that the authority would be able to focus appropriate attention on the unique needs of each of the seven counties, recognizing that highway and transit needs will vary by county and over time. The Committee thus concluded that the seven-county Region provides the best possible basis for the coordinated planning, programming, and development of transportation improvements, and would thereby best serve the future socioeconomic needs of southeastern Wisconsin.

**Recommendation**

**No. 7: RTA**

**Governance**

A regional transportation authority for southeastern Wisconsin should be governed by a nine-member board appointed by the Governor and subject to State Senate confirmation; the members would serve staggered five-year terms; there shall be at least one member residing in each of the seven counties.

In making this recommendation, the Committee rejected other alternatives found to be wanting in one or more respects. These alternatives included appointment of the governing body by the county and local units of government; joint appointment by the county and local units of government and the Governor; and direct election by district. In the Committee's collective judgment, the recommended structure has the best chance of avoiding problems associated with other possible structures.

**Recommendation**

**No. 8: RTA**

**Funding**

Levels In establishing a regional transportation authority for southeastern Wisconsin, the following should be taken into consideration in setting target funding levels:

1. Funding levels should be sufficient to provide significant property tax relief, i.e., removal from the property tax of the current cost burden associated with county and local arterial highways and public transit. In southeastern Wisconsin, this is estimated at \$54.8 million annually.
2. Funding levels should be sufficient to enable the RTA and county and local governments in southeastern Wisconsin to implement the agreed-upon regional transportation plan, given the assumed state and federal funding levels. In southeastern Wisconsin, this would amount to from \$40.9 million to \$47.1 million annually, depending upon the level of state funding for proposed rail transit systems.

In making this recommendation, the Committee recognized that widespread support for any RTA funding proposal probably would come about only if there was a substantial element of property tax relief. The Committee was concerned, however, that the implementation of an RTA proposal in southeastern Wisconsin not only provide property tax relief, but also include the revenues necessary to overcome the present gap between current county and local transportation investment levels and the needs for transportation facilities expressed in the adopted regional plan.

**Recommendation**

**No. 9: RTA**

**Funding Sources**

The following considerations should be taken into account in selecting specific funding sources to support an RTA:

1. An RTA must have a stable, dedicated source or sources of revenue.

2. The revenue source or sources selected should be dynamic in nature, in order to offset such factors as economic cycles, general price inflation, and changing fuel efficiencies. To the extent necessary, automatic indexing should be provided to counter such effects.
3. The selection of revenue sources must ultimately be the responsibility of the Legislature. By way of illustration, however, if a user fee approach is taken the revenue sources required to support an RTA could be a motor fuel sales tax, a motor vehicle sales tax, and a wheel tax. The latter could be structured to penalize fuel inefficient vehicles. If the practices of RTAs in other areas of the United States are followed a general sales tax might be utilized.
4. To the extent possible, revenues to support an RTA should be derived from taxes or fees enacted on a statewide basis, with revenues generated by the seven-county Region returned to the regional transportation authority.
5. Every possible effort should be made to increase federal funds for arterial highways and transit in order to reduce the burdens at the state, county, and local levels.

1. Revenues received by the RTA should be allocated fairly to meet both the arterial highway and transit needs in the Region. This could be accomplished either by creating a set of revenues scaled to meet a corresponding set of highway and transit needs and by dedicating such revenues to such needs, or by establishing a targeted percentage distribution of revenues to highways and transit. In either case, the RTA should have the ability at its discretion to shift some funds between the two modes. The Committee recommends that whatever method is chosen, 80 percent of the available revenue be allocated directly to the two transportation modes on the basis of need, 36 percent to transit and 44 percent to highways, with the remaining 20 percent of revenue to be disbursed between the two modes at the discretion of the RTA. The test of the intermodal funding allocation shall be determined on the basis of the allocations over any five-year period.
2. The geographic distribution of RTA revenues should be such that each county is guaranteed to receive annually no less than 80 percent of all revenue found to be generated within that county based upon the particular revenue source or sources selected.
3. All RTA revenues, whether expended directly by the RTA for transportation services or whether distributed by the RTA to county and local highway and transit agencies and spent by those agencies for transportation purposes, must be spent on projects found to be in accordance with the adopted regional transportation system plan.

In making this recommendation, the Committee took note of the fact that the most successful RTAs in the United States have a stable, dedicated funding source, one that is dynamic in nature and that responds to economic cycles and price inflation without legislative intervention. The Committee also believed that it would be best to provide the needed new revenues on a statewide basis, reasoning that other areas of the State might also benefit from both property tax relief and an infusion of new funds for transportation system development. Finally, the Committee recognized the desirability of securing from the federal government a fairer share of federal transportation funds for the State than Wisconsin has received in the past. To the extent that such additional federal funds can be obtained, it would be possible to reduce the burden imposed by new taxes and fees in Wisconsin.

**Recommendation  
No. 10: RTA  
Allocation and  
Spending  
Principles**

**The following principles should be observed in constraining the allocation and spending of revenue by an RTA:**

In making this recommendation, the Committee recognized the need to ensure that a regional transportation authority would be constrained in the distribution of available revenue between the two transportation modes, highways and transit. Such a constraint is believed by the Committee to be essential in avoiding inevitable internal allocation problems within an RTA. The suggested constraints assure the highway and transit agencies in the Region a steady revenue stream plus the ability to secure supplemental revenues on a discretionary basis. In addition, the Committee recognized the need to ensure that some reasonable minimum percentage of revenue raised for RTA purposes in any given county is returned to that county. The Commit-

tee suggested 80 percent as that minimum level. In so doing, the Committee also recognized that an RTA should be empowered to spend, at its discretion, either by itself on transit projects or through highway agencies on highway projects, up to 20 percent of available monies. This would allow an RTA to focus available funds on projects believed to have the most areawide significance. Finally, the Committee wanted to find a way to ensure that an RTA would be empowered to build and operate only those transportation facilities and services supported by county and local officials. The Committee addressed this need by recommending that all projects funded with RTA monies be found to be in accordance with the adopted regional transportation plan. The Committee's recommendation in this respect recognizes that the regional plan is prepared in a collegial and cooperative manner by the state, county, and local governments and that, therefore, the plan is based upon a strong intergovernmental consensus.

At year's end, the foregoing recommendations were formally transmitted by the Study Committee to each county and local unit of government in the Region, to State Legislators representing the Region, and to the Governor. The Study Committee was looking, in particular, for county and local reaction to its findings and recommendations, pointing toward a commitment to reconvene in early 1991 to consider such reaction.

## **TRANSPORTATION SYSTEMS MANAGEMENT PLANNING**

During 1990, the Commission continued a work effort to carry out transportation systems management studies for communities in southeastern Wisconsin. One such study was completed during the year, a traffic engineering study of County Line Road in the Village of Germantown. In addition, work efforts attendant to ridesharing and transit system short-range planning were carried out.

### **Traffic Engineering Study of County Line Road—Village of Germantown**

In April 1988, the Village of Germantown requested that the Commission conduct a traffic engineering study of that segment of County Line Road (CTH Q) between the intersection of Appleton Avenue (STH 175) and the interchange of CTH Q with the USH 41/45 freeway. The results of this study were documented in

SEWRPC Memorandum Report No. 50, Traffic Engineering Study of County Line Road (CTH Q) Between the Intersection with Appleton Avenue (STH 175 and USH 41/45). The key findings and recommendations made in this study are as follows:

- Spot speed studies indicate the existing 40 mile-per-hour speed limit is reasonable.
- Traffic congestion resulting in delays for motorists turning from Rover Crest Drive to County Line Road could be alleviated with the installation of a traffic signal at that intersection.
- Traffic accidents involving patrons entering and exiting the Mills Fleet Farm driveways would be reduced upon the reconstruction of the intersection of County Line Road and Appleton Avenue (STH 175) and the relocation of existing driveways.
- Existing and forecast future traffic volumes require the provision of four traffic lanes. Based on the forecast future traffic volumes, it is recommended that a four-traffic-lane divided cross-section be provided between Appleton Avenue (STH 175) and USH 41/45.

## **Ridesharing Programs**

One of the recommendations of the regional transportation systems management plan is the continued promotion of ridesharing. A formal Milwaukee area carpooling program was conducted by Milwaukee County from April 1975 to April 1976. The Commission assisted in that effort, conducting an evaluation of the effectiveness of the carpooling project and determining the extent of carpooling in the Milwaukee metropolitan area. The results of that initial effort are presented in SEWRPC Technical Report No. 20, Carpooling in the Metropolitan Milwaukee Area. That initial carpooling effort indicated a sufficient latent demand for carpooling programs and concluded that a continued carpool promotional program would be effective in reducing motor fuel consumption and automobile traffic.

Late in 1979 Milwaukee County received approval of a funding request for federal urban aid funds to conduct a three-year continuing carpool promotional program. This program included media promotion of ridesharing activities, direct

contact with major employers to encourage carpooling on an industry-by-industry basis, and a computerized matching program for potential carpoolers. The Commission assisted in that effort by providing the computer facilities necessary to conduct the matching program. In addition, near the end of the third year of the program, the Commission conducted an assessment of the program to determine the changes in the extent of ridesharing over the duration of the three-year program; the characteristics of rideshare participants; factors influencing the decision not to rideshare; the impact of ridesharing on traffic user costs and energy conservation; the latent demand for ridesharing; and the awareness of the Milwaukee Area Rideshare Program by commuters.

Based on the survey findings it was recommended that the program be continued, since the benefits derived by the program substantially outweighed its modest cost. It was further recommended that the program be extended to residents of Kenosha, Racine, and Walworth Counties; that techniques be employed to improve the timeliness of response to rideshare requests; that the use of public park-ride and park-and-pool lots be promoted for ridesharing purposes; that the promotion of the use of vanpools, buspools, and taxipools be expanded; and that a diversified marketing program be developed to reach a broader spectrum of employed persons. The findings and recommendations of the survey are documented in SEWRPC Technical Report No. 28, Evaluation of the Milwaukee Area Rideshare Program: 1979-1982.

Early in 1983, Milwaukee County received approval of a funding request for federal urban aid funds to conduct a two-year ridesharing promotional program. This program includes media promotion of ridesharing activities, continuation of a computerized matching program for potential carpoolers with the additional feature of staff contact to follow up persons who have requested services, development of a marketing program to focus on employers and employees in the Milwaukee central business district, promotion of park-ride lots for carpool use, and erection of 35 additional rideshare information signs. Late in 1984, federal funding was provided to extend the promotional program through 1989. In April 1987, administrative responsibilities for the conduct of the rideshare

program were transferred from Milwaukee County to the Wisconsin Department of Transportation, District 2. The Commission has continued to assist in this effort by providing the computer facilities necessary to conduct the matching program.

During 1990, a total of 225 inquiries were made to the Wisconsin Department of Transportation concerning carpooling. Of this total, 160 inquiries resulted in attempts to match individuals with potential carpoolers. In all but 45 cases, matches were found in the computerized file maintained by the Commission and the individual was provided with a list of potential carpoolers.

### **Transit System Development Plans**

#### *City of Waukesha Transit System Development Plan*

During the year a new transit development plan was completed and adopted for the City of Waukesha. The new plan, which was briefly described in the 1989 Annual Report, is set forth in SEWRPC Community Assistance Planning Report No. 154, A Transit System Development Plan for the City of Waukesha: 1988-1992. The new plan was formally adopted by the City of Waukesha on May 31, 1990, and by the Commission on September 12, 1990.

#### *City of Kenosha Transit System Development Plan*

During 1990 the Commission began preparation of a new transit system development plan for the City of Kenosha. The new plan is intended to provide direction in the operation and development of the City of Kenosha transit system into the mid-1990s in much the same way previous plans provided direction to the City during the late 1970s and early 1980s. The original transit plan for the City was completed by the Commission in 1975; a second-generation plan was completed in 1984. The majority of the recommendations in the previous plans have been successfully implemented.

At year's end, work on the City of Kenosha transit system development plan had progressed to the point where the operating and service characteristics of the existing City transit services had been described and the land use,

socioeconomic, and travel characteristics of the study area had been identified. This was done with particular regard for their impacts on the need for changes in the City transit system. Work was underway at the end of the year on a performance evaluation of the existing transit system and the identification and analysis of alternative service changes for the period 1991 through 1996. Work on the City of Kenosha transit system development plan is expected to be completed during 1991.

#### *City of West Bend Transit System Feasibility Study*

On February 26, 1990, the Common Council of the City of West Bend requested the assistance of the Commission in the conduct of a feasibility study of, and the preparation of a plan for, the provision of transit service within the City of West Bend. This request stemmed from concerns over the ability of the limited taxicab and specialized transportation services available within the City to adequately serve the growing population and, in particular, the growing elderly segment of the population in need of public transportation. The feasibility study was to identify the transit needs of the resident population of the City, identify alternative transit services which could be provided in response to the identified needs, and prepare a plan that could be used to guide the development of an appropriate level of transit service in the West Bend area.

Working under the guidance of an advisory committee created by the City of West Bend, the Commission staff began the conduct of the study in the fall of 1990. By the end of the year work on the study had progressed to include completion of the definition of transit system development objectives and standards; the identification of existing land uses and travel patterns within the West Bend study area; the description and evaluation of the existing transit services; and the identification of relevant federal, state, and local legislation and regulations which had impacts upon the funding or operation of potential transit services for the area. Work had also begun on the identification and evaluation of alternative transit system development plans. The transit system feasibility study for the City of West Bend is expected to be completed early in 1991.

#### **Private Sector Involvement in Public Transit**

In 1990 the Commission continued to provide assistance to public transit operators in the Region, upon request, with competitively obtaining services from private transit operators, and with meeting guidelines concerning private sector involvement as set forth by the Urban Mass Transportation Administration (UMTA). Extensive assistance was provided to the Waukesha County staff in efforts to competitively procure transit services for the Waukesha County transit system. The Commission staff worked with, and assisted, the Waukesha County staff in understanding and complying with the federally mandated Section 13(c) labor and protection agreements as they apply to transit services provided by the County. During 1988, the Commission staff completed the Waukesha County transit plan, which recommended that the County continue to contract principally with private firms through a competitive bidding process for transit services. The assistance provided by the Commission to Waukesha County was a major factor leading to a decision by Waukesha County to award service contracts competitively for five of the six bus routes which the County operated during 1988.

#### **Milwaukee County Short-Range Transit Planning**

During 1990, short-range transit planning activities for the Milwaukee County transit system were conducted by the staff of that system and the Milwaukee County Department of Public Works. Through this planning effort, the following major activities were carried out during the year: development of the annual element of the regional transportation improvement program, preparation of a Title VI assessment evaluating the provision of transit service to special population groups, and updated programs for the inclusion of business enterprises operated by the disadvantaged, minorities, and women in the provision of transit service.

#### **ELDERLY AND HANDICAPPED TRANSPORTATION PLANNING**

In 1978 the Commission adopted a transportation plan for transportation-handicapped people in the Region. The plan is documented in SEWRPC Planning Report No. 31, A Regional

Transportation Plan for the Transportation Handicapped in Southeastern Wisconsin: 1978-1982. The plan is designed to reduce, and sometimes to eliminate, the existing physical and/or economic barriers to independent travel by transportation-handicapped individuals. In accordance with the thrust of the federal rules then in effect, the plan recommended that the local bus systems serving the Milwaukee, Kenosha, and Racine urbanized areas be equipped with wheelchair lifts and ramps or other conveniences to the extent that the nonpeak-hour bus fleets would be fully accessible to wheelchair users and semiambulatory persons. For those transportation-handicapped persons in the three urbanized areas who would continue to be unable to use public bus systems, the institution of a user-side subsidy program was recommended. Such a program would enable eligible transportation-handicapped persons to arrange for their own transportation by taxi or private chair car carrier, with the local transit operator subsidizing the cost of the trip. For transportation-handicapped persons living outside the three major urban areas, the plan recommended that each county implement a demand-responsive transportation service administered through the county and operated by either an interested privately owned transportation service provider or a social service transportation provider. The plan also recommended that the transportation services provided by existing social service agencies in each county be coordinated to make more efficient use of their transportation-related facilities and services, with the county board in each county given the responsibility of effecting such coordination.

### **Section 504 Public Transit Programs for Handicapped Persons**

The adopted transportation plan for the transportation-handicapped was amended during 1987 following the completion of public transit plans for handicapped persons for each of the urban public transit operators within the Region. These planning efforts were designed to identify actions necessary to ensure that the planning and provision of public transit service in the Region is fully in accordance with Section 504 of the federal Rehabilitation Act of 1972. That act prohibits discrimination on the basis of handicap in all programs and activities receiving federal financial assistance. These planning efforts were conducted in accordance with new rules promul-

gated and issued by the Secretary of the U. S. Department of Transportation in 1986. The recommended public transit programs for each transit operator are documented in SEWRPC Memorandum Reports No. 17, A Public Transit Program for Handicapped Persons—City of Waukesha Transit System Utility; No. 21, A Public Transit Program for Handicapped Persons—Milwaukee County Transit System; No. 22, A Public Transit Program for Handicapped Persons—Waukesha County Transit System; No. 23, A Public Transit Program for Handicapped Persons—City of Kenosha Transit System; and No. 24, A Public Transit Program for Handicapped Persons—City of Racine Transit System.

The new, or "final," regulations are more explicit than previous regulations in that they mandate that each recipient's public transportation program must make services available to handicapped persons through one of three service options: 1) providing some form of demand-responsive and specialized transportation service which is accessible to wheelchair-bound and semiambulatory persons; 2) providing fixed-route bus service which is accessible to wheelchair-bound and semiambulatory persons over the regular routes operated by the recipient; or 3) providing a mix of accessible specialized transportation and accessible bus services.

For four of the five major transit operators, Milwaukee County and the Cities of Kenosha, Racine, and Waukesha, the plans recommend essentially a continuation of the specialized transportation services currently being provided. The plan for the Waukesha County transit system recommends certain modifications to the current special efforts strategy in order for the system's program to meet the new regulations. A summary of the recommended programs for each of the five operators is provided below.

#### *Milwaukee County*

The handicapped transit program for Milwaukee County recommended that the County continue to subsidize the trips made by handicapped persons using the door-to-door specialized transportation services provided in the County by private taxicab companies and wheelchair van carriers. Two private taxicab companies and 14 private van carriers were under contract to participate in the program during 1990. The service area for the program is all of Milwaukee

County and, under the program, eligible users request service from a participating provider in accordance with the methods being used by the provider. Generally, taxicab service is available seven days a week, 24 hours a day. Wheelchair van carrier service is generally available seven days a week between 7:00 a.m. and midnight. To become eligible for the program, handicapped persons must register for the program, pay an annual registration fee of \$7.00, and obtain a certification form from the Milwaukee County Department of Public Works. The completed form is then submitted by the Department to the handicapped person's doctor or licensed health professional for certification, and, upon such certification, the person is registered in the program.

The handicapped transit program for Milwaukee County was approved by the federal Urban Mass Transportation Administration (UMTA) in June 1988. During 1990, about 381,700 one-way trips were made on the accessible transit services offered under the user-side subsidy program, up about 3.8 percent from 367,600 trips made in 1989.

#### *Waukesha County*

The handicapped transit program for Waukesha County recommended that the County continue its present strategy of providing door-to-door, lift-equipped bus service to handicapped persons through its "parallel commuter bus transportation project." Under this program, the County offers door-to-door, lift-equipped van service to handicapped individuals on an advance-reservation basis for trips with origins and destinations within one mile of both sides of any of the six bus routes subsidized by the County during 1990. Four of these routes were operated by a private transit operator, Wisconsin Coach Lines, Inc., and the remaining two routes were operated by the private management firm for the Milwaukee County Transit System.

Under the recommended program, the service characteristics of the existing program would be modified to allow all handicapped county residents to use the program. Only handicapped residents 18 years of age and older are eligible for the current program. Also, origin-to-destination van service for the handicapped would be offered an additional 46 hours a week along three of the six existing mass transit bus

routes which operate in the corridor between the City of Waukesha in Waukesha County and downtown Milwaukee. These three bus routes provide regular local transit service and are operated throughout the entire day. With this expanded service, the hours and days of specialized service would be virtually the same as those of the regular bus services. In addition, the County would provide transportation to handicapped persons for trips made between the terminals, park-ride lots, and bus stops served by the remaining three bus routes subsidized by the County, which provide peak-hour, commuter-oriented service between outlying Waukesha County communities and downtown Milwaukee.

Currently, the parallel commuter bus transportation project is provided and administered by the Waukesha County Department of Aging in combination with two other projects, the Ride Line transportation project and the PM Ride Line transportation project. The Ride Line project offers an advance-reservation, door-to-door transportation service to all persons 60 years of age and older and to handicapped persons over the age of 18. The service is available weekdays between 8:00 a.m. and 4:30 p.m. The PM Ride Line project provides similar services on Wednesday and Friday evenings and Saturday afternoons and evenings. Under the recommended program, all requests for rides under the Ride Line and PM Ride Line projects would be reviewed to determine if they could be filled by the County's parallel commuter bus transportation project. This action would enable the County to estimate the cost of providing specialized transportation service at the full performance level. It is further recommended that the fares charged for parallel commuter bus transportation be changed to be similar to those charged under the current Ride Line and PM projects for trips made within Waukesha County. Fares for trips made between Waukesha and Milwaukee Counties would be slightly higher.

Formal UMTA approval of the County's proposed program was received in August 1988. The County is currently considering how the proposed changes can best be implemented. During 1990, an estimated 1,100 trips were made on the Ride Line and PM Ride Line service offered under the parallel commuter bus transportation project, down about 15 percent from 1,300 trips made in 1989.

### *City of Kenosha*

The handicapped transit program for the City of Kenosha recommended that the City continue to provide the dual special efforts strategy currently in effect. Under this program, the City provides on-call accessible bus service on the regular fixed routes, and participates in the provision of a specialized door-to-door transportation service that operates throughout the service area of the City's transit system. The service currently provided as part of the accessible fixed-route bus service is available to all residents in the City who require the use of a wheelchair. The door-to-door, Care-A-Van, service is available to persons 60 years of age and older and to all handicapped persons who do not have access to the City's regular public transportation system. Both services are available on an advance-reservation basis. The accessible fixed-route service would continue to be provided between 6:00 a.m. and 6:00 p.m. Monday through Saturday. The Care-A-Van program would continue to be provided generally from 7:30 a.m. to 7:00 p.m. weekdays and from 9:00 a.m. to 7:00 p.m. Saturdays. The hours and days of operation for the specialized services are virtually the same as those of the fixed-route service operated by the City.

The handicapped transit program for the City of Kenosha was approved by UMTA in October 1987. During 1990, about 14,100 trips were made on the specialized transportation services supported by the City, up about 4 percent from the 13,600 trips made in 1989.

### *City of Racine*

The handicapped transit program for the City of Racine recommended that the City continue to provide specialized transportation service through a project administered by the Racine County Human Services Department in eastern Racine County, which is partially funded by the City of Racine's public transportation program. Under this program, an accessible door-to-door transportation service is available to all handicapped persons in the service area of any of the regular bus routes operated by the City who are unable to use the City's regular public transportation system.

The service provided under the current program is available on an advance-reservation basis. Service is provided between 7:00 a.m. and 6:30

p.m. weekdays and between 10:00 a.m. and 4:00 p.m. Saturdays. These hours are somewhat more restrictive than the regular hours of operation for the fixed-route service. The area served includes that portion of Racine County east of USH 45, which encompasses all of the Racine urbanized area as defined by the U. S. Bureau of the Census and includes the entire area served by the City's regular fixed-route bus service.

UMTA approval of the City of Racine's handicapped transit program was received in October 1987. About 17,000 trips were made during 1990 on the Racine County specialized transportation service used by the City for its handicapped transit program, representing a decrease of about 10 percent from the 1989 ridership level of 18,900.

### *City of Waukesha*

The handicapped transit program for the City of Waukesha recommended that the Waukesha Transit System Utility continue to provide the Metrolift program operated by the Utility. Under this program, which serves all areas within one-quarter mile of the City's regular bus routes, accessible, door-to-door transportation service is provided to handicapped persons on an advance-reservation basis. The service is available to all handicapped persons who are unable to use the regular bus service provided by the Utility. Service under the Metrolift program is available between 6:15 a.m. and 6:00 p.m. weekdays, and between 9:00 a.m. and 6:00 p.m. Saturdays. These hours and days of operation are virtually the same as those of the regular fixed-route bus service.

The City was notified that its handicapped transit program had been approved by UMTA in May 1988. Ridership on the City's Metrolift program during 1990 was about 7,900 trips, up about 27 percent from 6,200 trips made in 1989.

## **TRANSPORTATION IMPROVEMENT PROGRAM**

In December 1990, the Commission completed an updated five-year transportation improvement program (TIP) for the Kenosha, Milwaukee, and Racine urbanized areas of the Region, as required by the U. S. Department of Transportation. This program is set forth in a document entitled, A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin:

**Table 20**  
**COST SUMMARY OF PROJECTS WITHIN ANNUAL ELEMENT OF  
TRANSPORTATION IMPROVEMENT PROGRAM BY URBANIZED AREA**

Funding	Kenosha	Milwaukee	Racine	Total
Federal . . . . .	\$ 3,196,800	\$163,885,000	\$ 7,362,400	\$174,444,200
State . . . . .	19,299,900	123,551,000	5,036,200	147,887,100
Local . . . . .	3,164,900	92,100,700	5,418,400	100,684,000
Total	\$25,661,600	\$379,536,700	\$17,817,000	\$423,015,300

1991-1995. The program was developed with the assistance of the Wisconsin Department of Transportation staff and through the cooperation of various local units and agencies of government in the three urbanized areas of the Region, the Cities of Kenosha, Milwaukee, and Racine, and the Counties of Milwaukee and Waukesha as the operators of special mass transportation systems in these areas.

The 1991-1995 TIP document identifies all highway and mass transportation projects in the three urbanized areas programmed for implementation during this five-year period with the aid of U. S. Department of Transportation funds administered through the Federal Highway Administration (FHWA) and the Urban Mass Transportation Administration (UMTA). Following approval of the 1991-1995 TIP by the Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming for the Kenosha, Milwaukee, and Racine Urbanized Areas, the Regional Planning Commission formally adopted the program on December 5, 1990.

The 1991-1995 TIP authorizes funding for many important projects essential to maintaining the existing highway system, including the resurfacing of the East-West Freeway (IH 94) from the Waukesha County line to the Marquette Interchange (including the rehabilitation of the bridges), the resurfacing of Ryan Road from S. 27th Street to Loomis Road, and the reconstruction of the Wisconsin Avenue viaduct over the Menomonee River and of the 6th Street viaduct over the Menomonee River Valley. The TIP also authorizes funding for key transit maintenance projects, including the construction of a centralized transfer station for the City of Kenosha transit system and the purchase of new buses for the Milwaukee County Transit System. In addition, the TIP authorizes projects essential to

the improvement of the Region's highway and transit systems. For example, included in the TIP are the reconstruction of the Silver Spring Interchange on IH 43, the reconstruction of W. Blue Mound Road (USH 18) in eastern Waukesha County, and the construction of the Hoan Bridge arterial connection.

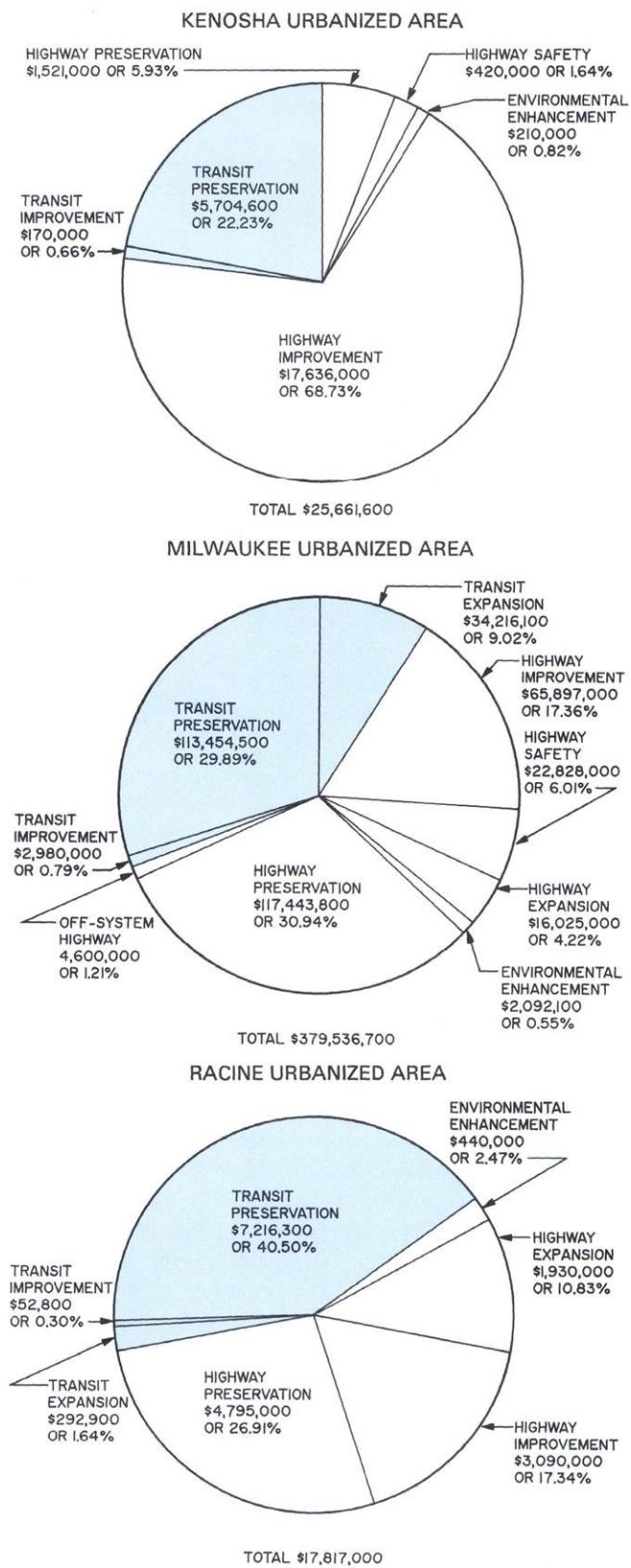
Within the three urbanized areas of the Region, the program contains 505 projects for the five-year programming period, representing a total potential investment in transportation improvement and services of about \$1 billion. Of this total, \$359 million, or about 36 percent, is proposed to be provided in federal funds; \$380 million, or about 38 percent, in state funds; and \$261 million, or about 26 percent, in local funds.

While the entire five-year program is an important planning tool, it is the annual element which is of primary interest, for it represents those projects that are intended to be implemented over the 12- to 24-month period beginning January 1, 1991. The annual element for the federal aid highway funding support is a 21-month element to match the federal fiscal year funding allocation, and is broken into the first nine months of calendar year 1991 and the federal 1991 fiscal year beginning October 1, 1991, and extending through September 30, 1992. For federally funded transit projects involving transit system operating assistance, the annual element consists of a 24-month period, calendar years 1991 and 1992. All other federally assisted transit projects within the transportation improvement program have an annual element consisting of a 12-month period of calendar year 1991.

A cost summary for these projects is shown in Table 20. The cost data in this table represent the proposed annual element expenditures for a total of 275 projects.

Figure 57

**DISTRIBUTION OF EXPENDITURES IN THE ANNUAL ELEMENT OF THE 1991-1995 TRANSPORTATION IMPROVEMENT PROGRAM BY PROJECT CATEGORY**



In order to provide a basis for a better understanding of the types of transportation improvements proposed to be undertaken in the three urbanized areas, projects have been grouped into nine categories: 1) highway preservation, or reconstruction of existing facilities to maintain present capacities; 2) highway improvement, or reconstruction of existing facilities to expand present capacities; 3) highway expansion, or construction of new facilities; 4) highway safety; 5) highway-related environmental enhancement projects; 6) highway improvement off the federal aid system; 7) transit preservation; 8) transit improvement; and 9) transit expansion projects. Figure 57 graphically reflects the proposed expenditures in the annual element of these nine project categories for each of the four urbanized areas. At least three of the expenditure patterns apparent in the figures deserve some comment:

- A significant proportion of financial resources is to be devoted to the preservation of the existing transportation facilities and services in the 1991 annual element, some 59 percent in the Region's three urbanized areas. This allocation of resources is especially notable when it is realized that virtually none of the funding for routine highway maintenance activities like snow plowing, ice control, grass cutting, power for street lighting, and litter pickup is included in the TIP.
- The expenditure of funds for highway expansion is a small portion of the total expenditures in the urbanized areas of the Region; no expenditures for this purpose are proposed in the Kenosha urbanized area, about 4 percent of the total expenditures is proposed for this purpose in the Milwaukee urbanized area, and about 11 percent in the Racine urbanized area.
- A significant proportion of financial resources is devoted to public transit projects, which account for about 40 percent of the resources in the Milwaukee urbanized area annual element, about 42 percent of the resources in the Racine urbanized area annual element, and about 23 percent of the resources in the Kenosha urbanized area annual element.

A comparison of the 1991 annual element of the TIP with the 1990 annual element of the 1990-1994 TIP as reported in the Commission's 1989 Annual Report indicates the following:

- The expenditures for highway improvement are relatively substantial, approximately \$87 million in the annual element, or 20 percent of total expenditures. This compares to the \$124 million programmed for expenditures on highway preservation.
- In the Kenosha urbanized area, total expenditures are proposed to increase by about 85 percent, from \$13.9 million to about \$27.5 million. Expenditures for highways, which constituted about 63 percent of total expenditures in 1990, are proposed to equal about 77 percent of total expenditures in 1991. Expenditures for transit were about 37 percent of total expenditures in 1990 and are proposed to account for about 23 percent of expenditures in 1991.
- In the Milwaukee urbanized area, total expenditures are proposed to increase by about 11 percent, from about \$342.6 million to about \$379.5 million. Expenditures for highways, which made up about 52 percent of total expenditures in 1990, are proposed to constitute about 60 percent of expenditures in 1991.
- In the Racine urbanized area, total expenditures are proposed to increase by about 17 percent, from \$15.2 million to \$17.8 million. Expenditures for highways, which made up about 50 percent of total expenditures in 1990, are proposed to account for about 58 percent of total expenditures in 1991. Expenditures for transit were about 50 percent of total expenditures in 1990 and are proposed to account for about 42 percent of expenditures in 1991.

## RAILWAY TRANSPORTATION PLANNING

The Regional Planning Commission participates in railway planning by monitoring the status of railway service within the Southeastern Wisconsin Region, proposals for service changes, and related issues that may affect the Region, and by providing technical assistance to local communities as requested.

As of December 31, 1990, railway freight service was being provided within southeastern Wisconsin over a total of 504 active miles of railway line by seven railroad companies. Three of the six carriers operated about 75 percent of the total railway miles in the Region: the Chicago &

North Western Transportation Company, which operated 175 miles, or 35 percent of the railway mileage in the Region; Wisconsin Central Limited, which operated 109 miles, or 22 percent of the railway miles in the Region; and the Soo Line Railroad Company, which operated 96 miles, or 19 percent of the railway miles in the Region. Operation of the remaining 25 percent of the railway mileage in the Region was divided among four other carriers: the Wisconsin & Calumet Railroad Company, Inc., 57 miles; the Fox River Valley Railroad Company, 27 miles; the Wisconsin & Southern Railroad Company, 34 miles; and the Municipality of East Troy Wisconsin Railroad, six miles.

Intercity passenger service in the Region is provided by the National Railroad Passenger Corporation, or Amtrak, between Chicago and Minneapolis-St. Paul over Soo Line Railroad Company trackage, with trains stopping within southeastern Wisconsin at Milwaukee and Sturtevant. Commuter rail service is provided between Kenosha and Chicago, with intermediate stops throughout the north shore suburbs of northeastern Illinois. This service is operated by the Chicago & North Western Transportation Company under an agreement with the Northeast Illinois Railroad Corporation, or Metra, the commuter rail division of the Regional Transportation Authority (RTA) in northeastern Illinois.

The locations of the common carrier railway lines in southeastern Wisconsin are shown on Map 17. The extent of railway mileage in each of the seven counties is set forth in Table 21. At the end of 1990, one 15-mile segment of railway line between the east side of the City of Burlington and the station referred to as Sylvania in the Town of Yorkville was identified as a potential candidate for future abandonment. This railway line segment, owned and operated by the Soo Line Railroad Company, has served very few customers in recent years.

## AIRPORT TRANSPORTATION PLANNING

During 1990 Commission activities in air transportation and airport planning included the continued monitoring of aviation activities within the Region through secondary data sources, the continued monitoring of and provision of technical assistance to airport master planning activities, the provision of technical assistance to the Illinois-Indiana regional airport site selection and master plan study, the

Map 17

COMMON-CARRIER RAILWAY  
FREIGHT LINES IN SOUTHEASTERN  
WISCONSIN: DECEMBER 31, 1990

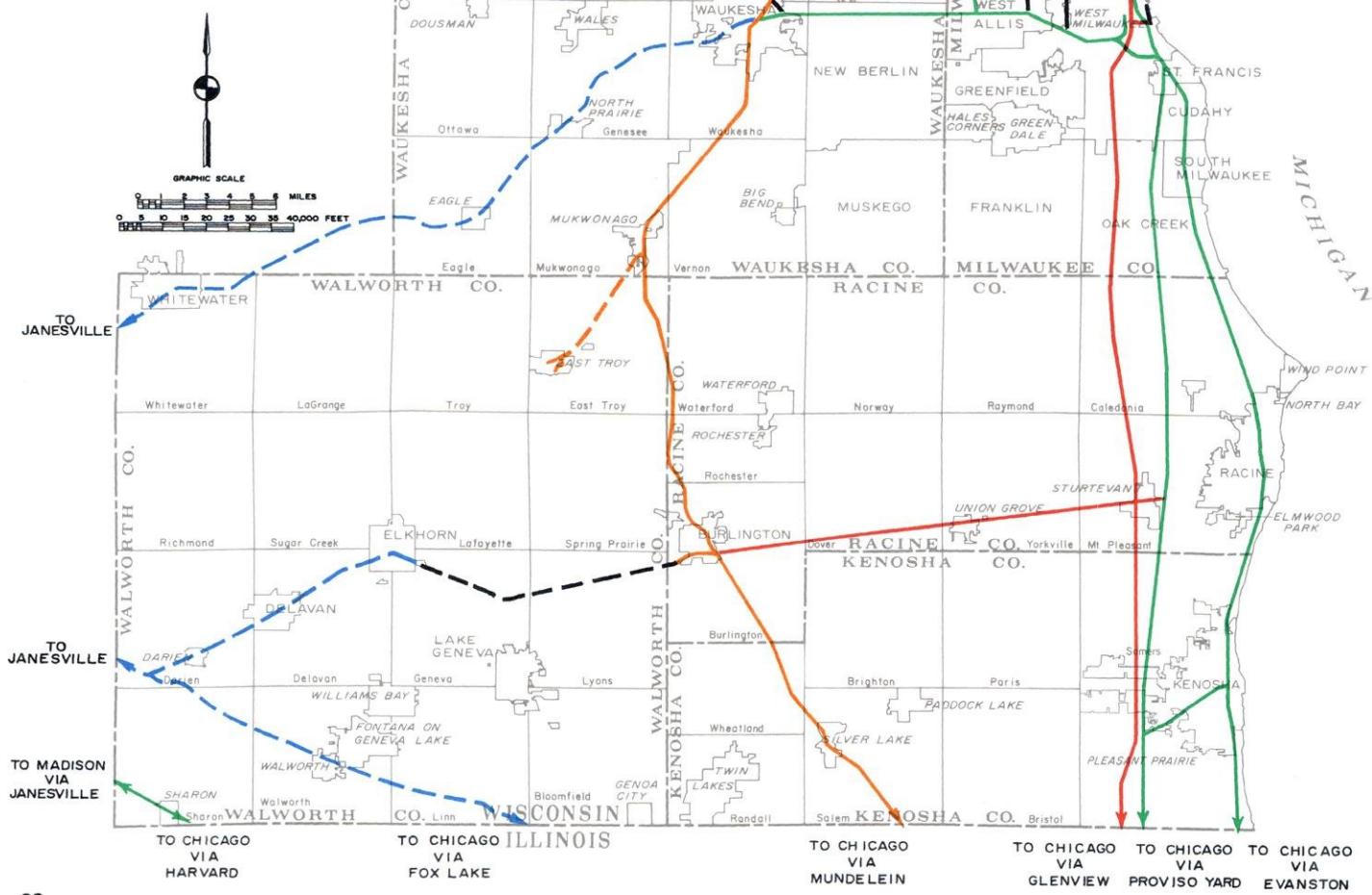
LEGEND

- SOO LINE RAILROAD COMPANY (SOO)
- CHICAGO & NORTH WESTERN TRANSPORTATION COMPANY (CNW)
- WISCONSIN CENTRAL LTD. (WC)
- WISCONSIN & SOUTHERN RAILROAD COMPANY (WSOR)
- WISCONSIN & CALUMET RAILROAD COMPANY, INC. (WIC)
- MUNICIPALITY OF EAST TROY WISCONSIN RAILROAD (METW)
- FOX RIVER VALLEY RAILROAD COMPANY (FRVR)
- JOINT USE OR PRIVATE FACILITIES
- INACTIVE TRACKAGE

TRACKAGE RIGHTS

RAILROAD HAVING TRACKAGE RIGHTS	RAILROAD GRANTING TRACKAGE RIGHTS	LOCATION
SOO	WSOR	NORTH MILWAUKEE N. BI ST. MILWAUKEE (CITY OF MILWAUKEE)
WC	SOO	DUPLANVILLE- MILWAUKEE
WC	SOO	CANCO- MILWAUKEE
WIC	WC	THRU CITY OF WAUKESHA
FRVR	CNW	GRANVILLE-BUTLER

GRAPHIC SCALE  
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 40000 FEET



**Table 21**  
**ACTIVE COMMON-CARRIER RAILWAY MAINLINE MILEAGE**  
**IN SOUTHEASTERN WISCONSIN: DECEMBER 31, 1990**

County	Chicago & North Western Transportation Company		Wisconsin Central Limited		Soo Line Railroad Company		Wisconsin & Calumet Railroad Company, Inc.		Fox River Valley Railroad Company		Wisconsin & Southern Railroad Company		Municipality of East Troy Wisconsin Railroad		Total	
	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region	Mileage	Percent of Total in Region
Kenosha . . . . .	28.5	5.6	10.2	2.0	12.2	2.4	--	--	--	--	--	--	--	--	50.9	10.1
Milwaukee . . . . .	61.2	12.1	4.7	0.9	32.5	6.4	--	--	--	9.1	1.8	--	--	--	107.5	21.3
Ozaukee . . . . .	25.8	5.1	25.1	5.0	--	--	--	--	--	--	--	--	--	--	50.9	10.1
Racine . . . . .	24.5	4.9	13.5	2.7	25.2	5.0	--	--	--	--	--	--	--	--	63.2	12.5
Walworth . . . . .	3.8	0.8	4.0	0.8	--	--	37.1	7.4	--	--	--	--	5.6	1.0	49.9	9.9
Washington . . . . .	--	--	25.3	5.0	--	--	--	--	27.3	5.4	22.5	4.5	--	--	75.1	14.9
Waukesha . . . . .	31.2	6.2	26.5	5.2	25.6	5.1	19.8	3.9	0.1	0.0	2.4	0.5	1.3	0.3	106.9	21.2
<b>Total</b>	<b>175.0</b>	<b>34.7</b>	<b>109.3</b>	<b>21.7</b>	<b>95.5</b>	<b>18.9</b>	<b>56.9</b>	<b>11.3</b>	<b>27.4</b>	<b>5.4</b>	<b>34.0</b>	<b>6.7</b>	<b>6.3</b>	<b>1.3</b>	<b>504.4</b>	<b>100.0</b>

NOTE: This table constitutes an inventory of only first track mainline mileage within the seven-county Southeastern Wisconsin Region. Other trackage such as exists in switching, terminal, industrial, and classification yard areas, as well as trackage considered by the railroad companies to be of a secondary nature, and thus not published in operating timetables, is not included. Trackage owned by private carriers is also not included. These mileages are based upon trackage which is owned or leased by the particular railroad and do not include trackage rights over trackage owned by another railroad company.

conduct of an enplaning passenger survey at General Mitchell International Airport, and the conduct of an Elkhorn area airport study. The adopted airport system plan for southeastern Wisconsin is documented in SEWRPC Planning Report No. 38, A Regional Airport System Plan for Southeastern Wisconsin: 2010, and is shown on Map 18.

### Aviation Activity

The Commission staff continued to monitor aviation activity within the Region during 1990. General trends in the level of aviation activity within southeastern Wisconsin are indicated by the number of aircraft operations at, and passengers using, General Mitchell International Airport. General Mitchell International Airport is the largest and busiest airport in the Region, and the only airport within the Region with scheduled air carrier service. As shown in Figure 58, in 1990 aircraft operations of all types at Mitchell International totaled about 206,700, an increase of about 8,200, or about 4 percent, over the 198,400 operations in 1989. This total is about 8 percent above the 190,800 operations forecast to occur at Mitchell International during 1990 in the second-generation regional airport system plan.

Total aircraft operations at Mitchell International can be divided into three categories: air carrier, general aviation, and military. Air carrier operations during 1990 totaled about 122,900, about a 15 percent increase over the 1989 level of 106,800 operations. General aviation operations at Mitchell International Airport

totaled about 77,700 during 1990, a decrease of about 9 percent from the 1989 level of 85,000 operations. Military aircraft operations at Mitchell International Airport during 1990 totaled about 6,100, a decrease of about 7 percent from the 1989 level of 6,600 operations.

From 1989 to 1990, air carrier enplaning and deplaning passengers at General Mitchell International Airport increased by about 180,000 to about 4,488,000 passengers per year, or about 4 percent above the 1989 level. The 1990 level was about 998,000, or about 29 percent, greater than the 3,490,000 passengers forecast for 1990 under the second-generation regional airport system plan, as shown in Figure 59. The increase in the actual 1990 passenger level is the result of very aggressive competition among air carriers for traffic originating in the Milwaukee area, including long-established carriers such as Northwest Airlines; newer carriers catering to the business market, such as Midwest Express Airlines; and large carriers that are relatively new to the Milwaukee market, such as Delta Air Lines.

General aviation activity can also be measured in terms of the number of aircraft based within southeastern Wisconsin. A total of 1,468 aircraft were based in the Region during 1990, representing an increase of 52 aircraft, or about 4 percent, over the number of aircraft based in the Region during 1989, as shown in Figure 60 and Table 22. The number of aircraft based in the Region during 1990 was about 18 percent lower than the total of 1,785 forecast for 1990 under the second-generation regional airport system plan.

Map 18

## REGIONAL AIRPORT SYSTEM PLAN: 2010

## LEGEND

#### PUBLIC USE AIRPORT SITES

- PUBLIC OWNERSHIP
- PRIVATE OWNERSHIP

## AIRPORT CLASSIFICATION

## T TRANSPORT

## GU-II GENERAL UTILITY-ST

## GU-1 GENERAL UTILITY-STAGE

## BU II: BASIC UTILITY STAGE II

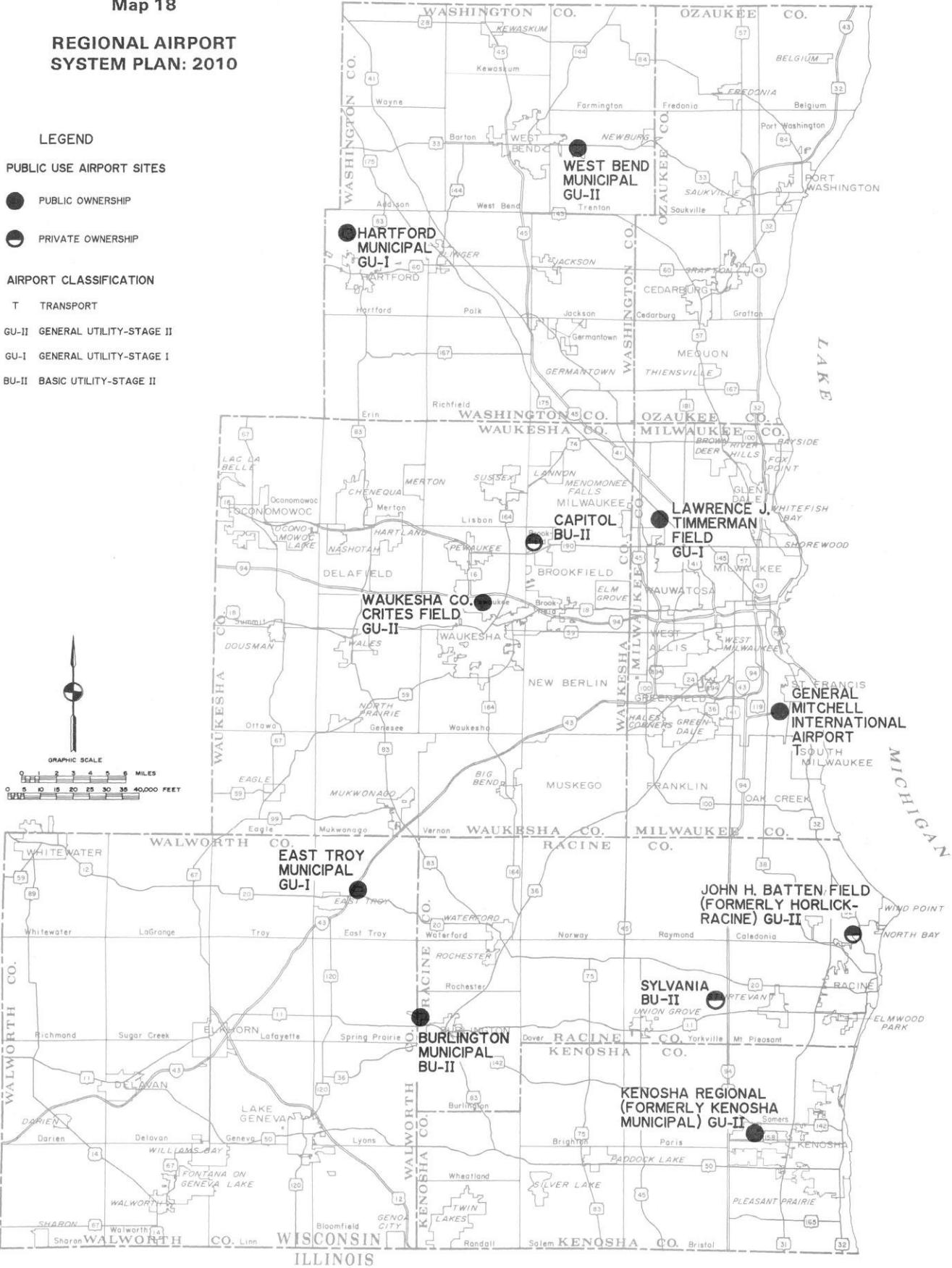
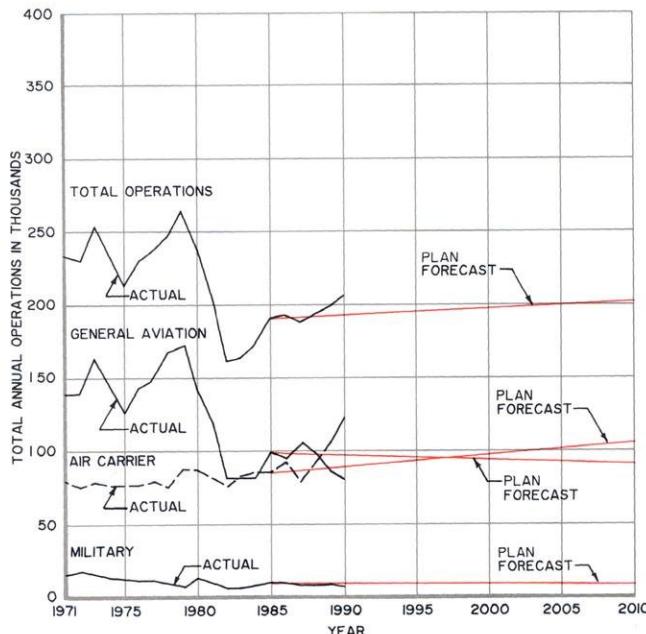


Figure 58

ANNUAL AIRCRAFT OPERATIONS AT GENERAL MITCHELL INTERNATIONAL AIRPORT, MILWAUKEE



### Airport Master Plans

Airport master plans are intended to refine the recommendations of the adopted regional airport system plan and, in fact, are prepared as the next step toward implementation of the regional airport system plan adopted by the Commission in 1987. Specifically, an airport master plan is intended to specify precise land-area requirements for acquisition and protection, provide a detailed airport layout plan, provide an analysis of financial feasibility and set forth a capital improvement budget, provide environmental impact information, and provide for local citizen participation in the work effort. The preparation of airport master plans, which are primarily the responsibility of the local implementing governmental agency, establish eligibility for federal financial aid under the Airport and Airway Improvement Act of 1982 as amended by the Airport and Airway Safety and Capacity Expansion Act of 1987.

As noted in previous annual reports, airport master plans have been completed for, and adopted by, the local governing bodies for the Kenosha, West Bend, and Hartford Municipal Airports and Waukesha County-Crites Field. In

addition, airport layout plans, an important element of the airport master planning process, have been completed for John H. Batten Field (formerly Horlick-Racine Airport) in the City of Racine and East Troy Municipal Airport. During 1990, work was begun on an airport master plan for Capitol Airport, in the City of Brookfield. Preparation of an airport master plan for this Waukesha County airport was recommended in the regional airport system plan. The Commission staff provided base map information, land use and socioeconomic data, and other technical information to the consulting firm responsible for preparing this master plan.

In 1977, all technical work was completed on an airport master plan for General Mitchell International Airport in Milwaukee, but the plan has yet to be adopted by the Milwaukee County Board of Supervisors. During 1987, Milwaukee County began an update of the as yet unadopted master plan for Mitchell International, with specific consideration being given to the potential need for additional airfield capacity. The Commission staff has participated in the planning effort by providing technical data and information and by reviewing various elements of the study as requested by the Wisconsin Department of Transportation and Milwaukee County. This work continued during 1990. The Commission staff also provided technical information and data to the consulting firm responsible for preparing the new, updated version of the Part 150 noise compatibility study for Mitchell International.

### Illinois-Indiana Airport Study

At the request of the Wisconsin Department of Transportation and Milwaukee County, the Commission staff began monitoring the progress of and providing technical assistance to a detailed study of potential new airport sites in the Chicago metropolitan area. This planning effort is known as the Illinois-Indiana regional airport site selection and master plan study, and was recommended under the Chicago airport capacity study as the next logical step toward investigating the need for additional airport capacity in the Chicago metropolitan area. The Chicago area airport capacity study was discussed in the SEWRPC 1988 Annual Report. The Commission staff served as a member of the support group to the Technical Advisory Committee for the Illinois-Indiana Airport Study.

Table 22  
GENERAL AVIATION AIRCRAFT BASED IN THE REGION

County	1960	1965	1970	1975	1980	1985	1990
Kenosha . . . . .	28	60	76	148	123	112	195
Milwaukee . . . . .	338	362	356	371	388	373	358
Ozaukee . . . . .	19	13	32	28	29	27	28
Racine . . . . .	65	89	108	151	179	207	228
Walworth . . . . .	23	31	48	82	98	121	127
Washington . . . . .	45	63	118	136	158	165	191
Waukesha . . . . .	118	163	243	255	304	350	341
Total	636	781	981	1,171	1,279	1,355	1,468

Figure 59

**ANNUAL AIR CARRIER ENPLANING AND DEPLANING PASSENGERS AT GENERAL MITCHELL INTERNATIONAL AIRPORT, MILWAUKEE**

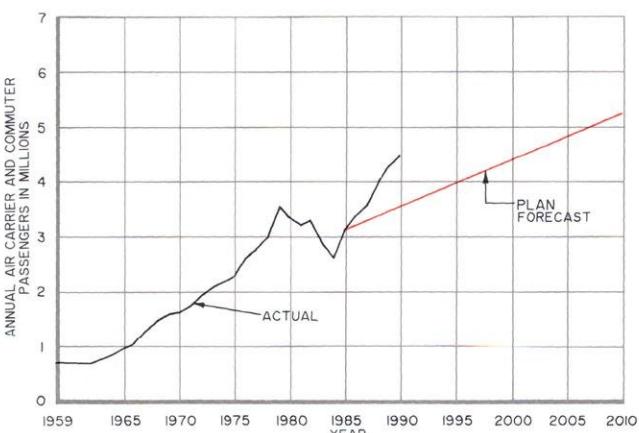
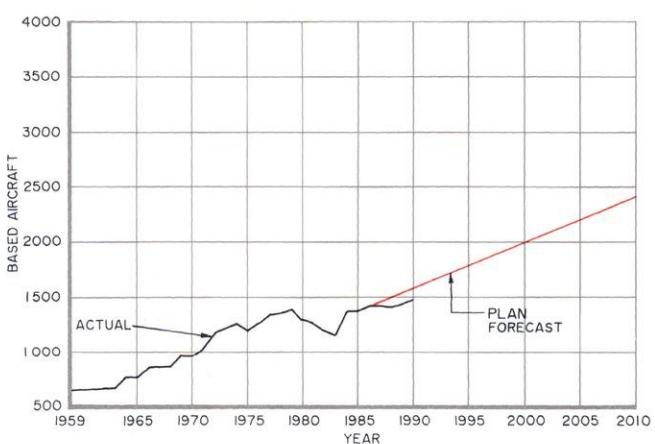


Figure 60

**GENERAL AVIATION AIRCRAFT BASED IN THE REGION**



During 1990 the Commission staff continued to attend meetings of the study's technical advisory committee, to review materials prepared as part of the study, and to respond to requests for southeastern Wisconsin travel data, socioeconomic data, and other transportation system information.

**General Mitchell International Airport Enplaning Passenger Survey**

At the request of the Wisconsin Department of Transportation, the Commission conducted a new survey of all enplaning passengers using scheduled airline flights at Milwaukee County's General Mitchell International Airport. The purpose of the survey was to collect updated information concerning the number and types of trips made

by passengers using Mitchell International, together with such related information as the socioeconomic characteristics of the trip-makers. The survey was conducted during Fall 1989. During 1990, final checking and review of the data was completed and a report was prepared and published. The survey findings are presented in SEWRPC Technical Report No. 32, General Mitchell International Airport Enplaning Passenger Survey Findings: 1989. The basic survey findings were the subject of a major article in the March-April 1990 edition of the SEWRPC Newsletter. The major survey findings included:

- About 12 percent of the enplaning passengers during the one-week survey indicated that they were changing scheduled flights at Mitchell International.

- Earlier surveys found the percentage of connecting passengers to be 17 percent in 1971 and 15 percent in 1983. In the years immediately following the 1983 survey the percentage of connecting passengers continued to decline to below 10 percent, and then began to increase in 1987, reaching 12 percent in 1989.
- Almost three-quarters of the enplaning passengers using Mitchell International had trip origins within southeastern Wisconsin. Trips originating in Milwaukee and Waukesha Counties together accounted for nearly 60 percent of all trip origins in the 1989 survey.
- From 1971 to 1989 the percentage of trips originating in Milwaukee County decreased from 55 percent to about 43 percent, while the percentage of trips originating in the remaining six southeastern Wisconsin counties increased.
- About 3 percent of all enplaning passengers during the week-long survey had trip origins within northeastern and north-central Illinois, a significant increase over the percentage of trips originating in northern Illinois during the earlier surveys.
- Within the City of Milwaukee, about 30 percent of the trip origins were generated by the central business district. On an average weekday, an estimated 800 originating and terminating passengers traveled between the airport and the central business district, compared with an estimated 500 such passengers in 1983.
- The destinations of 96 percent of all enplaning passengers during the survey were within the United States. The top three states, California, Florida, and New York, were destinations for about one-quarter of all enplaning passengers. These three states plus Georgia, Michigan, Ohio, Pennsylvania, Texas, and Wisconsin were the destinations for more than one-half of all enplaning passengers. Florida and Georgia, as well as North Carolina and Texas, were among the states that gained significant shares of total Milwaukee enplanements between 1983 and 1989.
- Work- or business-related travel accounted for over half, 54 percent, of the trips; and social or recreational trips accounted for 32 percent of all trips. The remaining 14 percent of the trips were for school, personal, or other reasons. The overall distribution of travel purposes was found to be similar to the 1971 and 1983 survey findings.
- The use of Mitchell International is largely by occasional users, with nearly 85 percent of the enplaning passengers using the airport no more than once a month. Fewer than 2 percent of all enplaning passengers fly out of the airport more than once a week, but about 35 percent of the enplaning passengers use the airport once a year or less.
- Of all originating passengers, over three-quarters arrived at the airport by private automobile or truck, including privately operated company or agency vehicles. Compared with the previous surveys, a gradually increasing share of passengers arrived by rental car or by hotel and motel courtesy cars, and a gradually decreasing share arrived by taxicab. The use of limousines has fluctuated while the use of both local and intercity buses has remained relatively constant.
- The median annual household income of the passengers surveyed in 1989 was \$54,000. As might be expected, this is high compared with the median annual income of all households in southeastern Wisconsin, \$29,700. As in past surveys, these findings continue to reflect a strong correlation between annual household income and the frequency of commercial air travel.
- The median age of the enplaning passengers, 41 years, reflects little change from the previous surveys. As in the 1983 survey, the 1989 survey indicated that almost 40 percent of the passengers were female, compared with about 29 percent in the 1971 survey.
- About 45 percent of the enplaning passengers were residents of southeastern Wisconsin, 14 percent were residents of other Wisconsin counties, and 2 percent were

residents of northeastern Illinois. About 37 percent of enplaning passengers were residents of the remainder of the United States; 2 percent were residents of other countries. The share of southeastern Wisconsin residents represents a substantial increase over 1971 and 1983, when about 30 percent of the enplaning passengers were residents of southeastern Wisconsin.

- The most important reasons why passengers chose to fly out of Mitchell International was that the airport was near their home or place of work. Other frequently cited reasons included the ease with which they could use the airport terminal and their airline of choice.
- The concern most frequently expressed by people who may have experienced problems using Mitchell International was an insufficient number of nonstop flights to desired destinations.
- The most important reasons cited by passengers for sometimes choosing to use Chicago's O'Hare International Airport instead of Mitchell International included better schedules and more nonstop flights to desired locations, as well as lower fares and the availability of international flights.

### **Elkhorn Area Airport Study**

In 1990 the Commission continued work on a special study to assess the need for a general aviation airport in the immediate area of Elkhorn and to determine whether or not such an airport should be included in the regional airport system plan for southeastern Wisconsin and the Wisconsin state airport system plan. During the year, work efforts were directed at estimating of the demand for general aviation airport facilities and services in the Elkhorn area, including the conduct of a survey of local businesses to estimate their current and future airport needs. Local officials were contacted for assistance in determining which businesses should be surveyed, as well as to review the level of interest in general aviation airport development among Elkhorn area officials and businesses. By the end of the year, the survey had been completed including extensive follow-up work.

### **DATA PROVISION AND TECHNICAL ASSISTANCE**

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

The following is a sample listing of the assistance provided by the Division in 1990:

- At the request of the City of Milwaukee the Commission prepared forecasts of ridership, including station-to-station passenger trip tables by time period for each of three light rail transit routes and one commuter rail route being studied by the City. These ridership forecasts were prepared for a current trends alternative future and for a transit emphasis alternative future. Ridership forecasts were documented in a memorandum report entitled, "Light Rail and Commuter Rail Ridership Forecasts," which presents the original forecasts prepared by the Commission, the procedures and data used to modify the original forecasts, and the revised forecasts to be used in the City of Milwaukee's light rail transit and commuter rail transit corridor study.
- At the request of the Wisconsin Department of Transportation the Commission provided assistance in the Metro 2020 effort, including participating in policy board and staff meetings which involved the preparation of presentations and materials as appropriate. The Commission made presentations and prepared materials with respect to Metro 2020 meetings, including those addressing the regional strategic arterial highway system, regional local arterial highway system, regional airport system, regional public transportation system, and freeway traffic management system.

- At the request of the Wisconsin Department of Natural Resources the Commission prepared estimates of 1988 and forecasts of 1995 and 2000 vehicle travel by vehicle type and by U. S. Public Land Survey quarter-section.
- At the request of the City of Mequon the Commission staff prepared traffic volume forecasts for the plan year 2010 for the arterial street and highway system in the City of Mequon. Alternative forecasts were prepared for two alternative patterns, or options, of land development in the Port Washington Road corridor, one alternative emphasizing business park development for office use and the second alternative emphasizing a mix of office development and light industry and warehouse development. Each alternative was staged for three levels of growth: intermediate, optimistic, and "ultimate" growth. In addition, traffic volume forecasts for the arterial street and highway system were developed for each of the alternatives under the second option, with an arterial street and highway system which did not include a Highland Road interchange at IH 43.
- Traffic forecasts were provided to: Milwaukee County for E. Layton Avenue between S. Pennsylvania Avenue and S. Packard Avenue; Ozaukee County for the Lakefield Road bridge over the Milwaukee River; Waukesha County for CTH K at the Fox River in the Village of Menomonee Falls; and the Wisconsin Department of Transportation for travel between STH 16 at CTH JJ and IH 94 at CTH T, CTH J, and STH 164.
- Traffic impact analyses were conducted for the City of Kenosha for a proposed community shopping center in the City of Kenosha, the City of New Berlin for a warehouse to be located on W. Lincoln Avenue, the Town of Waterford for a land development on Gawin Drive, a land access road in the Town. At the request of Kenosha County the Commission staff reviewed a traffic impact study which had been conducted for the Sportsman's Marketplace, a proposed shopping center in the Town of Somers.
- At the request of the Village of Whitefish Bay the Commission staff conducted 24-hour machine traffic counts, manual turning movement counts, and a vehicle gap study to analyze the potential need for the installation of traffic signals at the intersection of N. Ardmore with E. Hampton Avenue.
- At the request of the City of Cedarburg the Commission staff analyzed the intersection of Hamilton Road and Hibert Avenue for the installation of traffic control devices.
- At the request of the Towns of Brookfield, Oconomowoc, Ottawa, Summit, and Vernon and the City of Oconomowoc the Commission assisted in the conduct of roadway management programs. Assistance to the various units of government included acquiring basic roadway inventory data, installing micro-computer software, training local staff in the rating of roadway pavements and use of computer programs, assisting in surveying roadway pavements, and preparing and presenting reports of findings.
- At the request of the Department of Transportation the Commission is assisting in the conduct of a preliminary engineering study for the Lake Arterial in southeastern Milwaukee County and eastern Racine County. This study is being conducted in two phases. In the first phase, the need for this additional north-south arterial capacity, is to be reviewed and reevaluated as may be found necessary. This need has long been identified in adopted regional transportation system plans and adopted county jurisdictional highway system plans. Also in the first phase of the study, a wide range of alternatives to provide additional north-south arterial capacity are to be identified and evaluated, including the alternative which has been long recommended in the adopted regional transportation system plan and county jurisdictional highway system plans, specifically, the provision of the Lake Arterial along the Chicago & North Western Railway right-of-way. A small number of the wide range of alternatives will be subsequently considered in the second, or preliminary engineering study phase, of the study. The Commission staff initiated work on the memorandum report which is intended to document the findings of the first, or facility planning, phase of the Lake Arterial extension study.



# ENVIRONMENTAL PLANNING DIVISION

## DIVISION FUNCTIONS

The Commission's Environmental Planning Division conducts studies related to, and provides recommendations for, the protection and enhancement of the Region's environment. The kinds of basic questions addressed by this Division include:

- What is the existing quality of the lakes, streams, and groundwaters of the Region? Is water quality getting better or worse over time?
- What are the sources of water pollution? How can these sources best be controlled to abate water pollution and meet water quality objectives?
- What is the extent of the natural floodlands along lakes and streams?
- What are the best ways to resolve existing flooding problems and to ensure that new flooding problems are not created?
- What are the best ways to resolve existing stormwater drainage, as opposed to flooding, problems and to provide adequate drainage facilities for existing and probable future rural and urban development? How can improved stormwater drainage systems best be integrated with needed nonpoint source water pollution abatement measures?
- What areas of the Region should be provided with sanitary sewer service, and what are the most cost-effective ways of providing such service?
- What needs to be done to ensure a continued ample supply of safe drinking water?
- How can solid wastes best be managed for recycling and disposal in an environmentally safe and energy-efficient manner?
- How can the Lake Michigan shoreline best be protected and used?

In attempting to find sound answers to these and related questions, develop recommendations concerning environmental protection and enhancement, monitor levels of environmental

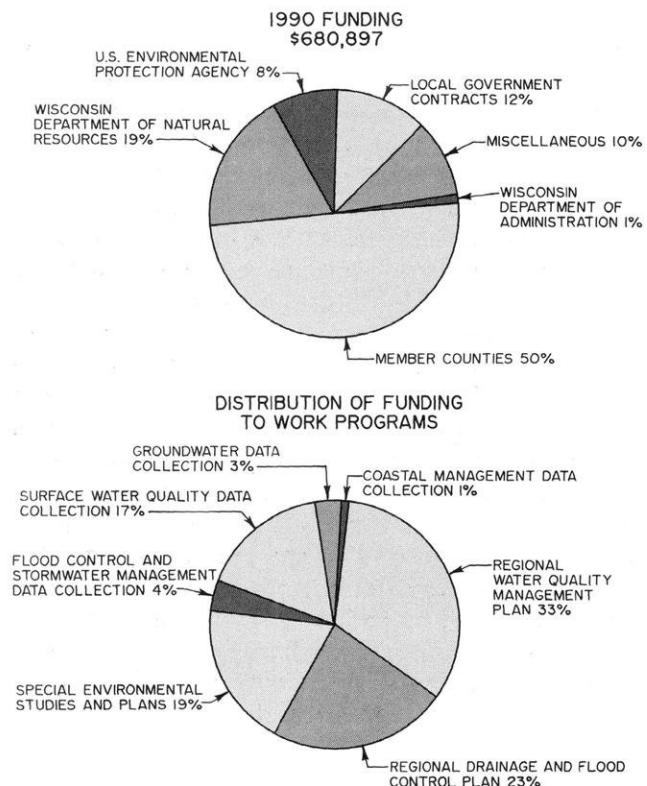
quality in the Region, and respond to requests for data and technical assistance, activities were conducted in 1990 in four identifiable program areas: water quality management planning; watershed, floodland, and stormwater management planning; coastal management planning; and solid waste management planning. In addition, two special environmental analyses were undertaken during the year relative to proposed mineral extraction activities.

## WATER QUALITY MANAGEMENT PLANNING

During 1990, Commission water quality planning efforts continued to be focused primarily on activities relating to implementation of the adopted regional water quality management plan. Such activities included providing assistance and coordination in the preparation of more detailed and refined nonpoint source

Figure 61

### ENVIRONMENTAL PLANNING DIVISION



pollution abatement plans, providing assistance in the preparation of inland lake water quality management plans, and preparing local sanitary sewer service area plans. In addition, the Commission continued to assist local units of government in completing detailed sewerage facilities plans in preparation for the construction of point source pollution abatement facilities identified as needed in the adopted regional plan. The Commission also continued to assist the Wisconsin Departments of Natural Resources and of Industry, Labor and Human Relations in the review of proposed public sanitary sewer extensions, proposed private main sewers and building sewers, and proposed large onsite sewage disposal systems and holding tanks.

### **Regional Water Quality Management Plan**

In 1979, the Commission completed and adopted a regional water quality management plan. The plan, designed in part to meet the Congressional mandate that the waters of the United States be made to the extent practicable "fishable and swimmable," is set forth in SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings; Volume Two, Alternative Plans; and Volume Three, Recommended Plan. The plan provides recommendations for the control of water pollution from point sources, such as sewage treatment plants, points of separate and combined sewer overflow, and industrial waste outfalls, and from nonpoint sources, such as urban and rural stormwater runoff. This regional plan element is one of the more important plan elements adopted by the Commission since, in addition to providing clear and concise recommendations for the control of water pollution, it provides the basis for the continued eligibility of local units of government for federal and state grants in partial support of sewerage system development and redevelopment; for the issuance of waste discharge permits by the Wisconsin Department of Natural Resources (DNR); for the review and approval of public sanitary sewer extensions by the DNR; for the review and approval of private sanitary sewer extensions and large onsite sewage disposal systems and holding tanks by the Wisconsin Department of Industry, Labor and Human Relations; and for federal and state financial assistance in support of local nonpoint source water pollution control projects.

The adopted regional water quality management plan for southeastern Wisconsin consists of five major elements: a land use plan element, a point source pollution abatement element, a nonpoint source pollution abatement element, a sludge management element, and a water quality monitoring element. A descriptive summary of the regional water quality management plan is provided in the Commission's 1979 Annual Report.

### **Nonpoint Source Pollution Abatement Planning**

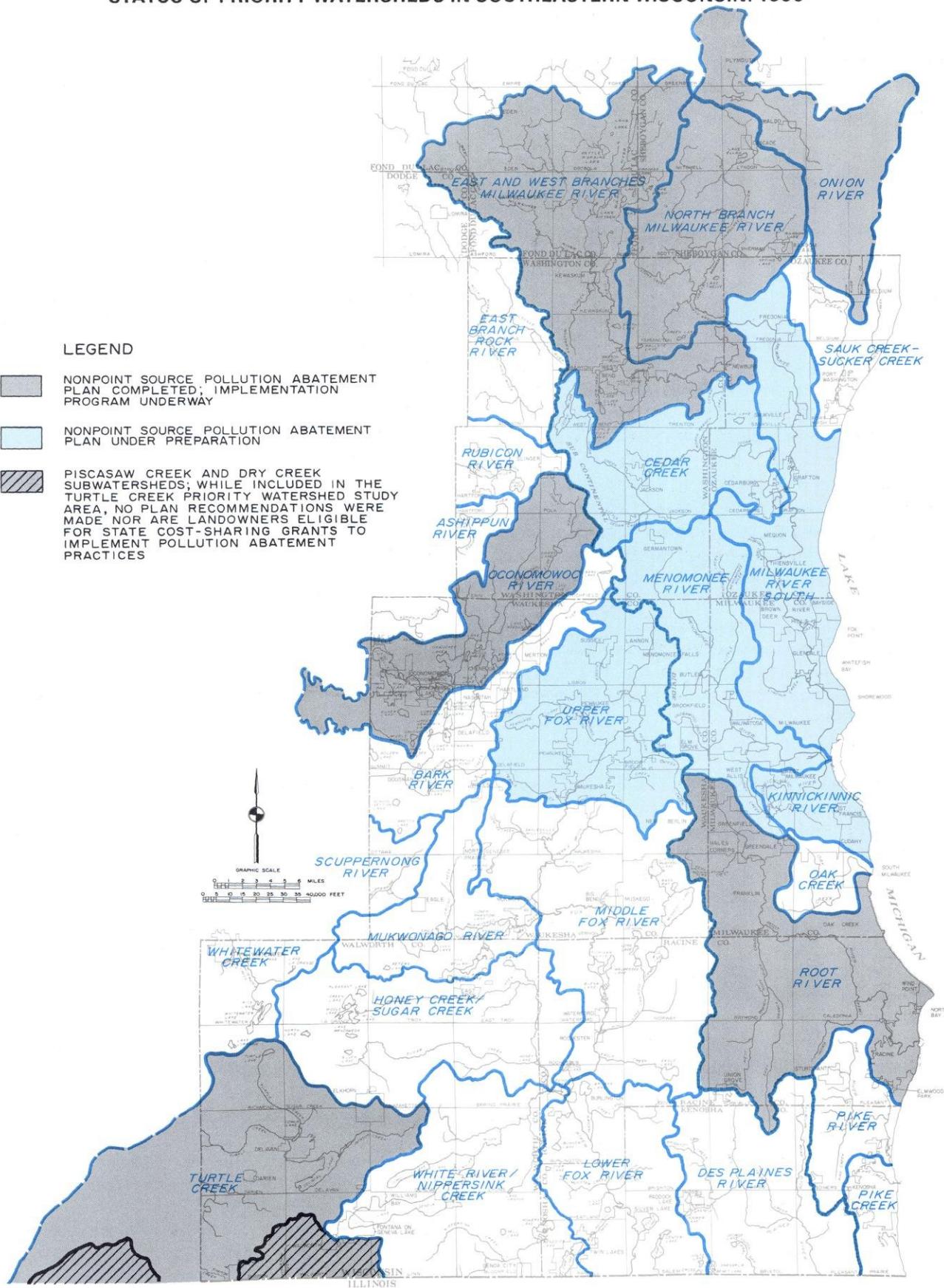
The adopted regional water quality management plan recommends that local agencies charged with responsibility for nonpoint source pollution control prepare refined and detailed, local level, nonpoint source pollution control plans. Such plans are to identify the nonpoint source pollution control practices that should be applied to specific lands. This more detailed level of planning was recommended because the design of nonpoint source pollution abatement practices should be a highly localized, detailed, and individualized effort, an effort that is based on highly specific knowledge of the physical, managerial, social, and fiscal considerations that affect the landowners concerned.

Working with the individual county land conservation committees and the Commission, the Wisconsin Department of Natural Resources is carrying out the recommended detailed planning for nonpoint source water pollution abatement on a watershed-by-watershed basis. This detailed planning and subsequent plan implementation program, known as the Wisconsin Nonpoint Source Priority Watershed Pollution Abatement Program, provides matching funds of up to 80 percent of the cost of an individual project or land management practice to local governments and private landowners upon completion of the detailed plans.

For nonpoint source detailed planning and plan implementation purposes, the DNR has divided the Southeastern Wisconsin Region into 27 "priority" watersheds, as shown on Map 19. Prior to 1990, priority watershed nonpoint source pollution abatement plans had been completed for the Root River watershed, lying primarily in Racine and Milwaukee Counties; for the Onion River watershed, a small portion of which lies in Ozaukee County and which drains north out of

Map 19

STATUS OF PRIORITY WATERSHEDS IN SOUTHEASTERN WISCONSIN: 1990



the Region through Sheboygan County; for the Turtle Creek watershed, a major portion of which lies in Walworth County and which drains west out of the Region through Rock County; for the Oconomowoc River watershed, major portions of which lie within Washington and Waukesha Counties and which drains west out of the Region through Jefferson County; for the East and West Branches of the Milwaukee River priority watershed and for the North Branch of the Milwaukee River priority watershed, both of which are comprised of portions of Ozaukee and Washington Counties in the Region. The East and West Branches watershed also includes portions of Dodge, Fond du Lac, and Sheboygan Counties lying north of the Region, while the North Branch watershed includes portions of Fond du Lac and Sheboygan Counties. During 1990, such plans were nearing completion for the Menomonee River priority watershed, which lies in Milwaukee, Washington, and Waukesha Counties; and the Milwaukee River South priority watershed, which lies in Ozaukee and Milwaukee Counties. At year's end, formal approval of the plans by the Counties involved and the Wisconsin Department of Natural Resources was pending. Also during 1990, work on the plan for the Upper Fox River watershed in Waukesha County was initiated; work continued on the plan for the Cedar Creek watershed in Ozaukee and Washington Counties; and the Kinnickinnic River watershed in Milwaukee County was selected as a priority watershed.

Each of these detailed plans includes specific recommendations for nonpoint source water pollution abatement in urban areas, including construction site erosion control, improved street sweeping and vegetative debris collection and disposal, roadside and stream bank erosion control, landfill site runoff control, the installation of spent oil disposal stations, and stormwater runoff control, and, in rural areas, includes improved cropping practices, better livestock waste management, stream bank erosion control, and stormwater runoff control. Each of the priority watershed projects includes a detailed planning phase which lasts from 18 to 24 months; a project "sign-up" phase which begins at the completion of the plan and ends from three to five years later; and a project completion phase which ends from three to five years after the end of the project sign-up phase.

The implementation period of each of the completed priority watershed plans is summarized in

Table 23. For the Root River and Onion River priority watersheds, the full project implementation period has ended. As shown in Table 23, the project implementation periods for the other priority watersheds with completed detailed plans ranges from April 1992 to July 1997.

The Wisconsin Department of Natural Resources is continuing with the preparation of priority watershed plans for three other subwatersheds. It is anticipated that plans for the Milwaukee River-South main stem and the Menomonee River will be approved early in 1991. The Cedar Creek watershed plan will be completed in 1991. The Upper Fox River and the Kinnickinnic River watersheds plans are expected to be completed in 1992.

During 1990, the Commission continued to assist the Department of Natural Resources in its data collection, analysis, and report production efforts for the priority watersheds. The Commission staff attended interagency coordinating meetings with the Department and completed the draft of a report on the cost of construction site erosion control and urban stormwater management practices. The Commission also completed final report base mapping illustrating watershed location, surface water resources, civil division, and biological uses for incorporation into the Milwaukee River South, Menomonee River, and Cedar Creek priority watershed plans and final report mapping indicating pollution sources for the Milwaukee River South and Menomonee River priority watershed plans.

During 1990, the Commission also completed a staff memorandum documenting an assessment and ranking of the 16 watersheds within southeastern Wisconsin which are not yet included in the priority watershed program. This report also includes a ranking of relatively small subwatersheds and lake subwatersheds which are currently eligible for inclusion in the nonpoint source priority watershed pollution abatement program. This assessment and rating was carried out using procedures developed by the Wisconsin Department of Natural Resources and being applied statewide and is intended to be used in the priority watershed, small-scale, and lakes project selection process over the next several years.

During 1990, the Commission continued to assist the counties and other local units of government in establishing sound nonpoint source pollution

Table 23

IMPLEMENTATION PERIODS OF COMPLETED AND APPROVED PLANS IN SOUTHEASTERN WISCONSIN: 1990

Watershed	Counties	Date Selected	Date Plan Completed	Project Sign-Up End Date	Project Implementation End Date
Root River . . . . .	Racine Milwaukee Waukesha	1979	1980	December 1984	December 1989
Onion River . . . . .	Ozaukee Sheboygan	1980	1981	June 1984	June 1989
Turtle Creek . . . . .	Walworth Rock	1982	1984	April 1987	April 1992
Oconomowoc River . . . . .	Washington Waukesha Jefferson	1983	1986	April 1989	April 1994
East and West Branches of the Milwaukee River . . . . .	Washington Ozaukee Fond du Lac Sheboygan Dodge	1984	1989	June 1992	June 1997
North Branch of the Milwaukee River . . . . .	Washington Ozaukee Sheboygan Fond du Lac	1984	1989	July 1992	July 1997

abatement measures. The following are examples of such work:

- At the request of the City of Muskego, an analysis was made of alternative means for enhancing the sediment removal efficiency of two ponds located on an inlet tributary to Lake Denoon. The analysis included an assessment of the proposed project on adjacent wetlands and recommendations to minimize any negative impacts.
- At the request of the City of Oconomowoc and the Town of Summit, review comments and recommendations were developed for the proposed installation of nonpoint source pollution control measures associated with a commercial development within the drainage area of Silver Lake.

#### Lake Water Quality Management Planning

The adopted regional water quality management plan recommended that detailed, comprehensive lake water quality management plans be prepared for the drainage areas directly tributary to each of the 101 major lakes in southeastern Wisconsin. The Commission and the DNR have been working with lake community organizations and agencies, including lake protection and rehabilitation districts, to complete the preparation of such comprehensive plans. Where budget and work program conditions permit, these lake studies are being documented in SEWRPC community assistance planning reports. These reports describe the existing chemical, biological, and physical water quality conditions of the lake; the existing and proposed uses of the lake and attendant water quality

objectives and standards; the land management and land use measures required in each lake watershed; and required point and nonpoint source pollution abatement measures.

By the end of 1990, comprehensive lake water quality management plans had been completed for these seven lakes: Ashippun, La Belle, Pewaukee, North, and Okauchee in Waukesha County; Geneva Lake in Walworth County; and Friess Lake in Washington County. These plans were adopted by the Commission as amendments to the regional water quality management plan. During 1990, lake management plans were completed for Oconomowoc Lake and for Waubeesee Lake and the Anderson Canal, which connects Long Lake (Kee Nong Go Mong Lake) to Waubeesee Lake.

The lake water quality management plan for Oconomowoc Lake is documented in SEWRPC Community Assistance Planning Report No. 181, A Water Quality Management Plan for Oconomowoc Lake, Waukesha County, Wisconsin. The planning effort was undertaken cooperatively with the Wisconsin Department of Natural Resources to identify existing and potential water quality problems and to propose measures to resolve those problems and to thereby protect and enhance the water quality of the Lake. The resulting management recommendations include the modification of local land use zoning ordinances and zoning district maps; the implementation of nonpoint source pollution controls; the conduct of an onsite sewage disposal inspection program; the enactment of a construction site erosion control ordinance; and the installation of a hypolimnetic aeration system in a small basin of the Lake combined with the initiation of a continuing in-lake water quality and fishery resource monitoring program. The plan has been adopted by the Plan Commission of the Village of Oconomowoc Lake and is intended to become an element of the regional water quality management plan upon its adoption by the Commission and its approval by the Wisconsin Department of Natural Resources.

The preparation of a water use management plan for Waubeesee Lake and the Anderson Canal was undertaken at the request of the Town of Norway and Tri-Lakes Conservation, Inc. This report, which examines existing and anticipated water use problems encountered by users of the Anderson Canal and Waubeesee

Lake, presents a recommended plan for the resolution of these problems, and is documented in SEWRPC Community Assistance Planning Report No. 182, A Water Use Management Plan for Waubeesee Lake and the Anderson Canal, Racine County, Wisconsin.

The Anderson Canal was found to be a shallow channel with deep organic sediments supporting excessive aquatic plant growths which interfere with the continued use of the channel, particularly for navigation and access to the Lake. Surveys indicated that portions of the channel contain a diverse community of aquatic plants as well as fish spawning habitat. Waubeesee Lake supports excellent aquatic resources, including a variety of healthy plant and animal communities, and provides high-quality recreational uses.

The Anderson Canal use management plan recommends that 4.1 acres of the channel be mechanically dredged to a mean depth of five feet, that macrophyte harvesting be conducted on about 2.3 acres of the channel, and that shoreline protection be provided for an additional 1,000 feet of the channel shoreline.

The recommended dredging of the Anderson Canal would also provide benefits for residents of Waubeesee Lake. Deepening the channel would enhance the enjoyment of boating within the Canal for residents of both Lake and Canal. The reduction of excessive aquatic plant growths would improve the aesthetic quality of the overall lake environment. The removal of nutrient-rich organic sediments would reduce the likelihood of those sediments flushing into Waubeesee Lake. Inflowing sediments would be more likely to settle in a deeper channel than in the existing channel.

The Waubeesee Lake use management plan recommends protection of about 25 environmentally sensitive acres in or immediately adjacent to Waubeesee Lake and the Anderson Canal. This includes consideration of public acquisition of wetlands located adjacent to the Lake, the preservation of primary environmental corridors within the Lake's watershed, the development of motorboating regulations as needed to prevent ecological damage and interference with other lake uses, the enforcement of a construction erosion control ordinance, the provision of technical information and assistance to help

property owners protect their shoreline, and the provision of a public access site for slow-boating opportunities.

At the end of 1990, the Commission had lake studies underway for Wind Lake in Racine County, Fowler Lake in Waukesha County, and Powers Lake in Kenosha and Walworth Counties. The studies for all three of these lakes are expected to be completed in 1991 or early 1992.

In addition to these comprehensive lake water quality management plans, the Commission continued to provide assistance to certain lake districts and associations. During 1990, the Commission participated in lake association or district meetings for Elizabeth and Mary Lakes, Oconomowoc Lake, and Tichigan Lake. Technical assistance relating to selected lake management needs was provided to lake associations or districts for North Lake, Cravath Lake, Tripp Lake, Bohner's Lake, Lake Beulah, and Lauderdale Lakes. Data provided included shore protection measure descriptions and costs, water quality and biological monitoring descriptions and assistance in planning for sewerage system evaluations.

### **Local Sewerage Facilities Planning**

During 1990, the Commission continued to work with local engineering staffs and consultants in the preparation of detailed local sewerage facilities plans designed to meet the requirements of Section 201 of the federal Clean Water Act, the requirements of the Wisconsin Fund established by the State Legislature in 1978 and administered by the Wisconsin Department of Natural Resources, and good engineering practice. Work activities during 1990 included the provision of basic economic, demographic, land use, and natural resource base data for use in the preparation of the facilities plans; the extension of the findings and recommendations of the regional water quality management plan, in particular those regarding sanitary sewer service areas, trunk sewer configurations, and treatment plant locations, capacities, and levels of treatment; and the review of, and comment on, the preliminary plans.

During 1990, the Commission was directly involved in the following local sewerage facility planning efforts:

- The conduct of a study to evaluate the facilities needed to extend most cost-effectively the service area of the Walworth County Metropolitan Sewerage District (WalCoMet). Recent expansions of the WalCoMet sewer service area have resulted in the need to reevaluate the best means of providing for such service using a combination of local as well as areawide WalCoMet sewerage facilities. The Commission assisted WalCoMet and its consultant in conducting the study which evaluated the long-term conveyance and treatment sewerage system needs. Particular attention was given to avoiding overlapping service areas for the sewerage system components. The cost-effectiveness of adding the Lake Como area to the WalCoMet service area was also evaluated. That analysis concluded that the Lake Como area could best be served by WalCoMet. Accordingly, an amendment to the regional water quality management plan was initiated to add the Lake Como area to the WalCoMet sewer Service area and remove it from the Lake Geneva service area as set forth in the currently adopted plan.

- The continued extension of technical assistance to several local units of government that are considering the provision of centralized sanitary sewer service to existing urban development in areas surrounding inland lakes. By the end of 1990, funding was provided by the Wisconsin Department of Natural Resources for facility planning based upon grant application materials prepared by the Commission seeking planning grants that would enable the Towns of Randall and Wheatland in Kenosha County and the Town of Bloomfield in Walworth County for the Powers Lake area; the Town of Wheatland, Kenosha County, for the Lilly Lake area and other areas of existing development in the Town; the Town of Burlington and Bohner Lake Sanitary District, Racine County, for the Bohner Lake area; and the Silver Lake Sanitary District in the Town of West Bend, Washington County, to conduct detailed planning studies to ascertain the need for sewerage facilities and the probable cost of installing such facilities. During 1990 the Commission provided assistance in consultant selection and plan initiation.

- Work continued on the preparation of coordinated sanitary sewerage and water supply system plans for the greater Kenosha area. At year's end, the report chapters documenting the study objectives, standards, and design criteria; detailed inventories of the study area, including the existing sanitary sewer and water supply systems; and alternative and recommended sewerage and water supply systems had been completed and reviewed by the Greater Kenosha Area Utility Planning Committee guiding the study. Work continued on the report chapter setting forth detailed plan implementation recommendations, including user fee and intermunicipal cooperative arrangements. Three advisory committee meetings were held during 1990 to review draft report materials.
- Work was initiated on the preparation of a coordinated sewerage and water supply system plan for the greater Racine area. At year's end, a consultant had been selected and work was initiated on the detailed inventories of the study area, including the existing sanitary sewer and water supply systems. Three meetings of the advisory committee guiding the study were held to select the consultant and initiate the project.

### **Sanitary Sewer Extensions and Sewer Service Area Refinement Process**

The adoption during 1979 of a regional water quality management plan for southeastern Wisconsin set into motion a process whereby, under rules promulgated by the Wisconsin Department of Natural Resources, the Commission must review and comment on all proposed public sanitary sewer extensions. Such review and comment must relate a proposed public sewer extension to the sanitary sewer service areas identified in the adopted plan. Under Section NR 110.08(4) of the Wisconsin Administrative Code, the Wisconsin Department of Natural Resources may not approve public sanitary sewer extensions unless such extensions are found to be in conformance with an adopted areawide water quality management plan. In addition, rule changes promulgated by the Wisconsin Department of Industry, Labor and Human Relations during 1985 require the Commission to comment on certain private sanitary sewer extensions and large onsite

sewage disposal systems and holding tanks relative to the Commission's adopted areawide water quality management plan. Under Section ILHR 82.20(4) of the Wisconsin Administrative Code, the Wisconsin Department of Industry, Labor and Human Relations may not approve private main sewer or building sewer extensions unless such extensions are found to be in conformance with an adopted areawide water quality management plan.

When the regional water quality management plan was adopted in 1979, that plan included preliminary recommended sanitary sewer service areas tributary to each recommended public sewage treatment facility in the Region. A total of 85 such sanitary sewer service areas were delineated and named in the adopted plan. These initially recommended sanitary sewer service areas were based upon the adopted regional land use plan for the year 2000. As such, the preliminary delineations were necessarily general in nature and did not reflect detailed local planning considerations. Accordingly, the Commission determined that upon adoption of the regional water quality management plan, steps would be taken to refine and detail each of the sewer service areas in cooperation with the local units of government concerned. A process for refining and detailing the areas was set forth in the plan, consisting of intergovernmental meetings with the affected units of government and culminating in the holding of a public hearing on the refined and detailed sewer service area map. Such a map would identify not only the planned perimeter of the sewer service area, but also the location and extent of the primary environmental corridors within that service area, which corridors contain the best and most important elements of the natural resource base. Preserving the environmental corridor lands in essentially natural, open uses is important to the maintenance of the overall quality of the environment and helps avoid the creation of serious and costly developmental problems. Accordingly, urban development should be discouraged from occurring within the corridors identified in the sewer service area plans, an important factor to be considered in the extension of sanitary sewer service.

The Commission determined that each refined and detailed sanitary sewer service area plan, including detailed delineations of primary environmental corridors, would be documented in a

Commission community assistance planning report. That report would be formally adopted by the appropriate local sewerage agency and by the Commission and forwarded to the Wisconsin Department of Natural Resources and the U. S. Environmental Protection Agency as an amendment to the adopted regional water quality management plan.

By the end of 1990, the recommended plan refinement process had been completed for 57 of the 85 initially identified sanitary sewer service areas. Fifty-three of these refinements had been completed and adopted both by the local governments concerned and by the Commission prior to 1990. During 1990, such detailed planning efforts were completed for four additional areas: the Dousman and Mukwonago areas in Waukesha County and the Southern Wisconsin Center and the Union Grove areas in Racine County. In addition, the City of Franklin portion of the Milwaukee Metropolitan Sewerage District has also been refined. The plans for these areas were adopted locally and by the Commission during 1990. The refinement process has resulted in a redefinition and combination of certain areas such that, upon completion of the refinement of the 57 areas, there remain only 49 such areas.

In addition to the refinement of previously delineated sanitary sewer service areas, the planning process followed since adoption of the regional water quality management plan in 1979 has resulted in the creation of eight new sanitary sewer service areas. The refined sewer service area plans for these eight service areas, Alpine Valley, Army Lake, the Country Estates Sanitary District in the Town of Lyons, Geneva National-Interlaken and the Town of Walworth Utility District No. 1, all located in Walworth County; Eagle Spring Lake Sanitary District and Mukwonago County Park in Waukesha County; and Rainbow Springs, lying in both Waukesha and Walworth Counties, were completed prior to 1990.

The existing status of all planned sanitary sewer service areas is summarized in Table 24 and on Map 20. The table identifies the originally defined 85 sewer service areas and the relationship of those areas to the 57 refined and detailed sewer service areas and the eight new sewer service areas mentioned above. It also identifies the documents setting forth each refined and detailed sewer service area and the date on

which the Commission adopted that document as an amendment to the regional water quality management plan.

Additional sewer service area refinement plans were underway at the end of 1990, including plans for the Mequon and Thiensville areas of Ozaukee County and the Brookfield, Elm Grove, and Menomonee Falls areas of Waukesha County.

Pending the completion of such plan refinement studies in cooperation with the local units of government concerned, the Commission must use the more general sewer service area recommendations set forth in the adopted regional water quality management plan as a basis for reviewing and commenting on individual proposed sanitary sewer extensions. During 1990, such review comments were provided on 276 public sanitary sewer extensions and 325 private main sewers or building sewers, distributed by county as shown in Table 25.

### **WATERSHED, FLOODLAND, AND STORMWATER MANAGEMENT PLANNING**

During 1990, Commission efforts in watershed, floodland, and stormwater management consisted of the publication of a stormwater drainage and flood control system plan for the Milwaukee Metropolitan Sewerage District; the provision of technical assistance to local governmental units in the development and implementation of floodland and stormwater management plans, policies, and practices; the provision of hydrologic and hydraulic data, including flood-flow and stage data, to consulting engineers and governmental agencies; and the conduct of a cooperative stream gaging program. Map 21 indicates the coverage of the watershed studies conducted by the Commission through 1990.

### **Stormwater Drainage and Flood Control Planning Program for the Milwaukee Metropolitan Sewerage District**

During 1990, the Commission completed the stormwater drainage and flood control plan requested by the Milwaukee Metropolitan Sewerage District (MMSD). That plan is documented in SEWRPC Community Assistance Planning Report No. 152, A Stormwater Drainage and Flood Control System Plan for the Milwaukee

**Table 24**  
**PLANNED SANITARY SEWER SERVICE AREAS IN THE REGION: 1990**

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Kenosha	Bristol-George Lake	Bristol	December 1, 1986	<u>SEWRPC Community Assistance Planning Report No. 145, Sanitary Sewer Service Area for the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B, Kenosha County, Wisconsin</u>
	Bristol IH 94 Pleasant Prairie North	Bristol/Pleasant Prairie	December 2, 1985	<u>SEWRPC Community Assistance Planning Report No. 106, Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u>
	Camp-Center Lakes Cross Lake Rock Lake Wilmot	Salem South	March 3, 1986	<u>SEWRPC Community Assistance Planning Report No. 143, Sanitary Sewer Service Area for the Town of Salem Utility District No. 2, Kenosha County, Wisconsin</u>
	Hooker-Montgomery Lakes	Salem North	December 1, 1986	<u>SEWRPC Community Assistance Planning Report No. 145, Sanitary Sewer Service Area for the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B, Kenosha County, Wisconsin</u>
	Kenosha Pleasant Park Somers	Kenosha	December 2, 1985	<u>SEWRPC Community Assistance Planning Report No. 106, Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u>
	Pleasant Prairie South	Pleasant Prairie South	December 2, 1985	<u>SEWRPC Community Assistance Planning Report No. 106, Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u>
	Paddock Lake	Paddock Lake	December 1, 1986	<u>SEWRPC Community Assistance Planning Report No. 145, Sanitary Sewer Service Area for the Town of Salem Utility District No. 1, Village of Paddock Lake, and Town of Bristol Utility District Nos. 1 and 1B, Kenosha County, Wisconsin</u>

**Table 24 (continued)**

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Kenosha (continued)	Silver Lake	Silver Lake	June 15, 1987	SEWRPC Community Assistance Planning Report No. 119, <u>Sanitary Sewer Service Area for the Village of Silver Lake, Kenosha County, Wisconsin</u>
	Twin Lakes	Twin Lakes	June 15, 1987	SEWRPC Community Assistance Planning Report No. 149, <u>Sanitary Sewer Service Area for the Village of Twin Lakes, Kenosha County, Wisconsin</u>
Milwaukee	Milwaukee Metropolitan Sewerage District (portion)	Franklin	December 5, 1990	SEWRPC Community Assistance Planning Report No. 176, <u>Sanitary Sewer Service Area for the City of Franklin, Milwaukee County, Wisconsin</u>
	Milwaukee Metropolitan Sewerage District (portion)	--	--	--
	South Milwaukee	--	--	--
Ozaukee	Belgium	Belgium	March 11, 1985	SEWRPC Community Assistance Planning Report No. 97, <u>Sanitary Sewer Service Area for the Village of Belgium, Ozaukee County, Wisconsin</u>
	Cedarburg Grafton	Cedarburg Grafton	June 15, 1987	SEWRPC Community Assistance Planning Report No. 91, <u>Sanitary Sewer Service Area for the City of Cedarburg, Village of Grafton, Ozaukee County, Wisconsin</u>
	Fredonia Waubeka	Fredonia Waubeka	September 13, 1984	SEWRPC Community Assistance Planning Report No. 96, <u>Sanitary Sewer Service Area for the Village of Fredonia, Ozaukee County, Wisconsin</u>
	Lake Church	--	--	--
	Mequon	--	--	--
	Port Washington	Port Washington	December 1, 1983	SEWRPC Community Assistance Planning Report No. 95, <u>Sanitary Sewer Service Area for the City of Port Washington, Ozaukee County, Wisconsin</u>
	Saukville	Saukville	December 1, 1983	SEWRPC Community Assistance Planning Report No. 90, <u>Sanitary Sewer Service Area for the Village of Saukville, Ozaukee County, Wisconsin</u>
	Thiensville	--	--	--
Racine	Burlington	Burlington	June 16, 1986	SEWRPC Community Assistance Planning Report No. 78, <u>Sanitary Sewer Service Area for the City of Burlington, Racine County, Wisconsin</u>

Table 24 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Racine (continued)	Eagle Lake	--	--	--
	Racine Caddy Vista	Racine Caddy Vista	December 1, 1986	SEWRPC Community Assistance Planning Report No. 147, <u>Sanitary Sewer Service Area for the City of Racine and Environs, Racine County, Wisconsin</u>
	Southern Wisconsin Center	Southern Wisconsin Center	September 12, 1990	SEWRPC Community Assistance Planning Report No. 180, <u>Sanitary Sewer Service Area for the Village of Union Grove and Environs, Racine County, Wisconsin</u>
	Union Grove	Union Grove	September 12, 1990	SEWRPC Community Assistance Planning Report No. 180, <u>Sanitary Sewer Service Area for the Village of Union Grove and Environs, Racine County, Wisconsin</u>
	Waterford/Rochester Michigan Lake	Waterford/Rochester	June 16, 1986	SEWRPC Community Assistance Planning Report No. 141, <u>Sanitary Sewer Service Area for the Waterford/Rochester Area, Racine County, Wisconsin</u>
	Wind Lake	--	--	--
	Yorkville	--	--	--
Walworth	--	Alpine Valley	December 4, 1989	<u>Amendment to the Regional Water Quality Management Plan—2000, Towns of East Troy, Lafayette, and Spring Prairie, and Village of East Troy</u>
	--	Country Estates Sanitary District	March 3, 1987	<u>Amendment to the Regional Water Quality Management Plan—2000, Country Estates Sanitary District, Town of Lyons</u>
	Darien	Darien	June 20, 1988	SEWRPC Community Assistance Planning Report No. 123, <u>Sanitary Sewer Service Area for the Village of Darien, Walworth County, Wisconsin</u>
	Delavan Delavan Lake Elkhorn Walworth County Institutions	Delavan Delavan Lake Elkhorn Walworth County Institutions	December 3, 1981	SEWRPC Community Assistance Planning Report No. 56, <u>Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District</u>
	East Troy Potter Lake --	East Troy Potter Lake Army Lake	September 13, 1984	SEWRPC Community Assistance Planning Report No. 112, <u>Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin</u>

Table 24 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Walworth (continued)	Fontana	--	--	--
	--	Geneva National-Interlaken	November 6, 1989	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Geneva, Walworth County Metropolitan Sewerage District</u>
	Genoa City	Genoa City	March 6, 1989	<u>SEWRPC Community Assistance Planning Report No. 175, Sanitary Sewer Service Area for the Village of Genoa City, Kenosha and Walworth Counties, Wisconsin</u>
	Lake Como	--	--	--
	Lake Geneva	--	--	--
	Lyons	Lyons	September 14, 1987	<u>SEWRPC Community Assistance Planning Report No. 158, Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin</u>
	Sharon	--	--	--
	Walworth	-- Town of Walworth Utility District No. 1	June 15, 1987	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Walworth Utility District No. 1/Walworth County Metropolitan Sewerage District</u>
	Whitewater	Whitewater	September 14, 1987	<u>SEWRPC Community Assistance Planning Report No. 94, Sanitary Sewer Service Area for the City of Whitewater, Walworth County, Wisconsin</u>
Washington	Allenton	Allenton	March 11, 1985	<u>SEWRPC Community Assistance Planning Report No. 103, Sanitary Sewer Service Area for the Allenton Area, Washington County, Wisconsin</u>
	Germantown	Germantown	September 8, 1983	<u>SEWRPC Community Assistance Planning Report No. 70, Sanitary Sewer Service Area for the Village of Germantown, Washington County, Wisconsin</u>
	Hartford	Hartford	June 21, 1984	<u>SEWRPC Community Assistance Planning Report No. 92, Sanitary Sewer Service Area for the City of Hartford, Washington County, Wisconsin</u>

Table 24 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Washington (continued)	Jackson	Jackson	June 17, 1984	SEWRPC Community Assistance Planning Report No. 124, <u>Sanitary Sewer Service Area for the Village of Jackson, Washington County, Wisconsin</u>
	Kewaskum	Kewaskum	December, 1988	SEWRPC Community Assistance Planning Report No. 161, <u>Sanitary Sewer Service Area for the Village of Kewaskum, Washington County, Wisconsin</u>
	Newburg	--	--	--
	Slinger	Slinger	December 2, 1985	SEWRPC Community Assistance Planning Report No. 128, <u>Sanitary Sewer Service Area for the Village of Slinger, Washington County, Wisconsin</u>
	West Bend	West Bend	December 2, 1982	SEWRPC Community Assistance Planning Report No. 35, <u>Sanitary Sewer Service Area for the City of West Bend, Washington County, Wisconsin</u>
Waukesha	Beaver Lake	--	--	--
	Brookfield East	--	--	--
	Brookfield West	--	--	--
	Butler	Butler	March 1, 1984	SEWRPC Community Assistance Planning Report No. 99, <u>Sanitary Sewer Service Area for the Village of Butler, Waukesha County, Wisconsin</u>
	Delafield-Nashotah	--	--	--
	Dousman	Dousman	December 5, 1990	SEWRPC Community Assistance Planning Report No. 192, <u>Sanitary Sewer Service Area for the Village of Dousman, Waukesha County, Wisconsin</u>
	--	Eagle Spring Lake	December 2, 1985	<u>Amendment to the Regional Water Quality Management Plan—2000, Eagle Spring Lake Sanitary District</u>
	Elm Grove	--	--	--
	Hartland	Hartland	June 17, 1985	SEWRPC Community Assistance Planning Report No. 93, <u>Sanitary Sewer Service Area for the Village of Hartland, Waukesha County, Wisconsin</u>
	Menomonee Falls	--	--	--
	Mukwonago	Mukwonago	December 5, 1990	SEWRPC Community Assistance Planning Report No. 191, <u>Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin</u>

Table 24 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Waukesha (continued)	--	Mukwonago County Park	June 21, 1984	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Mukwonago, Towns of East Troy and Mukwonago</u>
	Muskego	Muskego	June 17, 1982	<u>SEWRPC Community Assistance Planning Report No. 64, Sanitary Sewer Service Area for the City of Muskego, Waukesha County, Wisconsin</u>
	Nashotah-Nemahbin Lakes	--	--	--
	New Berlin	New Berlin	December 7, 1987	<u>SEWRPC Community Assistance Planning Report No. 157, Sanitary Sewer Service Area for the City of New Berlin, Waukesha County, Wisconsin</u>
	North Lake	--	--	--
	North Prairie	--	--	--
	Oconomowoc-Lac La Belle Silver Lake	Oconomowoc	March 6, 1989	<u>SEWRPC Community Assistance Planning Report No. 172, Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin</u>
	Oconomowoc Lake	--	--	--
	Okauchee Lake	--	--	--
	Pewaukee	Pewaukee	June 17, 1985	<u>SEWRPC Community Assistance Planning Report No. 113, Sanitary Sewer Service Area for the Town of Pewaukee Sanitary District No. 3, Lake Pewaukee Sanitary District, and Village of Pewaukee, Waukesha County, Wisconsin</u>
	Pine Lake	--	--	--
	--	Rainbow Springs	June 21, 1984	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Mukwonago, Towns of East Troy and Mukwonago</u>
	Sussex-Lannon	Sussex	June 16, 1983	<u>SEWRPC Community Assistance Planning Report No. 84, Sanitary Sewer Service Area for the Village of Sussex, Waukesha County, Wisconsin</u>
	Wales	--	--	--
	Waukesha	Waukesha	December 2, 1985	<u>SEWRPC Community Assistance Planning Report No. 100, Sanitary Sewer Service Area for the City of Waukesha and Environs, Waukesha County, Wisconsin</u>

Map 20

RECOMMENDED SANITARY SEWER  
SERVICE AREAS IN THE REGION: 1990

LEGEND

- WALES UNREFINED SANITARY SEWER SERVICE AREA
- WEST BEND Refined Sanitary Sewer Service Area Completed Prior to 1990
- Refined Sanitary Sewer Service Area Completed During 1990

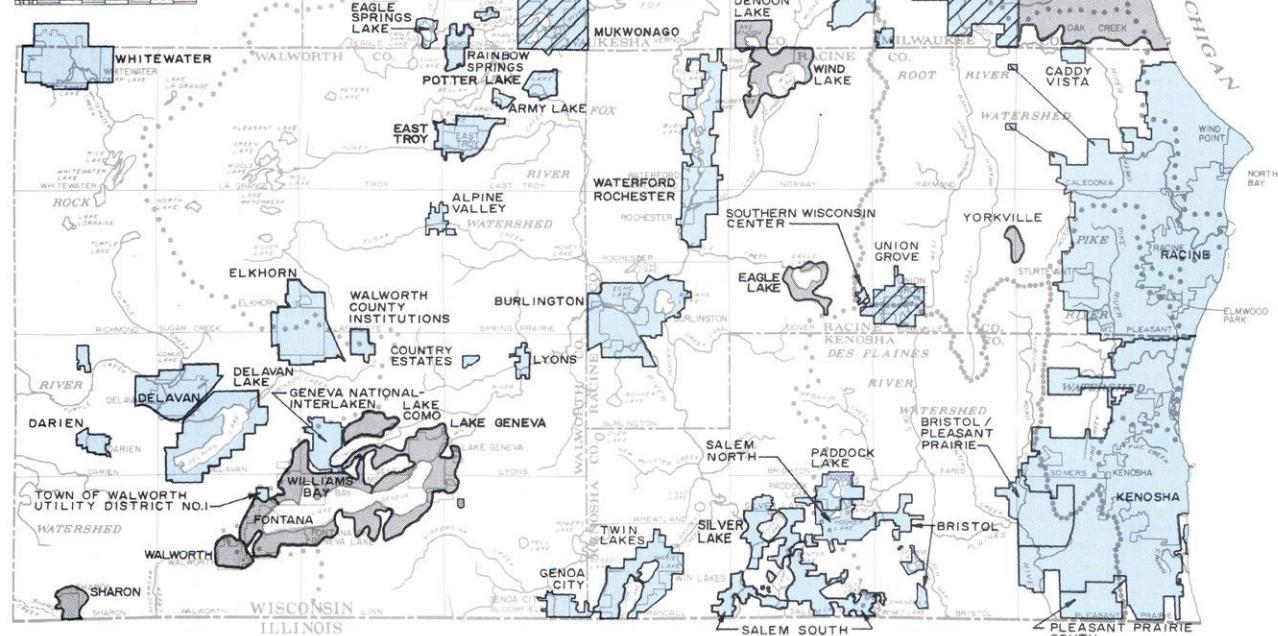
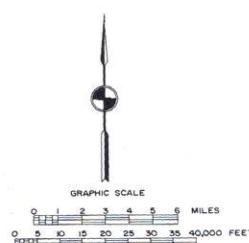


Table 25

## SANITARY SEWER EXTENSION REVIEWS: 1990

County	Public Sanitary Sewer Extensions	Private Main Sewer or Building Sewer Extensions	Total
Kenosha . . . .	39	16	55
Milwaukee . . . .	44	60 <sup>a</sup>	104
Ozaukee . . . .	21	18	39
Racine . . . .	29	41	70
Walworth . . . .	31	43	74
Washington . . .	29	50	79
Waukesha . . . .	83	97	180
Total	276	325	601

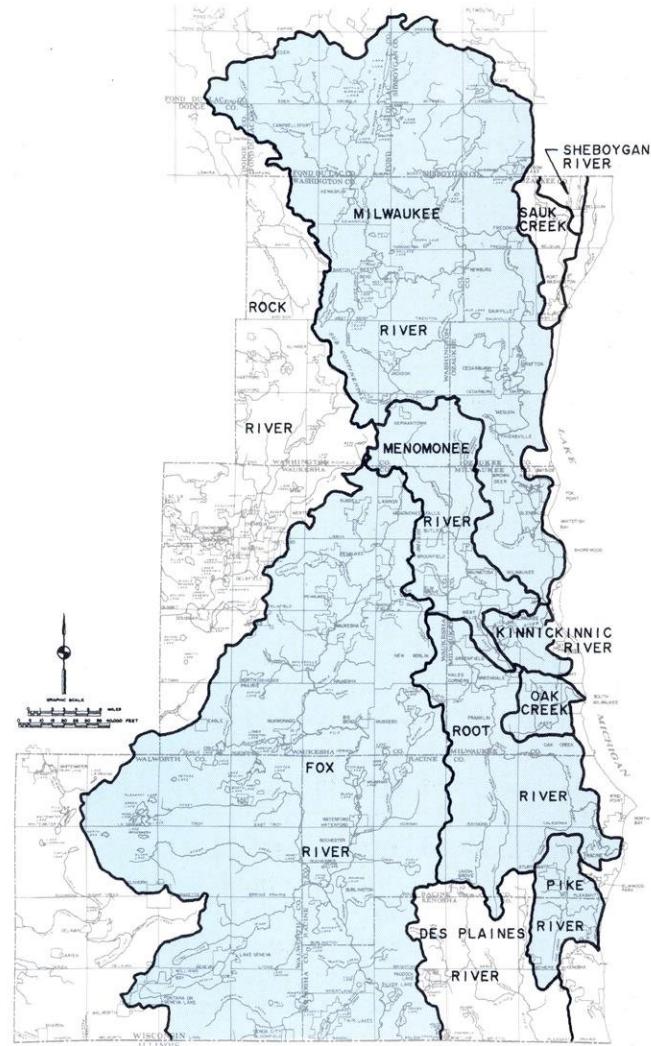
<sup>a</sup>The Commission has delegated the responsibility for the review of building sewer extensions within the City of Milwaukee to the City. During 1990, 328 reviews of building sewer extensions were conducted by the City.

Metropolitan Sewerage District. The District is charged by Section 66.89 of the Wisconsin Statutes with the function and duty of planning, designing, constructing, maintaining, and operating a system of facilities for the collection, transmission, and disposal of stormwater. In carrying out its responsibilities in this respect, the District recognized that a plan was needed that could be used to guide the development, over time, of drainage and flood control facilities within the greater Milwaukee area.

The program carried out by the Commission for the District was conducted in accordance with a prospectus published by the Commission in March 1985. In preparing the prospectus, it was recognized that sound public administration, as well as good planning and engineering practice, would dictate that the broad District responsibilities for stormwater management be carried out within explicit policy guidelines set forth by the governing body of the District as well as within the context of a comprehensive stormwater drainage and flood control system plan consistent with the policy plan. Accordingly, the prospectus proposed that the District stormwater drainage and flood control plan consist of two elements: a policy plan and a system plan. The policy plan is intended to identify those streams and watercourses for which it is recommended that the MMSD assume jurisdictional responsibility for drainage and flood control purposes; to identify the type of watercourse improvements for which it is recommended that the MMSD

Map 21

## SEWRPC WATERSHED STUDIES COMPLETED: 1990



assume responsibility; to set forth a recommended manner in which watercourse improvement costs should be shared between the MMSD and benefited municipalities; and to set forth a procedure for prioritizing MMSD drainage and flood control projects. The policy plan was completed in 1986, and was summarized in the Commission's 1986 Annual Report.

The MMSD system plan, prepared within the framework of the policy plan, identifies the type, capacity, location, and horizontal and vertical alignment of needed drainage and flood control facilities. To this end, the system plan recommends the appropriate elevation, size, grade, and

capacity of channels and appurtenant bridge waterway openings, major storm sewers, detention and retention basins, pumping stations, and other appurtenances of areawide significance. The system plan also includes such data on flood stages under existing and planned conditions as may be required for sound public decision-making concerning flood protection elevations. The system plan is in sufficient depth and detail to provide a sound basis for local flood control planning and design as well as for proceeding with final engineering of the recommended watercourse and other major drainage projects proposed to be constructed by the District. The system plan identifies the benefits and costs of the recommended improvements and an order of priority and schedule for their construction over time.

The Commission, working under the guidance of a technical advisory committee created for this purpose, completed preparation of flood control and related stormwater drainage system plans for streams in the Kinnickinnic River, Milwaukee River, Oak Creek, Root River, and Lake Michigan Direct Drainage Area watersheds. These streams included: the Kinnickinnic River, Lyons Park Creek, Whitnall Park Creek, the Edgerton Ditch, the S. 43rd Street Ditch, Villa Mann Creek, and an unnamed tributary to Villa Mann Creek, all in the Kinnickinnic River watershed; Indian Creek, Lincoln Creek, Beaver Creek, Brown Deer Park Creek, and South Branch Creek, all in the Milwaukee River watershed; Oak Creek, the North Branch of Oak Creek, and the Mitchell Field Drainage Ditch, all in the Oak Creek watershed; the North Branch of the Root River, the East Branch of the Root River, Hale Creek, Tess Corners Creek, Whitnall Park Creek, the North Branch of Whitnall Park Creek, the Northwest Branch of Whitnall Park Creek, Crayfish Creek, and the Caledonia Branch of Crayfish Creek, all in the Root River watershed; the Menomonee River, Wood Creek, Honey Creek, Underwood Creek, the South Branch of Underwood Creek, Dousman Ditch, the Little Menomonee River, and Butler Ditch, all in the Menomonee River watershed; and Fish Creek in the Lake Michigan Direct Drainage Area.

The recommended system plan for the Milwaukee Metropolitan Sewerage District consists of a carefully selected combination of structural and nonstructural measures. The basic nonstructural plan measures consist of carrying out the

regional land use plan. By guiding future land use development in accordance with the plan, the intensification of existing, and the creation of new, drainage and flood control problems can be avoided. The importance of the land use recommendations cannot be overemphasized. Not only will the location, extent, and density or intensity of urban land use development within each of the watersheds concerned affect the flood flows and stages upon which the system plan is based, but the preservation of the environmental corridors in the riverine areas will preserve a high volume of floodwater storage capacity along the stream systems.

The major structural measures include a selected combination of storage; channel modification; structure floodproofing, elevation, and removal; diking; stormwater pumping; bridge and culvert replacement; and new channel construction. The plan emphasizes the provision of substantial floodwater storage through the preservation of essentially all natural floodplain storage remaining in the study area and the construction of selected storage facilities. These measures are shown on Map 22. Those stream reaches for which no significant stormwater drainage and flooding problems exist are also identified on Map 22.

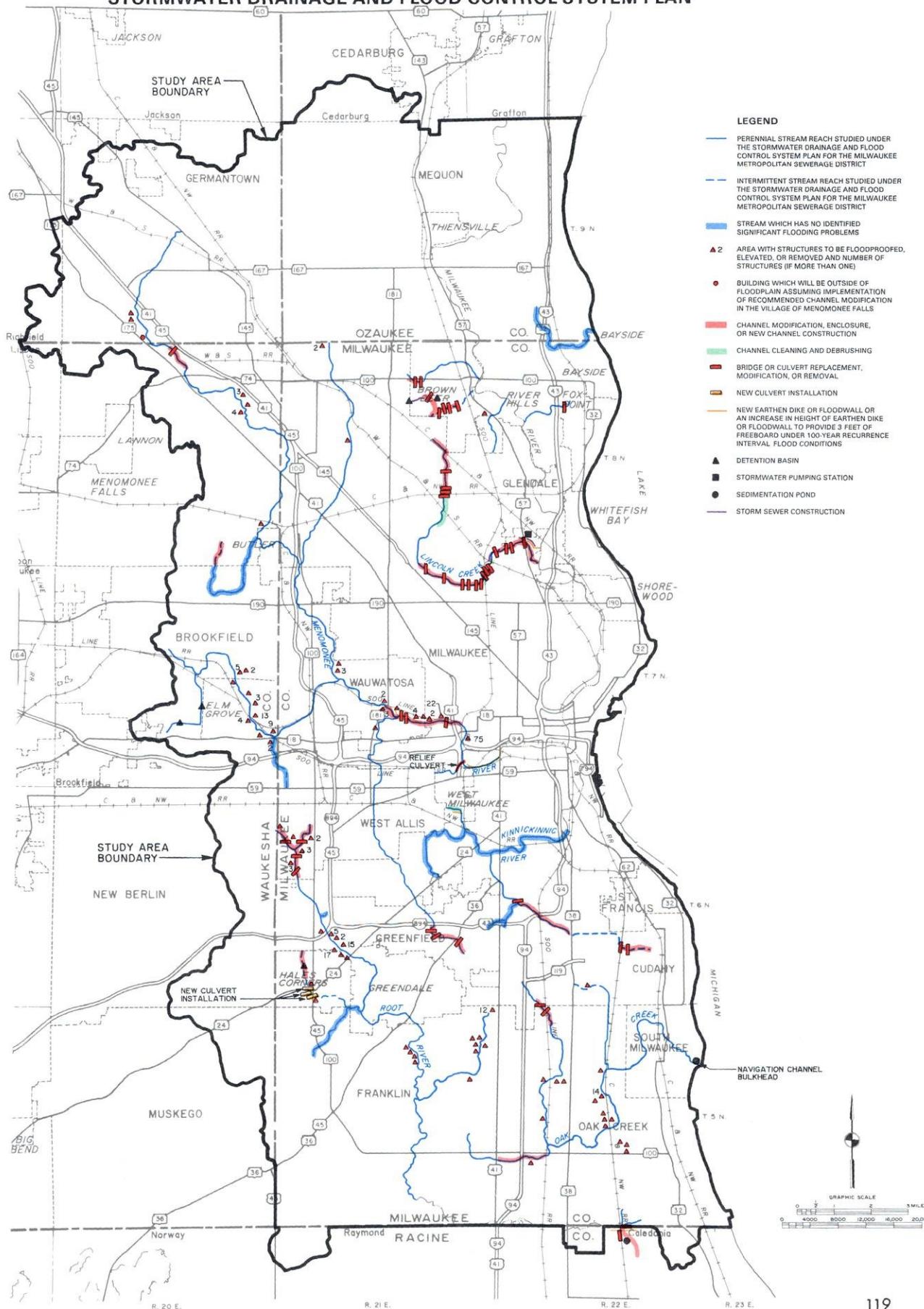
The recommended plan would essentially eliminate all flood-related damages during flood events up to and including a 100-year recurrence interval event under planned land use and channel conditions. The flood control measures recommended are designed primarily to alleviate flood damages from direct overland flooding along the stream reaches studied and also to provide an adequate outlet for local storm sewers and drainageways. These measures, although not specifically designed to do so, may also be expected to materially reduce damages due to localized stormwater drainage problems or sanitary sewer backup.

### **Stormwater and Floodland Management Planning**

During 1990, the Commission staff provided technical assistance to state and local governmental agencies in resolving stormwater and floodland management problems. Both stormwater drainage and flood control deal with problems of disposal of unwanted water, and the distinction between these two concepts is not

Map 22

RECOMMENDED MILWAUKEE METROPOLITAN SEWERAGE DISTRICT  
STORMWATER DRAINAGE AND FLOOD CONTROL SYSTEM PLAN



always clear-cut. The Commission defines flood control as the prevention of damage from the overflow of natural streams and watercourses. In contrast, drainage is defined by the Commission as the disposal of excess stormwater on the land surface before such water has entered defined stream channels. While the Commission continues to be extensively involved in flood control planning, in recent years the Commission's work efforts have been increasingly directed toward stormwater management planning.

In 1990 the Commission undertook a number of stormwater and floodland management planning activities at the request of local units of government. The following are examples of such work:

- At the request of Kenosha County, an evaluation was made of a proposal to cut and fill along the limits of the Center Creek and Des Plaines River floodplain as part of a proposed commercial development. Proposed stormwater management aspects of the project were also reviewed by Commission staff.
- At the request of the Milwaukee County, an evaluation was begun of stormwater drainage and flood control alternatives for Grantosa Creek, which is a tributary to the Menomonee River in the Cities of Milwaukee and Wauwatosa.
- At the request of Milwaukee County and the City of Greenfield, supplemental hydraulic analyses were made of the proposed W. Layton Avenue box culvert and attendant channel modification of Honey Creek in the City of Greenfield. The proposed culvert and channel modification were recommended in the flood control and related drainage system plan prepared by the Commission for the Milwaukee Metropolitan Sewerage District.
- At the request of Racine County, a review was made of the impacts on 100-year recurrence interval flood stages of a proposal to construct a wildlife pond adjacent to the Root River Canal. It was concluded that the project as proposed, with berms in the floodway, would increase the 100-year recurrence interval flood stage and would, therefore, not meet the requirements of the Wisconsin Administrative Code or the County Zoning Ordinance.

• At the request of the City of Brookfield, the floodland storage impacts of a lake and residential development located on the Dousman Ditch were evaluated. The Menomonee River watershed plan recommends the construction of a flood control reservoir which would store floodwaters on the unoccupied and lake portions of the development site as well as downstream of the site. The Commission evaluation suggested alternatives to refine the proposed site development plan and make it consistent with the recommendations of the watershed study.

- At the request of the City of Milwaukee, additional hydrologic analyses were performed for a wet detention basin proposed to be located near the intersection of N. 68th Street and W. Dean Road. The analyses were made to verify that modifications to the detention basin outlet structure for the purpose of improving the efficiency of the basin in removing nonpoint source pollutants would not impair the proper functioning of the basin to reduce peak downstream flood discharges.
- At the request of the City of Milwaukee, hydraulic analysis of three proposed replacement bridges were initiated. The replacement bridges are to be located on the Menomonee River at N. 124th Street, the Little Menomonee River at W. Bradley Road, and the Dretzka Park Tributary at W. Bradley Road.
- At the request of the City of Waukesha, a hydraulic analysis was completed of a proposed pedestrian bridge over the Fox River which would connect the New Berlin bicycle trail with the Wisconsin Department of Natural Resources Glacial Drumlin bicycle trail.
- Work continued on the preparation of a stormwater management plan for the City of West Bend. During 1990, the Commission published SEWRPC Community Assistance Planning Report No. 173, A Stormwater Management Plan for the City of West Bend, Washington County, Wisconsin, Volume Two, Alternatives and Recommended Plan for the Silver Creek Subwatershed. The recommended plan for the Silver Creek subwatershed includes stormwater drain-

age, water quality management, and flood control elements. Plan recommendations were made for Silver Creek, Silverbrook Creek, and Washington Creek. Map 23 graphically summarizes the recommended stormwater management system plan for a portion of the Silver Creek subwatershed. Work also continued during the year on the inventory phase of the portion of the plan addressing stormwater management in the Milwaukee River direct drainage area, including the Wingate Creek subwatershed. That work is being documented in a third volume of the report.

- Work continued on the preparation of a stormwater management and flood control plan for the Lilly Creek subwatershed in the Village of Menomonee Falls. The evaluation of alternative future stormwater management and flood control systems was completed and presented to the Village Advisory Committee formed to review the plan. The recommended stormwater management plan element was selected and refined. A recommended flood control plan for the main stem of Lilly Creek, developed within the framework of the recommended stormwater management plan, is scheduled to be completed in 1991.
- The Commission staff routinely provides hydrologic and hydraulic data to state and local units of government and to private consultants for use in the design of bridges and other structures over and adjacent to streams in the Region. During 1990 data were provided for: the Milwaukee, Little Menomonee, and Kinnickinnic Rivers in the City of Milwaukee, Milwaukee County; the Milwaukee River in the Town of Grafton, Ozaukee County; the Root River in the City of Racine, Racine County; Turtle Creek in the Town of Richmond, Walworth County; the East Branch of the Rock River in the Town of Wayne and the Menomonee River in the Village of Germantown, both in Washington County; and the Menomonee River in the Villages of Butler and Menomonee Falls and Sussex Creek in the Village of Sussex, all in Waukesha County.

In 1991 the Commission will continue its involvement in stormwater management and floodland management activities, maintaining a

staff capability to respond to requests for assistance from local governmental units and state agencies.

### **Floodplain Data Availability**

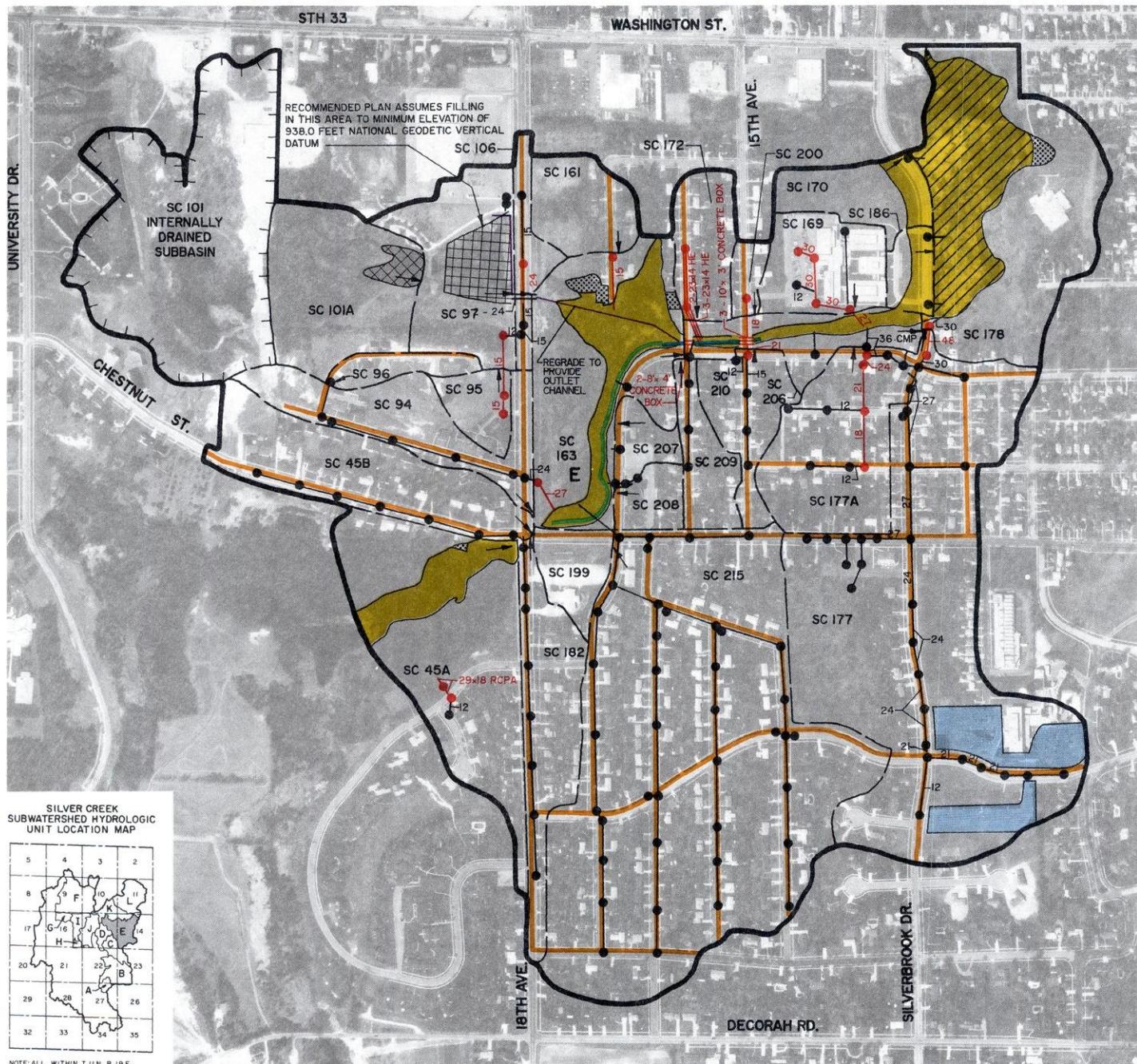
The status of existing flood hazard data in the Region is shown on Map 24. The Commission has completed comprehensive watershed studies for the Fox, Kinnickinnic, Menomonee, Milwaukee, Root, and Pike River watersheds, and for the Oak Creek watershed, resulting in the development of flood hazard data for about 699 miles of stream channel, not including stream channels in the Milwaukee River watershed lying outside the Region in Sheboygan and Fond du Lac Counties. In addition, special Commission floodland management studies have resulted in the development of flood hazard data for about 49 additional miles of stream channel. Large-scale flood hazard maps prepared to Commission specifications are available for the riverine areas along about 459 miles of stream channel for which the Commission, the Wisconsin Department of Natural Resources, and the Federal Emergency Management Agency have developed flood hazard data.

### **Flood Insurance Rate Studies**

Under the National Flood Insurance Act of 1968, the Federal Emergency Management Agency (FEMA) was given authority to conduct studies to determine the location and extent of floodlands and the monetary damage risks related to the insurance of urban development in floodland areas. FEMA is proceeding with the conduct of such studies on a community-by-community basis throughout the United States. While the Commission has not directly contracted with FEMA for the conduct of such studies, the Commission does cooperate with all of the engineering firms and agencies involved in the conduct of such studies, particularly in the provision of basic floodland data already developed by the Commission in a more comprehensive and cost-effective manner through its series of watershed studies. The Commission provides to the contractors all the detailed hydrologic and hydraulic data developed under the watershed studies for the various streams in the Region and shares with the contractors the results of the analytical phases of such studies. Development by the Commission of such data makes it possible for FEMA to carry out the flood insur-

### Map 23

## RECOMMENDED SYSTEM PLAN FOR STORMWATER MANAGEMENT AND FLOOD CONTROL FOR THE SILVER CREEK SUBWATERSHED: HYDROLOGIC UNIT E



## LEGEND

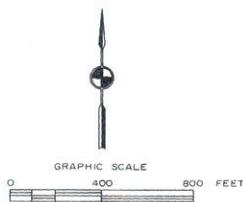
- HYDROLOGIC UNIT BOUNDARY UNDER EXISTING DRAINAGE CONDITIONS
- E HYDROLOGIC UNIT IDENTIFICATION
- SUBBASIN BOUNDARY
- SC 101 SUBBASIN IDENTIFICATION
- SUBBASIN OUTLET
- EXISTING MANHOLE OR CATCH BASIN
- 24 EXISTING STORM SEWER TO BE RETAINED (SIZE IN INCHES)
- 24 EXISTING CULVERT TO BE RETAINED (SIZE IN INCHES)
-  EXISTING NATURAL DETENTION BASIN

-  EXISTING CONSTRUCTED WET DETENTION BASIN
-  PROPOSED MANHOLE
-  PROPOSED REPLACEMENT STORM SEWER (SIZE IN INCHES)
-  PROPOSED OPEN CHANNEL
-  PROPOSED CHANNEL MODIFICATION
-  PROPOSED STREAMBANK STABILIZATION
-  SWEEP STREET 5 TIMES IN SPRING AND 5 TIMES IN FALL
-  PROPOSED INFILTRATION SYSTEM TO RETAIN RUNOFF FROM 50 PERCENT OF PARKING LOT AREA
-  100-YEAR RECURRENCE INTERVAL FLOODPLAIN
-  AREA OF DISTURBED TOPOGRAPHY LIMITS OF 50 FEET OR LESS UNDETERMINED

CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
HE	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
CLAY	CLAY PIPE
PVC	POLYVINYL CHLORIDE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH

NOTE: PIPES ARE CONSTRUCTED OF REINFORCED CONCRETE UNLESS DESIGNATED AS ABOVE

EXISTING STORM SEWER SIZES GENERALLY SHOWN ONLY FOR SEWERS WITH IDENTIFIED EXISTING OR POTENTIAL CAPACITY PROBLEMS AND FOR SEWER SEGMENTS IMMEDIATELY UPSTREAM OF SUCH PROBLEM SECTIONS



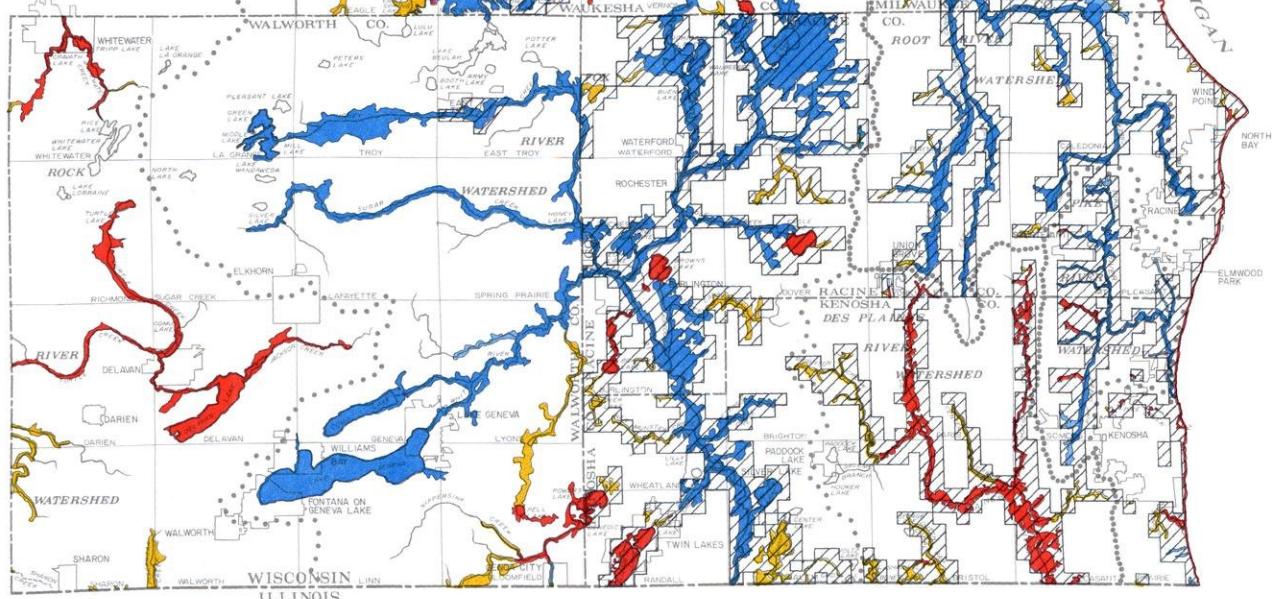
**Map 24**  
**DELINEMENT OF FLOODLANDS: 1990**

**LEGEND**

- FLOODLANDS DELINEATED BY SEWRPC AND FEMA; BASED ON HYDROLOGIC AND HYDRAULIC ENGINEERING STUDIES; 100-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED.
- FLOODLANDS DELINEATED BY SEWRPC; BASED ON HYDROLOGIC AND HYDRAULIC ENGINEERING STUDIES; 100-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED.
- FLOODLANDS DELINEATED BY FEMA; BASED ON HYDROLOGIC AND HYDRAULIC ENGINEERING STUDIES; 100-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED.
- FLOODLANDS DELINEATED BY FEMA OR SEWRPC; BASED ON APPROXIMATE METHODS; 100-YEAR RECURRENCE INTERVAL FLOOD STAGES NOT ESTABLISHED.
- FLOODLANDS DELINEATED BY WISCONSIN DNR; BASED ON HYDROLOGIC AND HYDRAULIC ENGINEERING STUDIES; 100-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED
- STREAM REACHES FOR WHICH LARGE-SCALE TOPOGRAPHIC MAPS PREPARED TO SEWRPC STANDARDS ARE AVAILABLE AND ON WHICH FLOOD HAZARD AREAS HAVE BEEN DELINEATED BY SEWRPC



GRAPHIC SCALE  
 0 1 2 3 4 5 6 MILES  
 0 5 10 15 20 25 30 35 40 4000 FEET



ance rate studies more efficiently and at considerably less cost than if such data had to be developed on a community-by-community basis. Commission participation in, and review of, the study findings, moreover, assures consistency between studies for communities located along a given river or stream.

Federal flood insurance studies are carried out individually for incorporated cities and villages and for the remaining unincorporated areas of counties. The status of flood insurance rate studies in the Region at the end of 1990 is shown on Map 25. During 1990, no new studies were underway for communities within the Region. It is the intent of FEMA to update older studies depending upon need and funding availability.

As shown on Map 25, as of 1990 there were a total of 24 cities or villages in the Region for which FEMA had not conducted a flood insurance rate study. In eight cases, FEMA has instead published a "flood hazard boundary map," which shows an approximate location of floodlands without the support of detailed engineering studies. The remaining 16 cities or villages in the Region are not considered by FEMA to contain flood hazard areas. In one of those 16, the Village of Newburg in Washington and Ozaukee Counties, a flood hazard area was identified and delineated by the Commission in the Milwaukee River watershed study. Although FEMA has not yet undertaken a flood insurance study for the Village of Newburg, the Village has enacted appropriate floodland zoning regulations.

Besides providing available data from the Commission files to the contractors conducting such studies for FEMA, the Commission helps to delineate regulatory floodways and attends meetings with local officials and citizens to discuss the results of flood insurance rate studies. Under its community assistance program, the Commission also assists local communities in enacting sound floodland regulations as required for participation in the federal Flood Insurance Program.

### **Stream Gaging Program**

Streamflow data are essential to the sound management of the water resources of the Region. When the Commission began its regional planning program in 1960, only two continuous recording streamflow gages were in

operation on the entire regional stream network. Since that time, the Commission has been instrumental in establishing, through cooperative, voluntary, intergovernmental action, a more comprehensive streamflow gaging program (see Map 26). In 1990, there were a total of 21 continuous recording streamflow gages in operation in the Region, two more than in 1989. Of that total, 14 were financially supported by the Waukesha County Board of Supervisors, the Milwaukee Metropolitan Sewerage District, the City of Racine and the Racine Water and Wastewater Utilities, and the Kenosha Water Utility under the Commission's cooperative program. In addition, four gages were supported by the Wisconsin Department of Natural Resources, one gage was supported by the U. S. Army Corps of Engineers, and two were supported by the Illinois Department of Transportation. Two of the four gages supported by the Wisconsin Department of Natural Resources were added in 1990. One new gage is a reactivation of a gage operated over the periods 1973-1981 and 1984-1987 on Cedar Creek, a tributary to the Milwaukee River in the City of Cedarburg. The other new gage is located on Noyes Creek, a tributary to the Little Menomonee River. The U. S. Geological Survey annually publishes the data collected under this streamflow monitoring program.

### **COASTAL MANAGEMENT PLANNING**

During 1990, the Commission continued to provide assistance to the Wisconsin Department of Administration's Bureau of Energy and Coastal Policy Analysis in the conduct of the Wisconsin coastal management program. This program is intended to coordinate governmental activities toward achieving the objective of better management of the resources of the Lake Michigan and Lake Superior coastal zones of the State. The program is being carried out by the State of Wisconsin pursuant to the federal Coastal Zone Management Act of 1972 through the Wisconsin Coastal Management Council.

Under an agreement with the Wisconsin Department of Administration, Bureau of Energy and Coastal Policy Analysis, the Commission in 1975 formed and staffed a Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin. This Committee represents a variety of interests, including local elected officials, the university community, and recreational, navigational, and environmental

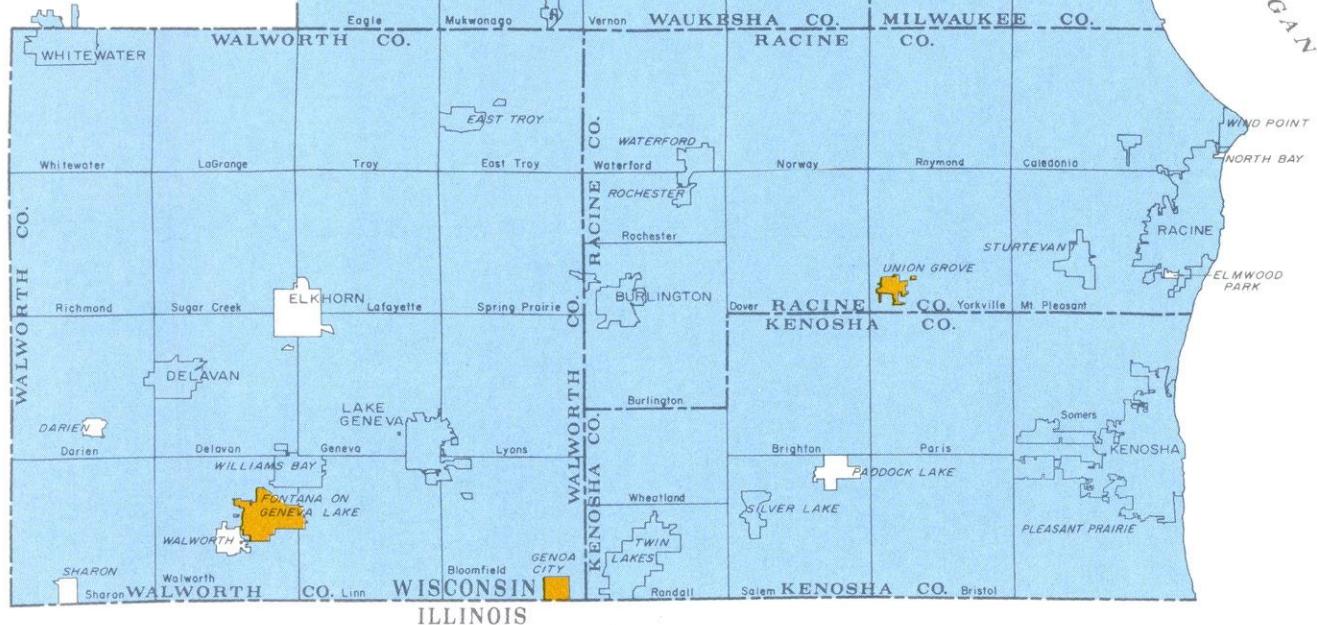
**Map 25**  
**STATUS OF FLOOD**  
**INSURANCE RATE STUDIES: 1990**

-  FLOOD PRONE COMMUNITY WITH COMPLETED FLOOD INSURANCE STUDY
-  (NONE) FLOOD PRONE COMMUNITY WITH FLOOD INSURANCE STUDY UNDERWAY
-  (NONE) FLOOD PRONE COMMUNITY WITH COMPLETED FLOOD INSURANCE RESTUDY
-  (NONE) FLOOD PRONE COMMUNITY WITH FLOOD INSURANCE RESTUDY UNDERWAY
-  FLOOD PRONE COMMUNITY WITH FLOOD HAZARD BOUNDARY MAP ONLY
-  COMMUNITY WITH NO FLOOD HAZARD IDENTIFIED BY FEMA
-  COMMUNITY NOT YET STUDIED BY FEMA

GRAPHIC SCALE

0 1 2 3 4 5 6 MILES

0 5 10 15 20 25 30 35 40,000 FEET



Map 26

## LOCATION OF U. S. GEOLOGICAL SURVEY STREAM GAGING STATIONS

## LEGEND

▲ CONTINUOUS STAGE RECORDER GAGE-OPERATED BY THE U.S. GEOLOGICAL SURVEY; COOPERATIVELY MAINTAINED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (2)

▲ CONTINUOUS STAGE RECORDER GAGE-COOPERATIVELY MAINTAINED BY THE U.S. GEOLOGICAL SURVEY; WAUKESHA COUNTY BOARD; MILWAUKEE METROPOLITAN SEWERAGE DISTRICT; KENOSHA WATER UTILITY; CITY OF RACINE AND RACINE WATER AND WASTEWATER UTILITIES; AND SEWRPC (14)

▲ CONTINUOUS STAGE RECORDER GAGE-OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE U.S. ARMY, CORPS OF ENGINEERS (1)

▲ CONTINUOUS STAGE RECORDER GAGE-OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (2)

▲ CONTINUOUS STAGE RECORDER GAGE-NO LONGER IN OPERATION (17)

▲ CREST STAGE GAGE - COOPERATIVELY MAINTAINED BY THE U.S. GEOLOGICAL SURVEY AND WISCONSIN DEPARTMENT OF TRANSPORTATION (1)

▲ CREST STAGE GAGE - NO LONGER IN OPERATION (5)

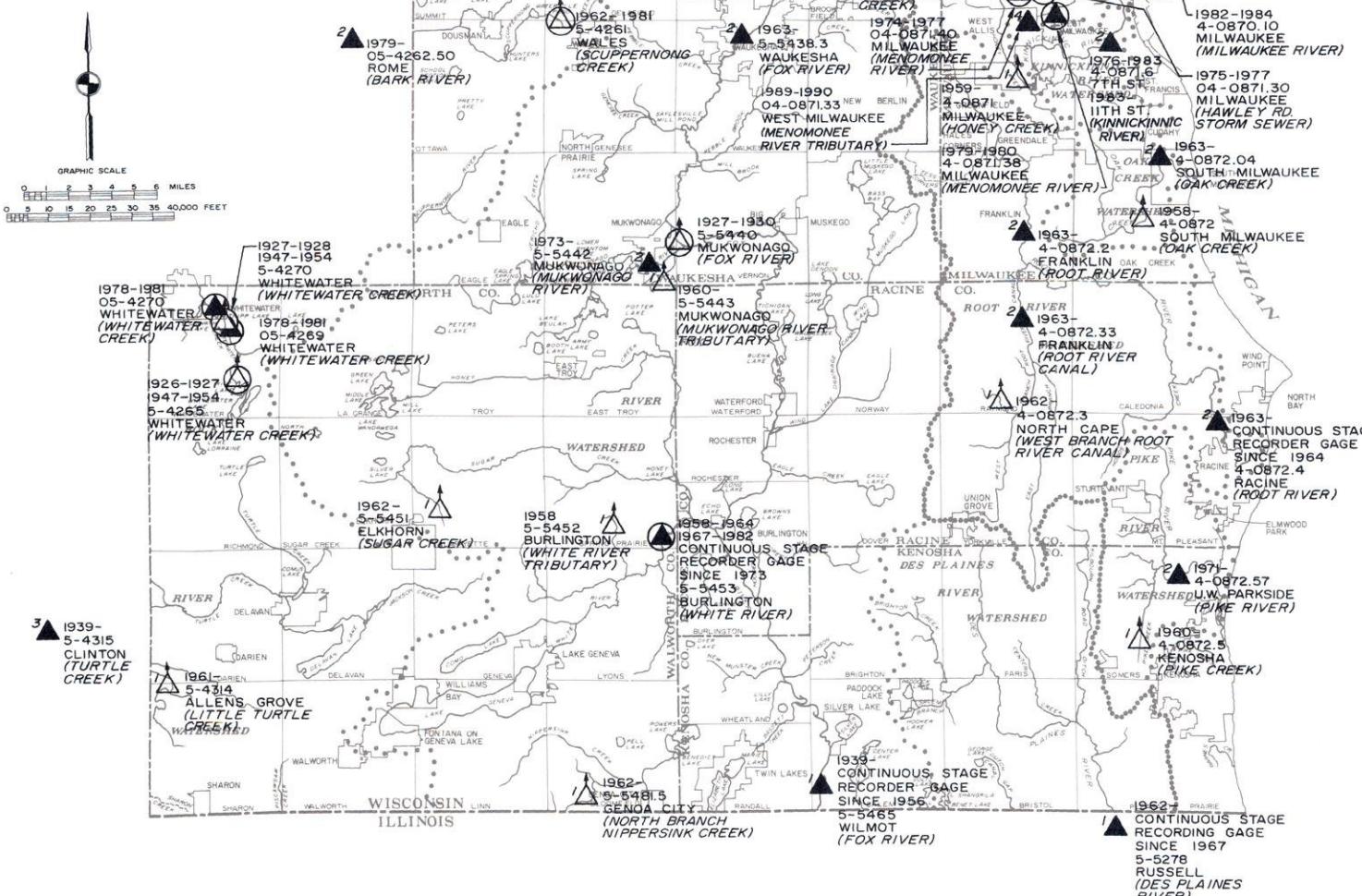
GAGES FIRST PLACED INTO OPERATION OR REACTIVATED DURING 1990

▲ CONTINUOUS STAGE RECORDER GAGE - OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (2)

## 1962 PERIOD OF RECORD

5-4261 U.S. GEOLOGICAL SURVEY GAGING STATION NUMBER ASSIGNED, IN DOWNSTREAM ORDER, TO ALL STATIONS REGARDLESS OF WHETHER THEY ARE CONTINUOUS OR PARTIAL RECORD GAGES. A PREFIX 4 INDICATES THAT THE GAGE IS ON A STREAM LOCATED EAST OF THE SUBCONTINENTAL DIVIDE, WHEREAS A PREFIX 5 DENOTES A GAGING STATION LOCATED WEST OF THE SUBCONTINENTAL DIVIDE.

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



interest groups. The primary function of this Committee is the review of state coastal studies and reports as they are proposed and produced.

One of the continuing functions of the Commission under the coastal management program is the designation of special coastal areas. In 1990, no additional areas in the Region were formally designated as special coastal areas. The existing Lake Michigan shoreline special coastal areas are shown on Map 27. These special areas have natural, scientific, economic, cultural, or historic importance. Designation by the Wisconsin Coastal Management Council as a special coastal area ensures eligibility for financial or technical assistance for special coastal area management activities through the Wisconsin coastal management program and focuses attention on a valuable coastal resource.

During 1990, the Commission continued to assist local units of government in the implementation of locally developed shoreline erosion control plans. Comprehensive plans have been developed cooperatively by the Commission for Milwaukee and Racine Counties. These plans were described, respectively, in the 1989 and 1982 Annual Reports.

## SOLID WASTE MANAGEMENT

During 1990, the Commission continued to assist counties in the Region in the preparation and implementation of locally developed, county-oriented, solid waste management plans. Prior annual reports have summarized such plans for Kenosha, Milwaukee, and Walworth Counties.

During 1990, the Commission staff was continuing to monitor the steps being taken by local units of government to implement the requirements of the State recycling law as set forth in Wisconsin Act 335 and the effectiveness of those activities.

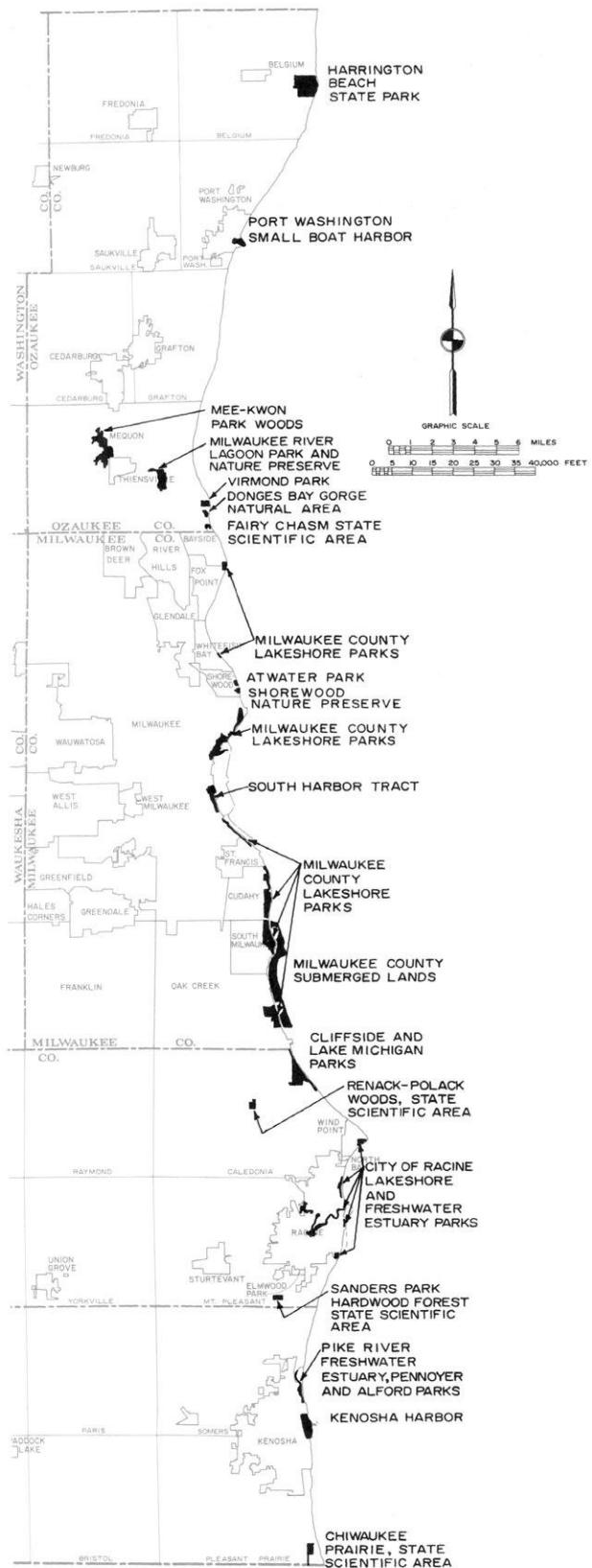
## SPECIAL ENVIRONMENTAL ANALYSIS

From time to time, the Commission is asked by local units of government to carry out environmental evaluations of proposed activities. Two such evaluations were conducted in 1990, both dealing with mineral extraction operations.

- At the request of the Town of Lisbon, the Commission completed an evaluation of the environmental impacts of expansion of a

Map 27

### DESIGNATED COASTAL AREAS IN SOUTHEASTERN WISCONSIN: 1990



major quarrying operation in the southeast section of the Town. The evaluation is documented in SEWRPC Memorandum Report No. 44, Town of Lisbon Southeast Area Quarry Operations—Environmental

Impact Evaluation. In order to assure that all potential impacts of the proposed expansion were properly considered, the geographic study area considered in the evaluation included a nine-square-mile area, including portions of the Towns of Lisbon and Pewaukee and the Village of Sussex. The report identifies those potential environmental impacts of significance which may be expected to be associated with

continued and expanded quarrying operations within the study area and identifies mitigative measures which can be considered to minimize those impacts.

- At the request of the Town of Merton, the Commission completed an assessment of the potential environmental impacts of a proposed expansion of a sand and gravel extraction operation located in the Town. The assessment is documented in a letter report to the Town; it identified the environmental impacts considered to be significant. Recommendations for mitigating the identified negative impacts were also included.

# ECONOMIC DEVELOPMENT ASSISTANCE DIVISION

## DIVISION FUNCTIONS

The Economic Development Assistance Division assists local units of government in the Region in pursuing economic development activities and promotes the coordination of local economic development plans and programs. The Division provides four basic types of services: local economic development program planning; economic development data and information provision; preparation and administration of economic development, housing, and public facility grant applications; and economic development project planning.

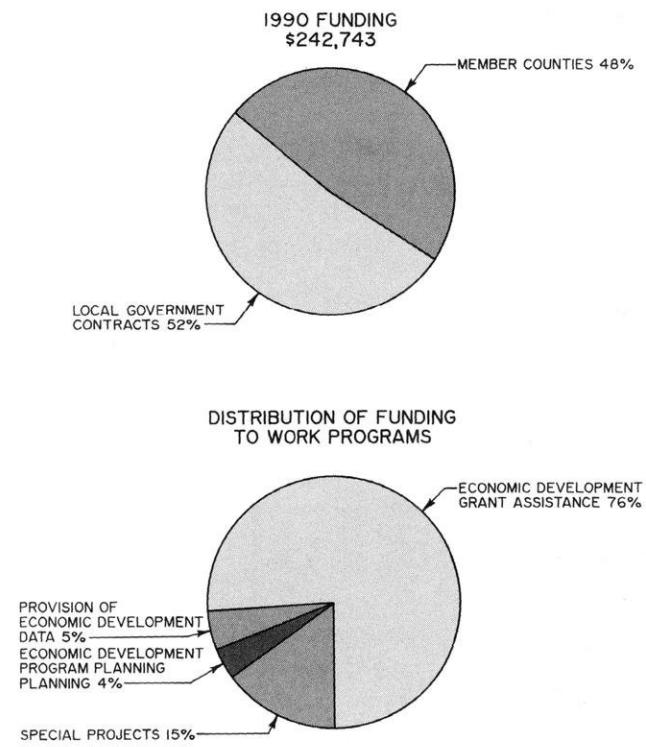
## LOCAL ECONOMIC DEVELOPMENT PROGRAM PLANNING

Increasingly, communities within the Southeastern Wisconsin Region have identified a need for ongoing local economic development activities. This need has been evidenced by a variety of local and regional economic development problems, including: 1) structural changes in the regional and national economies as evidenced by a declining proportion of manufacturing employment and an increasing proportion of retail trade and service employment; 2) the growing importance to employers of international trade and government sales; 3) the availability of workers for the full range of employment opportunities in the Region; and 4) decisions by local businesses and industries to relocate to, or expand in, areas outside the community.

There has been an increasing interest in carefully planning local economic development programs in order to contain the rising costs of promoting economic development. In order to attract new, and retain existing, employers, some communities have chosen to purchase land for industrial parks and to provide the necessary infrastructure for development, e.g., roadway, sanitary sewer, water supply, and stormwater drainage improvements. Other communities have improved central commercial business districts through street resurfacing; improvements to curbs and gutters, sidewalks, public parking lots, and utilities; and the provision of streetscape amenities such as trees and curbside benches. Because the costs of these improve-

ments have continued to escalate, however, and because business establishments have become less attached to existing geographic locations, many communities have begun to reevaluate previous decisions to promote economic development. While some have decided not to promote the growth of existing business and industry, or the location of new firms within their communities, others have decided to continue to pursue a range of local economic development measures. These include identifying the types of economic development compatible with overall community development goals and objectives and promoting compatible economic development activities. In response to the increased interest in furthering economic development at the local level, the Commission has developed a staff capability to assist public agencies and private organizations in such efforts.

**Figure 62**  
**ECONOMIC DEVELOPMENT ASSISTANCE DIVISION**



During 1990, the Commission engaged in the following overall economic development program planning efforts:

- Provided technical assistance relative to local economic development program planning to the Cities of Cudahy and Franklin and the City of Brookfield. In the City of Cudahy, the Commission provided information on alternative economic development programs. In the City of Franklin, the Commission provided information concerning the creation of a local, not-for-profit economic development corporation. In the City of Brookfield, the Commission provided guidance on initial activities to implement the Brookfield overall economic development program plan completed in 1989.
- Provided demographic and socioeconomic data to enable updated county economic development program plans to be prepared for Kenosha, Racine, Washington, and Waukesha Counties. These plans serve to maintain county eligibility for federal public works grants and revolving loan fund programs to further economic development.

## **ECONOMIC DEVELOPMENT DATA AND INFORMATION PROVISION**

Considerable Commission staff effort is directed at responding to requests for economic development-related data. This function also includes the provision of short-term technical assistance to local units of government, public agencies, and local development corporations in the analysis of economic development data. During 1990, the Division prepared letter responses to 94 requests for economic development-related data from the Commission files. In addition, approximately 275 requests were responded to by telephone and through personal visits to the Commission offices. These requests came from local units of government, federal and state agencies, local development organizations, businesses, and individual citizens. The following are some examples of Division activity in performing this function during 1990:

- Provision of Wisconsin Department of Industry, Labor and Human Relations (DILHR) data identifying the number of industries and employees by industry type within communities in Southeastern Wisconsin.

In addition, U. S. Bureau of the Census, U. S. Bureau of Economic Analysis, U. S. Bureau of Labor Statistics, and Southeastern Wisconsin Regional Planning Commission demographic and socioeconomic data were provided upon request. These types of data were provided to such units and agencies of government, organizations, and firms as: the Cities of Franklin, Oconomowoc, Mequon, and Whitewater; Ozaukee County; Hartford Area Development Corporation; Kenosha Area Development Corporation; Racine County Economic Development Corporation; Germantown and Geneva Lakes Area Chambers of Commerce; University of Wisconsin-Extension, Milwaukee and Waukesha Counties; Gateway Technical College; Waukesha County Technical College; Community Memorial Hospital, Menomonee Falls; and Dieringer Research Associates, Inc.

- Provision to the Wisconsin Business Development Finance Corporation of data on the potential economic impact of three proposed business loans. The Corporation provides business loans through the U. S. Small Business Administration 504 Certified Development Company program.
- Provision of assistance to the Racine County Economic Development Corporation in the coordination of, and planning for, a regional economic development conference to be held by the Mid-America Economic Development Council in Racine, Wisconsin, in 1991.
- Provision of assistance to local community staff and representatives of businesses interested in locating or expanding in communities in Southeastern Wisconsin and utilizing state and federal business loan programs to do so. This assistance was provided on 52 separate occasions at locations in each of the Region's seven counties.

## **PREPARATION AND ADMINISTRATION OF ECONOMIC DEVELOPMENT, HOUSING, AND PUBLIC FACILITY GRANT APPLICATIONS**

The Commission staff provides assistance to local units of government in the preparation of state and federal economic development, housing, and public facility grant applications and in

the administration of the programs following the issuance of a grant award. The grant applications seek state or federal funding to provide below-market interest rate loans to businesses in an effort to expand employment opportunities and to increase the community tax base, to provide for the rehabilitation of existing housing for low- and moderate-income persons, and to improve deficient public facilities that serve such persons.

### Grant Preparation

The following narrative describes applications that were prepared with the assistance of the Commission in 1990:

- An application prepared at the request of Washington County for an economic development program grant from the Wisconsin Development Fund in the amount of \$174,750. This grant was approved and used to provide a business loan to the Craft-Cast Company, Inc., a precision investment casting foundry located in the Town of Jackson. The loan is expected to result in nine new jobs and \$177,750 in private investment.
- An application prepared at the request of the City of Muskego for an economic development program grant from the Wisconsin Development Fund in the amount of \$330,000. This grant was approved and used to provide a business loan to the Delta Group, Inc., a new business that manufactures secondary aluminum for the aluminum casting industry. The loan is expected to result in 17 new jobs and \$330,000 in private investment.
- An application prepared at the request of Racine County for an economic development program grant from the Wisconsin Development Fund in the amount of \$750,000. This grant was approved and used to provide a business loan to International Production Specialists, Inc., a business located in the City of South Milwaukee that will acquire the assets of Dan-Dee Equipment, Inc., and expand its production facility in the Town of Rochester. The loan is expected to result in 38 new jobs and \$1.5 million in private investment.
- An application prepared at the request of the Village of Union Grove for an economic development program grant from the Wisconsin Development Fund in the amount of \$750,000. This grant was approved and used to provide a business loan to Adobe Nursing Home, Inc., for the construction of a new skilled nursing care facility in the Village. The loan is expected to result in the retention of 23 existing jobs, the creation of 16 new jobs, and the provision of \$1.5 million in private investment.
- An application prepared at the request of the City of Whitewater for an economic development program grant from the Wisconsin Development Fund in the amount of \$197,000. This grant was approved and used to provide a business loan to Whitewater Hospitality, Inc., for the construction of a motel in the City. The loan is expected to result in 10 new jobs and \$1.2 million in private investment.
- An application prepared at the request of Racine County for an economic development program grant from the U. S. Economic Development Administration in the amount of \$400,000. This grant was approved and used to establish a revolving loan fund that, together with private investment, would be used to create new jobs in the County. The grant application was supported by an additional \$200,000 provided by Racine County.
- An application prepared at the request of Kenosha County for an economic development program grant from the U. S. Economic Development Administration in the amount of \$1.0 million. This grant was approved and used, together with \$335,000 of local funds from the County and the Kenosha Area Development Corporation, to provide a loan to a new business, Mann-Bilt Homes, Inc., a manufacturer of modular homes. The business, which located in a former Chrysler Corporation facility in the City of Kenosha, is expected to create 150 new jobs and provide \$2.4 million in private investment.
- An application prepared at the request of Kenosha County for a housing rehabilitation program grant from the Wisconsin Development Fund in the amount of \$558,000. This grant was approved and used to continue the owner- and renter-occupied

housing rehabilitation program for low- and moderate-income persons in the County outside the City of Kenosha.

- An application prepared at the request of the City of Hartford for a housing program grant from the Wisconsin Housing Cost Reduction Initiative (HCRI) Program in the amount of \$109,925. The application, which is to be submitted to the Wisconsin Department of Administration, was under preparation at the end of 1990, and, if approved, would be used to assist low- and moderate-income home buyers with down payments and closing costs and low- and moderate-income renters with rent subsidies and first month rent and security deposits.
- An application prepared at the request of the City of Hartford for a housing rehabilitation program grant from the Wisconsin Development Fund in the amount of \$734,700. The application was under preparation at the end of 1990, and, if approved, would be used to continue the owner- and renter-occupied housing rehabilitation program for low- and moderate-income persons in the City.

The Commission staff also provided technical assistance to communities in determining the feasibility of submitting Wisconsin Development Fund applications for the following projects: 1) a City of Hartford application for the extension of sanitary sewer service to Pike Lake; 2) a City of Whitewater application for the extension of the owner- and renter-occupied housing rehabilitation program in the City; and 3) a Racine County application for the provision of handicapped accessibility improvements for the Racine County School Office building. Finally, the Commission staff provided technical assistance to the Village of Fredonia in assessing the feasibility of submitting a Wisconsin Transportation Economic Assistance (TEA) grant application for roadway improvements in the Village industrial park.

### **Grant Administration**

In addition to helping local communities apply for available federal and state funds, the Commission will, upon request, contract with successful applicants for the administration of the grant awards and for the administration of revolving loan funds that are financed with repayments on loans to businesses and

homeowners. A number of activities are involved in administering the grant awards, including ensuring that the terms of the grant award are met. During 1990, the Commission provided contract services to administer the following projects that were supported by federal and state grant awards:

- A federal Urban Development Action Grant in the amount of \$412,000 obtained by the City of Whitewater with the assistance of the Commission in 1985. The grant funds were used to make a business development loan to Hawthorn Mellody, Inc. The loan is expected to result in 15 new jobs and \$960,000 in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$395,000 obtained by the City of Mequon with the assistance of the Commission in 1987. The grant funds were used to provide a business loan to Sales Guides, Inc., a sales promotion company. The loan is expected to result in the retention of 40 existing jobs, the creation of 10 new jobs, and \$600,000 in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$750,000 obtained by the City of Oconomowoc in 1988. The grant funds were used to provide a business loan to Musebeck Shoe Company. The project is expected to create 38 new jobs and \$1.3 million in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$120,000 obtained by the Village of Mukwonago with the assistance of the Commission in 1989. The grant funds were used to provide a business loan to the Buell Motor Company, Inc., a manufacturer of high performance motorcycles. The loan is expected to result in six new jobs and \$120,000 in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$425,000 obtained by the Village of Menomonee Falls with the assistance of the Commission in 1989. The grant funds were used to provide a business loan to CAAP, Inc., an asbestos abatement contractor. The loan is expected to result in 42 new jobs and \$425,000 in private investment.

- A Wisconsin Development Fund economic development grant in the amount of \$747,500 obtained by the Village of Pleasant Prairie with the assistance of the Commission in 1989. The grant funds were used to provide a business loan to Wrought Washer Manufacturing, Inc., a manufacturer of washers, stamped and formed parts and assemblies, and heavyweight stampings. The loan is expected to result in 40 new jobs and \$1.0 million in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$174,750 obtained by Washington County with the assistance of the Commission in 1990. The grant funds were used to provide a business loan to Craft-Cast Company, Inc., a precision investment casting foundry. The loan is expected to result in nine new jobs and \$177,750 in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$330,000 obtained by the City of Muskego with the assistance of the Commission in 1990. The grant funds were used to provide a business loan to the Delta Group, Inc., a manufacturer of secondary aluminum for the aluminum casting industry. The loan is expected to result in 17 new jobs and \$330,000 in private investment.
- A Wisconsin Development Fund economic development grant in the amount of \$197,000 that was obtained by the City of Whitewater with the assistance of the Commission in 1990. The grant funds were used to provide a business loan to Whitewater Hospitality, Inc., for construction of a new motel in the City. The loan is expected to result in 10 new jobs and \$1.2 million in private investment.
- A Wisconsin Development Fund public facilities grant in the amount of \$177,880 that was obtained by the Village of Slinger with the assistance of the Commission in 1988. The grant funds were used to help pay the cost of extending centralized sanitary sewer service to the Wheel Estates Mobile Home Park in the Village.
- A Wisconsin Development Fund housing grant in the amount of \$558,000 obtained by

the Kenosha County with the assistance of the Commission in 1990. The grant funds were used to finance the continuation of the housing rehabilitation program in the County outside the City of Kenosha. The grant funds are being used to provide low- or no-interest loans to low- and moderate-income persons to rehabilitate 44 owner-occupied units, six renter-occupied units, and four vacant rental units; to provide handicapped accessibility improvements to six housing units; to defray the cost of installing sanitary sewer laterals to 15 housing units; and to defray the cost of removing three blighted properties owned by Kenosha County.

In addition, the Commission provided technical assistance in the administration of following Wisconsin Development Fund grant awards:

- Assisted Racine County in closing a \$743,000 business loan to International Production Specialists, Inc., obtained with the assistance of the Commission in 1990.
- Assisted the Village of Union Grove with the closing of a \$740,000 loan to Adobe Nursing Home, Inc., obtained with the assistance of the Commission in 1990, and assisted the Village in complying with Davis-Bacon and Related Act wage requirements for the Adobe Nursing Home project.
- Completed an environmental review record for a City of Burlington grant award obtained on behalf of the American Bin and Conveyor, Inc., expansion project in the City.
- Assisted the City of Hartford with the close-out of a grant award obtained with the assistance of the Commission in 1987 for a business loan to Hydro Electronic Devices (HED) Controls Corporation in the amount of \$281,748.
- Assisted the City of Hartford with the close-out of a \$481,500 public facility grant award obtained with the assistance of the Commission in 1988 and used for the installation of a wastewater collection system and sewer laterals.

Finally, the Commission provided technical assistance in the administration of revolving loan fund programs established through repayments on Wisconsin Development Fund grant

awards, including: 1) completing a draft revision of the City of Hartford economic development loan fund manual; 2) reviewing and offering suggestions for revisions to the Village of Grafton revolving loan fund manual; 3) assisting the City of Hartford in reviewing two applications for funds from the City's revolving loan fund program; and 4) assisting the Kenosha County Housing Authority with the administration of its housing rehabilitation revolving loan fund program capitalized with loan repayments from previous grant awards obtained with the assistance of the Commission in 1985 and 1988.

## **ECONOMIC DEVELOPMENT PROJECT PLANNING**

Economic development project planning involves the conduct of detailed economic development planning studies for local units of government, development corporations, and other organizations concerned with economic development and seeking Commission assistance. During 1990, the following representative project planning services were conducted:

- At the request of the City of Hartford, the Commission assisted with the preparation of a market feasibility study for the City. This study included a consumer market survey of local residents, a survey of local retail trade and service businesses, a consumer market analysis, an inventory of local retail establishments, and development recommendations for the City.
- In 1990, the Commission staff, at the request of several local units of government, prepared original, or updated previously prepared, community economic profiles. The profiles were originally prepared in 1984 and updated in 1988 in cooperation with the Wisconsin Electric Power Company. The profiles are intended to be used by local units of government and private development organizations in efforts to attract and retain industrial and commercial development. The profiles, prepared in a succinct, easy-to-read format, provide information on resident population, personal income, employment and labor force, financial and educational institutions, public and private utilities and public services, transportation facilities, housing stock, and health facilities and services. In addition, each profile is illustrated with a map of the community, as

well as of the Southeastern Wisconsin Region. During 1990, new profiles were prepared for two communities not included in the 1988 update, the City of St. Francis and the Village of Thiensville, and updated profiles were published during the year for two communities that had profiles prepared as a part of the 1988 update, the Cities of Franklin and Oak Creek.

In addition, the Commission staff, in cooperation with the Wisconsin Electric Power Company, initiated, during 1990, an update for the entire series of community economic profiles. This update includes new community profiles for the Region, the Milwaukee metropolitan area, each of the constituent seven counties, and 57 cities, villages, and towns within the Region. The new profiles will be completed in 1991. Figure 63 shows an example of an economic development profile, reduced for the purpose of reproduction herein. The communities for which profiles have been prepared are shown on Map 28 and are listed in Appendix D.

- At the request of the Racine County Economic Development Corporation, the Commission staff provided technical assistance in analyzing data gathered as a part of the Racine County business retention survey.
- The Commission provided staff assistance to the Village of West Milwaukee in the conduct of the Village Housing Assistance Ombudsman Program. This program included conducting an annual housing information forum, assisting Village residents in applying for state and local housing rehabilitation loans, establishing and marketing a local home improvement loan program, and conducting an exterior housing maintenance survey. In addition, the Commission provided staff assistance to the Village in the implementation of commercial and industrial redevelopment projects in the Village, such as preparing proposals for the Milwaukee County Community Development Block Grant (CDBG) program, providing technical assistance to the West Milwaukee Chamber of Commerce and local businesses on economic development-related issues, working with Village staff in organizing the National Avenue Businessman's Association, and assisting the staff of the Village with building and zoning code enforcement.



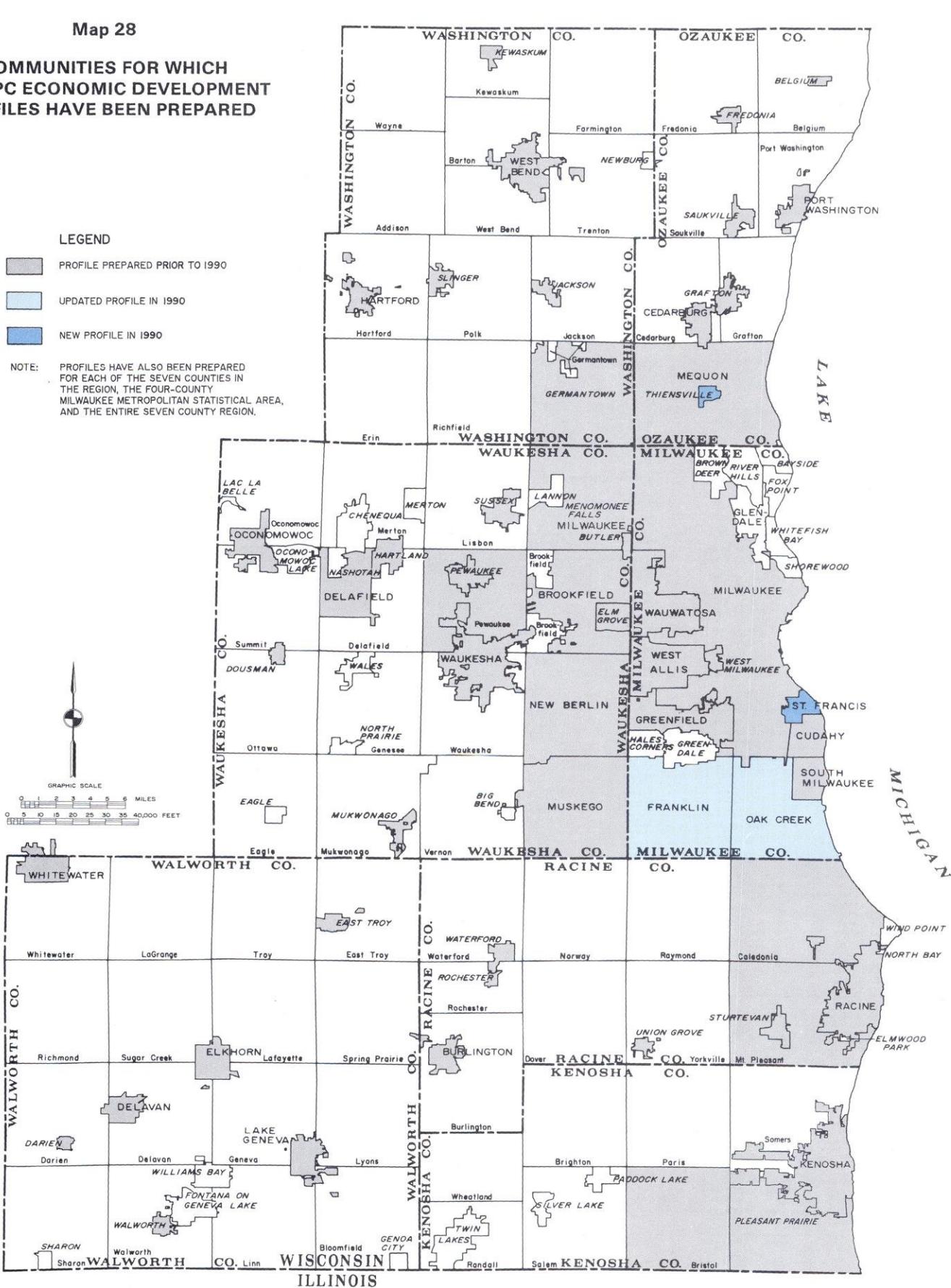
Map 28

COMMUNITIES FOR WHICH  
SEWRPC ECONOMIC DEVELOPMENT  
PROFILES HAVE BEEN PREPARED

LEGEND

- [Grey box] PROFILE PREPARED PRIOR TO 1990
- [Light blue box] UPDATED PROFILE IN 1990
- [Dark blue box] NEW PROFILE IN 1990

NOTE: PROFILES HAVE ALSO BEEN PREPARED FOR EACH OF THE SEVEN COUNTIES IN THE REGION, THE FOUR-COUNTY MILWAUKEE METROPOLITAN STATISTICAL AREA, AND THE ENTIRE SEVEN COUNTY REGION.



# COMMUNITY ASSISTANCE PLANNING DIVISION

## DIVISION FUNCTIONS

The Community Assistance Planning Division has primary responsibility for assisting local units of government in the Region in the conduct of local planning efforts, thereby promoting coordination of local and regional plans and plan implementation actions and generally promoting good public administration and sound physical development within the Region. The Division provides five basic types of services: educational, advisory, review, project planning, and resident planning.

## EDUCATIONAL SERVICES

Educational services are provided by the Division staff to local units of government and citizen groups on request, and are directed at explaining the need for, and purposes of, continuing local, regional, and state planning programs and the relationships that should exist between these different levels of planning. In addition, these efforts are directed at encouraging the creation, organization, staffing, and financing of local planning programs. During 1990, educational efforts included:

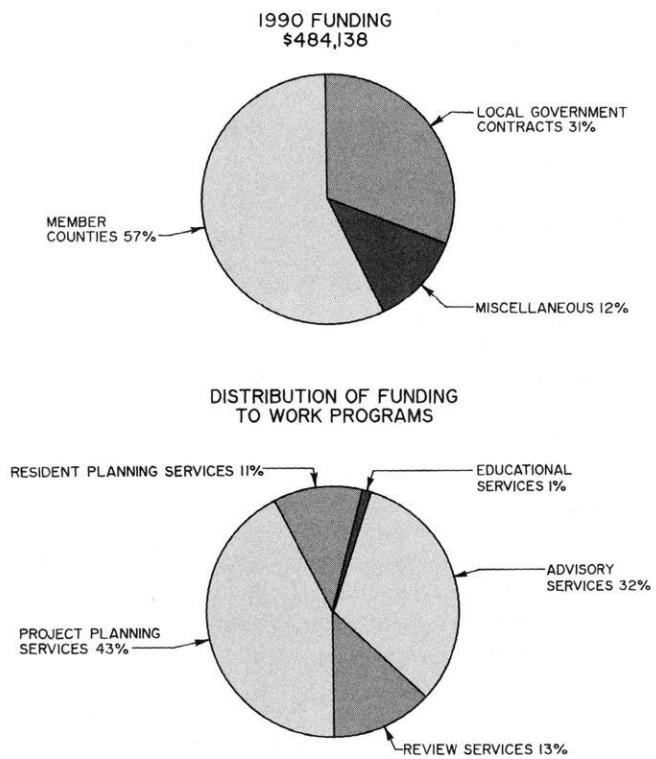
- Presentations regarding the general scope of work done by the Commission and the details of specific work programs to local governmental, civic, professional, and student groups, including the Town Boards of the Towns of Bristol and Vernon; classes at Carroll College, Marquette University, University of Wisconsin-Milwaukee, Waukesha County Technical College, Milwaukee Vincent High School, Waukesha Central Middle School, Hartland's University Lake School, and Waukesha's Rose Glen Elementary School; the Waterford Chamber of Commerce; and to members of the Mid-Moraine Municipal Association, Tichigan Lake Advancement Association, and the Southeast Wisconsin Real Estate Appraiser's Association.
- Conduct of presentations on automated land records management and attendant demonstrations to the Town Board of the Town of Lisbon; staff of Dane County; the

Kenosha County Budget Director; staffs of the Milwaukee County Register of Deeds Office, the City of Oak Creek, and the Racine County Water and Wastewater Utility; and classes at Carroll College, Waukesha County Technical College, University of Wisconsin-Madison, and Waukesha Central Middle School.

- Support of a mapping exhibit sponsored by the Waukesha County Historical Society.
- Conduct of wetland preservation presentations to members of the Waukesha County Chapter of the Daughter's of the American Revolution and the Kettle Moraine Audubon Society.

Figure 64

## COMMUNITY ASSISTANCE PLANNING DIVISION



- Conduct of presentations on the preparation of a community land use plan to officials of the Village of Newburg and the Town of Cedarburg.
- Participation in a floodplain/shoreland management workshop conducted by the Wisconsin Department of Natural Resources and a Federal Emergency Management Agency workshop on implementation of the newly developed Community Rating System for Floodprone Communities.
- Participation in the East Troy School District's Career Days and in the Lake Geneva Earth Day activities.
- Participation in Vision 2000, an environmental forum sponsored by the Wisconsin Electric Power Company.
- Preparation of six Commission newsletters discussing Commission planning programs and related activities. The newsletters are distributed to about 1,500 public officials and interested citizens.
- Preparation and distribution to newspapers and to radio and television stations of two news releases concerning the conduct of a public hearing on the new Racine County jurisdictional highway system plan and announcing the beginning of the reevaluation of the regional land use and regional transportation system plans.
- Preparation of the Commission's 1989 Annual Report.

## ADVISORY SERVICES

Advisory services consist of the provision of basic planning and engineering data available in the Commission's files to local units of government and private interests, and the provision on an ad hoc basis of technical planning and engineering assistance to local communities. Representative advisory services performed during 1990 included:

- Interpretation of extraterritorial zoning requirements for the City of Elkhorn and the Towns of Delavan, Geneva, LaFayette, and Sugar Creek.
- Interpretation of Regional Planning Commission-developed density and land use

terms for the City of New Berlin and the Village of Oconomowoc Lake.

- Interpretation of the extent of information required on a preliminary plat as well as a discussion of local plan commission duties and functions with the Village of Walworth.
- Interpretation of the application of yard requirements and accessory use locations on a corner lot in the Village of Kewaskum.
- Interpretation of uses permitted in a business district and explanation of the purpose of exclusive use districts in the Village of Germantown.
- Interpretation of the extent of development and the conditions attendant to development of a flood-prone lot in the Village of Silver Lake.
- Preparation of a zoning amendment addressing time limits on building permits and requiring a permanent foundation under structures in the Town of Belgium.
- Provision of examples of zoning regulations concerning site plan review to the City of Delavan.
- Provision of examples of typical parking lot and multi-family development landscaping requirements to the Village of Fontana.
- Provision of examples of ordinances regarding sign regulation, regarding construction site erosion control, and requiring the submission of condominium plats to the Village of East Troy.
- Preparation of 1 inch equals 1,000 feet scale existing land use map, soil interpretation maps, an environmental corridor map, and a sanitary sewer service area map for the Village of Sussex-Town of Lisbon Joint Planning Committee.
- Preparation of a series of 1 inch equals 1,000 feet scale soil interpretation maps for the City of New Berlin.

## REVIEW SERVICES

Review services are intended to encourage the incorporation of regional studies and plans into local planning programs, plans, and plan imple-

mentation devices, such as zoning and subdivision control ordinances. In addition, review services are intended to prevent unnecessary duplication of planning efforts, and to coordinate and encourage regional plan implementation. Three basic types of review services are performed: review of local plans, plan implementation devices, and development proposals; review of federal and state grant applications; and review of environmental impact statements, reports, and assessments. The following is a representative sample of review services provided by the Division staff in 1990 in the first review category:

- Review of and comment on 53 preliminary land subdivision plats including four plats at the request of Kenosha County for subdivisions located in the Town of Somers; one plat at the request of Ozaukee County for a subdivision located in the Town of Port Washington; 20 plats at the request of Racine County for subdivisions located in the Towns of Caledonia, Mount Pleasant, Norway, and Yorkville; five plats at the request of Walworth County for subdivisions located in the Towns of Delavan, East Troy, Spring Prairie, and Sugar Creek; one plat at the request of the City of Delafield; one plat at the request of the City of Franklin; five plats at the request of the City of Muskego; five plats at the request of the City of Waukesha; one plat at the request of the Village of Fredonia; one plat at the request of the Village of Germantown; one plat at the request of the Village of Hartland; one plat at the request of the Village of Menomonee Falls; three plats at the request of the Village of Pleasant Prairie; one plat at the request of the Village of Saukville; one plat at the request of the Village of Sussex; and two plats at the request of the Town of Pewaukee.
- Review of and comment on 29 certified survey maps including the review of three certified survey maps in the City of Burlington, two certified survey maps in the Village of Walworth, and 24 certified survey maps in the Town of Somers.
- Review and comment on 54 petitions to rezone lands including 11 rezoning petitions in the City of Burlington; 13 rezoning petitions in the City of Franklin; three rezoning petitions in the Village of Meno-

monee Falls; and 27 rezoning petitions in the Town of Somers.

Commission activities regarding the review of federal and state grant applications are summarized in Table 26. In total, review comments were provided for 155 applications for federal and/or state grants, loans, or mortgage insurance guarantees, requesting in the aggregate more than \$295 million in federal and state financial assistance. Of the 155 requests, 13 were found to be in conformance with and serve to implement the adopted regional plan elements, and 142 were found to be not in conflict with the adopted regional plan elements. None were found to be in conflict with the adopted regional plan elements.

Division activities regarding the review of environmental impact statements, reports, and assessments are summarized in Table 27. Comments are provided, when required, relating the proposed projects and the data contained in the environmental impact statements to the adopted regional plans.

## PROJECT PLANNING SERVICES

Project planning services involve the conduct for local member units of government, at cost, of detailed planning studies resulting in the preparation of local plans and plan implementation devices. During 1990, the following representative project planning efforts were conducted:

- Completion of a land use plan for the Village of Menomonee Falls. This plan, as set forth in SEWRPC Community Assistance Planning Report No. 162, A Land Use and Transportation System Plan for the Village of Menomonee Falls: 2010, refines and details the adopted regional land use plan, while updating the previous Village land use plan prepared by Maynard W. Meyer and Associates in 1973.

The plan provides guidelines for land use development in the Village to assist the Village Plan Commission in making day-to-day development decisions. The plan also delineates the boundaries of 10 residential neighborhoods, and three special planning districts, two industrial districts and the Appleton Avenue commercial corridor. The plan envisions further plan refinement and detailing in these areas. The adopted

**Table 26**  
**STATE AND FEDERAL GRANT REVIEW: 1990**

Review Category	Number of Reviews	Aggregate Amount of Federal and/or State Grant, Loan, or Mortgage Insurance Requests
Community Action . . . . .	47	\$177,827,815
Community Development . . . . .	9	6,822,069
Community Facilities . . . . .	12	4,362,544
Conservation . . . . .	41	62,394,748
Historic Programs . . . . .	2	997,533
Housing . . . . .	9	10,621,431
Park and Open Space . . . . .	3	96,650
Solid Waste . . . . .	3	4,657,554
Transportation . . . . .	29	27,883,749
<b>Total</b>	<b>155</b>	<b>\$295,664,093</b>

land use plan for the Village is shown on Map 29.

The Plan also contains an analysis of the transportation recommendations set forth in the regional transportation system plan for the year 2000 and provides a transportation system plan updated to the year 2010 which also contains recommendations for a network of recreational trails and corridors.

- Completion of a zoning ordinance and attendant zoning map for the City of Cedarburg. This ordinance is intended to address contemporary land development issues and serve to implement the land use objectives set forth in the adopted regional land use plan and the preliminary draft of the City's land use plan. The Ordinance is further intended to implement environmental programs mandated by the State concerning the preservation and protection of important wetlands and floodlands.
- Publication of the Village of West Milwaukee Zoning Ordinance. The Ordinance had been adopted by the Village Board late in 1989.
- Completion of updated zoning district maps for the Villages of Hartland and Paddock Lake.

**Table 27**  
**ENVIRONMENTAL IMPACT STATEMENTS REVIEWED: 1990**

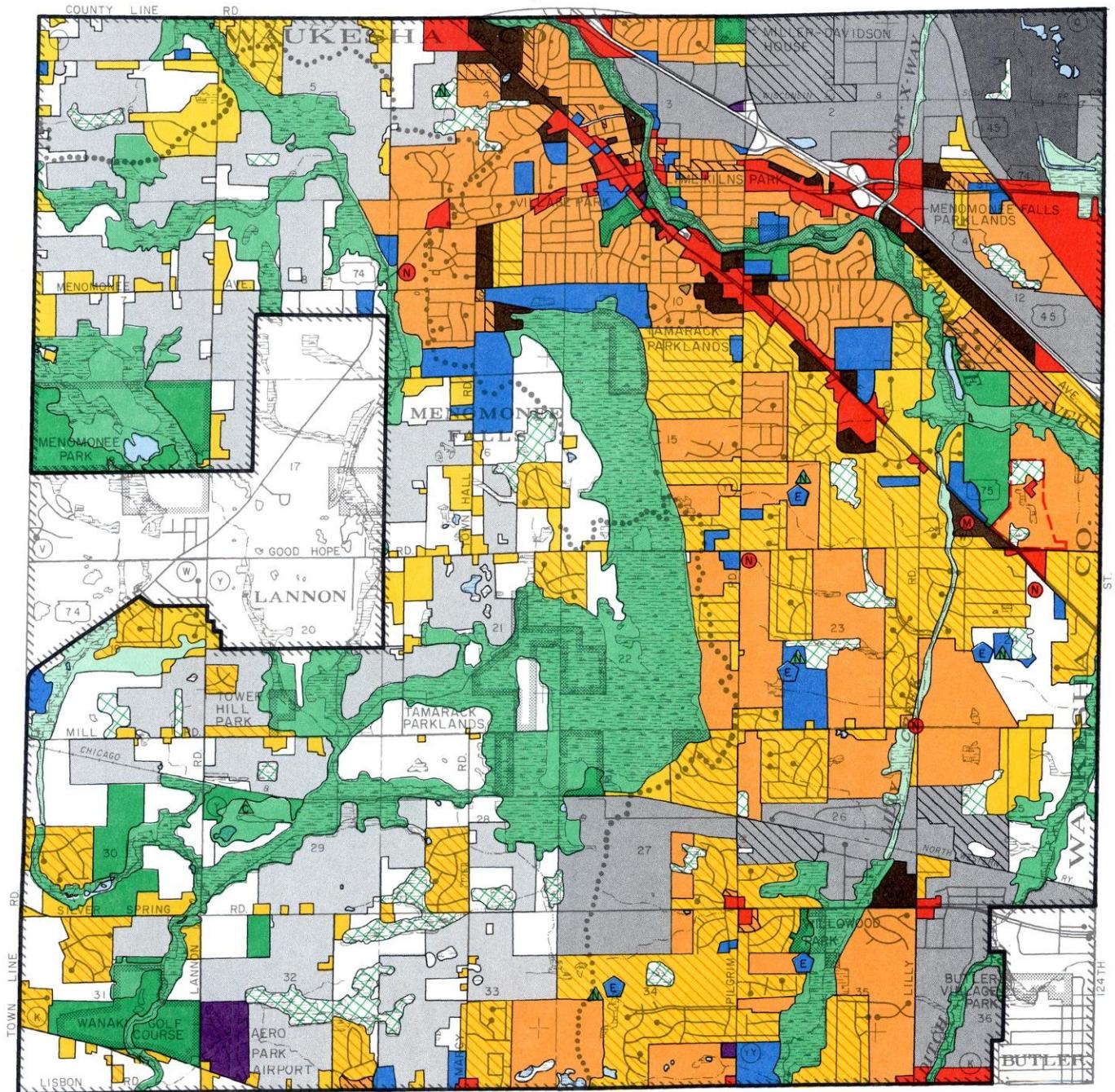
Document Reviewed	Requesting Agency
Environmental Impact Statement for the Kunkle Parking Ramp at the University of Wisconsin-Milwaukee	University of Wisconsin-Milwaukee
Environmental Impact Statement for the Concord Generating Station at Watertown, Wisconsin	Wisconsin Public Service Commission
Environmental Assessment of Three Property Acquisitions for a MATC Redevelopment Plan	Milwaukee Area Technical College

## **RESIDENT PLANNING SERVICES**

The Commission provides part-time resident staff assistance, on request, to local units of government. This type of assistance involves a commitment by the Commission staff to attend all local plan commission meetings and to provide such local planning recommendations as may be requested from time to time. The Com-

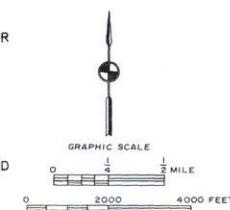
Map 29

## THE ADOPTED VILLAGE OF MENOMONEE FALLS LAND USE PLAN: 2010



## LEGEND

WHITE	RURAL ESTATE RESIDENTIAL AND OTHER AGRICULTURAL LANDS (5-ACRE LOTS OR GREATER)	RED	COMMERCIAL DEVELOPMENT	GREEN	PARKS AND RECREATIONAL
YELLOW	SUBURBAN RESIDENTIAL DEVELOPMENT (1.0-ACRE TO 5.0-ACRE LOTS)	●	N PROPOSED NEIGHBORHOOD COMMERCIAL	▲	C PROPOSED COMMUNITY PARK
ORANGE	LOW DENSITY URBAN RESIDENTIAL DEVELOPMENT (20,000- TO 43,560-SQUARE-FOOT LOTS)	●	M MIXED USE COMMERCIAL AND MULTI-FAMILY DEVELOPMENT	▲	N PROPOSED NEIGHBORHOOD PARK
ORANGE	MEDIUM-DENSITY URBAN RESIDENTIAL DEVELOPMENT (7,200- TO 20,000-SQUARE-FOOT LOTS)	---	LIMITS OF COMMERCIAL LAND OWNERSHIP	■	PRIMARY ENVIRONMENTAL CORRIDOR
ORANGE	MEDIUM-HIGH DENSITY URBAN RESIDENTIAL DEVELOPMENT (6.0 TO 9.1 DWELLING UNITS PER NET RESIDENTIAL ACRE)	■	GOVERNMENTAL AND INSTITUTIONAL	■	SECONDARY ENVIRONMENTAL CORRIDOR
BLACK	HIGH-DENSITY URBAN RESIDENTIAL DEVELOPMENT (9.2 TO 18.3 DWELLING UNITS PER NET RESIDENTIAL ACRE)	◆	E PROPOSED NEIGHBORHOOD SCHOOL	■	ISOLATED NATURAL AREA
		■	LIGHT INDUSTRIAL DEVELOPMENT	■	PRIME AGRICULTURAL LANDS
		■	LANDS TO BE USED FOR INDUSTRIAL-RELATED DEVELOPMENT BEYOND THE YEAR 2010	■	TRANSPORTATION, COMMUNICATION, AND UTILITIES
		■	LANDFILL	■	WATER



mission views such assistance as an interim step to the eventual attainment of local full-time staffs.

During 1990, resident planning assistance was provided on a contractual basis to the Cities of Burlington, Franklin, and New Berlin; to the Villages of Menomonee Falls, Saukville, and Sussex; and to the Town of Somers. Collectively these services required Division staff attendance and participation in a total of 121 plan commission, town board, village board, and city council meetings. Representative examples of services provided include:

- Preparation of nine zoning text amendments to the City of Burlington Zoning Ordinance regarding accessory residences in business districts, permitting mini-warehouses, amendments to existing conditional use, permitting two-family dwellings in the Rs-3 district, shoreland wetland preservation, temporary signs, fences, and permitting certain auto repair and detailing uses.
- Preparation of a zoning text amendment to the City of Franklin Zoning Ordinance

regarding the use of floodlands in calculating lot area.

- Preparation of two text amendments to the Village of Menomonee Falls subdivision and platting ordinance regarding park dedication fees and updating of plat review procedures.
- Preparation of three zoning text amendments to the Village of Saukville Zoning Ordinance regarding maximum building heights, sign regulations, and parking in the street yard in a manufacturing district.
- Preparation of 12 zoning text amendments to the Village of Sussex Zoning Ordinance regarding nonconforming uses, permitting commercial day care centers, camera shops and photographic studios, off-premise signs, fences, accessory buildings, creating an industrial park district, minimum dwelling sizes, paving of off-street loading areas, retail sales of industrial operations, creating a central business district intended to implement the Village's downtown development plan, and creating an office park district.

# CARTOGRAPHIC AND GRAPHIC ARTS DIVISION

## DIVISION FUNCTIONS

The Commission's Cartographic and Graphic Arts Division provides basic services to the other Commission divisions in a number of areas. The Division is responsible for creating and maintaining current a series of regional planning base maps that not only are used by the Commission, but are extensively used by other units of government and private interests. In addition, the Division is responsible for securing aerial photography of the Region at five-year intervals selected to coincide with U. S. Bureau of the Census decade census years and related mid-census periods. The Division also provides all necessary in-house reproduction services, as well as those reproduction services needed to provide copies of aerial photos, soil maps, and base maps for use by other units of government and private interests.

The Division also serves as a regional coordinating center for the conduct of large-scale topographic and cadastral mapping efforts and the collation of horizontal and vertical survey control data. This function includes the preparation on request of contracts and specifications for large-scale mapping efforts by local units of government. Another Division function, begun in 1984, is the indexing and filing of records of all land surveys completed in Milwaukee County. Finally, a major Division function involves final report production, including editing, type composition, proofreading, illustration preparation, offset printing, and binding.

## BASE MAPPING

During 1990, work was completed on the updating of the Commission 1 inch equals 2,000 feet scale county planning base maps using 1985 ratioed and rectified aerial photography and Wisconsin Department of Transportation state aid mileage summary maps. In 1990, the updating effort included updating of planimetric features and changing civil division corporate limit lines to reflect recent annexations and incorporations.

## TOPOGRAPHIC MAPPING AND SURVEY CONTROL

The Commission prepares and encourages local units of government in the Region to prepare 1 inch equals 100 feet scale and 1 inch equals 200 feet scale, two-foot contour interval topographic maps based on a Commission-recommended monumented control survey network, relating the U. S. Public Land Survey System to the State Plane Coordinate System. The Division assists local communities in the preparation of contracts and specifications for these programs. All of the horizontal and vertical control survey data obtained as a part of these mapping efforts are compiled by the Division. The Commission thus serves as a center for the collection, collation, and coordination of control survey data throughout the Region.

In 1976, Racine County completed a pioneering program which resulted in the completion of large-scale topographic maps and the attendant relocation, monumentation, and coordination of all of the U. S. Public Land Survey corners within the County. That work was done in accordance with specifications prepared by the Regional Planning Commission. In 1988 Kenosha County completed a similar program. The County Board assigned the responsibility for the preparation of the necessary contract documents and specifications and for the supervision of the work to the Executive Director of the Commission, a responsibility which includes the field inspection of the completed control survey monumentation and the quality control of the land survey, control survey, and topographic mapping work, as well as assistance in obtaining available state grants in partial support of the work. In 1981 Waukesha County undertook a similar countywide program and asked that the Commission staff provide the necessary supervision and assistance. These three county-level surveying and mapping programs represent model programs of national interest.

Map 30 shows those areas of the Region for which large-scale topographic maps have been

or are being prepared to Commission-recommended standards. As shown in Figure 65 and Table 28, this area totals 1,376 square miles, or about 51 percent of the total area of the Region. A total of 7,161 U. S. Public Land Survey corners in the Region have been or are being relocated, monumented, and coordinated, representing about 61 percent of all such corners in the Region. The utility of the control survey data developed and collated by the Commission is indicated by the fact that the Commission received over 400 inquiries for such data during 1990 alone.

In 1990 the Commission completed the publication of the second edition of Technical Report No. 7, Horizontal and Vertical Survey Control in Southeastern Wisconsin. This second edition collates and presents all the control survey data obtained to date within the Region through application of the Commission-recommended control survey system. Any errors noted in the original edition have been corrected in the second edition. Moreover, since the control survey system has continued to be expanded within the Region, the second edition contains control survey data for 4,261 more U. S. Public Land Survey corners and for 1,053 more square miles of area than the first edition. The second edition of Technical Report No. 7 has been designed so that it can be readily amended; as the control survey system is further extended within the Region, supplements providing data on the extensions are intended to be issued in a form that can be readily incorporated into the report.

#### **PROVISION OF OTHER SURVEY-RELATED DATA**

The Commission provides on request information on the latitude and longitude of specific sites. Such requests come primarily from industrial and institutional establishments. In 1990, requests for such information were fulfilled for 17 sites, bringing to 145 the total number of sites for which information has been provided since 1980. This kind of information has been required in the past primarily for the location of radio transmitters. The need for this kind of information may be expected to greatly increase in the future as the U. S. Environmental Protection Agency requires the submittal of industrial hazardous and toxic waste data for integration into a national data bank.

#### **MILWAUKEE COUNTY LAND SURVEY RECORDS**

In 1984, legislation was enacted which in part requires that in a county having a population of 500,000 or more where there is no county surveyor, a copy of each land survey plat prepared by a land surveyor be filed in the office of the regional planning commission, the Executive Director of which is to act in the capacity of county surveyor for the county. Under this act, the commission is also made responsible for perpetuating corners of the U. S. Public Land Survey which may be subject to destruction, removal, or cover-up due to construction or other activities, and for maintaining a record of the surveys required for such perpetuation. This act became effective on May 28, 1984. In 1990, under the requirements of the new legislation, the Division received, indexed, and filed 1,942 records of land surveys completed within Milwaukee County—the only county within the Region which meets the statutory criteria—bringing the total number of records of land surveys completed within Milwaukee County which have been filed by the Division to 14,110.

In order to facilitate convenient use of the survey records by land surveyors, abstractors, assessors, appraisers, attorneys, engineers, and other interested parties, the survey records are filed by the Commission under five headings, and computer-generated lists of the recorded surveys can be provided upon request. The five headings are:

1. Numerically by U. S. Public Land Survey township, range, section, quarter section, and record of survey.
2. Alphabetically by minor civil division (city or village).
3. Alphabetically by the property owner or client for whom the survey was completed.
4. Alphabetically by the name of the land surveyor employed by the property owner or client.
5. Chronologically by the date of the survey.

Updated copies of the five lists are prepared quarterly and transmitted to the Wisconsin Department of Transportation District Director, the Milwaukee County Transportation Director, all City and Village Engineers within the

### Map 30

LARGE-SCALE TOPOGRAPHIC  
MAPPING AND RELOCATION,  
MONUMENTATION, AND  
COORDINATION OF U. S. PUBLIC  
LAND SURVEY CORNERS: 1990

## LEGEND

- U.S. PUBLIC LAND SURVEY CORNERS WHICH HAVE BEEN OR ARE BEING RELOCATED, MONUMENTED, AND COORDINATED

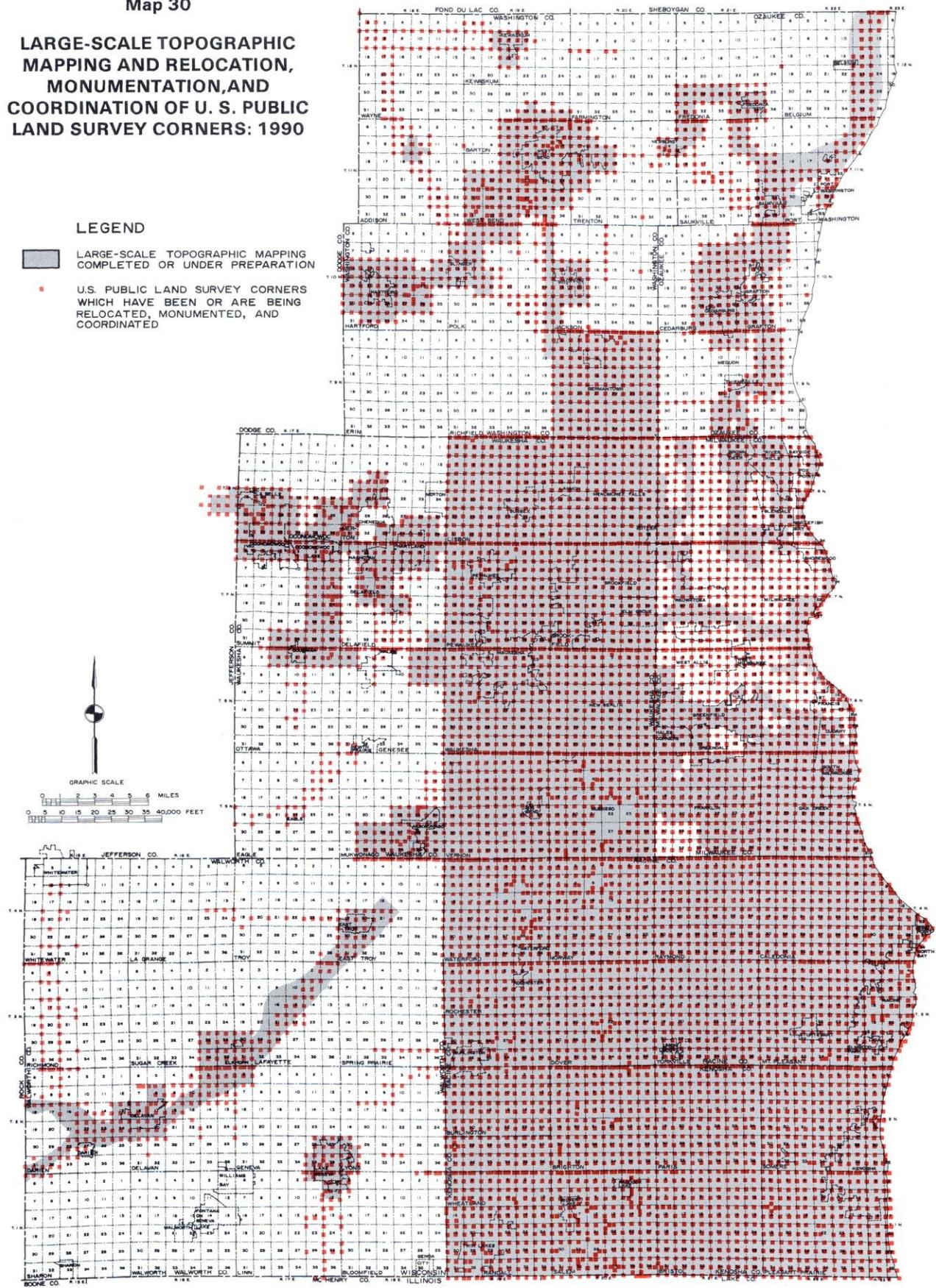
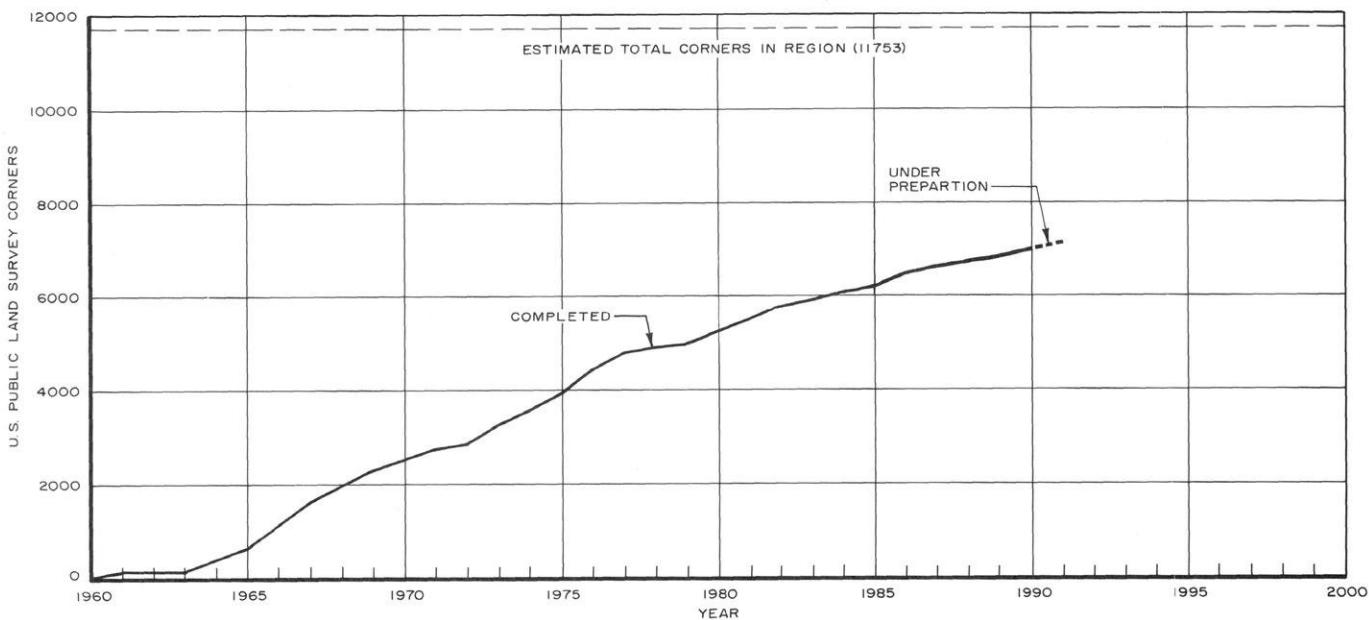
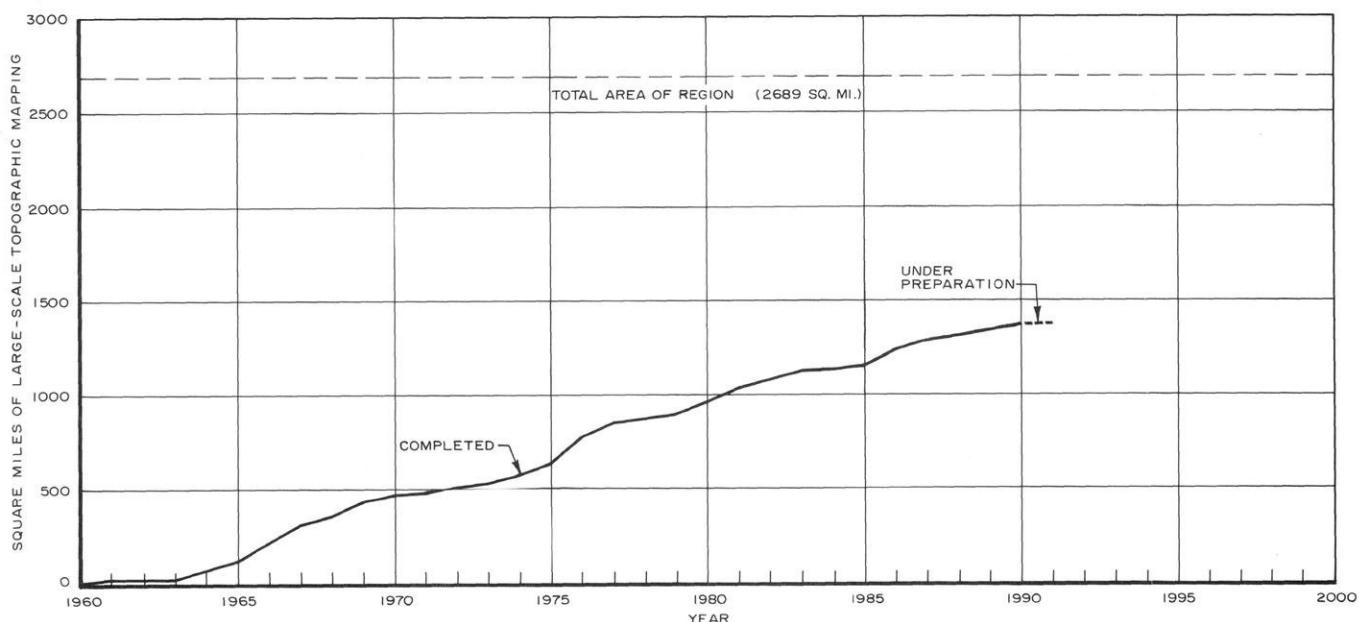


Figure 65

STATUS OF U. S. PUBLIC LAND SURVEY SECTION AND  
QUARTER-SECTION CORNER RELOCATION, MONUMENTATION, AND  
COORDINATION AND LARGE-SCALE TOPOGRAPHIC MAPPING OF THE REGION: 1990



County, and all land surveyors who have submitted records of surveys to the Commission for indexing and filing.

Since 1961, the Commission has maintained records on U. S. Public Land Survey corners within the entire Region. However, as already noted, since 1984 the Commission has been responsible for the perpetuation of the U. S. Public Land Survey System in Milwaukee County. In 1990, 29 corners of that system were

TYPICAL SEWRPC MONUMENT



Table 28

LARGE-SCALE TOPOGRAPHIC MAPPING AND RELOCATION, MONUMENTATION,  
AND COORDINATION OF U. S. PUBLIC LAND SURVEY CORNERS: 1990

County	Total Area (square miles)	Area (square miles) of Large-Scale Topographic Mapping Completed or Under Preparation							
		Wisconsin Department of Transportation	SEWRPC	County	Milwaukee Metropolitan Sewerage District	Local <sup>a</sup>	Multi- Agency	Total	Percent
Kenosha . . . . .	278	--	27.75	236.25	--	14.00	--	278.00	100.00
Milwaukee . . . . .	242	--	11.00	7.75	49.50	77.00	2.50	147.75	61.05
Ozaukee . . . . .	234	26.75	24.25	12.75	--	13.00	--	76.75	32.80
Racine . . . . .	340	--	25.50	314.11	--	--	--	339.61	100.00
Walworth . . . . .	578	30.25	--	--	--	24.00	--	54.25	9.39
Washington . . . . .	436	1.50	22.75	--	--	89.25	--	113.50	26.03
Waukesha . . . . .	581	1.25	78.75	141.25	--	145.25	--	366.50	63.08
Region	2,689	59.75	190.00	712.11	49.50	362.50	2.50	1,376.36	51.18

NOTE: Includes only those areas of the Region for which large-scale topographic maps have been or are being prepared and throughout which U. S. Public Land Survey corners have been or are being relocated, monumented, and coordinated utilizing SEWRPC-recommended procedures. Area shown indicates original large-scale topographic mapping programs. Of the 59.75 square miles originally mapped under WisDOT programs, 6.75 square miles have been updated by other agencies. Of the 190.00 square miles originally mapped under SEWRPC programs, 54.75 square miles have been updated by other agencies. Of the 699.36 square miles originally mapped under county programs, 2.00 square miles have been updated by other agencies. Of the 361.50 square miles originally mapped under local programs, 99.50 square miles have been updated by other agencies.

<sup>a</sup>Includes 20 cities, 18 villages, and 3 towns.

County	Estimated Total Corners	Number of U. S. Public Land Survey Corners Which Have Been or are Being Relocated, Monumented, and Coordinated							
		Wisconsin Department of Transportation	SEWRPC	County	Milwaukee Metropolitan Sewerage District	Local <sup>a</sup>	Multi- Agency	Total	Percent
Kenosha . . . . .	1,203	58	168	914	--	63	--	1,203	100.00
Milwaukee . . . . .	1,065	72	184	132	159	492	26	1,065	100.00
Ozaukee . . . . .	1,064	133	179	69	3	72	--	456	42.86
Racine . . . . .	1,478	--	172	1,306	--	--	--	1,478	100.00
Walworth . . . . .	2,503	282	--	--	--	121	10	413	16.50
Washington . . . . .	1,905	139	149	23	--	428	6	745	39.11
Waukesha . . . . .	2,535	76	463	666	--	596	--	1,801	71.05
Region	11,753	760	1,315	3,110	162	1,772	42	7,161 <sup>b</sup>	60.93

<sup>a</sup>Includes 20 cities, 18 villages, and 3 towns.

<sup>b</sup>Because of the need to set witness corners these 7,161 U. S. Public Land Survey corners, including the centers of the sections, are marked by 7,266 monuments.

perpetuated by remonumentation and referencing carried out by, or under the direction of, the Commission staff to replace damaged or sub-standard monumentation. This brings to 133 the total number of such corners so perpetuated in Milwaukee County since 1984. Also in 1990, dossier sheets were prepared for the 29 remonumented corners as well as for 48 corners which were referenced by the Commission staff subsequent to perpetuation by the Wisconsin Department of Transportation, the Milwaukee County

Department of Public Works, and City Engineers. This brings to 328 the total number of such corners so referenced in Milwaukee County since 1984.

## REPRODUCTION SERVICES

In addition to serving all other Commission divisions through in-house reproduction of reports, the Division provided reproduction services for local units of government and

private interests. A total of 6,523 prints of aerial photographs of portions of the Region were reproduced, along with 74 soil map prints and 597 prints of maps in the Commission base map series. Aerial photographs were purchased primarily by local units of government, utilities, realtors, retail businesses, and service and manufacturing companies. Soil photo prints and base maps were purchased primarily by realtors, utilities, surveyors, engineers, and individual property owners.

## FINAL REPORT PRODUCTION

During 1990 the Division was responsible for the production of the following Commission publications:

## PROSPECTUSES

- Overall Work Program—1991 Southeastern Wisconsin Regional Planning Commission, November 1990, 226 pages
- Prospectus for the Preparation of a Comprehensive Plan for the Kenosha Urban Planning District, December 1990, 23 pages

## ANNUAL REPORTS

- 1989 Annual Report, July 1990, 208 pages

## TECHNICAL REPORTS

- No. 7, 2nd Edition, Horizontal and Vertical Survey Control in Southeastern Wisconsin, August 1990, 703 pages
- No. 32, General Mitchell International Airport Enplaning Passenger Survey Findings: 1989, August 1990, 48 pages

## COMMUNITY ASSISTANCE PLANNING REPORTS

- No. 71, A Park and Open Space Plan for the Town of Waterford, Racine County, Wisconsin, January 1990, 41 pages
- No. 152, A Stormwater Drainage and Flood Control System Plan for the Milwaukee Metropolitan Sewerage District, December 1990, 788 pages

- No. 162, A Land Use and Transportation System Plan for the Village of Menomonee Falls: 2010, April 1990, 89 pages
- No. 173, A Stormwater Management Plan for the City of West Bend, Washington County, Wisconsin, Volume Two, Alternatives and Recommended Plan for the Silver Creek Subwatershed, June 1990, 152 pages
- No. 176, Sanitary Sewer Service Area for the City of Franklin, Milwaukee County, Wisconsin, October 1990, 32 pages
- No. 180, Sanitary Sewer Service Area for the Village of Union Grove and Environs, Racine County, Wisconsin, August 1990, 23 pages
- No. 181, A Water Quality Management Plan for Oconomowoc Lake, Waukesha County, Wisconsin, March 1990, 124 pages
- No. 182, A Water Use Management Plan for Waubeesee Lake and the Anderson Canal, Racine County, Wisconsin, December 1990, 42 pages
- No. 185, A Plan for the Creation of an Automated Mapping and Parcel-Based Land Information System for Kenosha County, August 1990, 49 pages
- No. 191, Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin, November 1990, 32 pages
- No. 192, Sanitary Sewer Service Area for the Village of Dousman, Waukesha County, Wisconsin, December 1990, 25 pages

## MEMORANDUM REPORTS

- No. 38, A Regional Transportation Authority Feasibility Study for Southeastern Wisconsin, November 1990, 131 pages
- No. 44, Town of Lisbon Southeast Area Quarry Operations—Environmental Impact Evaluation, September 1990, 70 pages
- No. 50, Traffic Engineering Study of County Line Road (CTH Q) between the Intersection with Appleton Avenue (STH 175) and USH 41/45, December 1990, 37 pages

## NEWSLETTERS

- Volume 30, Nos. 1-6, 184 pages

## OTHER

- Amendment to the Regional Water Quality Management Plan—2000, City of Waukesha and Town of Waukesha, June 1990, 3 pages
- Amendment to the Regional Water Quality Management Plan—2000, Village of Silver Lake and Salem Utility District No. 2, June 1990, 3 pages
- Amendment to the Washington County Jurisdictional Highway System Plan—2000, June 1990, 67 pages
- Amendment to the Regional Water Quality Management Plan—2000, Kenosha and

Racine Sanitary Sewer Service Areas, September 1990, 3 pages

- Amendment to the Regional Water Quality Management Plan—2000, Towns of Yorkville and Mt. Pleasant, December 1990, 2 pages
- Amendment to the Regional Transportation Plan—2000, Kenosha County, December 1990, 14 pages
- Amendment to the Racine County Jurisdictional Highway System Plan—2000, December 1990, 110 pages
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1991-1995, December 1990, 310 pages



# INFORMATION SYSTEMS DIVISION

## DIVISION FUNCTIONS

The Commission's Information Systems Division provides basic support to all other Commission divisions. The Division is responsible for maintaining a regional planning data bank that has been developed over a 29-year period. The Division is responsible for processing requests for retrieval of these data, with such requests coming not only internally from other divisions but externally from local units of government, state and federal agencies, and private interests. The Division also provides support to the Commission divisions in the development and application of simulation models. Under a separate program that was terminated at the end of 1990, the Division provided data processing services to county and local units of government. Finally, the Division supports the development of county and local automated land information systems throughout the Region.

## REGIONAL PLANNING DATA BANK

The Division maintains a master file of regional planning information on more than 9,000 reels of magnetic tape, representing approximately 3,600 active data files. This permits the efficient filing, conversion, and retrieval of planning and engineering data essential to the execution of areawide comprehensive planning. The file's basic unit of geographic reference is the U. S. Public Land Survey quarter section. This file is, however, also organized to permit retrieval of data for various other geographic units, such as civil divisions, census tracts, traffic analysis zones, special planning analysis areas, and watersheds.

During 1990, the Commission maintained an IBM 4381-P13 mainframe central processing unit. The unit has 16 million bytes of main memory storage and 32 billion characters of high-speed magnetic disk storage. Peripheral equipment includes three high-speed line printers, six high-speed magnetic tape units, and local and remote teleprocessing control units.

Attached to the mainframe computer were 40 IEM CRT units and 10 IBM personal computers through which staff engineers, planners, and computer programmers can enter and receive data and use computer programs.

In addition to the "in-house" terminal equipment, the mainframe computer supported about 300 remote terminal devices located at three counties and 11 communities. Also attached to the mainframe computer system were seven IBM System 36 computer systems, one IBM AS/400 computer system, and one IBM System 38 computer system. The remote computer systems were used for local data and text processing and as control units for access to the Commission's teleprocessing network. During 1990, the work load averaged about 45,000 teleprocessing tasks and 300 batch runs daily.

The Commission has maintained a computer-assisted mapping capability since 1976. Two general types of computer software are currently available for computer-assisted mapping applications. These are computer-assisted drafting (CAD) software and geographic information systems (GIS) software. To the casual observer, these software products appear to operate in a similar fashion and to produce similar map products, but they are, in fact, quite different in design, operation, and function.

CAD software functions quite well in situations where the only need is for the creation, maintenance, and replication of maps, but in situations where there is the additional need to extract, analyze, and report the information content of maps, or to synthesize map and map-related information, GIS software is a more appropriate tool. In addition, GIS software possesses the capability to simultaneously extract information from more than one map, synthesize and analyze that information, and produce "new" information and "new" maps from the process. The ability to perform these types of operations is especially valuable within the context of areawide planning.

The computer software necessary to establish and operate geographic information systems is complex and evolving. True GIS software has been commercially available only within the past several years, and prior to 1987 the Commission utilized CAD-type software for its computer-assisted mapping applications. In 1986, the Commission staff evaluated a number of the GIS software products then commercially available to identify a software system for purchase. Also evaluated were several products

in advanced stages of development, but not yet ready for commercial release. This evaluation led in 1987 to the acquisition by the Commission of the DELTAMAP software system. DELTAMAP—since renamed GENAMAP as the result of the change in ownership of the software company that originally developed the product—is a true GIS software product capable of supporting a wide variety of map digitizing, map production, and map data element analysis functions, including network- and land parcel-based functions.

The computer graphics hardware configuration upon which GENAMAP operates is based around two networked Hewlett-Packard series 9000, Model 370, engineering work stations, each having a 19-inch, 16-color monitor and two 571 megabyte disks. These work stations share a Hewlett-Packard 1600/6250 dual-density tape drive and a Hewlett-Packard high-resolution, eight-color pen plotter capable of handling A-size through E-size cut sheet media or 36-inch roll feed media. The two work stations jointly serve as the support devices for seven Hewlett-Packard 12-inch, eight-color terminals, six of which are attached to Calcomp 44-inch by 60-inch, high-precision digitizing tables for interactive map data capture and editing. A Calcomp color electrostatic plotter is also available for off-line color map production. This device is capable of handling 44-inch roll feed media, and can produce monochrome and color line and solid color fill finished drawings at a resolution of 400 parts per inch.

## SYSTEMS ENGINEERING

The Division provides support to other Commission divisions in systems analysis and engineering, particularly in the development and application of simulation models. Commission simulation modeling efforts at the present time are centered in the Transportation Planning and Environmental Planning Divisions, and personnel from these divisions work closely with personnel in the Information Systems Division.

Transportation-related simulation models currently being used by the Commission include the U. S. Department of Transportation, Federal Highway Administration, battery of highway system simulation models; the U. S. Department of Transportation, Urban Mass Transportation Administration, battery of transit system simu-

lation models; and a series of models developed over the years by the Commission staff, including trip generation and modal split models and an air quality emissions model. In the water resources planning field, the Commission uses a water surface profile model developed by the U. S. Army Corps of Engineers; a hydrologic, hydraulic, and water simulation model developed by Hydrocomp, Inc.; and a flood economics model developed by the Commission staff. During 1990 the Commission continued converting simulation modeling applications from the mainframe computer to micro-computers.

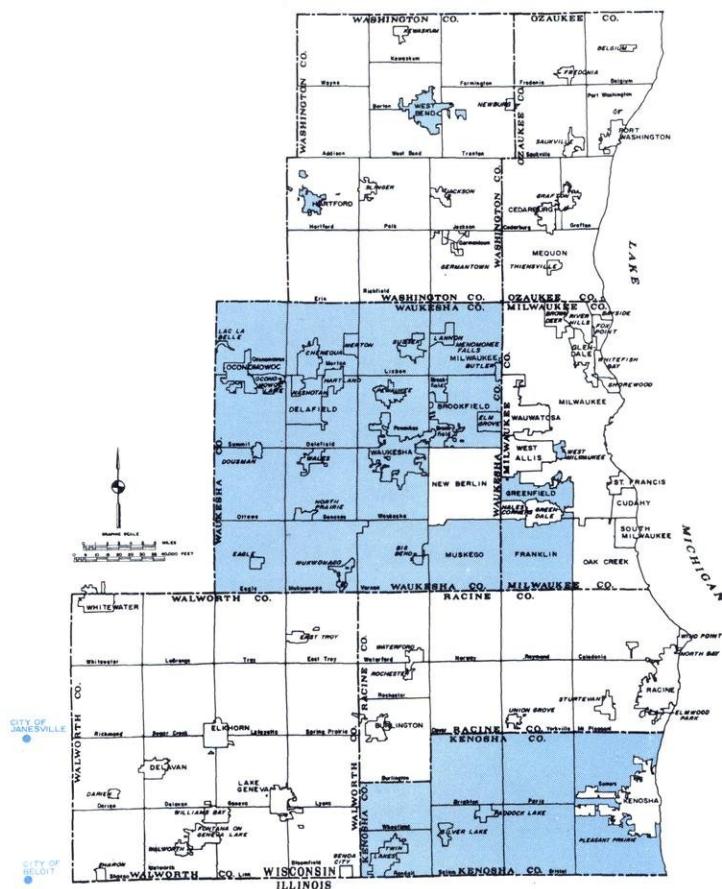
## DATA PROCESSING SERVICES TO LOCAL GOVERNMENTS

Beginning in 1967 and, as discussed below, ending in 1990, the Commission offered to its member units of government special services, including professional advice on the selection of computer systems and actual data processing. Direct data processing services were provided both in the traditional "batch" mode of processing whereby the community delivers data to the Commission to process and the Commission returns appropriate reports and materials to the community, and in the "on-line" mode of processing whereby the individual users had direct access over telephone lines to the Commission's central data processing unit. In 1990 the Commission continued to offer communities the batch mode service, as well as the opportunity to control and process their own data through the on-line use of small computer terminals attached to the Commission's Model 4381 computer via telephone lines. These terminals give the community the power of a large computer system at the price of a small computer. Some communities used both methods, doing some data processing in the batch mode and some data processing in the on-line mode.

One of the services provided in the batch mode was the tax bill processing system, which provides communities with property tax assessment rolls and tax bills. Throughout 1990 these property tax-related services were provided at cost to 52 communities, as shown on Map 31. Another service provided in the batch mode was the payroll processing system, which was provided to the East Troy Community Schools. Map 32 shows those communities to which the Commission provided voter registration and poll list production services in the batch mode.

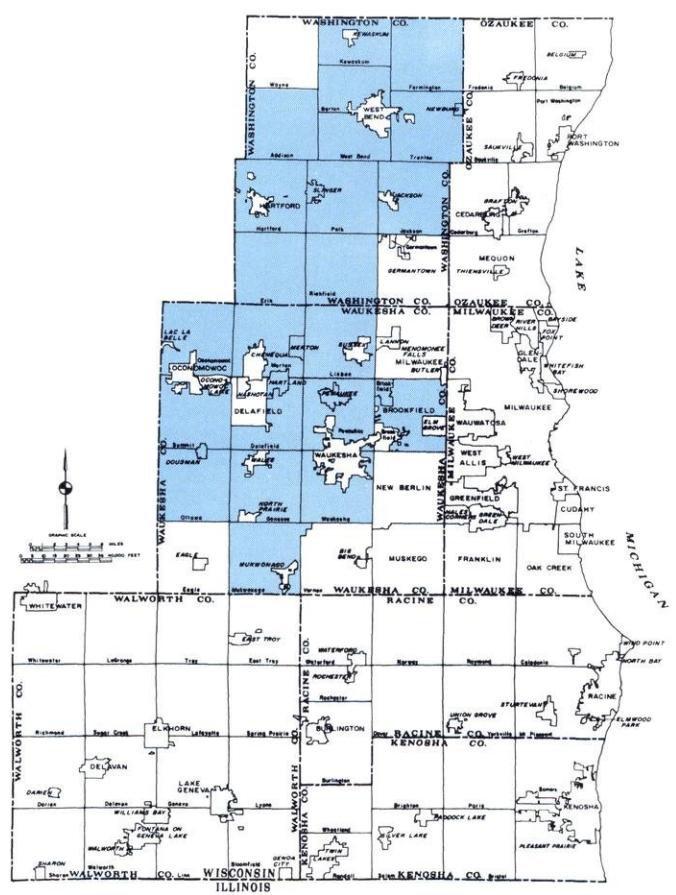
Map 31

LOCAL COMMUNITIES USING SEWRPC  
FOR PROPERTY TAX DATA PROCESSING: 1990



Map 32

LOCAL COMMUNITIES USING SEWRPC  
FOR VOTER REGISTRATION AND POLL  
DATA PROCESSING: 1990



In addition to the above services, the Commission provided batch services to the Allenton Sanitary District, the Village of Dousman, the Town of Brookfield, and the Town of Pewaukee in the area of utility billing; to the Brown Deer School District in the area of school census; and to the U. S. District Court in the area of jury selection.

In the on-line processing mode, the Commission in 1990 served computer terminals in three counties, 10 cities, and one village, and at the Wisconsin Correctional Service, a government-funded nonprofit service agency. Map 33 shows the locations of the terminals and the applications which were processed from those terminals during 1990.

Termination of Data  
Processing Services Program

In June 1988, the Commission strategically examined both the internal needs of the Commission to maintain a central mainframe computer and the trends in the actions of users of the Commission Data Center toward establishing local computer centers. With respect to its internal data processing needs, the results of that strategic analysis indicated that the Commission no longer needed to maintain for its own purposes a large mainframe computer. Rather, it was determined that Commission planning and engineering work could now be cost-efficiently conducted using micro- and mini-computers with

Map 33

LOCAL GOVERNMENT—SEWRPC TELEPROCESSING CONFIGURATION AND APPLICATIONS: 1990

WASHINGTON COUNTY

- **AUDITOR**  
Mental Health Billing
- **CLERK OF COURTS**  
Alimony and Support  
Paternity  
Traffic Fine and Forfeiture  
Receipts

CITY OF HARTFORD

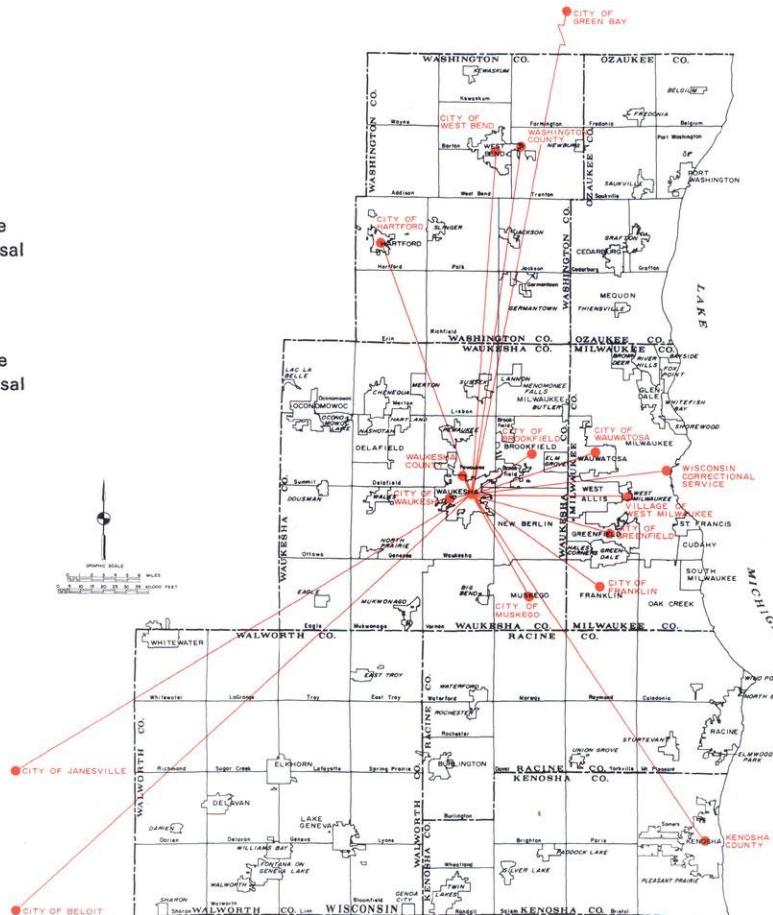
- **ASSESSOR**  
Property Tax File Maintenance  
Computer-Aided Mass Appraisal

CITY OF JANEVILLE

- **ASSESSOR**  
Property Tax File Maintenance  
Computer-Aided Mass Appraisal
- **TREASURER**  
Cash Receipts
- **FIRE DEPARTMENT**  
Statistical Analysis

CITY OF BELOIT

- **ASSESSOR**  
Property Tax File  
Maintenance  
Computer-Aided  
Mass Appraisal  
Mobile Home Billing  
Delinquent Personal Property  
Special Assessments
- **TREASURER**  
Utility Billing  
Tax Payment Inquiry  
Dog/Cat Licensing  
Cash Collection
- **BUILDING INSPECTOR**  
Dwelling Description  
Inquiry



WAUKESHA COUNTY

- **CLERK OF COURTS**  
Alimony and Support  
Paternity Payments  
Fine and Forfeiture Record Keeping  
Cash Collection
- **TAX LISTER**  
Property Tax File Maintenance
- **PERSONNEL DEPARTMENT**  
Employee File Maintenance
- **PAYROLL DEPARTMENT**  
Employee File Maintenance
- **DATA PROCESSING**  
Accounts Payable  
Receipts  
Payroll  
General Ledger  
Personnel Management Reports
- **TREASURER**  
Receipts  
Property Tax File Inquiry  
Cash Collections  
Delinquent Tax Processing

CITY OF WAUKESHA

- **COMPTROLLER**  
Accounts Payable  
Receipts  
General Ledger  
Special Assessments  
Municipal Invoices
- **MUNICIPAL COURT**  
Case Processing
- **ASSESSOR**  
Property Tax File Maintenance  
Computer-Aided Mass Appraisal
- **CLERK**  
Bartender License  
Voter Registration
- **POLICE DEPARTMENT**  
Parking Tickets
- **PARK/RECREATION DEPARTMENT**  
Reservation/Registration System

CITY OF BROOKFIELD

- **COMPTROLLER**  
Receipts  
Special Assessments  
Utility Billing/  
Accounting
- **POLICE DEPARTMENT**  
Uniform Crime Reporting  
Officer Activity
- **ASSESSOR**  
Property Tax  
File Maintenance
- **TREASURER**  
Receipts
- **LIBRARY**  
Circulation  
Fines  
Reference  
Inventory System

CITY OF GREEN BAY

- **ASSESSOR**  
Computer-Aided Mass Appraisal

CITY OF WEST BEND

- **CLERK**  
Cash Receipts  
Purchase Orders  
Special Tax Assessments  
General Ledger  
Accounts Payable  
Dog/Cat Licensing
- **ASSESSOR**  
Property Tax File Maintenance

WISCONSIN CORRECTIONAL SERVICE  
Accounting System

CITY OF WAUWATOSA

- **ASSESSOR**  
Computer-Aided Mass Appraisal

VILLAGE OF WEST MILWAUKEE

- **ASSESSOR**  
Property Tax File Maintenance

CITY OF GREENFIELD

- **ASSESSOR**  
Property Tax File Maintenance
- **TREASURER**  
Utility Billing  
Cash Receipts  
Special Assessments
- **BUILDING INSPECTION**

KENOSHA COUNTY

- **COUNTYWIDE TAX PROCESSING**
- **ASSESSOR**  
CAMA Tax System  
Mobile Home System
- **TREASURER**  
Delinquent System  
Cash Collection
- **HIGHWAY DEPARTMENT**  
Cost Accounting
- **FINANCE OFFICE**  
County Accounting

CITY OF FRANKLIN

- **CLERK**  
Special Assessments  
Utility Billing
- **ASSESSOR**  
Property Tax File Maintenance  
Computer-Aided Mass Appraisal

CITY OF MUSKEGO

- **ASSESSOR**  
Property Tax File Maintenance  
Computer-Aided Mass Appraisal  
Special Assessments

perhaps some reliance for periodic special needs on an outside service bureau for limited mainframe applications.

In reviewing the direction being taken by those county and local governments to which the Commission was providing data processing services, it was determined that the trend was toward the establishment of individual computer centers to serve local individual needs. Indeed, the analysis indicated that several of the county and local governments that had heavily relied on the Commission's Data Center would no longer need Commission assistance within a relatively short period of time.

Based upon this analysis, the Commission determined to terminate its mainframe computer operations and its traditional data processing services program as of December 31, 1990. All local government users of the Data Center were given formal notice of this decision on June 20, 1988, thus providing those governments with a 30-month period within which to make an orderly transition to some other way in which to obtain the data processing services now being provided by the Commission. In making this determination, the Commission directed that its Data Center be reconfigured as of January 1, 1991, to serve only internal Commission needs. Thus, 1990 was the final year for the Commission data processing services program, and the Data Center was closed at the end of the year.

## **DEVELOPMENT OF COUNTY-BASED LAND INFORMATION SYSTEMS**

Since its inception, the Commission has recommended that county and local units of government in the Region prepare large-scale topographic and cadastral—property boundary—base maps based on a Commission-recommended monumented control survey network that precisely and accurately relates the U. S. Public Land Survey System to the State Plane Coordinate System. With the advent of computer-assisted mapping and geographic information systems, counties and local units of government in the Region are beginning to convert conventionally mapped data to digital, that is, computer-readable, form as well as developing new mapping directly in digital form. Such mapping forms the foundation for modernized systems of land records management.

Previous annual reports have described early Commission efforts in this respect, beginning with a demonstration project completed by the Commission for Kenosha County in 1986. The findings of that demonstration project were reported in SEWRPC Technical Report No. 30, The Development of an Automated Mapping and Land Information System: A Demonstration Project for the Town of Randall, Kenosha County. Based upon that demonstration project Kenosha County has contracted with the Commission to build, over time, a countywide, multi-purpose, automated land information system using state-of-the-art computer hardware and software technology. Such automated land information systems are intended to ultimately provide continuous, readily available, and comprehensive land-related information at the parcel level. Such systems use computer equipment and software for the conversion, storage, retrieval, and analysis of land-related information which traditionally has been represented on "hard copy" maps.

During 1990, efforts to develop county-based land information systems were significantly enhanced by the initiation of the Wisconsin Land Information Program. That program, being overseen by the Wisconsin Land Information Board, provides a focal point for land records modernization issues and efforts within Wisconsin. Under the program, it is envisioned that counties throughout the State will prepare and implement plans to modernize land records systems. To help finance the preparation and implementation of such plans, the new state program requires counties to increase Register of Deeds filing and recording fees, at least for an initial six-year period that would terminate on June 30, 1996. Some of the increased filing fees are retained at the county level to be used to develop, implement, and maintain the county land information system plan. Some of the increased filing fees are transmitted to the State to fund the activities of the Wisconsin Land Information Board and to provide grants to county and local governments for activities that would implement the county plans.

The following summarizes the activities during 1990 toward the development of county land information systems in those counties in the Region where the County Boards have requested that the Commission provide technical assistance in the development and implementation of the county plans.

## Kenosha County

Commission-aided efforts in Kenosha County during 1990 consisted of the preparation of a formal county plan for land records modernization, as well as the continued development of the automated mapping base that was defined and tested in the Town of Randall demonstration project. In March 1990, the Kenosha County Board of Supervisors requested that the Commission create an Advisory Committee to help guide the preparation of a formal land records modernization plan, focusing on the completion of the automated mapping and land information system begun in 1986. That plan was completed during the year and published in SEWRPC Community Assistance Planning Report No. 185, A Plan for the Creation of an Automated Mapping and Parcel-Based Land Information System for Kenosha County.

After reviewing the conclusions of research efforts in the area of land records modernization at the national and state levels, and after reviewing the findings emanating from the Town of Randall demonstration project, the Advisory Committee concluded that the foundation for a modernized land records system in Kenosha County should be the creation of a single automated mapping base for the entire County. This single mapping base would be prepared to a set of specifications sufficient to meet the most stringent of accuracy and map feature content requirements of all the users concerned. Each organization using the automated mapping base—Kenosha County, local units of government in the County, and private utilities serving the County—would provide its own operating environment in terms of computer hardware and software. Only the automated digital maps and parcel identification system would be shared.

The basic land information system envisioned by the Advisory Committee would provide an automated mapping capability suitable for the development of a wide variety of applications. Such applications would include land ownership and title recordation systems, real property assessment and taxation systems, public and private utility inventory and management systems, zoning and other code monitoring and enforcement systems, and emergency and service vehicle response and routing systems.

Under the adopted plan, Kenosha County will take the lead in providing the following elements of the automated mapping base:

- A geodetic reference framework to identify the spatial location of all land related data. In accordance with long-standing Regional Planning Commission recommendations, this framework, which has already been completed in Kenosha County, consists of the remonumentation of all the corners of the U. S. Public Land Survey System and the precise and accurate placement of the corners on the State Plane Coordinate System.
- Large-scale topographic base maps showing in their correct location and orientation the natural and cultural features and the elevation and configuration of the surface of the earth. Such maps have been prepared for the entire County at a scale of one inch equals 200 feet, with two-foot contour intervals and are based upon specifications long promulgated by the Regional Planning Commission. Since this base mapping was prepared in conventional, and not digital, form, the Kenosha County plan calls for the conversion of the planimetric data on such maps to digital form, including such features as lakes and streams, pavements, railway tracks, and buildings. The plan does not presently call for conversion of the hypsometric data to digital form, although such conversion could readily be accommodated in future years.
- Cadastral overlays to the topographic base maps which identify and delineate land ownership parcels. Such cadastral maps are also to be prepared in accordance with specifications long promulgated by the Regional Planning Commission.
- A parcel identifier whereby each land ownership parcel has been assigned a unique code number. This parcel identifier provides the means to link all spatially-related data—for example, the property ownership of a given parcel—to the mapping base and of storing, retrieving, and exchanging such data. All ownership parcels in Kenosha County currently have such a unique code.

- Selected cultural and natural area overlays, including civil division boundary lines and land use, zoning district, shoreland district, floodplain, and soil mapping unit polygons.

Under the plan, which was adopted by the Kenosha County Board of Supervisors and the County Executive during the year, Kenosha County would be responsible for completing these five elements in computer-readable form, thus creating the automated mapping base. Once that base is completed, the County, the local units of government in the County, and the public and private utilities operating in the County, will be able, at their own pace and as their needs and resources may permit, to create additional land information files which contain data about, or relating to, land parcels, including public and private utility records, which are either graphic or nongraphic in nature, and which are related to the mapping base through the parcel identifier.

The Advisory Committee recommended a three-year time frame for completion of the automated mapping base. In order to meet that three-year commitment, the Kenosha Water Utility, which is proposing to proceed with automation of its sewer and water utility records, agreed to help fund the completion of the recommended automated mapping base. The total cost of completing that base is estimated at \$800,000. The budget in the plan calls for these funds to be provided by state grants from the Wisconsin Land Information Board—\$300,000; County-retained Register of Deeds increased filing and recording fees—\$200,000; Kenosha County general revenue—\$150,000; and Kenosha Water Utility revenue—\$150,000. The entire program is to be carried out under the sponsorship of the Kenosha County Director of Planning and Development, who is the designated Land Information Officer.

The status of completion of the automated mapping base in Kenosha County is shown on Map 34. About 80 square miles, or about 29 percent of the area of Kenosha County, presently has a functional, up-to-date digital mapping base.

#### **Milwaukee County**

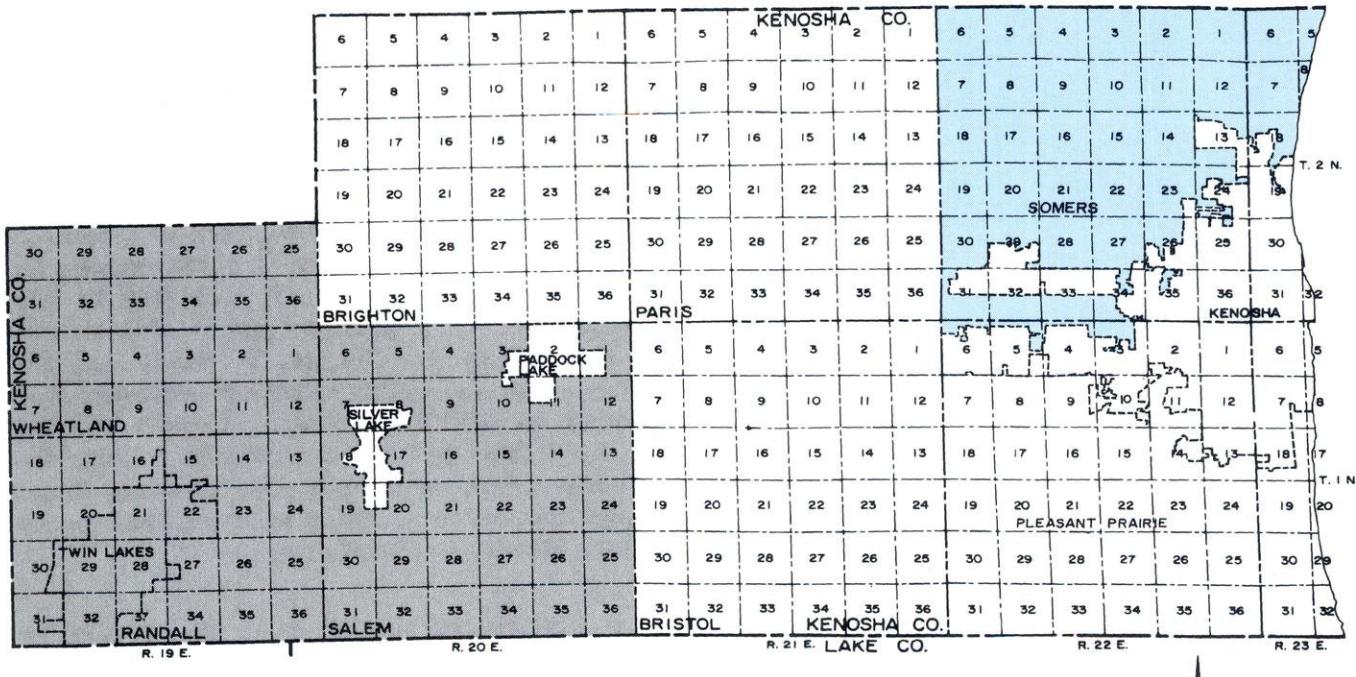
The Commission continued to work with Milwaukee County in 1990 in taking the first steps

toward implementation of the Milwaukee County land records modernization plan. As reported in the 1989 Annual Report, the Milwaukee County plan, set forth in SEWRPC Community Assistance Planning Report No. 177, Feasibility Study for a Milwaukee County Automated Mapping and Land Information System, proposes the development of a county-wide, multiple user system of digital maps and related products as the initial step in the development of a modern land records system within Milwaukee County. To implement the plan, a unique public-private partnership was formed in 1990 by Milwaukee County and the major public and private utilities serving the County. More specifically, the following major steps were taken in 1990 toward implementation of the Milwaukee County plan.

- The execution of a plan implementation agreement between Milwaukee County and the private utilities concerned, namely Wisconsin Bell, Wisconsin Electric Power Company, and Wisconsin Gas Company. At year's end, the other proposed public partner—the Milwaukee Metropolitan Sewerage District—had the agreement under consideration. The agreement calls for all partners to share in funding the work program, estimated at a total cost of \$4.16 million.
- The creation under the plan implementation agreement of a Steering Committee to oversee the efforts of the partnership to complete the automated mapping base. Under the agreement, the Executive Director of the Regional Planning Commission, in his capacity under the Wisconsin Statutes as the Milwaukee County Surveyor, serves initially as the Chairman of that Steering Committee.
- The completion of the geodetic reference framework for the County, including all required remonumentation of the U. S. Public Land Survey System corners and the conduct of the necessary horizontal and vertical control surveys tying that system to the State Plane Coordinate System and to the national vertical survey control datum.
- The retention of a project manager to oversee day-to-day plan implementation activities.

Map 34

## STATUS OF COMPUTER MAP FILE COMPLETION IN KENOSHA COUNTY: 1990



## LEGEND

- COMPUTER MAP FILES COMPLETED DURING OR PRIOR TO 1990
- COMPUTER MAP FILES UNDER PREPARATION IN 1990

**Racine County**

During 1990, the Racine County Board of Supervisors requested that the Commission assist that County in the preparation of a plan to modernize land records, including activities relating to an automated mapping base. Racine County was the first county in southeastern Wisconsin to complete the Commission-recommended large-scale topographic mapping system. The County has also internally completed much of the required cadastral mapping to Commission-recommended specifications. Work on this plan is being guided by an Advisory Committee created by Racine County. At year's end, technical work on the plan had begun.

**Walworth County**

During 1990, the Walworth County Board of Supervisors requested that the Commission assist that County in the preparation of a land records modernization plan. Following receipt of that request, the Commission met with the Walworth County Land Information Committee

to discuss possible approaches to preparation of the plan. At year's end, an approach was selected by the Committee and technical work had begun.

**Waukesha County**

At the request of the Waukesha County Register of Deeds, who was acting on behalf of the Waukesha County Geoprocessing Committee, an intergovernmental and private sector advisory committee created by the County Board, the Commission provided technical support in the preparation of a land records modernization plan for the County. Like Kenosha and Racine Counties, Waukesha County had previously established a conventional base mapping program using Commission-recommended specifications. Thus, the Geoprocessing Committee determined that the county plan would build upon the program already in place, seeking to complete an automated mapping base for the entire County. At year's end, the Commission staff had provided to the Geoprocessing Committee for its review and comment three chapters of a draft report intended to document the county plan.

# ADMINISTRATIVE SERVICES DIVISION

## DIVISION FUNCTIONS

The Commission's Administrative Services Division performs a number of functions supportive of the work of all of the other Commission divisions. These functions include financial management, consisting of accounting, bookkeeping, budget control, personnel management, and the implementation of affirmative action and equal opportunity programs; grant-in-aid procurement; purchasing and clerical support; and the sale and distribution of publications.

### FINANCIAL MANAGEMENT AND PLANNING

One of the most important functions of the Division is managing the Commission financial affairs. This includes maintaining a fund accounting system, preparing an annual Commission budget, preparing Commission payrolls, and processing accounts receivable and payable. Through the computerized accounting system, monthly financial management reports are prepared, including budget control, cash flow, and quarterly Treasurer's reports. These reports are utilized by the Commission, its committees, and the Executive Director to ensure that the financial integrity of the Commission is maintained.

The Division is also responsible for ensuring that financial institutions controlled by members of minority groups receive a fair share of the Commission's business. This task was continued during 1990 by maintaining a trust account with a minority-controlled bank within the Commission's service area. In addition, the Commission has established a business enterprise program, commencing with the generation of a list of disadvantaged/women businesses which were contacted as potential Commission vendors.

The Division is also responsible for preparing the Commission annual budget. With the help of this document and an accompanying federally required overall work program, the Commission is able to plan and organize its work effort from a sound financial basis.

## PERSONNEL ADMINISTRATION

Personnel recruitment, testing, and selection are centered in the Administrative Services Division. During 1990 the Commission continued to make progress in carrying out a comprehensive equal employment opportunity program in the areas of recruitment, employment, promotion, transferring, and training. Action was taken to better monitor applicant flow in order to gage progress in attracting minority applicants as required in the affirmative action program. Efforts were continued toward attracting qualified minority and women applicants during the year.

### GRANT-IN-AID PROCUREMENT

Along with accounting for the federal, state, and local funds received to operate the Commission, the Division is responsible for federal and state grant application preparation. This includes completing the necessary application forms, including supporting narratives describing proposed work programs, preparing budgets to carry out the work programs, and assisting in obtaining final grant approval. These grants provide a substantial portion of the working capital required to carry out the Commission's overall work program.

The Division also processes any claims for reimbursement of expenses incurred under each grant contract, prepares detailed financial status reports as required by federal and state funding agencies, and maintains detailed financial records for audit by grantor agencies.

The Commission's annual overall work program, a document, as already noted, required by federal regulation, is also prepared with the assistance of the Division. This report is an important vehicle for securing federal and state grants-in-aid, and serves as a guide to the financial management of the Commission.

### PURCHASING AND CLERICAL SUPPORT

The Administrative Services Division provides the Commission with purchasing services and

clerical staff support in the typing of reports, in addition to the typing of routine and specialized correspondence.

## **SALE AND DISTRIBUTION OF PUBLICATIONS**

During 1990 the Division distributed a total of 33,093 copies of Commission publications. These included: 34 prospectuses, 160 planning reports, 560 amendments to planning reports, 196 technical reports, 1,791 community assistance planning reports, 615 memorandum reports, 341

technical records, 749 annual reports, 10,008 newsletters, 3 conference proceedings, 18,372 community economic development profiles, 16 lake use reports, 1 public hearing minutes, 115 transportation improvement programs, and 42 overall work programs. A total of 90 copies of the special publication entitled Twenty-five Years of Regional Planning were also distributed. In addition, the Division distributed 6,523 aerial photographs, 74 soils maps, 257 topographic maps, 767 control survey station dossiers, 278 control survey summary diagrams, and 340 maps from the Commission's base map series.

**APPENDICES**



## Appendix A

**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION  
COMMISSIONERS AND COMMITTEES AS OF DECEMBER 31, 1990**

## **COMMISSIONERS**

## COMMITTEES

	Term Expires
<b>KENOSHA COUNTY</b>	
***Leon T. Dreger . . . . .	1994
*Francis J. Pitts . . . . .	1992
**Sheila M. Siegler . . . . .	1992
<b>MILWAUKEE COUNTY</b>	
*John R. Bolden . . . . .	1996
**Thomas W. Meaux . . . . .	1992
***Jean B. Tyler . . . . .	1990
<b>OZAUKEE COUNTY</b>	
*Leroy A. Bley . . . . .	1996
**Thomas H. Buestrin . . . . .	1996
***Elroy J. Schreiner . . . . .	1994
<b>RACINE COUNTY</b>	
***David B. Falstad . . . . .	1992
*Jean M. Jacobson, Secretary . . . . .	1990
**Martin J. Itzin . . . . .	1994
<b>WALWORTH COUNTY</b>	
**John D. Ames . . . . .	1996
***Anthony F. Balestrieri . . . . .	1994
*Allen L. Morrison, Vice-Chairman . . . . .	1994
<b>WASHINGTON COUNTY</b>	
**Daniel S. Schmidt . . . . .	1992
*Patricia A. Strachota . . . . .	1990
***Frank F. Uttech, Chairman . . . . .	1994
<b>WAUKESHA COUNTY</b>	
***Richard A. Congdon . . . . .	1992
*Robert F. Hamilton . . . . .	1994
**William D. Rogan, Treasurer . . . . .	1992

\*County Board-appointed Commissioners.

\*\*Appointed by the Governor from a County Board-approved list of candidates.

\*\*\*Appointed by the Governor on his own motion without reference to any County Board-approved list.

## **EXECUTIVE COMMITTEE**

Frank F. Uttech, Chairman  
Allen L. Morrison, Vice-Chairman  
Anthony F. Balestrieri  
John R. Bolden  
David B. Falstad  
Robert F. Hamilton  
Jean M. Jacobson  
Thomas W. Meaux  
Francis J. Pitts  
William D. Rogan  
Elroy J. Schreiner  
Sheila M. Siegler

## **ADMINISTRATIVE COMMITTEE**

Francis J. Pitts, Chairman  
Jean M. Jacobson, Vice-Chairman  
Anthony F. Balestrieri  
Richard A. Congdon  
David B. Falstad  
Allen L. Morrison  
William D. Rogan  
Frank F. Uttech

## **INTERGOVERNMENTAL AND PUBLIC RELATIONS COMMITTEE**

Robert F. Hamilton, Chairman  
Allen L. Morrison, Vice-Chairman  
Leroy A. Bley  
Jean M. Jacobson  
Thomas W. Meaux  
Francis J. Pitts  
William D. Rogan  
Patricia A. Strachota  
Frank F. Uttech

## PLANNING AND RESEARCH COMMITTEE

Sheila M. Siegler, Chairman  
Daniel S. Schmidt, Vice-Chairman  
John D. Ames  
Anthony F. Balestrieri  
John R. Bolden  
Leon T. Dreger  
Jean M. Jacobson  
Allen L. Morrison  
William D. Rogan  
Elroy J. Schreiner  
Patricia A. Strachota  
Jean B. Tyler  
Frank F. Uttech



## Appendix B

### COMMISSION ADVISORY COMMITTEES: 1990

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL AIRPORT SYSTEM PLANNING

William D. Rogan	Commissioner, Southeastern Wisconsin Regional Planning Commission
Chairman	Wisconsin Regional Planning Commission
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	Wisconsin Regional Planning Commission
C. Barry Bateman	Airport Director, General Mitchell International Airport
Richard A. Bolte	Highway Commissioner, Waukesha County
Roger S. Chapman	Manager, Kenosha Regional Airport
Edwin H. Daniels	Citizen Member, Darien
George Gundersen	Director, Bureau of Systems Planning, Division of Planning and Budget, Wisconsin Department of Transportation
Major Reid M. Knutson	Base Civil Engineer, Wisconsin Air National Guard
Robert W. Kunkel	Director, Bureau of Aeronautics, Wisconsin Department of Transportation
Jerome F. Mann	Director, Central Region, Air Transport Association of America
Patrick Marchese	Director of Transportation, Milwaukee County
Paul E. Milewski	Director of Community Development, City of Oak Creek
Glen A. Orcutt	Airport Planner, U. S. Department of Transportation, Federal Aviation Administration
Sylvester N. Weyker	Highway Commissioner, Ozaukee County

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR KENOSHA COUNTY

Gene A. Scharfenorth	Highway Commissioner, Kenosha County
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	Wisconsin Regional Planning Commission
Gary Daniels	Chairman, Town of Brighton
Ralph L. Drinkwine, Jr.	President, Village of Silver Lake
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Gerald K. Graff	Chairman, Town of Randall
Russell Hoel	Chairman, Town of Salem
David D. Holtze	Chairman, Town of Somers
Francis H. Kerkman	Chairman, Town of Wheatland
Norman H. Krueger	President, Village of Paddock Lake
George E. Melcher	Director of Planning and Development, Kenosha County
Patrick E. Moran	Mayor, City of Kenosha
Larry Oberhofer	President, Village of Twin Lakes
Fred C. Schmalfeldt	Chairman, Kenosha County Highway and Parks Committee
Thomas W. Terwall	President, Village of Pleasant Prairie
Audrey J. Van Slochteren	Chairman, Town of Bristol
Thomas A. Winkel	District Chief Planning Engineer, Wisconsin Department of Transportation
August Zirbel, Jr.	Chairman, Town of Paris

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR MILWAUKEE COUNTY

Patrick Marchese	Director of Transportation, Chairman and Secretary
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
John A. Erickson	City Engineer, City of Milwaukee
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR MILWAUKEE COUNTY (continued)

Frank M. Mayer	Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Robert R. Packee	District Director, Wisconsin Department of Transportation
Nick T. Paulos	Village Engineer, Village of Greendale
Frank Reichert	City Engineer, City of Glendale
Gordon Rozmus	City Planner, City of Wauwatosa
John E. Schumacher	City Engineer, City of West Allis

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR RACINE COUNTY

James F. Rooney	Commissioner, Racine County Highway Commission
Chairman	
Cecil F. Mehring	Highway Engineer, Racine County
Secretary	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Arnold L. Clement	Planning and Development Director, Racine County
Thomas M. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Richard J. Furst	Trustee, Village of Wind Point
Mark A. Gustafson	City Engineer, City of Burlington
Richard L. Hebron	Chairman, Town of Raymond
Edmund Karczewski	Chairman, Town of Dover
John Korzilius	Trustee, Village of Union Grove
Lawrence M. Krautkramer	Chairman, Town of Waterford
Fred H. Larson	Commissioner of Public Works, City of Racine
Brian J. Lawler	Trustee, Village of Elmwood Park
Myrtle A. Lovrine	Chairman, Town of Burlington
John L. Malchine	Chairman, Town of Norway
Clay E. Morgan	President, Village of Sturtevant
Alvin P. Nelson	Chairman, Town of Yorkville
Peter Nilles	President, Village of North Bay
Richard G. Rehberg	Chairman, Town of Rochester
John P. Robbins	President, Village of Waterford
Antony Rogers	Trustee, Village of Rochester
Michael Weber	Development Coordinator, Town of Mt. Pleasant
Robert Wilson	Chairman, Town of Caledonia
Thomas A. Winkel	District Chief Planning Engineer, Wisconsin Department of Transportation
Thomas N. Wright	Director of Community Development, City of Racine

#### TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR OZAUKEE COUNTY

Sylvester N. Weyker	Highway Commissioner, Ozaukee County
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	Wisconsin Regional Planning Commission
Leland J. Allen	Chairman, Town of Port Washington
Lester A. Bartel, Jr.	Chairman, Town of Grafton
Paul H. Brunquell	Supervisor, Town of Saukville
Alfred Bucholz	Chairman, Town of Belgium
Donald C. Bystricky	President, Village of Belgium
Anthony R. Depies	Assistant City Engineer, City of Port Washington

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON  
JURISDICTIONAL HIGHWAY PLANNING FOR OZAUKEE COUNTY  
(continued)

David M. Drew	Director of Engineering and Development, City of Cedarburg
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Frederick Kaul	Chairman, Ozaukee County Highway Committee
John V. Kitzke	President, Village of Thiensville
Jeffrey P. Knight	President, Village of Saukville
Fred W. Koehler, Jr.	Chairman, Town of Fredonia
D. Michael Mucha	Assistant City Engineer, City of Mequon
William Rathskack	President, Village of Fredonia
Kenneth A. Roell	Highway Commissioner, Town of Cedarburg
Robert R. Struck	Director of Public Works, Village of Grafton
Thomas A. Winkel	District Chief Planning Engineer, Wisconsin Department of Transportation

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON  
JURISDICTIONAL HIGHWAY PLANNING FOR WALWORTH COUNTY

Benjamin Coopman	Highway Commissioner, Walworth County
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
James Bilskey	Chairman, Town of Darien
David Bollweg	Acting Chairman, Town of Linn
Gerald E. Byrnes	Chairman, Town of Troy
James W. Byrnes	Chairman, Town of East Troy
Spyro Condos	Mayor, City of Lake Geneva
John E. Davis	Supervisor, Town of Delavan
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Harold J. Friestad	President, Village of Williams Bay
Carl A. Gustafsen	Supervisor, Town of La Fayette
Craig A. Guthrie	Chairman, Town of Sugar Creek
William S. Heimlich	Planning Supervisor, Wisconsin Department of Transportation
Albert J. Jones	Trustee, Village of Walworth
Neal Kedzie	Chairman, Town of La Grange
Paul Kitzman	Chairman, Town of Richmond
Richard H. Kraus	Chairman, Town of Whitewater
Dean Logertman	President, Village of Darien
Alfred Lynch	President, Village of Sharon
William R. Mangold	Chairman, Town of Lyons
Allen L. Morrison	Chairman, Town of Sharon
Paul Ormson	Mayor, City of Elkhorn
Richard Ploch	Chairman, Town of Geneva
Joseph H. Schaefer	Chairman, Walworth County Highway Committee
Charles Schuren	President, Village of Genoa City
Lyle A. Smith	Public Works Director, City of Delavan
Paul O. Sonderegger	President, Village of East Troy
James Stowell	Chairman, Town of Spring Prairie
Robert W. Tilton	Chairman, Town of Bloomfield
William S. Turner	President, Village of Fontana on the Lake
James Van Dresser	Chairman, Town of Walworth
Paul B. Webber	City Manager, City of Whitewater

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON  
JURISDICTIONAL HIGHWAY PLANNING FOR WASHINGTON COUNTY

Kenneth M. Pesch	City Engineer, City of West Bend
Chairman	
George B. Allman	Chairman, Town of Kewaskum
Vice-Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
Gerald E. Boldt	President, Village of Jackson
Howard O. Butch	Supervisor, Washington County
John B. Cappelle	Director of Community Development, City of West Bend
Peter Gonnering	Supervisor, Washington County
James E. Heipp	Supervisor, Town of West Bend
Willard Heppé	Chairman, Town of Polk
Gordon C. Hoffman	Clerk, Town of Jackson
Carl Hohlweck	Chairman, Town of Wayne
Vernon Kauth	Trustee, Village of Germantown
John B. Kohl	Chairman, Town of Richfield
Frank M. Mayer	Division Administrator, U. S. Department of Transportation, Federal Highway Administration
Paul J. Metz	Chairman, Town of Germantown
Michael R. Miller	Mayor, City of West Bend
Paul E. Mueller	Administrator, Land Use and Park Department, Washington County
Dean Otte	Clerk, Village of Slinger
Merlin Prost	Chairman, Town of Barton
William Ripp	City Engineer, City of Hartford
Franklin B. Scharrer	Commissioner, Washington County Highway Department
Reuben J. Schmahl	Chairman, Washington County Board
Daniel S. Schmidt	Administrator, Village of Kewaskum
Donald M. Shane	Citizen Member, Town of Trenton
Robert C. Skeen	Chairman, Town of Erin
John C. Spielmann	Economic Development Coordinator, City of Hartford
Maurice P. Strupp	Chairman, Town of Hartford
John Theusch	Chairman, Town of Farmington
Carl Vogt	Clerk, Town of Addison
Gary Wendorf	Member, Planning Commission, City of Hartford
Milton Wilkens	President, Village of Newburg
Thomas A. Winkel	District Chief Transportation Assistance and Planning Engineer, Wisconsin Department of Transportation
Arthur H. Zabel	Trustee, Village of Germantown

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON  
JURISDICTIONAL HIGHWAY PLANNING FOR WAUKESHA COUNTY

Richard A. Bolte	Highway Commissioner, Waukesha County
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Donald R. Holt	Chairman, Town of Lisbon
Gerald P. Lee	Director of Development, City of Muskego
William A. Muth, Jr.	Director of Public Works, City of Brookfield
Robert R. Packee	District Director, Wisconsin Department of Transportation
Robert Schreiber	Chairman, Town of Genesee
Bernard Schultz	City Engineer, City of Oconomowoc
Rodney W. Vanden Noven	Director of Public Works, City of Waukesha
Max A. Vogt	Director of Public Works, Village of Menomonee Falls

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

James F. Rooney . . . . . Director of Public Works, Racine County  
Chairman  
Kurt W. Bauer . . . . . Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
James J. Blazek . . . . . City Engineer, City of Racine  
Mary M. Carrington . . . . . Chairman, Town of Mt. Pleasant  
Jon J. Dederich . . . . . Plan Commissioner, Village of Elmwood Park  
Joel P. Ettinger . . . . . Regional Manager, Region V,  
U. S. Department of Transportation,  
Urban Mass Transportation Administration  
Richard J. Furst . . . . . Trustee, Village of Wind Point  
George Gundersen . . . . . Director, Bureau of System Planning,  
Division of Planning and Budget,  
Wisconsin Department of Transportation  
Michael L. Hansen . . . . . Chairman, Wisconsin Coach Lines, Inc.  
Wolfgang H. Klassen . . . . . Director, Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Frank M. Mayer . . . . . Wisconsin Division Administrator,  
U. S. Department of Transportation,  
Federal Highway Administration  
Douglas E. McIntosh . . . . . Traffic Engineer, City of Racine  
Clay E. Morgan . . . . . President, Village of Sturtevant  
Toya M. Nelson . . . . . Director, Bureau of Transit,  
Wisconsin Department of Transportation  
Cheryl L. Newton . . . . . Environmental Protection Specialist, Region V,  
U. S. Environmental Protection Agency  
Peter Nilles . . . . . President, Village of North Bay  
Robert R. Packee . . . . . District Director, Wisconsin  
Department of Transportation

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

Gene A. Scharfenorth . . . . . Highway Commissioner, Kenosha County  
Chairman  
Kurt W. Bauer . . . . . Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Joel P. Ettinger . . . . . Regional Manager, Region V,  
U. S. Department of Transportation,  
Urban Mass Transportation Administration  
George Gundersen . . . . . Director, Bureau of System Planning,  
Division of Planning and Budget,  
Wisconsin Department of Transportation  
Michael L. Hansen . . . . . Chairman, Wisconsin Coach Lines, Inc.  
Donald K. Holland . . . . . City Administrator, City of Kenosha  
Edward A. Jenkins . . . . . Director, Department of  
Transportation, City of Kenosha  
Wolfgang H. Klassen . . . . . Director, Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Frank M. Mayer . . . . . Wisconsin Division Administrator,  
U. S. Department of Transportation,  
Federal Highway Administration  
Toya M. Nelson . . . . . Director, Bureau of Transit,  
Wisconsin Department of Transportation  
Cheryl L. Newton . . . . . Environmental Protection Specialist, Region V,  
U. S. Environmental Protection Agency  
Robert R. Packee . . . . . District Director, Wisconsin  
Department of Transportation  
Francis J. Pitts . . . . . Commissioner, Southeastern Wisconsin  
Regional Planning Commission

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

Harout O. Sanasarian . . . . . Director of Intergovernmental  
Chairman Relations, Milwaukee County  
F. Thomas Ament . . . . . County Board Chairman, Milwaukee County  
John R. Bolden . . . . . Commissioner of Public Works,  
City of Milwaukee  
Richard A. Bolte . . . . . Highway Commissioner, Waukesha County  
Daniel Cupertino, Jr. . . . . Supervisor, Milwaukee County Board  
Alvin E. Czysh . . . . . City Engineer, City of Oak Creek

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

Ricardo Diaz . . . . . Commissioner, Department of City  
Development, City of Milwaukee  
John A. Erickson . . . . . City Engineer, City of Milwaukee  
Lawrence J. Kenny . . . . . Supervisor, Milwaukee County Board  
Patrick Marchese . . . . . Director of Transportation and  
Mitchell Metz . . . . . Office of the Mayor, City of Milwaukee  
Nick T. Paulos . . . . . Village Engineer, Village of Greendale  
John E. Schumacher . . . . . City Engineer, City of West Allis  
Public Works, Milwaukee County  
Paul G. Vrakas . . . . . Mayor, City of Waukesha  
Robert J. Welch . . . . . Director, Department of Fiscal Liaison,  
City of Milwaukee  
S. Howard Young . . . . . Engineering and Operations Administrator,  
City of Wauwatosa  
Representative (vacant) . . . . . Local Government,  
Ozaukee/Washington Counties  
Representative (vacant) . . . . . North Shore Suburbs  
Representative (vacant) . . . . . Waukesha County Suburbs

**Ex Officio Nonvoting Members**

Kurt W. Bauer . . . . . Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Joel P. Ettinger . . . . . Regional Manager,  
U. S. Department of Transportation,  
Urban Mass Transportation Administration  
Michael L. Hansen . . . . . Chairman, Wisconsin Coach Lines, Inc.  
Wolfgang H. Klassen . . . . . Director, Bureau of Air Management,  
Wisconsin Department of Natural Resources  
Thomas P. Kujawa . . . . . Managing Director, Milwaukee  
County Transit System  
Frank M. Mayer . . . . . Division Administrator,  
U. S. Department of Transportation,  
Federal Highway Administration  
Toya M. Nelson . . . . . Director, Bureau of Transit,  
Wisconsin Department of Transportation  
Robert R. Packee . . . . . District Director, Wisconsin  
Department of Transportation  
Ernest Wittwer . . . . . Director, Bureau of Program Management,  
Wisconsin Department of Transportation

**REGIONAL TRANSPORTATION  
AUTHORITY STUDY COMMITTEE**

Richard W. Cutler . . . . . Attorney, Milwaukee  
Chairman  
L. Chris Crawley . . . . . Executive Director, Congress  
for a Working America  
Kurt W. Bauer . . . . . Executive Director,  
Southeastern Wisconsin  
Regional Planning Commission  
Norman G. Bauernfeind . . . . . Racine County Board Supervisor  
Kathryn C. Bloomberg . . . . . Mayor, City of Brookfield  
John R. Collins . . . . . Kenosha County Executive  
Ronald R. Fiedler . . . . . Secretary, Wisconsin  
Department of Transportation  
William F. Kachel . . . . . Ozaukee County Board Supervisor  
Lawrence J. Kenny . . . . . Milwaukee County Board Supervisor  
James A. Luebke . . . . . Waukesha County Board Supervisor  
Louise I. Principe . . . . . Kenosha County Board Supervisor  
James F. Rooney . . . . . Public Works Director, Racine County  
Joseph H. Schaefer . . . . . Walworth County Board Supervisor  
Frank B. Scharrer . . . . . Washington  
Highway Commissioner  
David F. Schulz . . . . . Milwaukee County Executive  
Robert R. Spitzer . . . . . President, Milwaukee  
School of Engineering  
John B. Torinus . . . . . Chief Executive Officer,  
Serigraph, Inc.  
Sylvester N. Weyker . . . . . Ozaukee County Highway Commissioner

#### ROOT RIVER WATERSHED COMMITTEE

M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Chairman  
 Thomas N. Wright . . . . . Director of Community Development, City of Racine  
 Vice-Chairman  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary  
 Christine B. Bastian . . . . . Mayor, City of Oak Creek  
 John M. Bennett . . . . . City Engineer, City of Franklin  
 James J. Blazek . . . . . City Engineer, City of Racine  
 Alvin E. Czysk . . . . . City Engineer, City of Oak Creek  
 N. Owen Davies . . . . . Mayor, City of Racine  
 Raymond T. Dwyer . . . . . City Engineer, City of Greenfield  
 Ruth Hilfiker . . . . . Natural Resources Agent, Racine County  
 Orville L. Kurth . . . . . District Conservationist, U. S. Soil Conservation Service, Milwaukee and Waukesha Counties  
 Neal T. O'Reilly . . . . . Environmental Specialist, Southeast District, Wisconsin Department of Natural Resources  
 Nick T. Paulos . . . . . Village Engineer, Village of Greendale  
 James F. Rooney . . . . . Director of Public Works, Racine County  
 James R. Ryan . . . . . President, Village of Hales Corners  
 Wayne G. Salentine . . . . . Mayor, City of Muskego  
 John E. Schumacher . . . . . City Engineer, City of West Allis  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District

#### FOX RIVER WATERSHED COMMITTEE

William D. Rogan . . . . . Commissioner, Southeastern Wisconsin Regional Planning Commission  
 Chairman  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary  
 Nolan Anderson . . . . . Agricultural Agent, Walworth County  
 Gilbert B. Bakke . . . . . President, Village of Waterford  
 Jack A. Bierman . . . . . President, Village of Rochester  
 Kathryn C. Bloomberg . . . . . Mayor, City of Brookfield  
 William Burmeister . . . . . Chairman, Norway-Dover Drainage District  
 Arnold L. Clement . . . . . Planning and Development Director, Racine County  
 Steven J. David . . . . . Mayor, City of Burlington  
 Frank H. Dobbs . . . . . Director, Walworth County Planning, Zoning and Sanitation Department  
 George S. Hardie . . . . . Chairman, Western Racine County Sewerage District  
 Robert E. Harvey . . . . . Citizen Member, Town of Mukwonago  
 Ruth Hilfiker . . . . . Resource Agent, UW-Extension, Kenosha County and Racine County  
 Ronald W. Kazmierczak . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources  
 Francis Kerkman . . . . . Chairman, Town of Wheatland  
 Lawrence M. Krautkramer . . . . . Chairman, Town of Waterford  
 Orville L. Kurth . . . . . District Conservationist, U. S. Soil Conservation Service  
 John L. Malchine . . . . . Chairman, Town of Norway  
 George E. Melcher . . . . . Director, Office of Planning and Development, Kenosha County  
 John H. Mielke . . . . . Consulting Engineer, Rueker & Mielke, Waukesha  
 Raymond J. Moyer, Jr. . . . . Citizen Member, Town of Waterford  
 Sterling A. Peck . . . . . Chairman, Town of Vernon  
 Cloyd A. Porter . . . . . Wisconsin State Representative  
 Richard G. Rehberg . . . . . Chairman, Town of Rochester  
 Herbert E. Ripley . . . . . Health Officer, Waukesha County Health Department  
 Wayne G. Salentine . . . . . Mayor, City of Muskego  
 Phil Sander . . . . . Executive Secretary, Southeastern Wisconsin Sportsmen's Federation  
 Dr. Bruno E. Schiffleger . . . . . Citizen Member, City of Elkhorn  
 Arthur Stratton . . . . . Commissioner, Hoosier Creek Drainage District  
 Walter J. Tarmann . . . . . Director, Waukesha County Park and Planning Commission  
 Rodney M. Vanden Noven . . . . . Director of Public Works, City of Waukesha  
 Stan Wilson . . . . . Citizen Member, City of Burlington  
 John R. Zillmer . . . . . Secretary, Ice Age Park and Trail Foundation, Milwaukee

#### MILWAUKEE RIVER WATERSHED COMMITTEE

Richard W. Cutler . . . . . Attorney, Milwaukee  
 Chairman  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 John R. Bolden . . . . . Commissioner of Public Works, City of Milwaukee  
 Lawrence Brumm . . . . . President, Milwaukee River Restoration Council, Inc.  
 Randy J. Bukas . . . . . Administrator, Village of Saukville  
 Delbert J. Cook . . . . . Chairman, Cedar Creek Restoration Council  
 Arthur G. Degnitz . . . . . Clerk, Washington County  
 James B. Esselman . . . . . Chairman, Town of Trenton  
 Edward Frauenheim . . . . . County Board Chairman, Sheboygan County  
 Lawrence W. Hillman . . . . . Citizen Member  
 John Justen . . . . . Citizen Member  
 Ronald W. Kazmierczak . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources  
 Robert L. Konik . . . . . Planner, Fond du Lac County  
 Paul E. Mueller . . . . . Land Use and Park Administrator, Washington County  
 Steven Narveson . . . . . Director, Ozaukee County Department of Environmental Health  
 Donald A. Roensch . . . . . Administrator/Engineer, City of Mequon  
 M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District  
 Richard E. Zarling . . . . . Director of Elementary Education, Kewaskum Community Schools

#### MENOMONEE RIVER WATERSHED COMMITTEE

John R. Bolden . . . . . Commissioner of Public Works, City of Milwaukee  
 Chairman  
 Gordon Rozmus . . . . . City Planner, City of Wauwatosa  
 Vice-Chairman  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary  
 Glenn H. Evans . . . . . Citizens for Menomonee River Restoration  
 Richard Farrenkopf . . . . . Manager, Village of Menomonee Falls  
 Frank S. Hartay . . . . . Director of Manufacturing, Falk Corporation, Milwaukee  
 Edmund M. Henschel . . . . . Manager, Village of Elm Grove  
 Ronald W. Kazmierczak . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources  
 George C. Keller . . . . . President, Wauwatosa State Bank  
 Raymond J. Kipp . . . . . Former Dean, College of Engineering, Marquette University  
 Donald A. Roensch . . . . . Administrator/Engineer, City of Mequon  
 John E. Schumacher . . . . . City Engineer, City of West Allis  
 M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Walter J. Tarmann . . . . . Director, Waukesha County Park and Planning Commission  
 Lloyd L. Turner . . . . . Director of Public Works, Village of Germantown  
 Clark E. Wangerin . . . . . Special Projects Engineer, City of Brookfield  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District

#### KINNICKINNICK RIVER WATERSHED COMMITTEE

M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Chairman  
 John A. Erickson . . . . . City Engineer, City of Milwaukee  
 Vice-Chairman  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary  
 Raymond T. Dwyer . . . . . City Engineer, City of Greenfield  
 E. Craig Faucett . . . . . Director of Engineering, City of Cudahy  
 Metropolitan Sewerage District  
 Patrick Marchese . . . . . Director of Transportation and Public Works, Milwaukee County  
 Stanley Polewski . . . . . Proprietor, Polewski Pharmacy, Milwaukee  
 Rudolfo N. Salcedo . . . . . Environmental Scientist, Department of City Development, City of Milwaukee  
 Frank Schultz . . . . . District Engineer, Southeast District, Wisconsin Department of Natural Resources  
 John E. Schumacher . . . . . City Engineer, City of West Allis  
 Frank J. Wabiszewski . . . . . Vice-President, Maynard Steel Casting Company, Milwaukee  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District

#### PIKE RIVER WATERSHED COMMITTEE

George E. Melcher . . . . . Director of Planning and Development, Kenosha County  
 Chairman . . . . .  
 Richard Christensen . . . . . Chairman, Mt. Pleasant  
 Vice-Chairman . . . . .  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary . . . . .  
 Les Aspin . . . . . Congressman, 1st District  
 Arnold L. Clement . . . . . Planning and Development Director, Racine County  
 Ray A. Forgianni . . . . . Director of Development, City of Kenosha  
 Janice R. Hand . . . . . Chairman, Town of Mt. Pleasant  
 Gerald L. Hebard . . . . . District Conservationist, U. S. Soil Conservation Service, Racine County  
 Ruth Hilfiker . . . . . Natural Resources Agent, Racine County  
 Donald K. Holland . . . . . Director of Public Works, City of Kenosha  
 David D. Holtze . . . . . Chairman, Town of Somers  
 Niels E. Ladine . . . . . Director, Parks Department, Kenosha County  
 Fred H. Larson . . . . . Director of Public Works, City of Racine  
 Leverett F. Leet . . . . . Retired Farmer, Town of Somers  
 Chelvadurai Manogaran . . . . . Associate Professor, Department of Geography, University of Wisconsin-Parkside  
 Clay E. Morgan . . . . . President, Village of Sturtevant  
 O. Fred Nelson . . . . . Manager, Kenosha Water Utility  
 Neal T. O'Reilly . . . . . Planning Analyst, Southeast District, Wisconsin Department of Natural Resources  
 Francis J. Pitts . . . . . Commissioner, Southeastern Wisconsin Regional Planning Commission  
 Michael F. Weber . . . . . Administrator, Town of Mt. Pleasant

#### OAK CREEK WATERSHED COMMITTEE

Norbert S. Theine . . . . . Administrator, City of South Milwaukee  
 Chairman . . . . .  
 Paul E. Milewski . . . . . Director of Community Development, City of Oak Creek  
 Vice-Chairman . . . . .  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary . . . . .  
 John M. Bennett . . . . . City Engineer, City of Franklin  
 Thomas D. Borgwardt . . . . . Airport Engineer, Milwaukee County Department of Public Works  
 John A. Erickson . . . . . City Engineer, City of Milwaukee  
 Ronald W. Kazmierczak . . . . . Assistant District Director, Southeast District, Wisconsin Department of Natural Resources  
 Richard A. Keyes . . . . . Environmental Engineer, Department of Public Works, Milwaukee County  
 Charles G. Lambert . . . . . Secretary, Milwaukee County Conservation Alliance  
 John D. St. John . . . . . Supervisor, Milwaukee County  
 Douglas R. Sleight . . . . . Member, South Milwaukee Yacht Club  
 M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District

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

Dr. Norman P. Lasca . . . . . Professor, Department of Geological Sciences, University of Wisconsin-Milwaukee  
 Chairman . . . . .  
 M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Vice-Chairman . . . . .  
 Donald M. Reed . . . . . Principal Biologist, Southeastern Wisconsin Regional Planning Commission  
 Secretary . . . . .  
 Hubert J. Albert . . . . . Port Washington Yacht Club  
 Carl W. Birks . . . . . Director, Engineering, Environment and Energy, Milwaukee County  
 John R. Bolden . . . . . Commissioner of Public Works, City of Milwaukee  
 Josephine Boucher . . . . . Member, North Shore League of Women Voters  
 Benjamin C. Chapla . . . . . Citizen Member, Town of Caledonia  
 Noreen R. Cook . . . . . Manager, Village of Fox Point  
 Mark D. Dybdahl . . . . . Mayor, City of Port Washington  
 E. Craig Faucomm . . . . . Director of Engineering, City of Cudahy  
 James L. Fonk . . . . . Supervisor, Kenosha County Board  
 Ruth Hilfiker . . . . . Natural Resource Agent, Racine County

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

(continued)

Dr. Harold M. Mayer . . . . . Professor, Department of Geography, University of Wisconsin-Milwaukee  
 Gloria L. McCutcheon . . . . . District Director, Southeast District, Wisconsin Department of Natural Resources  
 Dr. William G. Murphy . . . . . Former Professor, Soils Mechanics, College of Engineering, Marquette University; Engineers and Scientists of Milwaukee  
 Mary C. Nelson . . . . . City of South Milwaukee Shoreline Property Owner  
 C. William Nelson . . . . . Member, Great Lakes Sports Fisherman's Club  
 Dr. William T. Painter . . . . . President, Foundation Engineering, Inc., Milwaukee  
 Neil H. Palmer . . . . . Senior Legislative Representative, Wisconsin Electric Power Company  
 James M. Phinney . . . . . Resident, Village of Fox Point  
 Phil Sander . . . . . Executive Secretary, Southeastern Wisconsin Sportsmen's Federation  
 Kenneth J. Szallai . . . . . Port Director, Board of Harbor Commissioners, City of Milwaukee  
 Norbert S. Theine . . . . . Administrator, City of South Milwaukee  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District

#### ADVISORY COMMITTEE ON STORMWATER DRAINAGE AND FLOOD CONTROL PLANNING FOR THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT AND DISTRICT SERVICE AREAS

Robert J. Mikula . . . . . Citizen Member  
 Chairman . . . . .  
 Ted B. Prawdzik . . . . . Citizen Member  
 Vice-Chairman . . . . .  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary . . . . .  
 John M. Bennett . . . . . City Engineer, City of Franklin  
 Dr. Clifford Crandall . . . . . Professor of Civil Engineering, Marquette University  
 John A. Erickson . . . . . City Engineer, City of Milwaukee  
 John M. Fredrickson . . . . . Manager, Village of River Hills  
 Richard H. Halfman . . . . . Director of Public Works, Village of Brown Deer  
 Patrick Marchese . . . . . Director of Transportation and Public Works, Milwaukee County  
 Gloria L. McCutcheon . . . . . District Director, Southeast District, Wisconsin Department of Natural Resources  
 Dr. James Papandrea . . . . . Citizen Member  
 John E. Schumacher . . . . . City Engineer, City of West Allis  
 M. Brigid Sullivan . . . . . Director of Parks, Recreation and Culture, Milwaukee County  
 Wallace White . . . . . Executive Director, Milwaukee Metropolitan Sewerage District  
 S. Howard Young . . . . . Engineering and Operations Administrator, City of Wauwatosa

#### GREATER KENOSHA AREA UTILITY PLANNING COMMITTEE

David D. Holtze . . . . . Chairman, Town of Somers  
 Chairman . . . . .  
 Kurt W. Bauer . . . . . Executive Director, Southeastern Wisconsin Regional Planning Commission  
 Secretary . . . . .  
 Harvey D. Elmer . . . . . Director of Public Works, City of Kenosha  
 Donald K. Holland . . . . . Administrator, City of Kenosha  
 Ronald W. Kazmierczak . . . . . Assistant District Director, Wisconsin Department of Natural Resources  
 Wayne E. Koessl . . . . . WEPCo/WISPARK Corporation  
 George E. Melcher . . . . . Director, Kenosha County Office of Planning and Zoning Administration  
 O. Fred Nelson . . . . . Manager, Kenosha Water Utility  
 Michael R. Pollockoff . . . . . Administrator, Town of Pleasant Prairie  
 Michael J. Serpe . . . . . Councilman, City of Kenosha  
 Audrey J. Van Slochteren . . . . . Chairman, Town of Bristol  
 August Zirbel, Jr. . . . . Chairman, Town of Paris

**GREATER RACINE AREA  
UTILITY PLANNING COMMITTEE**

Roger Caron	President, RAMAC
Chairman	
Arnold L. Clement	Planning and Development
Vice-Chairman	Director, Racine County
Frank R. Pascarella	Administrator, Town of Caledonia
Secretary	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Thomas J. Bunker	Chief of Operations, Water and Wastewater Utility, City of Racine
David B. Falstad	Senior Vice-President, J. I. Case Company
Richard J. Furst	Trustee, Village of Wind Point
William Kiser	President, Raymond Heights Sanitary District
Robert A. Lovdahl	President, Lovdahl Manufacturing, Inc.
Nico J. Meiland	Vice-President, U. S. Manufacturing, S. C. Johnson & Son, Inc.
Alvin P. Nelson	Chairman, Town of Yorkville
Virgil N. Schultz	Trustee, Village of Sturtevant
John H. Veltus	President, Town of Mt. Pleasant Sewer Commission
Thomas H. White	General Manager, Water and Wastewater Utility, City of Racine

**TECHNICAL COORDINATING AND ADVISORY COMMITTEE  
ON REGIONAL LAND USE PLANNING**

Arnold L. Clement	Director of Planning and Development, Racine County
Chairman	
Harlan E. Clinkenbeard	Administrator/Planner, Town of Pewaukee
Vice-Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
John B. Capelle	Director of Community Development, City of West Bend
Ricardo Diaz	Commissioner, Department of City Development City of Milwaukee
Lewis R. Dixon	Manager, Land Use Planning, Wisconsin Energy Corporation
Francis H. Dobbs	Director, Walworth County Planning, Zoning, and Sanitation Department
David M. Drew	Director of Engineering and Development, City of Cedarburg
Daniel F. Ertl	Director of Planning and Zoning, City of Brookfield
Raymond A. Forgianni	Director of City Development, City of Kenosha
Frank M. Hedgcock	Director of Community Development, City of Waukesha
Gregory I. Igli	District Conservationist, U. S. Soil Conservation Service, Walworth County
James A. Johnson	Director, Land and Water Resources Bureau, Wisconsin Department of Agriculture, Trade and Consumer Protection
Gordon M. Kacala	Executive Director, Racine County Economic Development Corporation
G. Andrew Larsen	Director, Riveredge Nature Center
Thomas R. Lebak	City Administrator, City of Burlington
James J. Lynch	Director of Community Development, Village of Shorewood
Gloria L. McCutcheon	District Director, Southeast District, Wisconsin Department of Natural Resources
George E. Melcher	Director of Planning and Development, Kenosha County
Paul E. Milewski	Director of Community Development, City of Oak Creek
Paul E. Mueller	Administrator, Washington County Land Use and Park Department
Frederick J. Patrie	Administrator, Village of West Milwaukee
David L. Peterson	Attorney, Quarles and Brady
Gordon Rozmus	City Planner, City of Wauwatosa
Brad Lee G. Steinke	Director of Community Development, City of Mequon
M. Brigid Sullivan	Director, Milwaukee County Department of Parks, Recreation and Culture

**TECHNICAL COORDINATING AND ADVISORY COMMITTEE  
ON REGIONAL LAND USE PLANNING**

(continued)

Walter J. Tarmann	Director, Waukesha County Park and Planning Commission
Norbert S. Theine	Administrator, City of South Milwaukee
Jean M. Werbie	Planning and Zoning Administrator, Village of Pleasant Prairie
Dan A. Wilson	Resource/Horticulture Agent, UWEX-Washington County
Lawrence P. Witzling	Associate Dean of Architecture and Urban Planning, University of Wisconsin, Milwaukee
Thomas N. Wright	Director of City Development, City of Racine

**INTERGOVERNMENTAL COORDINATING AND  
TECHNICAL ADVISORY COMMITTEE FOR THE IH 94  
SOUTH FREEWAY CORRIDOR DEVELOPMENT PLAN**

Arnold L. Clement	Planning and Development Director, Racine County
George E. Melcher	Director, Office of Planning and Development, Kenosha County
Paul E. Milewski	Director, Department of Community Development, City of Oak Creek
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Recording Secretary	
Richard A. Abdo	Vice-President, Wisconsin Energy Corporation
John Bechler	Director, Kenosha Area Development Corporation
John M. Bennett	City Engineer, City of Franklin
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
George Gunderson	Director, Bureau of System Planning, Wisconsin Department of Transportation
Richard L. Hebron	Chairman, Town of Raymond
Donald K. Holland	Administrator, City of Kenosha
David D. Holtze	Chairman, Town of Somers
Gordon M. Kacala	Executive Director, Racine County Economic Development Corporation
Clay Morgan	President, Village of Sturtevant
Alvin P. Nelson	Chairman, Town of Yorkville
Allen C. Orth	President, IH 94 Racine County Business Association
Michael R. Pollockoff	Administrator, Town of Pleasant Prairie
James F. Rooney	Director of Public Works, Racine County
Gene A. Scharfenorth	Highway Commissioner, Kenosha County
Audrey J. Van Slochteren	Chairman, Town of Bristol
Michael F. Weber	Administrator, Town of Mt. Pleasant
Robert L. Wilson	Chairman, Town of Caledonia
Thomas A. Winkel	District Chief Transportation Assistance and Planning Engineer, Wisconsin Department of Transportation
Thomas N. Wright	Director of City Development, City of Racine
August Zirbel, Jr.	Chairman, Town of Paris

**INTERGOVERNMENTAL COORDINATING AND  
TECHNICAL ADVISORY COMMITTEE FOR THE IH 94  
WEST FREEWAY CORRIDOR DEVELOPMENT PLAN**

William D. Rogan	Commissioner, Southeastern Wisconsin Regional Planning Commission
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Robert T. Audley	Chairman, Town of Delafield
James R. Behrend	Mayor, City of Delafield
Harlan E. Clinkenbeard	Administrator/Planner, Town of Pewaukee
Benni S. DiPasquale	President, Village of Oconomowoc Lake
Paul A. Feller	City Engineer, City of Waukesha
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Cheri A. Frederick	Chair, Waukesha County Highway and Transportation Committee
George W. Guhr	Chair, Waukesha County Park and Planning Commission
Robert R. Packee	District Director, Wisconsin Department of Transportation
Frank M. Paulus	Administrator, Village of Pewaukee
Edwin H. Rohloff	Chairman, Town of Summit
Florence G. Whalen	Mayor, City of Oconomowoc

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

Dr. Forest Stearns . . . . . Chairman, Wisconsin Scientific Areas Preservation  
Chairman Council; Professor Emeritus, Department of Biological  
Sciences, University of Wisconsin-Milwaukee  
Donald M. Reed . . . . . Principal Biologist, Southeastern  
Secretary Wisconsin Regional Planning Commission  
John C. Bielefeldt . . . . . Naturalist, Racine County Parks Department  
Dr. Martyn Dibben . . . . . Curator of Botany, Milwaukee Public Museum  
Wesley Eisenhauer . . . . . Director Horticulture-Nature Division, Milwaukee  
County Department of Parks, Recreation and Culture  
Steven H. Grabow . . . . . Parks Facilities Manager, Milwaukee County  
Department of Parks, Recreation and Culture  
Marlin Johnson . . . . . Associate Professor, Department of  
Biological Sciences, University of  
Wisconsin-Waukesha Center  
G. Andrew Larsen . . . . . Director, Riveredge Nature Center,  
Ozaukee County  
Paul E. Matthiae . . . . . Chief, Natural Areas Section, Wisconsin  
Department of Natural Resources-Madison  
James P. Morrissey . . . . . Environmental Impact Coordinator,  
Wisconsin Department of Natural  
Resources-Southeast District  
Jerry A. Schwartzmeier . . . . . Park Naturalist, Retzer Nature Center,  
Waukesha County  
Dr. S. Galen Smith . . . . . Professor, Department of Biology,  
University of Wisconsin-Whitewater  
Dan Wilson . . . . . Resources Agent, University of  
Wisconsin-Extension, Washington County

KENOSHA COUNTY AUTOMATED MAPPING AND LAND  
INFORMATION SYSTEMS TECHNICAL ADVISORY COMMITTEE

George E. Melcher . . . . . Director of Planning and  
Chairman Development, Kenosha County  
Richard E. Ellison . . . . . County Assessor, Kenosha County  
Vice-Chairman  
Kurt W. Bauer . . . . . Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Ray G. Arbet . . . . . Director of Management and Budget, Kenosha County

KENOSHA COUNTY AUTOMATED MAPPING AND LAND  
INFORMATION SYSTEMS TECHNICAL ADVISORY COMMITTEE  
(continued)

Ronald J. Betz . . . . . Real Estate Information and Planning  
Administrator, Wisconsin Power & Light Company  
Donna M. Dietman . . . . . Register of Deeds, Kenosha County  
Harvey D. Elmer . . . . . Director of Public Works, City of Kenosha  
Ray A. Forgianni, Jr. . . . . Director of City Development, City of Kenosha  
Paul M. Hess . . . . . Director of Emergency Services, Kenosha County  
Kim G. House . . . . . Chief MIS Consultant, Information Systems  
Department, Kenosha County  
John A. Kilsdonk . . . . . Vice-President of Operations, Wisconsin  
Southern Gas Company  
O. Fred Nelson . . . . . General Manager, City of Kenosha Water Utility  
Michael R. Pollockoff . . . . . Administrator, Village of Pleasant Prairie  
Herman R. Reback . . . . . General Superintendent—Technical Services,  
Wisconsin Electric Power Company  
Gene Scharfenorth . . . . . Highway Commissioner, Kenosha County  
Roger J. Schoenfeld . . . . . Chief Deputy Sheriff, Kenosha County  
Robert L. Smith . . . . . County Surveyor, Kenosha County  
Kevin Walker . . . . . Chief Engineer, Jones Intercable  
Peggy A. Wilson . . . . . Manager-Outside Plant, Distribution  
Services, Wisconsin Bell  
Robert H. Zuehlsdorf . . . . . Director of Facilities and Services,  
Kenosha Unified School District

KENOSHA URBAN PLANNING DISTRICT  
PROSPECTUS ADVISORY COMMITTEE

Anthony F. Bisciglia . . . . . Superintendent, Kenosha  
Chairman Unified School District No. 1  
Kurt W. Bauer . . . . . Executive Director, Southeastern  
Secretary Wisconsin Regional Planning Commission  
Ray A. Forgianni, Jr. . . . . Director of City Development, City of Kenosha  
David G. Hinds . . . . . Community Resource Development Agent,  
University of Wisconsin-Extension  
David D. Holtze . . . . . Chairman, Town of Somers  
David M. Houghton . . . . . Kenosha Area Development Corporation  
George E. Melcher . . . . . Director of Planning and  
Development, Kenosha County  
Michael R. Pollockoff . . . . . Administrator, Village of Pleasant Prairie



**Appendix C**  
**SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION STAFF: 1990**

**EXECUTIVE DIVISION**

Kurt W. Bauer, PE, RLS, AICP  
Executive Director

Philip C. Evenson, AICP Assistant Director	Kenneth R. Yunker, PE Assistant Director
Margaret M. Shanley Executive Secretary	Ruth D. Jaeger Secretary
Joan M. Starr Secretary	

**INFORMATION SYSTEMS DIVISION**

John W. Ernst  
Information Systems Manager  
  
John C. Stelpflug  
Assistant Information Systems Manager  
  
Thomas D. Patterson  
Graphics Systems Manager

John D. Harasha  
Programming Supervisor  
  
Richard L. Henley  
Martin E. Staszak  
Senior Systems Analysts  
  
Donald S. Johnson  
Senior Programmer/Analyst

Robert J. Baier  
Lawrence D. Langowski  
Community Services Representatives

Lon M. Scott  
Computer Operator

Melody M. Patrie  
Communications Specialist

John G. McDougall  
Graphics Operations Supervisor

Karen J. Goralski  
Lead Digitizer Operator

Mark K. Harris  
Daniel L. Hutter  
Eva Dawn F. Kraemer  
Christopher Petersen  
Digitizer Operators

Brian W. Braithwaite  
Valerie A. Greenleaf  
Cadastral Map Draftsmen

**INFORMATION SYSTEMS DIVISION (continued)**

Rosemary K. Wilcenski  
Lead Key Entry Operator  
  
Diane L. Curtiss  
Key Entry Operator

**COMMUNITY ASSISTANCE PLANNING DIVISION**

Roland O. Tonn, AICP  
Chief Community Assistance Planner

Richard R. Kania  
Principal Planner

Nancy A. Holguin  
Senior Planner

Robert S. McGonigal  
Planner

Nancee A. Nejedlo  
Senior Planning Draftsman

**ECONOMIC DEVELOPMENT PLANNING DIVISION**

John R. Meland  
Chief Economic Development Planner

Philip L. Cosson  
Principal Planner

Kevin S. Hall  
Senior Planner

Paul E. Tonies  
Senior Specialist

**ADMINISTRATIVE SERVICES DIVISION**

Joan A. Zenk  
Administrative Officer  
  
Rita L. Rolfsen  
Administrative Assistant  
  
Luella M. Fredrickson  
Secretary

Sylvia Carlson  
Receptionist

James M. Kocher  
Office Clerk

**ENVIRONMENTAL PLANNING DIVISION**

Robert P. Biebel, PE  
Chief Environmental Engineer

Michael G. Hahn, PE  
Ronald J. Printz, PE  
Principal Engineers

Donald M. Reed  
Principal Specialist

David B. Kendzierski  
Principal Planner

Rachel E. Lang  
Specialist

Irene A. Brown  
Secretary

**LAND USE PLANNING DIVISION**

Bruce P. Rubin  
Chief Land Use Planner  
  
Gerald H. Emmerich, Jr.  
William J. Staub, AICP  
Principal Planners

Donald G. Dittmar  
David A. Schilling  
Senior Specialists

**LAND USE PLANNING DIVISION (continued)**

Joyce G. Pariseau  
Research Aide

Ann G. Arntson  
Secretary

**TRANSPORTATION PLANNING DIVISION**

Donald R. Martinson  
Chief Transportation Engineer

Robert E. Beglinger  
Principal Engineer

Albert A. Beck  
Otto P. Dobnick  
Principal Planners

Peter C. Daniels  
Senior Engineer

David C. Dryer  
Engineer

Kathryn E. Sobottke  
Research Analyst

**CARTOGRAPHIC AND GRAPHIC ARTS DIVISION**

Leland H. Kreblin, RLS  
Chief Planning Illustrator

Ronald H. Heinen  
B. Lynn Nowak  
Donald P. Simon  
Principal Planning Draftsmen

Jean C. Johnson  
Bergetta J. Ruehmer  
Planning Draftsmen

Patricia M. Kokan  
Typsetting Operator

Chad S. Brinkman  
Randy T. Dvorak  
Office Equipment Operators

Arno M. Klausmeier  
Librarian



## Appendix D

### PUBLICATIONS OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION: 1962-DECEMBER 1990

#### PROSPECTUSES

Regional Planning Program, April 1962\*

Root River Watershed Planning Program, March 1963\*

Fox River Watershed Planning Program, October 1964\*

Continuing Land Use-Transportation Study, October 1965

Milwaukee River Watershed Planning Program, September 1966\*

Comprehensive Library Planning Program, April 1968

Community Shelter Planning Program, August 1968

Racine Urban Planning District Comprehensive Planning Program, November 1968

Regional Sanitary Sewerage System Planning Program, December 1968

Menomonee River Watershed Planning Program, November 1969

Comprehensive Regional Airport Planning Program, December 1969\*

Regional Housing Study, December 1969

Deep Sandstone Aquifer Simulation Modeling Program, October 1972

Regional Park, Outdoor Recreation, and Related Open Space Planning Program, March 1973

Preliminary Engineering Study for the Abatement of Pollution from Combined Sewer Overflow in the Milwaukee Metropolitan Area, July 1973\*

Kinnickinnic River Watershed Planning Program Prospectus, November 1974\*

Regional Air Quality Maintenance Planning Program Prospectus, November 1974

Preliminary Engineering Study for the Abatement of Water Pollution in the Kenosha Urban Area, December 1975

Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning Commission: 1976-1980, December 1975

Overall Work Program of the Southeastern Wisconsin Regional Planning Commission: 1977-1981, December 1976

Overall Work Program and Prospectus of the Southeastern Wisconsin Regional Planning Commission: 1978-1982, December 1977

Lake Michigan Estuary and Direct Drainage Area Subwatersheds Planning Program Prospectus, September 1978

Milwaukee Area Primary Transit System Alternatives Analysis Prospectus, October 1978

Milwaukee Northwest Side/Ozaukee County Transportation Improvement Study Prospectus, November 1978

Milwaukee Area Work Time Rescheduling Study Prospectus, December 1978

Pike River Watershed Planning Program Prospectus, April 1979

Milwaukee Area Freeway Traffic Management System Study Prospectus, June 1979

Oak Creek Watershed Planning Program Prospectus, December 1979

Prospectus for an Energy Emergency Contingency Plan for Southeastern Wisconsin, December 1983

Milwaukee River Priority Watersheds Program Prospectus, March 1985

Stormwater Drainage and Flood Control Planning Program Prospectus for the Milwaukee Metropolitan Sewerage District, March 1985

Infrastructure Study for the Southeastern Wisconsin Region, June 1986

Milwaukee High Lake Level Impact Study Prospectus, December 1987

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans for the Kenosha Area, June 1988

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans for the Racine Area, May 1989\*

Natural Area Protection and Management Planning Program Prospectus, August 1989\*

Prospectus for the Preparation of a Comprehensive Plan for the Kenosha Urban Planning District, December 1990

Overall Work Program—1979 Southeastern Wisconsin Regional Planning Commission, October 1978

## PROSPECTUSES—continued

Overall Work Program—1980 Southeastern Wisconsin Regional Planning Commission, November 1979  
Overall Work Program—1981 Southeastern Wisconsin Regional Planning Commission, November 1980  
Overall Work Program—1982 Southeastern Wisconsin Regional Planning Commission, November 1981  
Overall Work Program—1983 Southeastern Wisconsin Regional Planning Commission, October 1982  
Overall Work Program—1984 Southeastern Wisconsin Regional Planning Commission, November 1983  
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- No. 23 - A Public Transit Program for Handicapped Persons-City of Kenosha Transit System, June 1987
- No. 24 - A Public Transit Program for Handicapped Persons-City of Racine Transit System, June 1987
- No. 25 - Traffic Impact Study of Proposed Development Along Paradise Drive Between the USH 45 Bypass and S. Main Street, City of West Bend, Washington County, Wisconsin, September 1987\*
- No. 26 - Official Map, City of Burlington, Racine County, Wisconsin, December 1987
- No. 27 - Village of Mukwonago Industrial Park Development Plan, Waukesha County, Wisconsin, March 1988
- No. 28 - Streams and Watercourses for Which the Milwaukee Metropolitan Sewerage District Has Assumed Jurisdiction for Drainage and Flood Control Purposes, August 1987
- No. 29 - A Plan for the Abatement of Through Traffic Problems in the Village of West Milwaukee, March 1988
- No. 30 - Overall Economic Development Program Plan, City of South Milwaukee, Milwaukee County, Wisconsin, March 1988
- No. 31 - Analysis of the Conversion from One-Way to Two-Way Operation of Pine Street from State Street to Jefferson Street, City of Burlington, Racine County, Wisconsin, January 1988
- No. 32 - General Mitchell International Airport Enplaning Passenger Survey Findings: 1989
- No. 33 - Traffic Engineering Study of Robinhood Drive in the Village of Menomonee Falls, Waukesha County, Wisconsin, December 1989
- No. 34 - Overall Economic Development Program Plan, City of West Allis, Milwaukee County, Wisconsin, September 1988
- No. 35 - A Stormwater Management Plan for the Crayfish Creek Subwatershed, City of Oak Creek, Milwaukee County, Wisconsin, June 1988
- No. 36 - Traffic Engineering Study of Milwaukee Avenue (STH 36) Between the Central Business District and the Northern Corporate Limits of the City of Burlington, Racine County, Wisconsin, August 1988
- No. 37 - Economic Development Fact Book, City of South Milwaukee, Milwaukee County, Wisconsin, May 1988

## MEMORANDUM REPORTS—continued

- No. 38 - A Regional Transportation Authority Feasibility Study for Southeastern Wisconsin, November 1990
- No. 39 - A Flood Control Plan for a Portion of the Menomonee River Estuary Area, June 1989
- No. 40 - An Inventory of Vacant or Underutilized Lands in the Riverine Areas of Central Milwaukee County, May 1989
- No. 42 - Traffic Engineering Study of Grandview Boulevard—CTH T—from Northview Road to Fatima Drive, Waukesha County, Wisconsin, July 1989
- No. 43 - Amtrak Milwaukee-Chicago Passenger Survey Findings: May 1989, August 1989
- No. 44 - Town of Lisbon Southeast Area Quarry Operations—Environmental Impact Evaluation, September 1990
- No. 45 - Overall Economic Development Program Plan, Village of Slinger, Washington County, Wisconsin, October 1989
- No. 46 - Traffic Impact Study of the Interchange of STH 33 and CTH LL, Ozaukee County, Wisconsin, September 1989
- No. 47 - Economic Development Fact Book, City of West Allis, Milwaukee County, Wisconsin, October 1989\*
- No. 49 - Overall Economic Development Program Plan, City of Brookfield, Waukesha County, Wisconsin, December 1989
- No. 50 - Traffic Engineering Study of County Line Road (CTH Q) between the Intersection with Appleton Avenue (STH 175) and USH 41/45, December 1990

## ECONOMIC DEVELOPMENT PROFILES

Economic Development Profiles have been prepared for the Southeastern Wisconsin Region, for each of the seven counties in the Region, for the Milwaukee Metropolitan Statistical Area, and for the following communities within each of the seven counties:

Kenosha County  
City of Kenosha  
Town of Bristol  
Town of Pleasant Prairie

Milwaukee County  
City of Cudahy  
City of Franklin  
City of Greenfield  
City of Milwaukee  
City of Oak Creek  
City of St. Francis  
City of South Milwaukee  
City of Wauwatosa  
City of West Allis  
Village of West Milwaukee

Ozaukee County  
City of Cedarburg  
City of Mequon  
City of Port Washington  
Village of Belgium  
Village of Fredonia  
Village of Grafton  
Village of Saukville  
Village of Thiensville

Racine County  
City of Burlington  
City of Racine  
Village of Rochester  
Village of Sturtevant  
Village of Union Grove  
Village of Waterford  
Town of Caledonia  
Town of Mt. Pleasant

Walworth County  
City of Delavan  
City of Elkhorn  
City of Lake Geneva  
City of Whitewater  
Village of Darien  
Village of East Troy  
Village of Walworth

Washington County  
City of Hartford  
City of West Bend

Washington County  
(continued)  
Village of Germantown  
Village of Jackson  
Village of Kewaskum  
Village of Slinger

Waukesha County  
City of Brookfield  
City of Delafield  
City of Muskego  
City of New Berlin  
City of Oconomowoc  
City of Waukesha  
Village of Butler  
Village of Dousman  
Village of Elm Grove  
Village of Hartland  
Village of Menomonee Falls  
Village of Mukwonago  
Village of Pewaukee  
Village of Sussex  
Town of Pewaukee

## LAKE USE REPORTS-FOX RIVER WATERSHED

### Kenosha County

No. FX-40, Benedict Lake  
No. FX-12, Camp Lake  
No. FX-27, Center Lake  
No. FX-35, Cross Lake  
No. FX-45, Dyer Lake  
No. FX-7, Elizabeth Lake

No. FX-34, Lilly Lake  
No. FX-17, Marie Lake  
No. FX-13, Powers Lake  
No. FX-11, Silver Lake\*  
No. FX-45, Voltz Lake

### Racine County

No. FX-25, Bohner Lake  
No. FX-15, Browns Lake  
No. FX-9, Eagle Lake  
No. FX-42, Echo Lake  
No. FX-32, Kee Nong Go-Mong Lake

No. FX-29, Long Lake  
No. FX-6, Waterford-Tichigan Lakes  
No. FX-26, Waubeesee Lake  
No. FX-5, Wind Lake

### Walworth County

No. FX-41, Army Lake  
No. FX-40, Benedict Lake  
No. FX-7, Beulah Lake  
No. FX-31, Booth Lake  
No. FX-4, Como Lake  
No. FX-1, Geneva Lake  
No. FX- Lauderdale Lakes  
(17, Green Lake,  
20, Middle Lake,  
18 Mill Lake)

No. FX-39, Lulu Lake  
No. FX-21, North Lake  
No. FX-37, Pell Lake  
No. FX-43, Peters Lake  
No. FX-25, Pleasant Lake  
No. FX-24, Potters Lake  
No. FX-38, Silver Lake  
No. FX-30, Wandawega Lake

### Waukesha County

No. FX-3, Big Muskego Lake  
No. FX-23, Denoon Lake\*  
No. FX-19, Eagle Spring Lake  
No. FX-10, Little Muskego Lake

No. FX-14, Lower Phantom Lake  
No. FX-2, Pewaukee Lake\*  
No. FX-34, Spring Lake  
No. FX-33, Upper Phantom Lake

## LAKE USE REPORTS-MILWAUKEE RIVER WATERSHED

### Fond du Lac County

No. ML-2, Long Lake  
No. ML-9, Auburn Lake  
No. ML-21, Forest Lake  
No. ML-12, Mauthe Lake  
No. ML-18, Mud Lake  
No. ML-5, Kettle Moraine Lake

### Washington County

No. ML-3, Little Cedar Lake  
No. ML-14, Green Lake  
No. ML-19, Lake Twelve  
No. ML-13, Lucas Lake  
No. ML-11, Smith Lake  
No. ML-20, Wallace Lake\*  
No. ML-15, Barton Pond  
No. ML-1, Big Cedar Lake\*  
No. ML-8, Silver Lake  
No. ML-16, West Bend Pond

### Ozaukee County

No. ML-4, Mud Lake  
No. ML-17, Spring Lake

### Sheboygan County

No. ML-6, Random Lake\*  
No. ML-10, Crooked Lake  
No. ML-7, Lake Ellen

## TECHNICAL RECORDS

Volume 1-No. 1, October-November 1963\*

- Regional Planning in Southeastern Wisconsin
  - by Kurt W. Bauer, Executive Director
- The SEWRPC Land Use-Transportation Study
  - by J. Robert Doughty, Study Director
- Home Interview Sample Selection - Part I
  - by Kenneth J. Schlager, Chief Systems Engineer
- Truck and Taxi Sample Selection
  - by Thomas A. Winkel, Urban Planning Supervisor
- A Backward Glance: Early Toll Roads in Southeastern Wisconsin
  - by Richard E. Rehberg, Editor

Volume 1-No. 2, December 1963-January 1964

- Arterial Network and Traffic Analysis Zones
  - by Richard B. Sheridan, Chief Transportation Planner
- Conducting the Household Postal Questionnaire Survey
  - by Wade G. Fox, Cartography and Design Supervisor
- Conducting the Home Interview Survey
  - by Sheldon W. Sullivan, Administrative Officer
- Aerial Photographs and Their Use in the Land Use Inventory
  - by Harlen E. Clinkenbeard, Land Use Planning Chief
- A Backward Glance: The U. S. Public Land Survey in Southeastern Wisconsin
  - by Richard E. Rehberg, Editor

Volume 1-No. 3, February-March 1964

- Conducting the Truck and Taxi Survey
  - by Sheldon W. Sullivan, Administrative Officer
- Conducting the Truck and Taxi Postal Questionnaire Survey
  - by Wade G. Fox, Cartography and Design Supervisor
- Conducting the External Survey
  - by William E. Creger, P.E., Traffic Operations Engineer
- Rail and Transit Inventory and Design of the Transit Network
  - by David A. Kuemmel, P.E., Transportation Planning Engineer
- A Backward Glance: The Man-Made Ice Age
  - by Richard E. Rehberg, Editor

Volume 1-No. 4, April-May 1964\*

- The Application of Soil Studies to Regional Planning
  - by Kurt W. Bauer, Executive Director
- Coding
  - by Wade G. Fox, Cartography and Design Supervisor, and
  - Robert L. Fisher, Coding Supervisor
- Inventory of Existing Outdoor Recreation Facilities and Historic Sites in Southeastern Wisconsin
  - by Theodore F. Lauf, Research Analyst
- Inventory of Potential Park and Related Open Space Sites
  - by Karl W. Holzwarth, Landscape Architect
- A Backward Glance: The Electric Interurban Railway
  - by Richard E. Rehberg, Editor

TECHNICAL RECORDS—continued

Volume 1-No. 5, June-July 1964

Reconciliation of Sample Coverage in the Internal O & D Surveys  
by Eugene G. Muhich, P.E., Transportation Planning Engineer

The Contingency Check Program

by Wade G. Fox, Cartography and Design Supervisor

Inventory of the Arterial Street Network

by William T. Wambach, Jr., P.E.

A Backward Glance: The Milwaukee and Rock River Canal

by James E. Seybold, Editor

Volume 1-No. 6, August-September 1964

Checking the Network Description for Arterial Highway and Transit Networks  
by Richard B. Sheridan, Chief Transportation Planner

A Study of the Water Quality and Flow of Streams in Southeastern Wisconsin

by Roy W. Ryling, Hydrologist

Expanding the Origin-Destination Sample

by Richard B. Sheridan, Chief Transportation Planner, and

Wade G. Fox, Cartography and Design Supervisor

A Backward Glance: Greendale-Garden City in Wisconsin

by Kurt W. Bauer, Executive Director

Volume 2-No. 1, October-November 1964\*

Simulation Models in Urban and Regional Planning

by Kenneth J. Schlager, Chief Systems Engineer

Volume 2-No. 2, December 1964-January 1965

Capacity of Arterial Network Links

by Richard B. Sheridan, Chief Transportation Planner

The ABC Method of Current Population Estimating

by Donald L. Gehrke, Economics and Population Analyst, and  
Orlando E. Delogu, Financial Resources and Legal Analyst

O & D Surveys Accuracy Checks

by Eugene G. Muhich, P.E., Transportation Planning Engineer

A Backward Glance: Railroad Transportation in Southeastern Wisconsin

by Patricia J. Tegge, Editor

Volume 2-No. 3, February-March 1965

Determination of Historical Flood Frequency for the Root River of Wisconsin  
by James C. Ringenoldus, P.E., Harza Engineering Company

The Regional Multiplier

by Kenneth J. Schlager, Chief Systems Engineer

A Backward Glance: The Street Railway in Milwaukee

by Henry M. Mayer, Administrative Assistant,  
Milwaukee & Suburban Transport Corporation

TECHNICAL RECORDS—continued

Volume 2-No. 4, April-May 1965\*

Determination of Runoff for Urban Storm Water Drainage System Design  
by Kurt W. Bauer, Executive Director

Volume 2-No. 5, June-July 1965

Screen Line Adjustment of Trip Data  
by Richard B. Sheridan, P.E., Chief Transportation Planner  
Inventory of Land Development Regulations in Southeastern Wisconsin  
by William J. Kockelman, Chief Community Assistance Planner  
A Backward Glance: Highway Development in Southeastern Wisconsin-Part I  
by Jean C. Meier, Librarian and Research Assistant

Volume 2-No. 6, August-September 1965

A Modal Split Model for Southeastern Wisconsin  
by Edward Weiner, Highway Engineer

Volume 3-No. 1, 1968

Transit System Development Standards  
by Edward Weiner, Transportation Planning Engineer  
Modified Rapid Transit Service in the Southeastern Wisconsin Region  
by Sheldon W. Sullivan, Administrative Officer  
A Backward Glance: Highway Development in Southeastern Wisconsin-Part II  
by Jean C. Meier, Research Assistant, and  
Sheldon W. Sullivan, Administrative Officer

Volume 3-No. 2, 1969

Characteristics of Travel in the Milwaukee Central Business District  
by Sheldon W. Sullivan, Administrative Officer  
Computing the Center of Population and the Geographic Center  
by Wayne H. Faust, Associate Planner  
A Backward Glance: Downtown Yesterdays  
by Gerald P. Caffrey, Milwaukee Municipal Reference Librarian

Volume 3-No. 3, September 1971\*

Hydrogeologic Considerations in Liquid Waste Disposal,  
with a Case Study in Southeastern Wisconsin  
by Martha J. Ketelle, Department of Geology and Geophysics,  
University of Wisconsin-Madison, Wisconsin

Volume 3-No. 4, September 1971

Characteristics of Air and Ground Travel Generated by  
General Mitchell Field Airport Terminal: May 1968  
by Sheldon W. Sullivan, Chief of Data Collection  
Shifts in Centers of Population within the Region: 1960-1970  
by Wayne H. Faust, Associate Planner  
A Backward Glance: The Development of General Mitchell Field  
by Sheldon W. Sullivan, Chief of Data Collection

## TECHNICAL RECORDS—continued

### Volume 3-No. 5, March 1973\*

Freeway Flyer Service in Southeastern Wisconsin-A Progress Report: 1964-1971  
by Sheldon W. Sullivan, Chief of Data Collection

Development of Equations for Rainfall Intensity-Duration-Frequency Relationship  
by Stuart G. Walesh, Water Resources Engineer

A Backward Glance: The American Automobile-A Brief History of the Development  
of the American Automobile and the Growth of Automobile Registrations in the  
United States, Wisconsin, and the Southeastern Wisconsin Region: 1896-1970  
by Sheldon W. Sullivan, Chief of Data Collection

### Volume 3-No. 6, April 1976\*

Floodland Management: The Environmental Corridor Concept  
by Stuart G. Walesh, SEWRPC Water Resources Engineer

Characteristics of Travel in the Milwaukee Central Business District: 1963 and 1972  
by Sheldon W. Sullivan, SEWRPC Chief of Data Collection, and  
Jean Lusk, SEWRPC Research Analyst

The Changing Factorial Ecology of Milwaukee's Black Ghetto  
by Harold McConnell, Richard A. Karsten, and Marilyn Ragusa

A Backward Glance: Environmental Corridors of Yesterday and Today  
by Dr. Jeremy M. Katz, Research Psychologist, and  
Jeanne Sollen, Editor

### Volume 4-No. 1, March 1978\*

A Backward Glance: Milwaukee's Water Story  
by Milwaukee Water Works

Is There a Groundwater Shortage in Southeastern Wisconsin?  
by Douglas A. Cherkaver and Vinton W. Bacon,  
University of Wisconsin-Milwaukee

An Overview of the Sources of Water Pollution in Southeastern Wisconsin  
by Kurt W. Bauer, Executive Director, SEWRPC

The Effect of Sample Rate on Socioeconomic and Travel Data  
Obtained through Standard Home Interview  
by Jean Lusk, SEWRPC Planner

### Volume 4-No. 2, March 1981

Refining the Delineation of the Environmental Corridors in Southeastern Wisconsin  
by Bruce P. Rubin, Chief Land Use Planner, SEWRPC, and  
Gerald H. Emmerich, Jr., Senior Planner, SEWRPC

Water Quality and Quantity Simulation Modeling for the Areawide  
Water Quality Management Planning Program for Southeastern Wisconsin  
by Thomas R. Sear, P.E., Senior Water Resources Engineer, SEWRPC

Evaluation of a Water Quality Standard for Total Phosphorus in  
Flowing Streams in Southeastern Wisconsin  
by David B. Kendzierski, Senior Planner, SEWRPC

Bibliography of Lake Michigan Shore Erosion and Nearshore Process Studies  
by Norman P. Lasca, Professor, Department of Geological Sciences and Center for  
Great Lakes Studies, University of Wisconsin-Milwaukee, and  
David Baier, Warren Baumann, Patrick Curth, and Jan H. Smith, Geologists,  
Department of Geological Sciences and Center for Great Lakes Studies,  
University of Wisconsin-Milwaukee

A Backward Glance: Historic Evolution of the Local Governmental  
Structure in Southeastern Wisconsin  
by Eileen Hammer

## TECHNICAL RECORDS—continued

### Volume 4-No. 3, February 1982

Preservation of Scientifically and Historically Important Geologic Sites  
in Milwaukee County, Wisconsin  
by Donald G. Mikulic, Staff Geologist, Illinois State Geological Survey; and  
Joanne Kluessendorf, Geologic Research Assistant, Illinois State Geological Survey,  
Champaign, Illinois

Inventory of Solid Waste Management Facilities in Southeastern Wisconsin: 1980  
by Robert P. Biebel, Principal Engineer, SEWRPC, and  
Joseph E. Stuber, Senior Engineer, SEWRPC

Inventory Findings of Cannonball Passenger Surveys: 1980 and 1971  
by Jean M. Lusk, SEWRPC Planner

A Backward Glance: Historic Evolution of the Local Governmental Structure  
in Southeastern Wisconsin  
by Eileen Hammer

### Volume 4-No. 4, February 1984

Characteristics of Travel in Six Major Attractors in the Southeastern Wisconsin Region  
by Jean M. Lusk, SEWRPC Planner, and  
John L. Zastrow, SEWRPC Senior Specialist

Shopping Centers: Characteristics of Travel-1963-1972  
by Jean M. Lusk, SEWRPC Planner, and  
John L. Zastrow, SEWRPC Senior Specialist

A Backward Glance: Historic Evolution of the Local Governmental  
Structure in Southeastern Wisconsin  
by Eileen Hammer

### Volume 4-No. 5, December 1989

Review and Analysis of Lake Michigan Water Levels at Milwaukee, Wisconsin  
by David P. Kendziora, SEWRPC Principal Planner

Lake Levels and Datum Differences  
by Kurt W. Bauer, SEWRPC Executive Director

A Backward Glance—A History of Storm Damage and Protective Measures in Milwaukee Harbor  
by Bruce W. Jordan, M.A.

## ANNUAL REPORTS

1961\*, 1962\*, 1963, 1964, 1965, 1966, 1967, 1968, 1969\*, 1970, 1971, 1972\*, 1973 1974, 1975,  
1976, 1977, 1978\*, 1979\*, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, and 1989

## CONFERENCE PROCEEDINGS

1st Regional Planning Conference, December 6, 1961\*  
2nd Regional Planning Conference, November 4, 1962\*  
3rd Regional Planning Conference, November 20, 1963\*  
4th Regional Planning Conference, May 12, 1965\*  
5th Regional Planning Conference, October 26, 1965\*  
6th Regional Planning Conference, May 6, 1969  
7th Regional Planning Conference, January 19, 1972  
8th Regional Planning Conference, October 16, 1974  
Regional Conference on Sanitary Sewerage System User and  
Industrial Waste Treatment Recovery Charges, July 18, 1974  
9th Regional Planning Conference, April 14, 1976

## CONFERENCE PROCEEDINGS—continued

- 10th Regional Planning Conference, March 15, 1978
- 11th Regional Planning Conference, April 19, 1979
- 12th Regional Planning Conference, January 31, 1980
- 13th Regional Planning Conference, November 9, 1983
- 14th Regional Planning Conference, May 13, 1985
- 15th Regional Planning Conference, November 14, 1988

## NEWSLETTERS

- Volume 30, Nos. 1-6

## TRANSPORTATION IMPROVEMENT PROGRAMS

- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1978-1982, December 1977\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1979-1983, December 1978\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1980-1984, December 1979\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1981-1985, December 1980\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1982-1986, December 1981\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1983-1987, December 1982\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1984-1988, December 1983\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1985-1989, December 1984\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1986-1990, December 1985\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1987-1991, December 1986\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1988-1992, December 1987\*
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1989-1993, December 1988
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1990-1994, December 1989
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1991-1995, December 1990

## OTHER

- Twenty-Five Years of Regional Planning, December 1985

\*Out of print.



Appendix E

**VICTOR L. YOUNG, S.C.**  
CERTIFIED PUBLIC ACCOUNTANT  
328 WEST SUNSET DRIVE  
WAUKESHA, WISCONSIN 53186

TELEPHONE  
(414) 542-6334

MEMBER  
WISCONSIN INSTITUTE CPA'S  
AMERICAN INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS

To the Commissioners of  
Southeastern Wisconsin  
Regional Planning Commission  
Waukesha, Wisconsin

August 13, 1991

We have audited the accompanying general purpose financial statements of the Southeastern Wisconsin Regional Planning Commission, as of December 31, 1990, and for the year then ended. These general purpose financial statements are the responsibility of the Southeastern Wisconsin Regional Planning Commission's management. Our responsibility is to express an opinion on these general purpose financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the general purpose financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the general purpose financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall general purpose financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the general purpose financial statements referred to above present fairly, in all material respects, the financial position of the Southeastern Wisconsin Regional Planning Commission, as of December 31, 1990, and the results of its operations for the year then ended in conformity with generally accepted accounting principles.



VICTOR L. YOUNG, S.C.

Southeastern Wisconsin Regional Planning Commission

Combined Balance Sheet - All Fund Types and Account Groups

December 31, 1990

	Governmental Fund Types		General Fixed Assets	Account Groups		Totals (Memorandum Only)
	General	Special Revenue		General	Fixed Assets	
<u>Assets</u>						
Treasurer's cash	\$ 1,098,610.55	\$	\$		\$ 1,098,610.55	\$ 416,453.17
Due from service agreements	282,578.44				282,578.44	404,250.61
Tax levy receivable						58,290.00
Grants receivable		270,036.00			270,036.00	275,499.00
Contracts receivable	98,580.04	126,833.89			225,413.93	382,373.69
Service agreements receivable	324,126.93				324,126.93	189,046.33
Prepaid expense	31,583.80				31,583.80	27,974.60
Fixed assets			1,885,612.22		1,885,612.22	1,884,693.74
Due from/(to) other funds	381,535.74	(381,535.74)				
<b>Total Assets</b>	<b>\$ 2,217,015.50</b>	<b>\$ 15,334.15</b>	<b>\$ 1,885,612.22</b>		<b>\$ 4,117,961.87</b>	<b>\$ 3,638,581.14</b>
<u>Liabilities</u>						
State sales tax	\$ 437.84	\$	\$		\$ 437.84	\$ 358.06
Accounts payable	392,336.70	15,334.15			407,670.85	247,262.04
Vacation accrual	107,930.23				107,930.23	107,930.23
Notes payable			225,819.47		225,819.47	379,573.43
<b>Total Liabilities</b>	<b>500,704.77</b>	<b>15,334.15</b>	<b>225,819.47</b>		<b>741,858.39</b>	<b>735,123.76</b>
<u>Fund Equity</u>						
Investment in fixed assets			1,659,792.75		1,659,792.75	1,505,120.31
Fund balances - designated	229,956.00				229,956.00	306,761.00
- undesignated	1,486,354.73				1,486,354.73	1,091,576.07
<b>Total Fund Equity</b>	<b>1,716,310.73</b>	<b>-</b>	<b>1,659,792.75</b>		<b>3,376,103.48</b>	<b>2,903,457.38</b>
<b>Total Liabilities and Fund Equity</b>	<b>\$ 2,217,015.50</b>	<b>\$ 15,334.15</b>	<b>\$ 1,885,612.22</b>		<b>\$ 4,117,961.87</b>	<b>\$ 3,638,581.14</b>

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements.

Southeastern Wisconsin Regional Planning Commission

Combined Statement of Revenues, Expenditures and Changes in Fund Balances - All Governmental Fund Types

For the Year Ended December 31, 1990

	Governmental Fund Types			Total (Memorandum Only)
	General	Special Revenue	1990	
<u>Revenues</u>				
Contributions from counties	\$ 1,001,210.00	\$	\$ 1,001,210.00	\$ 911,210.00
Grant revenues		1,240,760.00	1,240,760.00	1,157,708.00
Contract revenues	662,703.94	567,136.54	1,229,840.48	1,518,072.06
Service grants	2,106,515.04		2,106,515.04	2,292,420.28
Interest on invested funds	91,042.69		91,042.69	69,152.94
Other income	67,397.21		67,397.21	43,909.84
<b>Total Revenues</b>	<b>3,928,868.88</b>	<b>1,807,896.54</b>	<b>5,736,765.42</b>	<b>5,992,473.12</b>
<u>Expenditures</u>				
Salaries and fringe benefits	1,840,619.88	1,046,531.33	2,887,151.21	2,953,300.11
Office and other expenses				
Technical consultants	459,142.44	368,484.76	827,627.20	1,077,395.61
Office supplies	51,239.83	14,657.50	65,897.33	54,049.34
Insurance, audit, legal fees	20,619.62	12,131.38	32,751.00	37,544.15
Library acquisition and dues	11,550.54	10,716.34	22,266.88	17,830.41
Reprographics and publication	71,991.62	68,483.97	140,475.59	137,675.78
Newsletter	1,694.97	2,361.80	4,056.77	5,513.35
Postage expense	9,025.00	8,185.11	17,210.11	18,268.27
Travel expense	40,661.76	9,656.23	50,317.99	51,426.68
Telephone expense	18,022.23	10,427.82	28,450.05	26,217.91
Rent	132,595.83	42,945.69	175,541.52	176,024.44
D.P. computer graphics/equipment supplies	807,397.73	190,132.65	997,530.38	1,003,269.39
Annual report	554.33	326.12	880.45	5,404.35
Other operating expenses	3,931.58	1,688.45	5,620.03	4,385.55
Unemployment compensation expense	8,351.12	2,504.36	10,855.48	
Auto/office equipment maintenance	52,828.40	69,487.21	122,315.61	96,390.88
Capital outlay	29,844.16		29,844.16	46,369.21
<b>Total Expenditures</b>	<b>3,560,071.04</b>	<b>1,858,720.72</b>	<b>5,418,791.76</b>	<b>5,711,065.43</b>
<u>Excess (Deficit) Revenues Over Expenditures</u>	<u>368,797.84</u>	<u>(50,824.18)</u>	<u>317,973.66</u>	<u>281,407.69</u>
Operating Transfers in (out)	(50,824.18)	50,824.18		
Fund Balance - beginning of year	<u>1,398,337.07</u>	<u>-</u>	<u>1,398,337.07</u>	<u>1,116,929.38</u>
Fund Balance - end of year	<u>\$ 1,716,310.73</u>	<u>\$ -</u>	<u>\$ 1,716,310.73</u>	<u>\$ 1,398,337.07</u>

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements.

Southeastern Wisconsin Regional Planning Commission

Combined Statement of Revenues, Expenditures and Changes  
in Fund Balances - Budget and Actual - All Governmental Fund Types

For the Year Ended December 31, 1990

	<u>Budget</u>	<u>Actual</u>	<u>Variance Favorable (Unfavorable)</u>
Revenues			
Contributions from counties	\$ 1,001,210.00	\$ 1,001,210.00	\$
Grant revenues	1,493,440.00	1,240,760.00	(252,680.00)
Contract revenues	5,000.00	1,229,840.48	1,224,840.48
Service grants	2,323,045.00	2,106,515.04	(216,529.96)
Interest on invested funds		91,042.69	91,042.69
Other income		67,397.21	67,397.21
<b>Total Revenues</b>	<b>4,822,695.00</b>	<b>5,736,765.42</b>	<b>914,070.42</b>
Expenditures			
Salaries and fringe benefits	3,054,295.00	2,887,151.21	167,143.79
Office and other expenses			
Technical consultants	234,600.00	827,627.20	(593,027.20)
Office supplies	73,960.00	65,897.33	8,062.67
Insurance, audit, legal fees	36,110.00	32,751.00	3,359.00
Library acquisition and dues	18,300.00	22,266.88	(3,966.88)
Reregraphics and publication	110,120.00	140,475.59	(30,355.59)
Newsletter	5,700.00	4,056.77	1,643.23
Postage expense	18,150.00	17,210.11	939.89
Travel expense	47,715.00	50,317.99	(2,602.99)
Telephone expense	44,900.00	28,450.05	16,449.95
Rent	175,535.00	175,541.52	(6.52)
D.P. computer graphics/equipment and supplies	722,995.00	997,530.38	(274,535.38)
Annual report	5,245.00	880.45	4,364.55
Other operating expenses	11,000.00	5,620.03	5,379.97
Unemployment compensation expense	4,500.00	10,855.48	(6,355.48)
Auto/office equipment/maintenance	233,690.00	122,315.61	111,374.39
Capital outlay	25,880.00	29,844.16	(3,964.16)
<b>Total Expenditures</b>	<b>4,822,695.00</b>	<b>5,418,791.76</b>	<b>(596,096.76)</b>
Excess Revenues Over Expenditures		317,973.66	317,973.66
Fund Balance - beginning of year	<u>-</u>	<u>1,398,337.07</u>	<u>-</u>
Fund Balance - end of year	<u>\$ -</u>	<u>\$ 1,716,310.73</u>	<u>\$ -</u>

The accompanying accountant's audit report and notes to financial statements are an integral part of these statements.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to Financial Statements

For the Year Ended December 31, 1990

Note 1 - Summary of Significant Accounting Policies (Cont'd)

Account Groups

General Fixed Asset Group - Used to account for fixed assets not accounted for in any other fund.

Total (Memorandum Only) - The column captioned Total (Memorandum Only) in the combined financial statements is a total of the columnar statements by fund type and account groups. The total column is not comparable to a consolidation and does not present financial position and results of operations in conformity with generally accepted accounting principles because the same basis of accounting is not used by all funds and interfund transactions and balances and account groups balancing accounts have not been eliminated.

Budget

The Commission's annual budget is prepared principally on the cash basis and represents departmental appropriations as authorized and any authorized revisions during the year to reflect changes in programs and activities. The budget cash basis differs from generally accepted accounting principles (GAAP). Actual amounts in the accompanying budgetary comparison statement are presented on the modified accrual basis.

Cash and Cash Equivalents

In addition to bank accounts and petty cash, this classification includes all short-term investments.

Basis of Accounting

The modified accrual basis of accounting is followed by the governmental funds. Under the modified accrual basis those items of revenue for which a valid receivable can be determined in advance of their due date should be recognized on the accrual basis. All other items are recognized on the cash basis because the time of collection generally coincides with the determination of the amount. Expenditures are recognized when a liability to be met from fund assets is incurred.

Fixed Assets

Governmental general fixed assets acquired during the year ended December 31, 1990 are recorded as expenditures in the governmental funds. Generally accepted accounting principles require that these fixed assets be capitalized at cost in the general fixed assets account group.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to Financial Statements

For the Year Ended December 31, 1990

The accompanying summary of Southeastern Wisconsin Regional Planning Commission's more significant accounting policies is presented to assist the reader in interpreting the financial statements and other data in this report. These policies, as presented, should be reviewed as an integral part of the accompanying financial statements. The accounting policies of the Southeastern Wisconsin Regional Planning Commission conform to generally accepted accounting principles as applicable to governmental units.

Note 1 - Summary of Significant Accounting Policies

Reporting Entity

The Commission uses the criteria set forth by the Governmental Accounting Standards Board to determine the scope of the Commission's reporting entity. The accompanying financial statements reflect all significant operations of the Commission which are under control of the Commissioners of Southeastern Wisconsin Regional Planning Commission.

Basis of Presentation

Southeastern Wisconsin Regional Planning Commission is a public agency serving the local communities within the counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha.

The accounts of the Commission are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenues, and expenditures. Government resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent and the means by which spending activities are controlled. The following funds and account groups are used by the Commission:

Governmental Funds

General Fund - The General Fund is the general operating fund of the Commission. It is used to account for all financial resources except those required to be accounted for in another fund.

Special Revenue Funds - Special Revenue Funds are used to account for the specific revenue sources (other than major capital projects) that are legally restricted to expenditures for specified purposes.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1990

Note 1 - Summary of Significant Accounting Policies (Cont'd)

Accrued Vacation

The Commission accrues unused vacation time since the unused vacation time is cumulative from year to year. The maximum accrual per individual is 20 days.

Fund Balances

The Commission classifies its fund equity as follows:

Designated Fund Balances - indicates that portion of fund equity, which has been segregated for specific purposes.

Undesignated Fund Balances - indicates that portion of fund equity, which is available for budgeting or other uses in future periods.

Note 2 - General Fixed Asset Group

Fixed Assets as of December 31 are as follows:

	<u>1990</u>	<u>1989</u>
Desks	\$ 14,205.60	\$ 14,205.60
Chairs	17,407.82	16,621.64
Calculators and adding machines	13,388.90	13,447.39
Filing cabinets	41,693.43	41,492.53
Typewriters	21,815.97	21,815.97
Book cases	19,010.53	17,971.61
Tables	19,285.27	18,507.05
Data processing equipment	1,540,538.01	1,540,538.01
Major equipment	98,493.38	98,493.38
Automobiles	68,112.10	71,740.78
Miscellaneous	31,461.21	29,859.78
	<b>\$1,885,612.22</b>	<b>\$1,884,693.74</b>

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1990

Note 3 - Employee Retirement Plan

The Commission is a participant in the State of Wisconsin Retirement System covering substantially all full-time employees on a non-contributory basis. The annual employer's contribution rate, which is actuarially determined by the State of Wisconsin, provides for funding of prior service costs. Information concerning the amount, if any, of the excess of the actuarially computed value of vested benefits over the total assets available in the pension fund is not maintained by individual participant units. Retirement plan expenses, which include amortization of prior service costs, for the year 1990 were \$225,694.83.

All employees expected to work over 600 hours a year are eligible to participate in the Wisconsin Retirement System. Covered employees are required by statutes to contribute 5.0% of their salary to the plan. Employers may make these contributions to the plan on behalf of the employees. Employers are required to contribute the remaining amounts necessary to pay the projected cost of future benefits. The total contributions for the year ending December 31, 1990 was \$225,694.83. This amount was paid by Southeastern Wisconsin Regional Planning Commission.

Employees who retire at or after age 65, are entitled to receive an unreduced retirement benefit. The benefit is calculated as 1.6% of final average earnings for each year of creditable service. Final average earnings is the average of the employee's three highest years' earnings. Employees may retire at age 55 and receive reduced benefits. Employees terminating covered employment before becoming eligible for a retirement benefit may withdraw their contributions and forfeit all rights to any subsequent benefit. Benefits are fully vested upon entry into the Wisconsin Retirement System.

The Wisconsin Retirement System also provides death and disability benefits for employees. Eligibility for and the amount of all benefits is determined under Chapter 40 of the Wisconsin Statutes.

Wisconsin Act 13, Laws of 1989, effective May 16, 1989, made significant benefit changes in participant requirements, interest crediting, early retirement actuarial reduction, asset valuation, vesting requirements and actuarial assumptions. Some of these changes were not effective until 1990.

The System utilizes the "Entry Age Normal with Frozen Initial Liability" actuarial method in establishing employer contribution rates. Under this method the Unfunded Accrued Actuarial Liability is affected only by the monthly amortization payments, compound interest, the added liability created by new employer units, and any added liabilities caused by changes in benefit provisions.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1990

Note 3 Employee Retirement Plan (Cont'd)

All actuarial gains or losses arising from the difference between actual and assumed experience are reflected in the determination of the normal costs. The Unfunded Accrued Actuarial Liability is being amortized over a 40-year period beginning January 1, 1990. The Unfunded Liability for Southeastern Wisconsin Regional Planning Commission as of December 31, 1989 was \$557,024.49 or .029% of the total system's Unfunded Liability of \$1,948,161,736, which represents a 91% funding ratio of assets to liabilities.

The "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date and disregarding the Wisconsin Retirement System funding objective of maintaining stable contribution rates over the long-term future. The measure, which is the actuarial present value of credited projected benefits, is intended to help users assess the Wisconsin Retirement System's funding status on a going concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and measurements of assets and pension benefit obligation of individual employers. The Wisconsin Retirement System does not make separate measurements of assets and pension benefit obligation for individual employers. The pension benefit obligations as of December 31, 1989 for the Wisconsin Retirement System as a whole, determined through an actuarial valuation performed as of that date, was \$17,549 billion. The Wisconsin Retirement System's net assets available for benefits on that date were \$20,057 billion, leaving assets in excess of pension benefit obligation of \$2,508 billion.

Ten year historical trend information showing the Wisconsin Retirement System's progress in accumulating sufficient assets to pay benefits when due is presented in the Wisconsin Retirement System's June 30, 1990 Comprehensive Annual Financial Report.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1990

Note 4 - Cash and Temporary Investments

Cash and temporary investment balances as disclosed on the accompanying financial statements are comprised of the following:

Cash on hand and on deposit	\$ 330,890.59
Temporary cash investments	<u>\$ 767,719.96</u>
Total	<u>\$1,098,610.55</u>

Note 5 - Cognizant Agency

The cognizant agency for the Single Audit report is the Wisconsin Department of Transportation.

Note 6 - Commitments

Rent

The Commission leases space from Waukesha County under a lease agreement that runs through December 31, 1991. The Commission has the option of renewing the lease for three successive periods of three years each. The minimum lease payments are as follows:

1991 \$ 112,443.99

Equipment

The Commission purchased various pieces of equipment on monthly payments. The remaining minimum payments are as follows:

1991	\$ 128,781.96
1992	<u>\$ 97,037.51</u>
	<u>\$ 225,819.47</u>

Note 7 - Designated Funds

The Commission has designated the following funds for future purposes:

Equipment replacement	\$ 50,000.00
Unemployment Compensation Trust	50,000.00
Errors and Omissions Insurance	90,000.00
Computer Graphics Reserve Account	26,761.00
Stream Gaging	<u>13,195.00</u>
	<u>\$ 229,956.00</u>



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