



Thirty-third annual report. July 1994

Waukesha, Wisconsin: Southeastern Wisconsin Regional Planning Commission, July 1994

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WISCONSIN - REGIONS - SOUTHEAST

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PLANNING
COMMISSION

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REGIONAL
PLANNING
COMMISSION

Graduate Research Center
Dept. of Urban & Regional Planning
The University of Wisconsin
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Madison, Wisconsin 53706

1993 ANNUAL REPORT

**SOUTHEASTERN
WISCONSIN
REGIONAL
PLANNING
COMMISSION**

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Thomas D. Patterson	Geographic Information Systems Manager
Bruce P. Rubin	Chief Land Use Planner
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THIRTY-THIRD ANNUAL REPORT

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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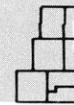
July 1994

Inside Region \$2.00
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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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July 31, 1994

TO: The Wisconsin Legislature 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 Wisconsin Legislature and to the legislative bodies of the constituent county and local units of government within the Region. This, the 33rd annual report of the Commission, summarizes the work of the Commission in calendar year 1993 and contains a statement of the financial position of the Commission as of the end of that year, as certified by an independent auditor.

While the Commission annual report is prepared to meet the legislative requirement noted above, this 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, thereby providing 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. This report also summarizes the progress made during 1993 by the Commission in carrying out its three basic functions: data collection and dissemination, regional plan preparation, and promotion of plan implementation.

During 1993, the Commission continued its efforts to implement the third-generation, design year 2010 regional land use plan adopted in 1992. The basic concepts underlying this new plan are essentially the same as those underlying the two prior regional land use plans. By the end of 1993, the current regional land use plan had been adopted by all seven County Boards of the Region. As part of its continuing plan implementation efforts, the Commission during the year completed a study of the status of regional land use plan implementation in Southeastern Wisconsin. The study identified the extent to which development in the Region has occurred in conformance with, or at variance from, the regional land use plan, and recommended means by which plan implementation could be strengthened.

Also during 1993, the Commission, as part of its periodic review and reappraisal of the major elements of its comprehensive plan for the physical development of the Region, made major progress toward completion of a new, third-generation, design year 2010 regional transportation system plan. As part of this planning effort, the Commission completed its third comprehensive survey of travel habits and patterns in the Region. The new plan is being designed to address the changing travel habits and patterns and transportation needs of the Region, to complement and promote implementation of the adopted regional land use plan, and to meet new Federal and State transportation planning requirements and clean air attainment objectives. It is expected that the new plan will be completed and adopted by the Commission by the end of 1994.

The Commission also continued its efforts toward the development of a computerized regional geographic information system. In companion efforts, the Commission worked with each of the seven counties toward building computerized land information systems integrated with the regional system.

Finally, the Commission again received recognition for the quality of its work. The Commission's adopted regional land use plan received the 1993 award for excellence in public planning of the Wisconsin Chapter of the American Planning Association (WAPA). The WAPA awards jury commended the plan for its continuity, innovations, and relevance to current conditions and issues in the Region. The WAPA jury also praised the Commission's report documenting its regional land use plan implementation study. The Commission is proud and honored to receive such recognition.

The Commission hopes that the constituent units and agencies of government concerned are pleased with the work of the Commission in 1993. The Commission looks forward to continuing to serve its constituent counties and local units of government, as well as the State and Federal agencies concerned, by continuing to provide the planning services required to address the areawide environmental and developmental problems facing Southeastern Wisconsin and by promoting the intergovernmental cooperation needed to resolve those problems.

Very truly yours,



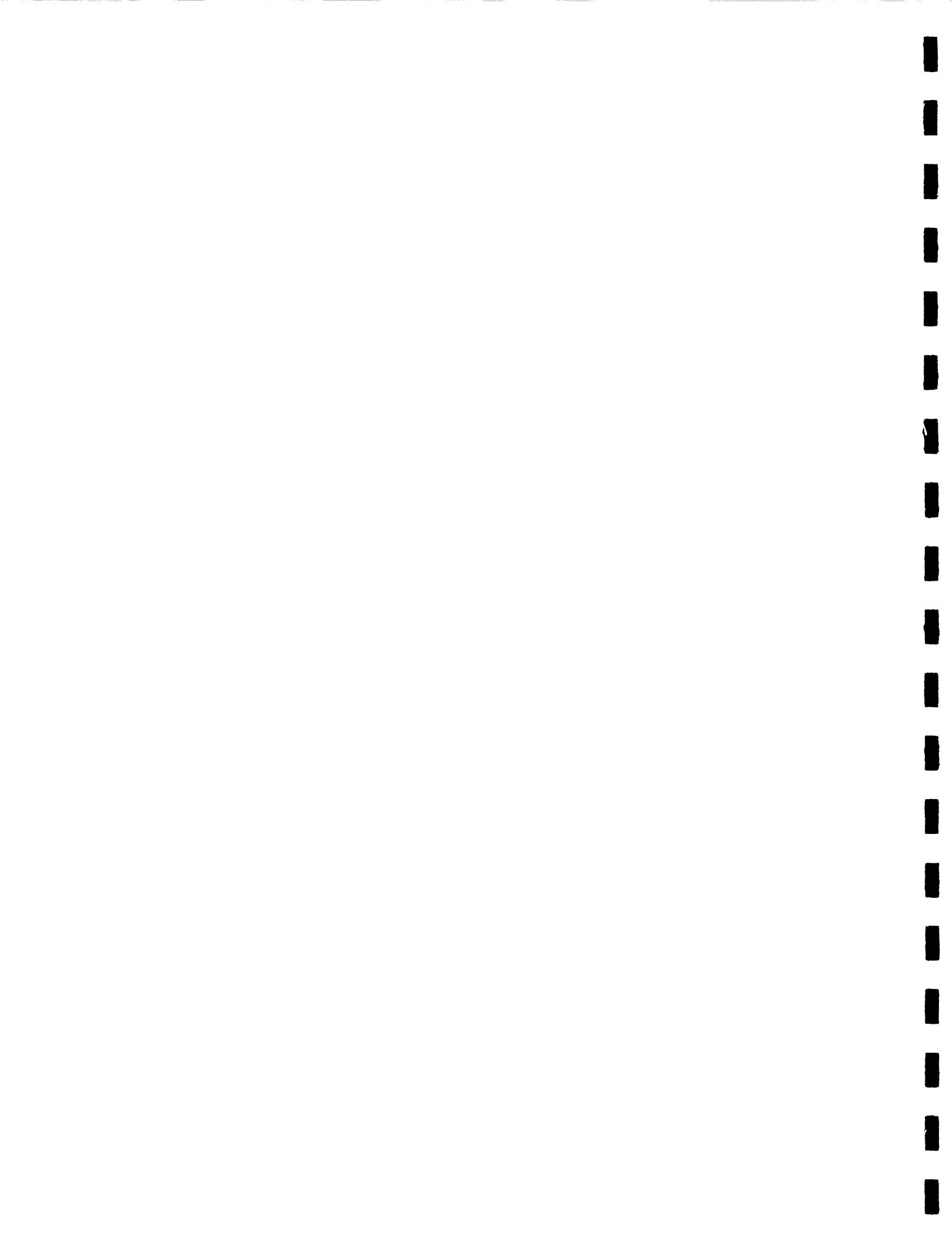
David B. Falstad
Chairman

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ABOUT THE COMMISSION

AUTHORITY

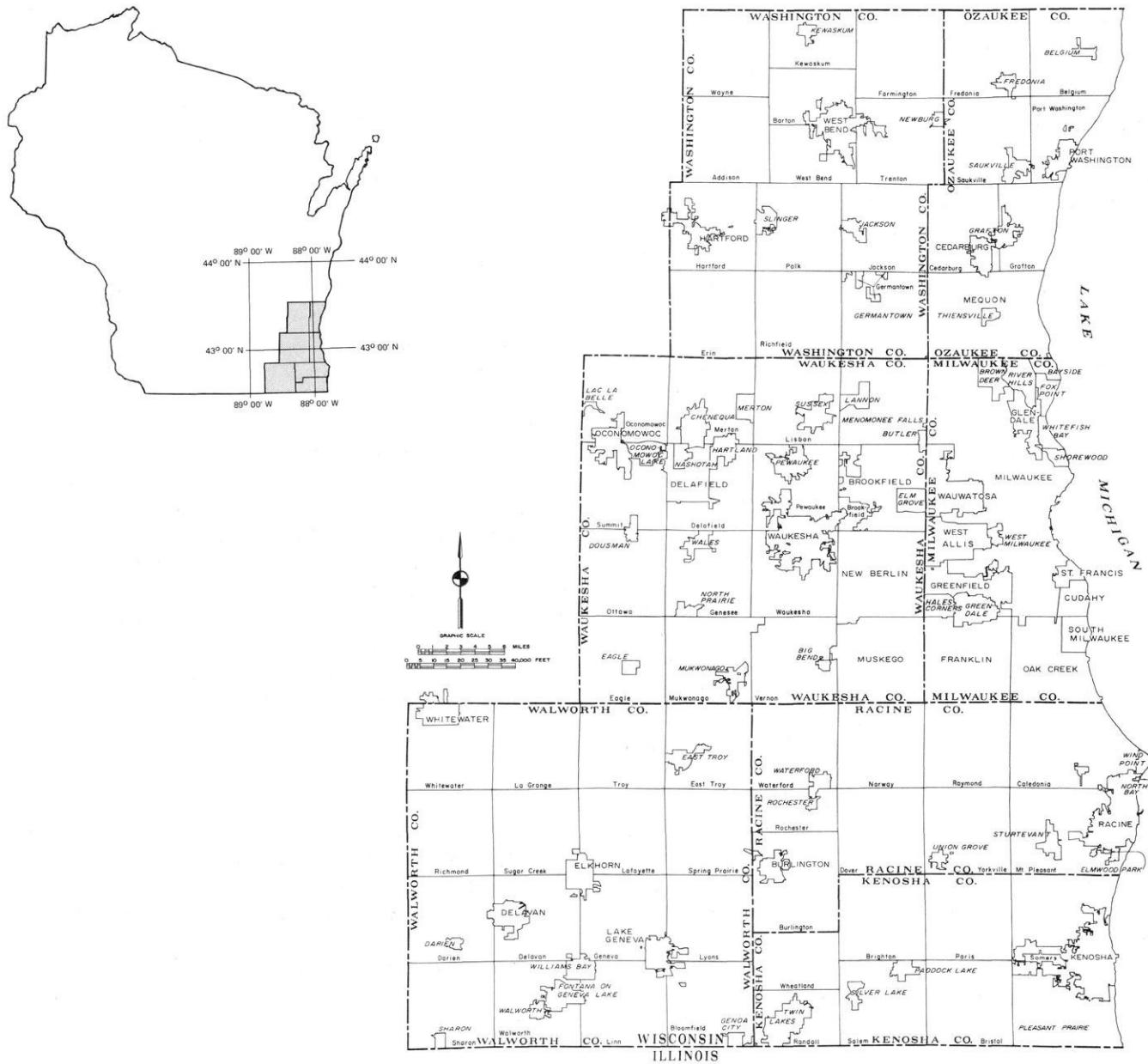
The Southeastern Wisconsin Regional Planning Commission was established in 1960 under Section 66.945 of the Wisconsin Statutes as the official areawide planning agency for the highly urbanized southeastern region of the State. The Commission was created to provide the basic information and planning services 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, as shown on Map 1, 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 1.86 million persons, or about 37 percent of the total population of the State. The seven counties provide about 1,010,700 jobs,

Map 1

THE SOUTHEASTERN WISCONSIN REGION



or about 39 percent of the total employment of the State, and contain real property worth about \$70.9 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 among urban and rural, local, State, and Federal, and public and private interests. In this light, regional planning is not a substitute for Federal, State, or local public planning or for private planning. Rather, regional planning is a vital supplement to such planning.

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. One Commissioner from each county is appointed by the county board and is usually an elected county board supervisor. The remaining two from each county are appointed by the Governor, one from a list prepared by the county 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 normally 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 also normally 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 communicating 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 28 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 591 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 under way. At the end of 1993, the staff totaled 118, including 101 full-time and 17 part-time employees.

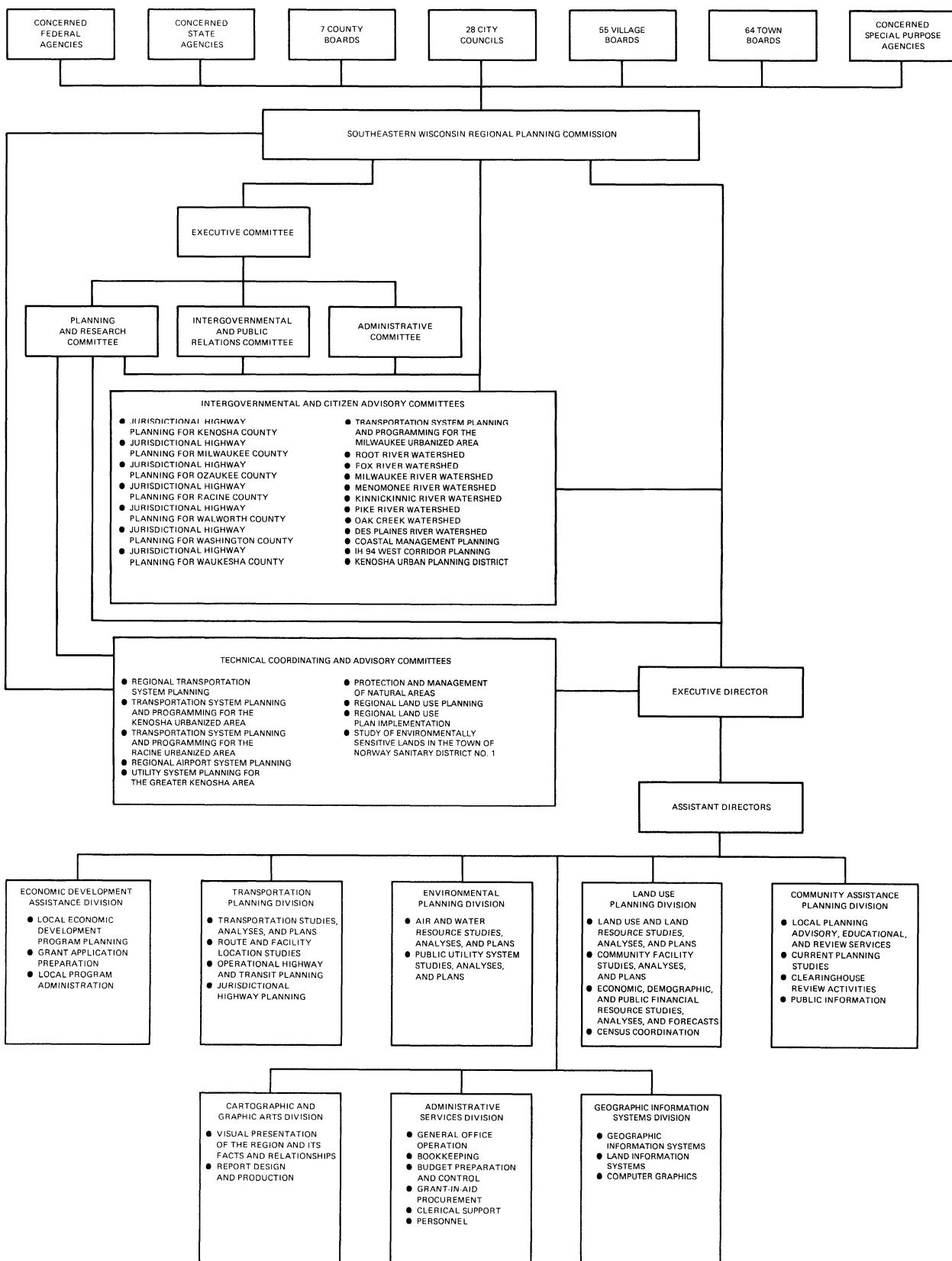
As shown in Figure 1 and in Appendix C, the Commission is organized into eight divisions. Five of these divisions, Transportation Planning, Environmental Planning, Land Use Planning, Community Assistance Planning, and Economic Development Assistance, have direct responsibility for the conduct of the Commission's major planning programs. The remaining three divisions, Administrative Services, Cartographic and Graphic Arts, and Geographic Information Systems, 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 1993 totaled about \$5.1 million. County tax levies in 1993 totaled about \$1.3 million, or about \$0.72 per capita. The sources of this revenue for 1993 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



1993 MEETINGS

COMMISSION AND ADVISORY COMMITTEE MEETINGS

Full Commission	5	Technical and Citizen Advisory Committee on Coastal Management in Southeastern Wisconsin	0
Executive Committee	8	Technical Advisory Committee for the Protection and Management of Natural Areas in Southeastern Wisconsin	3
Administrative Committee	8	Greater Kenosha Area Utility Planning Committee	1
Planning and Research Committee	5	Intergovernmental Coordinating and Advisory Committee for the Kenosha Urban Planning District	4
Intergovernmental and Public Relations Committee	1	Technical Coordinating and Advisory Committee on the Study of Environmentally Sensitive Lands in the Town of Norway Sanitary District No. 1	1
Technical Coordinating and Advisory Committee on Regional Airport System Planning	0		
Technical Coordinating and Advisory Committees on Jurisdictional Highway Planning			
Kenosha County	0	Executive Director	279
Milwaukee County	0	Assistant Directors	214
Ozaukee County	0	Cartographic and Graphic Arts Division	10
Racine County	0	Community Assistance Planning Division	185
Walworth County	0	Environmental Planning Division	234
Washington County	0	Land Use Planning Division	198
Waukesha County	1	Transportation Planning Division	115
Technical Coordinating and Advisory Committee on Regional Transportation System Planning	9	Economic Development Assistance Division	294
Intergovernmental Coordinating and Advisory Committees on Transportation System Planning and Programming		Geographic Information Systems Division	85
Kenosha Urbanized Area	3		
Milwaukee Urbanized Area	3		
Racine Urbanized Area	3		
Watershed Committees			
Root River	0		
Fox River	0		
Milwaukee River	0		
Menomonee River	0		
Kinnickinnic River	1		
Pike River	5		
Des Plaines River	0		
Oak Creek	0		
Intergovernmental Coordinating and Technical Advisory Committee for the IH 94 West Freeway Corridor Development Plan	1		
Technical Coordinating and Advisory Committee on Regional Land Use Planning	0		
Technical and Intergovernmental Advisory Committee on Regional Land Use Plan Implementation	1		

STAFF TECHNICAL MEETINGS

Executive Director	279
Assistant Directors	214
Cartographic and Graphic Arts Division	10
Community Assistance Planning Division	185
Environmental Planning Division	234
Land Use Planning Division	198
Transportation Planning Division	115
Economic Development Assistance Division	294
Geographic Information Systems Division	85

STAFF SPEAKING ENGAGEMENTS

Executive Director	31
Assistant Directors	16
Cartographic and Graphic Arts Division	0
Community Assistance Planning Division	2
Environmental Planning Division	33
Land Use Planning Division	21
Transportation Planning Division	7
Economic Development Assistance Division	2
Geographic Information Systems Division	3

Figure 2

FUNDING TREND: 1961-1993

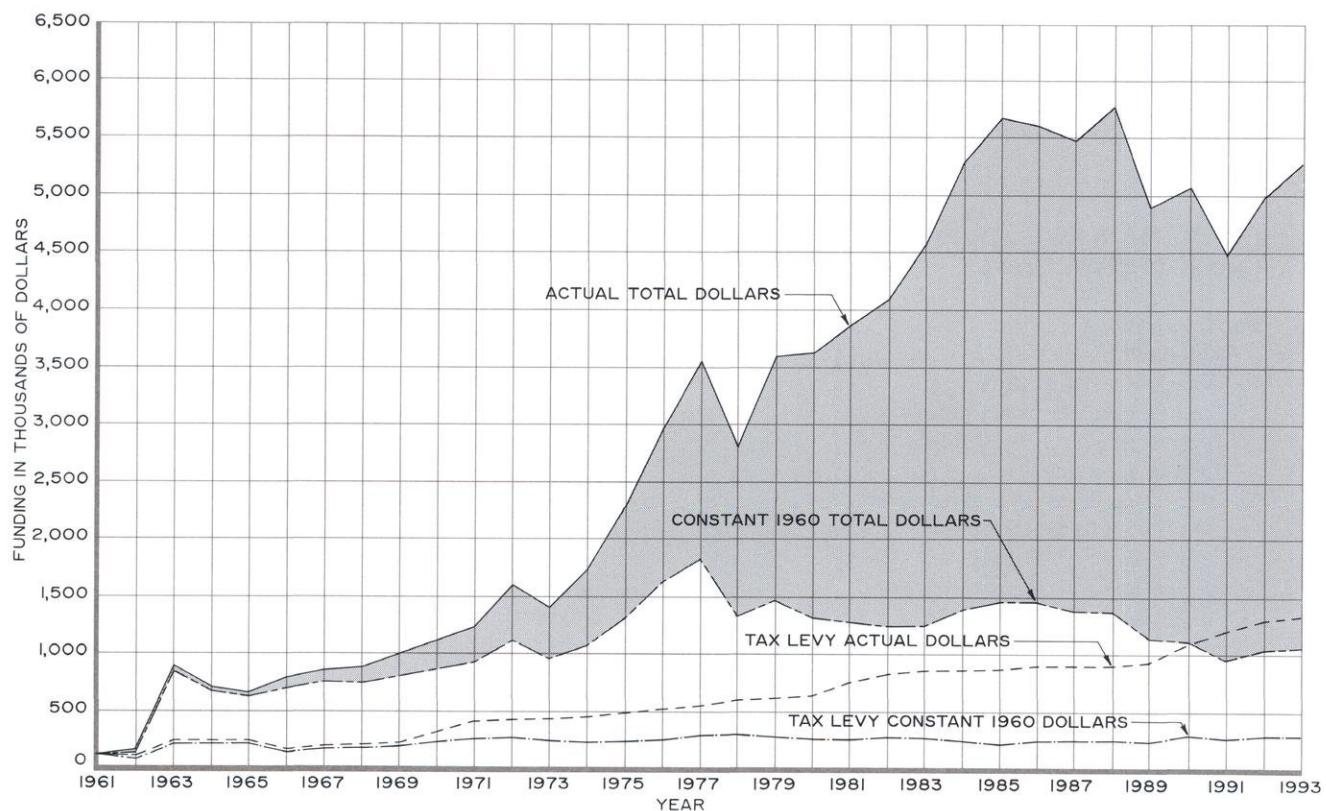


Figure 3

SOURCES OF REVENUES TREND: 1961-1993

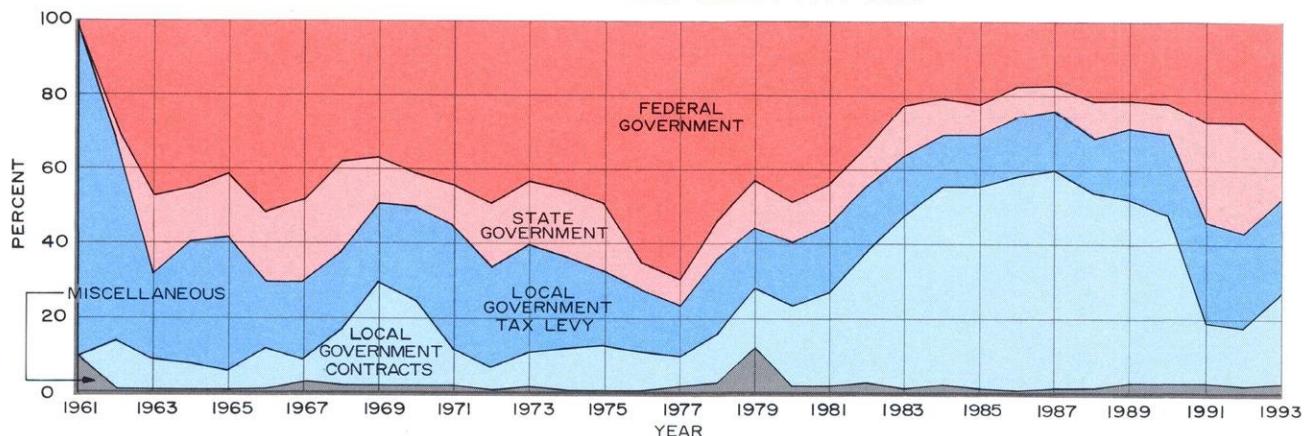
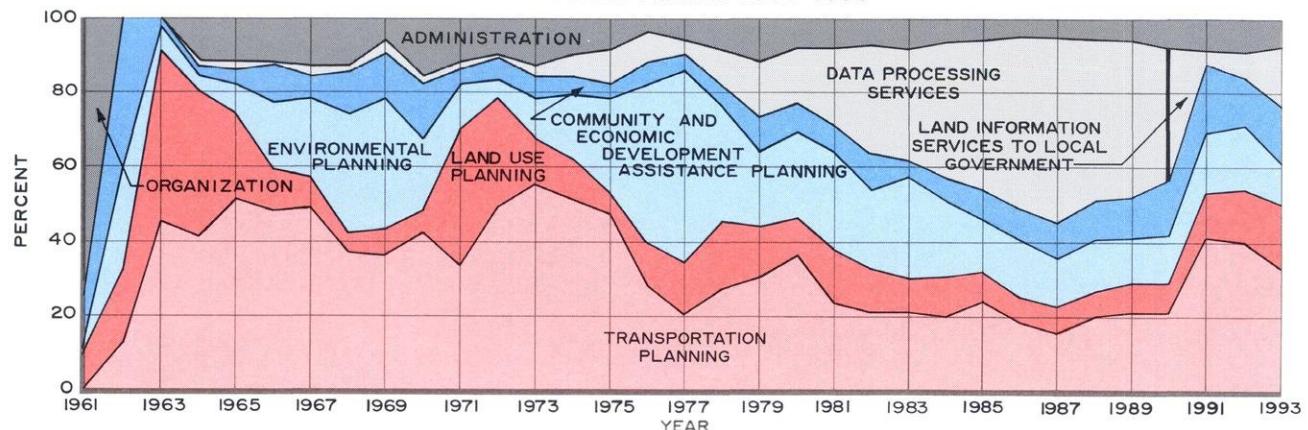


Figure 4

EXPENDITURES TREND: 1961-1993



The Commission has a complete financial audit performed each year by a certified public accountant. The report of this audit for 1993 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 historical 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

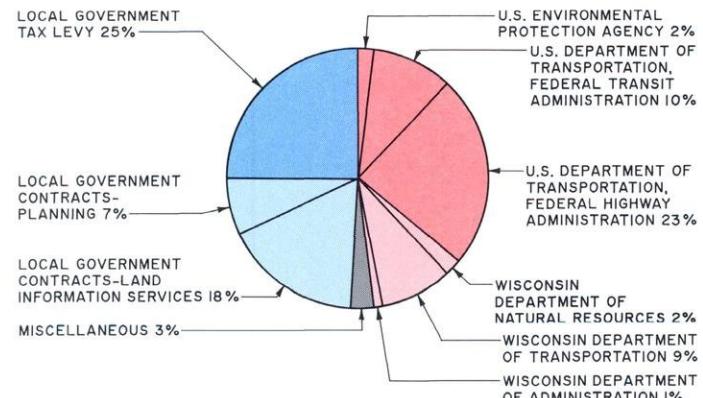
to provide a focus for generating enlightened citizen interest in, and action on, plan recommendations. Accordingly, the Commission has established a series of published reports.

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.

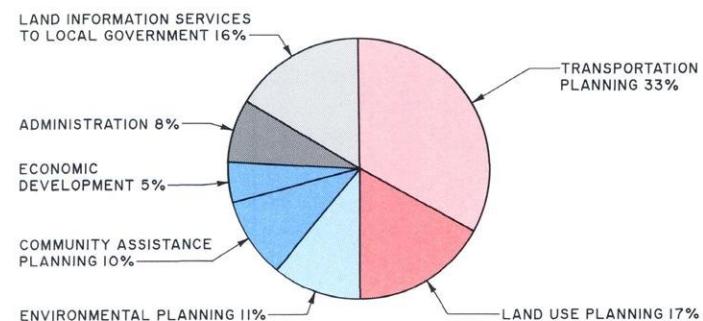
The second type of report in the series is the planning guide. Planning guides are intended to constitute manuals of local planning practice. As such, planning guides are intended to help improve the overall quality of public planning within the Region, and thereby to promote sound community development properly coordinated on a regionwide basis. The guides discuss basic planning and plan implementation principles,

Figure 5
REVENUES AND EXPENDITURES: 1993

REVENUES		
Federal Government	\$1,956,421	35%
State Government	566,432	12%
Local Government Tax Levy	1,315,170	25%
Local Government Contracts	1,319,693	25%
Miscellaneous	133,874	3%
Total	\$5,291,590	100%



EXPENDITURES		
Transportation Planning	\$1,720,707	33%
Land Use Planning	883,730	17%
Environmental Planning	573,633	11%
Community Assistance Planning	544,318	10%
Economic Development Assistance	256,402	5%
Land Information Services to Local Governments	859,511	16%
Administration	453,289	8%
Total	\$5,291,590	100%



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 a 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 [R]egion." 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; 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 also 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: 1993

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 1993, the adopted regional plan consisted of 24 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: DECEMBER 31, 1993

Functional Area	Plan Element	Plan Document	Date of Adoption
Land Use, Housing, and Community Facility Planning	Regional Land Use Plan ^a	Planning Report No. 40, <u>A Regional Land Use Plan for Southeastern Wisconsin—2010</u>	September 23, 1992
	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
	Amendment—IH 94 South Corridor	Community Assistance Planning Report No. 200, <u>A Land Use and Transportation System Development Plan for the IH 94 South Freeway Corridor, Kenosha, Milwaukee, and Racine Counties</u>	January 15, 1992
	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
	Amendment—Walworth County Park and Open Space Plan	Community Assistance Planning Report No. 135, <u>A Park and Open Space Plan for Walworth County</u>	March 4, 1992
	Amendment—Milwaukee County Park and Open Space Plan	Community Assistance Planning Report No. 132, <u>A Park and Open Space Plan for Milwaukee County</u>	June 17, 1992
Transportation Planning	Regional Transportation Plan ^b	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	<u>Amendment to the Regional Transportation Plan—2000, Lake Freeway South Corridor</u>	June 18, 1981
	Amendment—Milwaukee Area Primary Transit System	<u>Planning Report No. 33, A Primary Transit System Plan for the Milwaukee Area</u>	June 17, 1982
	Amendment—Racine County	<u>Amendment to the Regional Transportation Plan—2000, Racine County</u>	December 2, 1982
	Amendment—Waukesha County	<u>Amendment to the Regional Transportation Plan—2000, Waukesha County</u>	December 2, 1982

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Transportation Planning (continued)	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	<u>Amendment to the Regional Transportation Plan—2000, Lake Freeway North/Park Freeway East</u>	December 1, 1983
	Amendment—Stadium Freeway South Corridor	<u>Amendment to the Regional Transportation Plan—2000, Stadium Freeway South Corridor</u>	March 11, 1985
	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
	Amendment—IH 94 South Corridor	Community Assistance Planning Report No. 200, <u>A Land Use and Transportation System Development Plan for the IH 94 South Freeway Corridor, Kenosha, Milwaukee, and Racine Counties</u>	January 15, 1992
	Amendment—Walworth County	<u>Amendment to the Walworth County Jurisdictional Highway System Plan—2010</u>	March 4, 1992
	Amendment—Ozaukee County	<u>Amendment to the Ozaukee County Jurisdictional Highway System Plan: 2010</u>	January 18, 1993
	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 ^c	Planning Report No. 38, <u>A Regional Airport System Plan for Southeastern Wisconsin: 2010</u>	June 15, 1987
	Kenosha Area Transit Plan ^d	Community Assistance Planning Report No. 183, <u>Kenosha Transit System Development Plan: 1991-1995, City of Kenosha, Wisconsin</u>	June 17, 1992
	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 ^e	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—Milwaukee County	Memorandum Report No. 73, <u>A Paratransit Service Plan for Disabled Persons: 1993 Update/Milwaukee County Transit System</u>	January 18, 1993
	Amendment—Kenosha Area	Memorandum Report No. 74, <u>A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Kenosha Transit System</u>	January 18, 1993
	Amendment—Racine Area	Memorandum Report No. 75, <u>A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Racine Transit System</u>	January 18, 1993
	Amendment—City of Waukesha	Memorandum Report No. 76, <u>A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Waukesha Transit System Utility</u>	January 18, 1993
	Amendment—Waukesha County	Memorandum Report No. 77, <u>A Paratransit Service Plan for Disabled Persons: 1993 Update/Waukesha County Transit System</u>	January 18, 1993

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Transportation Planning (continued)	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
	West Bend Transit Development Plan	Community Assistance Planning Report No. 189, <u>A Transit System Feasibility Study and Development Plan for the City of West Bend: 1992-1996</u>	March 4, 1992
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
	Regional 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 ^f	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 (2nd Edition), <u>Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District, Walworth County, Wisconsin</u>	December 4, 1991
	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

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	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
	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	Amendment to the Regional Water Quality Management Plan—2000, <u>Village of Grafton</u>	December 2, 1982
	Amendment—City of Brookfield	Amendment to the Regional Water Quality Management Plan—2000, <u>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	Amendment to the Regional Water Quality Management Plan—2000, <u>Onion River Priority Watershed Plan</u>	December 1, 1983
	Amendment—Geneva Lake Area	Amendment to the Regional Water Quality Management Plan—2000, <u>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	Amendment to the Regional Water Quality Management Plan—2000, <u>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

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Village of East Troy	Community Assistance Planning Report No. 112 (2nd Edition), <u>Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin</u>	June 16, 1993
	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 (3rd Edition), <u>Sanitary Sewer Service Area for the Village of Belgium, Ozaukee County, Wisconsin</u>	September 15, 1993
	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 (2nd Edition), <u>Sanitary Sewer Service Area for the Village of Slinger, Washington County, Wisconsin</u>	September 15, 1993
	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 Friess 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

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	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
	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	Community Assistance Planning Report No. 119, <u>Sanitary Sewer Service Area, Village of Silver Lake, Kenosha County, Wisconsin</u>	June 15, 1987
	Amendment—Village of Twin Lakes	Community Assistance Planning Report No. 149, <u>Sanitary Sewer Service Area, Village of Twin Lakes, Kenosha County, Wisconsin</u>	June 15, 1987
	Amendment—Cedarburg/Grafton Area	Community Assistance Planning Report No. 91, <u>Sanitary Sewer Service Area for the City of Cedarburg and the 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	Community Assistance Planning Report No. 94, <u>Sanitary Sewer Service Area for the City of Whitewater, Walworth County, Wisconsin</u>	September 14, 1987
	Amendment—Town of Lyons	Community Assistance Planning Report No. 158 (2nd Edition), <u>Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin</u>	September 15, 1993
	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	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
	Amendment—City of New Berlin	Community Assistance Planning Report No. 157, <u>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	Community Assistance Planning Report No. 161, <u>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	Community Assistance Planning Report No. 123 (2nd Edition), <u>Sanitary Sewer Service Area for the Village of Darien, Walworth County, Wisconsin</u>	September 23, 1992

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	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
	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

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—Village of Mukwonago	Community Assistance Planning Report No. 191, <u>Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin</u>	December 5, 1990
	Amendment—Village of Dousman	Community Assistance Planning Report No. 192, <u>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
	Amendment—Town of Bristol	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Bristol</u>	March 6, 1991
	Amendment—Village of Pewaukee	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Pewaukee</u>	March 6, 1991
	Amendment—Town of Brookfield	<u>Amendment to the Regional Water Quality Management Plan—2000, Brookfield and Waukesha Sanitary Sewer Service Areas</u>	March 6, 1991
	Amendment—Delavan Area	<u>Amendment to the Regional Water Quality Management Plan—2000, Walworth County Metropolitan Sewerage District/Delavan-Delavan Lake Sanitary Sewer Service Area</u>	March 6, 1991
	Amendment—Oconomowoc Lake, Waukesha County	Community Assistance Planning Report No. 181, <u>A Water Quality Management Plan for Oconomowoc Lake, Waukesha County, Wisconsin</u>	June 19, 1991
	Amendment—Town of Salem	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Salem</u>	June 19, 1991
	Amendment—Town of Caledonia	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Caledonia</u>	June 19, 1991
	Amendment—Village of Hartland	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Hartland</u>	June 19, 1991
	Amendment—Town of Caledonia	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Caledonia</u>	September 11, 1991
	Amendment—Town of Norway	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Norway</u>	September 11, 1991
	Amendment—Town of Rochester	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Rochester</u>	September 11, 1991
	Amendment—Town of Norway	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Norway</u>	September 11, 1991
	Amendment—Brookfield/Elm Grove Area	Community Assistance Planning Report No. 109, <u>Sanitary Sewer Service Area for the City and Town of Brookfield and the Village of Elm Grove, Waukesha County, Wisconsin</u>	December 4, 1991
	Amendment—Racine Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Racine and Environs</u>	December 4, 1991
	Amendment—Pewaukee Lake Area	<u>Amendment to the Regional Water Quality Management Plan: 2000, Lake Pewaukee Sanitary District</u>	December 4, 1991
	Amendment—West Bend Area	<u>Amendment to the Regional Water Quality Management Plan: 2000, City of West Bend/Town of West Bend</u>	December 4, 1991
	Amendment—Town of Salem	<u>Amendment to the Regional Water Quality Management Plan: 2000, Town of Salem</u>	December 4, 1991
	Amendment—City of Mequon and Village of Thiensville	Community Assistance Planning Report No. 188, <u>Sanitary Sewer Service Area for the City of Mequon and the Village of Thiensville, Ozaukee County, Wisconsin</u>	January 15, 1992
	Amendment—City of West Bend/Town of West Bend/Silver Lake Sanitary District	<u>Amendment to the Regional Water Quality Management Plan—2000, City of West Bend/Town of West Bend/Silver Lake Sanitary District</u>	March 4, 1992
	Amendment—Town of Somers	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Somers</u>	June 17, 1992
	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>	January 18, 1993

Table 1 (continued)

Functional Area	Plan Element	Plan Document	Date of Adoption
Environmental Planning (continued)	Amendment—City of Lake Geneva and Environs	Community Assistance Planning Report No. 203, <u>Sanitary Sewer Service Area for the City of Lake Geneva and Environs, Walworth County, Wisconsin</u>	January 18, 1993
	Amendment—Eagle Lake Sewer Utility District	Community Assistance Planning Report No. 206, <u>Sanitary Sewer Service Area for the Eagle Lake Sewer Utility District, Racine County, Wisconsin</u>	January 18, 1993
	Amendment—Village of Hartland	<u>Amendment to the Regional Water Quality Management Plan: 2000, Village of Hartland</u>	January 18, 1993
	Amendment—Village of Newburg	Community Assistance Planning Report No. 205, <u>Sanitary Sewer Service Area for the Village of Newburg, Ozaukee and Washington Counties, Wisconsin</u>	March 3, 1993
	Amendment—Village of Twin Lakes	<u>Amendment to the Regional Water Quality Management Plan—2000, Village of Twin Lakes</u>	March 3, 1993
	Amendment—City of Muskego	<u>Amendment to the Regional Water Quality Management Plan: 2000, City of Muskego</u>	March 3, 1993
	Amendment—Villages of Lannon and Menomonee Falls	Community Assistance Planning Report No. 208, <u>Sanitary Sewer Service Areas for the Villages of Lannon and Menomonee Falls, Waukesha County, Wisconsin</u>	June 16, 1993
	Amendment—City of New Berlin	<u>Amendment to the Regional Water Quality Management Plan—2000, City of New Berlin</u>	June 16, 1993
	Amendment—Racine Area	<u>Amendment to the Regional Water Quality Management Plan—2000, City of Racine and Environs</u>	June 16, 1993
	Amendment—Powers Lake, Kenosha and Walworth Counties	Community Assistance Planning Report No. 196, <u>A Management Plan for Powers Lake, Kenosha and Walworth Counties, Wisconsin</u>	September 15, 1993
	Amendment—Wind Lake, Racine County	Community Assistance Planning Report No. 198, <u>A Management Plan for Wind Lake, Racine County, Wisconsin</u>	September 15, 1993
	Amendment—Walworth County Metropolitan Sewerage District	<u>Amendment to the Regional Water Quality Management Plan—2000, Town of Geneva, Walworth County Metropolitan Sewerage District</u>	December 1, 1993
	Regional Air Quality Plan	Planning Report No. 28, <u>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	Planning Report No. 35, <u>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	Planning Report No. 36, <u>A Comprehensive Plan for the Oak Creek Watershed</u>	September 8, 1986
Community Assistance Planning	Kenosha Planning District Comprehensive Plan	Planning Report No. 10, <u>A Comprehensive Plan for the Kenosha Planning District, Volumes One and Two</u>	June 1, 1972
	Racine Urban Planning District Comprehensive Plan	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 5, 1975

^aThe regional land use plan is a third-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. The second-generation regional land use plan was adopted by the Commission on December 19, 1977, and documented in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume One, Inventory Findings, and Volume Two, Alternative and Recommended Plans.

Table 1 Footnotes (continued)

^bThe 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.

^cThe 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.

^dThe Kenosha area transit development plan is a third-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. The second-generation plan was adopted on March 11, 1985, and documented in SEWRPC Community Assistance Planning Report No. 101, Kenosha Area Transit System Plan and Program: 1984-1988, City of Kenosha, Wisconsin.

^eThe 1993 amendments to the 1978 elderly-handicapped transportation plan supersede a series of earlier amendments to the 1978 plan. These earlier amendments are as follows: 1) an amendment adopted by the Commission on June 20, 1980, and documented in SEWRPC Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, Volume Two, Milwaukee Urbanized Area/Milwaukee County; 2) three amendments adopted by the Commission on September 11, 1980, and documented in SEWRPC Community Assistance Planning Report No. 39, A Public Transit System Accessibility Plan, respectively, in Volume One, Kenosha Urbanized Area; Volume Three, Racine Urbanized Area; and Volume Four, Milwaukee Urbanized Area/Waukesha County; 3) an amendment adopted by the Commission on June 18, 1981, and documented in the Amendment to the Public Transit Accessibility Plan for the Milwaukee Urbanized Area/Waukesha County, City of Waukesha Transit System; 4) five amendments adopted by the Commission on December 7, 1987, and documented, respectively, in SEWRPC Memorandum Report No. 17, A Public Transit Program for Handicapped Persons—City of Waukesha Transit System Utility; SEWRPC Memorandum Report No. 21, A Public Transit Program for Handicapped Persons—Milwaukee County Transit System; SEWRPC Memorandum Report No. 22, A Public Transit Program for Handicapped Persons—Waukesha County Transit System; SEWRPC Memorandum Report No. 23, A Public Transit Program for Handicapped Persons—City of Kenosha Transit System; and SEWRPC Memorandum Report No. 24, A Public Transit Program for Handicapped Persons—City of Racine Transit System; 5) five amendments adopted by the Commission on January 15, 1992, and documented, respectively, in SEWRPC Memorandum Report No. 58, A Paratransit Service Plan for Disabled Persons—Milwaukee County Transit System; SEWRPC Memorandum Report No. 59, A Paratransit Service Plan for Disabled Persons—City of Kenosha Transit System; SEWRPC Memorandum Report No. 60, A Paratransit Service Plan for Disabled Persons—City of Racine Transit System; SEWRPC Memorandum Report No. 61, A Paratransit Service Plan for Disabled Persons—City of Waukesha Transit System Utility; and SEWRPC Memorandum Report No. 62, A Paratransit Service Plan for Disabled Persons—Waukesha County Transit System.

^fThe regional water quality management plan grew out of a first-generation regional sanitary sewerage plan 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.

Eight 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, Waukesha, and West Bend 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 1993, the Commission adopted an amendment to the regional transportation plan in the form of an updated jurisdictional highway system plan for Ozaukee County; five amend-

ments to the regional elderly-handicapped transportation plan which took the form of updates to paratransit service plans designed to help each of the five public entities within the Region operating fixed-route public transit services meet Americans with Disabilities Act requirements pertaining to paratransit service for persons with disabilities; and 17 amendments to the regional water quality management plan. Two of these 17 amendments took the form of management plans for, respectively, Powers Lake and Wind Lake; the other 15 dealt with changes to sanitary sewer service areas at various locations throughout the Region. As appropriate, each of these plan amendments is discussed subsequently in 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. Under this concept, for example, with respect to transportation planning, transportation facilities development and management proposals are initially advanced at the areawide systems level of planning and then an attempt is made to implement the proposals through local project planning. If, for whatever reasons, a particular facility construction or management proposal advanced at the areawide systems planning level cannot be implemented at the project level, that determination is taken into account in the next phase of systems planning. 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 resulting 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. In addition, in September 1992, the Commission

adopted a new, third-generation regional land use plan as part of the Commission's periodic review and reappraisal of the major elements of the comprehensive regional plan.

The third-generation regional land use plan, which has a design year of 2010, is based upon the same three basic concepts underlying the first- and second-generation regional land use plans, 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 third-generation regional land use plan is thus conceptually identical to the two previous regional land use plans, it differs 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 first two plans, sometimes at variance with those plans, as well as forecasts of reduced regional population and household growth.

The new regional land use plan received the 1993 award for excellence in public planning of the Wisconsin Chapter of the American Planning Association (WAPA). The WAPA awards jury called attention to the plan's continuity, which, jurors noted, showed familiarity with the Region and a sophistication of analysis resulting from the Commission's strong commitment to land use planning and consistent approach over the years. In addition, the WAPA jurors noted the plan's innovations, such as the Commission's use of an "alternative futures" approach in forecasting and plan development; refinements in soil suitability mapping; refinements in the identification and analysis of environmental corridors; and in the use of state-of-the-art computer-aided drafting and geographic information systems in plan preparation. Third, the jurors said, the plan's relevance to current conditions and issues in the Region was impressive, particularly in light of how urban sprawl and the conversion of rural land and environmentally sensitive land to urban use have become pressing concerns in the Region. The plan, jurors noted, provided a solid basis for the intelligent discussion of how and why to manage growth within the Region. WAPA jurors also noted that the adoption of the plan by the seven County Boards of the Region provided further evidence of the plan's relevance to the decisions

faced by county officials in the Region. Jurors also praised the Commission's companion document to the regional land use plan, SEWRPC Memorandum Report No. 68, Regional Land Use Plan Implementation in Southeastern Wisconsin: Status and Needs, May 1993. WAPA will submit the Commission's regional land use plan for consideration for a national-level American Planning Association award in 1994.

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, such as 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 regional water quality management plan, taking into account the results of the project- and facility-level planning efforts of the first planning cycle. The regional water quality management plan differed from the regional sanitary sewerage system plan primarily in scope and complexity, the regional water quality management 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 1993, the Commission had under way 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 transportation system plan. As with the land use plan, this work effort would extend the transportation plan to the design year 2010, and in so doing meet the planning requirements set forth in the Federal Intermodal Surface Transportation Efficiency Act. The initial work in this planning effort has been done on a subregional basis, with particular concentration on county-level and corridor studies, all intended to be integrated into a new regional plan. The new plan and its recommendations will be documented in a Commission planning report, the preparation of which is under way. Work continued during 1993 on a corridor plan for the IH 94 West freeway in Waukesha County and on a transportation system plan for the City of West Bend and environs. Work was initiated in 1993 on an update of the Waukesha County jurisdictional highway system plan.
- The preparation of a bicycle and pedestrian system element of the comprehensive regional transportation system plan. This element is intended to further meet the requirements of the Federal Intermodal Surface Transportation Efficiency Act within the Region. This plan element will consist of a bicycle system plan and a pedestrian system plan which will be set forth in a combined report. The bicycle system plan is proposed to be a policy and system plan which will recommend the creation of a system of bikeways for the urbanized areas of the Region. The pedestrian system plan is to contain specific recommendations to local units of government within the Region pertaining to the adoption of policies on sidewalks and other means of facilitating pedestrian travel in Southeastern Wisconsin.
- The preparation of an update to the second-generation regional airport system plan. This planning effort is intended to reevaluate and revise the current plan, which was adopted in 1987.
- The preparation of additional sanitary sewer service area plans, or amendments to such plans, to refine, detail, and amend the regional water quality management plan. At the end of 1993, such locally focused planning efforts were under way for the

Twin Lakes area in Kenosha County, the Oak Creek area in Milwaukee County, and the Hartland, New Berlin, and Pewaukee areas in Waukesha County.

- The preparation of a comprehensive plan for the protection and management of the remaining unique and outstanding natural resources and critical species habitats in the Region. The planning effort is being funded by the seven counties of the Region and by the Wisconsin Department of Natural Resources.
- The preparation of a new, updated comprehensive plan for the Kenosha Urban Planning District east of IH 94 in Kenosha County. The new plan, recommended in a prospectus completed by the Commission in 1990, is intended to replace the plan prepared by the Commission and adopted by the local units of government concerned in 1972.
- The preparation of a comprehensive watershed plan for the Des Plaines River watershed, as proposed in a 1991 Commission prospectus. During 1993, work was initiated by a consultant under contract to the Commission for the survey of all hydraulic structures located on the stream reaches to be studied in detail under the planning effort. A report outline and the first chapter of the planning report were prepared in draft form.

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 both kept current and extended in terms of

design year. Thus, the Commission annually carries on 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 1993, the Commission completed and endorsed a new study design for its continuing regional land use-transportation study. The new study design was prepared to meet applicable requirements of the Federal Intermodal Surface Transportation Efficiency Act of 1991 and the Federal Clean Air Act of 1990. The study design is intended to guide the Commission in conducting the continuing land use and transportation system planning programs, and in the integration of the land use and transportation system plans with other regional plan elements.

Also during 1993, the Commission completed a prospectus for the preparation of a sanitary sewerage system plan for the northwestern Waukesha County area. At year's end, this prospectus had been transmitted to and was being considered by the local units and agencies of government concerned.

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:

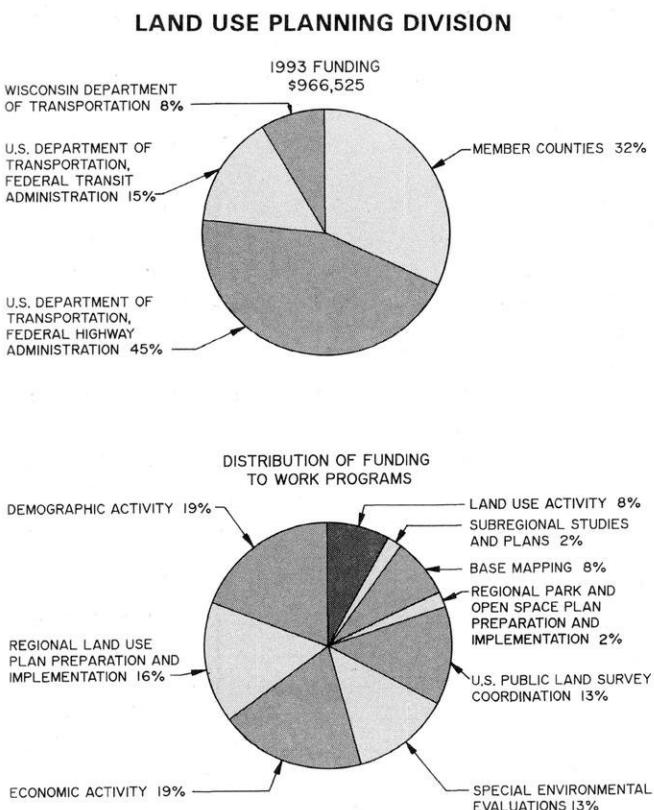
- How many people live and work in the Region? How are the levels of population and employment changing over time?
- Where in the Region do people live and work? How are the population, household, and employment distribution patterns changing over time?
- What are the most probable future levels of population, households, 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, woodlands, and wildlife habitat areas? What is happening to these resources over time?
- Where are the significant agricultural lands of the Region located? At what rate are these lands being converted to other uses?
- 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 in the Region 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 sites and facilities?

In an attempt to provide answers to these and similar questions, the Land Use Planning Division, during 1993, conducted a number of activities in three identifiable areas: land use planning, economic and demographic base data collation and analysis, and park and open space planning.

LAND USE PLANNING

During 1993, the Division efforts in land use planning were directed primarily toward the implementation of the third-generation regional land use plan for the design year 2010. The Division also completed work on updating the regional land use inventory to 1990, and continued to monitor residential subdivision platting and farmland preservation activity within the seven-county Region during 1993. In addition, work was completed on a regional land use plan implementation study which identified the

Figure 6



extent to which development in the Region has occurred in conformance with, or at variance from, the adopted regional land use plan, and which recommended means by which plan implementation could be strengthened. Finally, efforts 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 county and local units of government in the Region.

Regional Land Use Plan—An Overview

The third-generation regional land use plan, documented in SEWRPC Planning Report No. 40, A Regional Land Use Plan for Southeastern Wisconsin—2010, January 1992, was formally adopted by the Commission in September 1992, and subsequently certified to the various units and agencies of government involved for adoption and implementation. The year 2010 regional land use plan for Southeastern Wisconsin is shown in graphic summary form on Map 2.

The basic concepts underlying the third-generation regional land use plan are essentially the same as those underlying the first-generation plan for design year 1990, adopted by the Commission in 1966, and the second-generation plan for design year 2000, adopted by the Commission in 1977. Like the prior plans, the 2010 land use plan recommends that new urban development occur primarily in concentric rings along and outward from the full periphery of the established urban centers of the Region. The recommended 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 economical 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.

Under the adopted plan, the amount of land in urban uses within the Region would increase from about 605 square miles in 1985 to about 691 square miles in 2010, an increase of about 86 miles, or by about 14 percent. Most new urban development would occur in planned neighborhood units at medium densities, about 4,750 persons per square mile, with a typical single-family lot of one-quarter acre and a typical multi-family development of about 10 dwelling units per acre. All such development would be provided with basic urban services and facilities so that by the year 2010 about 85 percent of all urban land and about 91 percent of the total resident population would be served by public sanitary sewer and water supply services.

Like the previous plans, the year 2010 plan recommends the preservation of those lands identified as primary environmental corridors in essentially open, natural uses. Such corridors include concentrations of natural resource elements, including woodlands, wetlands, wildlife habitat areas, and surface waters and associated floodlands and shorelands, as well as features closely related to those elements, such as historic, scenic, and recreational sites. The essentially linear primary environmental corridors represent a composite of the best remaining elements of the natural resource base of the Region and have immeasurable environmental and recreational value. Environmental corridors currently encompass about 468 square miles, or about 17 percent of the total area of the Region. The plan envisions that certain adjacent floodland areas that are currently in agricultural or other open uses would be restored to wetland condition, thereby making them part of the environmental corridor network. These additional lands encompass about six square miles. The planned environmental corridors thus encompass about 474 square miles, or just under 18 percent of the total area of the Region.

The preservation of these corridors in essentially open, natural uses is perhaps the single most important element of the regional land use plan. Such preservation is essential to maintaining a high level of environmental quality in the Region, protecting its natural heritage and beauty, and providing scientific, educational, and recreational opportunities. The exclusion of

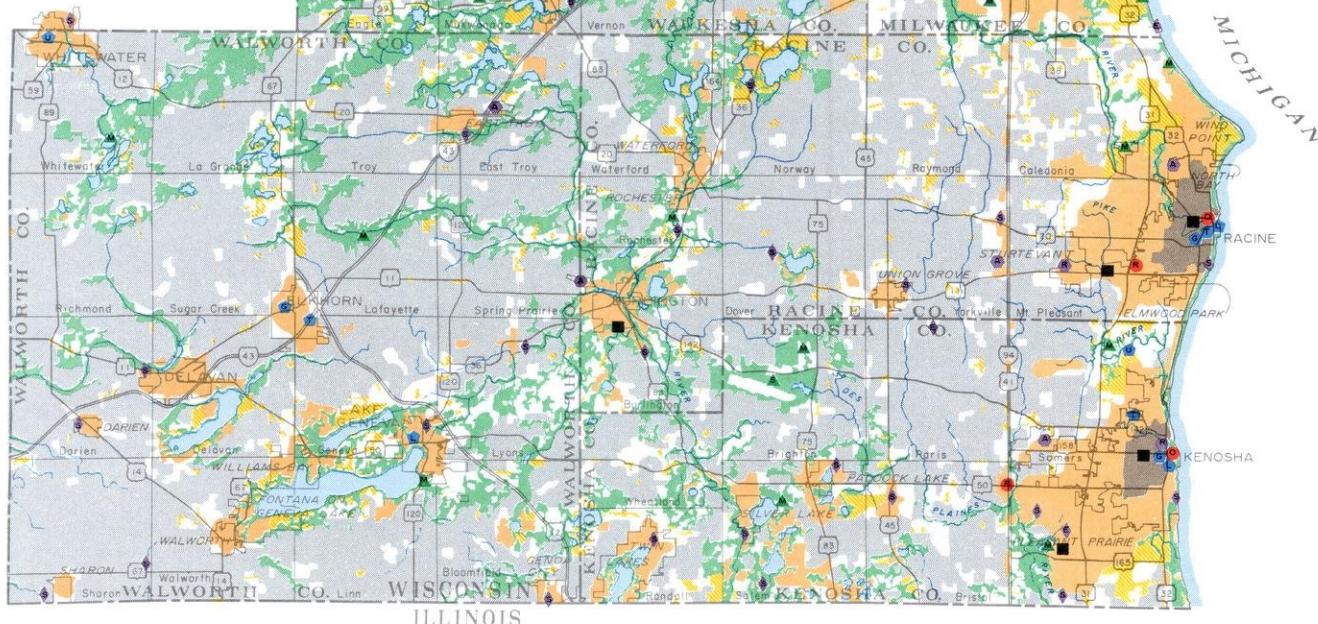
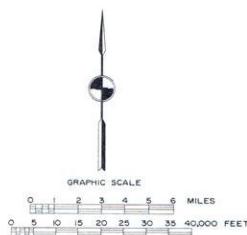
Map 2

ADOPTED LAND USE PLAN FOR THE SOUTHEASTERN WISCONSIN REGION: 2010
LEGEND

LEGEND

Legend:

- SUBURBAN RESIDENTIAL**
(0.2-0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- LOW DENSITY RESIDENTIAL**
(0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MEDIUM DENSITY RESIDENTIAL**
(2.3-6.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- HIGH DENSITY RESIDENTIAL**
(7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
- MAJOR COMMERCIAL CENTER**
R—RETAIL
O—OFFICE
- MAJOR INDUSTRIAL CENTER**
- MAJOR PUBLIC OUTDOOR RECREATION CENTER**
M—MULTI-USE SITE
S—SPECIAL PURPOSE SITE
- MAJOR TRANSPORTATION CENTER**
A—AIRPORT
B—BUS TERMINAL
R—PASSENGER RAIL TERMINAL
S—SEAPORT
- MAJOR UTILITY CENTER**
S—PUBLIC SEWAGE TREATMENT PLANT
E—ELECTRIC POWER GENERATION PLANT
- MAJOR GOVERNMENTAL OR INSTITUTIONAL CENTER**
G—COUNTY, STATE, OR FEDERAL
ADMINISTRATIVE OFFICE
M—MEDICAL
U—UNIVERSITY
T—TECHNICAL/VOCATIONAL
L—LIBRARY
C—CULTURAL/ENTERTAINMENT
- PRIMARY ENVIRONMENTAL CORRIDOR**
- PRIME AGRICULTURAL LAND**
- OTHER AGRICULTURAL AND RURAL LAND**
- WATER**



urban development from these corridors will also help to prevent the creation of such serious and costly problems as air and water pollution, wet and flooded basements, building and pavement foundation failures, and excessive infiltration and inflow of clear water into sanitary sewerage systems.

Also like the prior regional land use plans, the year 2010 regional land use plan proposes the preservation, to the greatest extent practicable, of those areas of the Region which have been identified as prime agricultural lands. These areas encompassed about 1,047 square miles, or 39 percent of the Region, in 1985. The new plan proposes to convert to urban use only about 16 square miles, or about 1 percent, of the remaining prime agricultural lands of the Region.

Finally, the new regional land use plan recommends that the residual agricultural and rural lands of the Region continue to be used for agricultural and rural residential purposes. These lands do not meet the criteria for designation as either primary environmental corridors or prime agricultural lands. In addition, these lands were not found in the plan design process to be needed to accommodate urban development through the year 2010. If these lands are converted from agricultural to residential use, the plan recommends that such conversion result in truly rural residential development, defined as a density not exceeding one residence per five acres of land.

By the end of 1993, the year 2010, third-generation regional land use plan had been adopted by the Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha County Boards of Supervisors; the Common Councils of the Cities of Greenfield, Kenosha, and Milwaukee; the Village Boards of the Villages of Bayside, Hartland, Kewaskum, and Pleasant Prairie; and the Town Boards of the Towns of Ottawa, Somers, and Troy. In addition, the plan had been endorsed by the Wisconsin Department of Administration.

Preservation of Farmland

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 counties 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 and zoning 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 farm products with a value of at least \$6,000 in the last year or \$18,000 in the past three years. In addition, all participants in the 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 or her State income-tax return a certificate from the local zoning administrator verifying that his or her land is located within an exclusive agricultural zoning district.

Program changes enacted in 1988 provided an opportunity for 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 could apply for such agreements between July 1, 1988, and June 30, 1991. After that period, for farmers who did not sign such an agreement, the requirement of exclusive agricultural zoning for tax-credit eligibility in urban counties is once again in effect.

Under the Wisconsin 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 or her 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 Wisconsin Farmland Preservation Program for tax year 1992 is presented in Table 2, Figure 7, and Map 3. Based upon the number of zoning certificates issued and the number of long-term preservation agreements in effect, a total of 1,314 farms encompassing a combined total of 176,785 acres, or about 27 percent of the prime agricultural land in the Region, were included in the program in tax year 1992. Among the seven counties of the Region, Walworth County had the highest level of participation: 692 farms encompassing 95,641 acres, or about 46 percent of the prime agricultural land in that County.

The vast majority of participants in the program qualified on the basis of exclusive agricultural zoning. A total of 1,254 zoning certificates for farms encompassing 169,191 acres, or about 26 percent of the prime agricultural land in the Region, were issued in the Region for tax year 1992. In contrast, long-term farmland preservation agreements were in effect on only 60 farms encompassing 7,594 acres, or about 1 percent of the prime agricultural land in the Region, for tax year 1992.

In tax year 1992, the average tax credit for participating landowners in Southeastern Wisconsin was \$1,252, or about 24 percent of the average property tax of \$5,156. Among the seven counties of the Region, the average tax credit level ranged from \$393 in Milwaukee County to \$1,737 in Kenosha County (see Table 3).

Farmland Preservation Planning

Considerable progress has been made in planning for the preservation of farmland within the Southeastern Wisconsin Region since the passage of the Wisconsin Farmland Preservation Act by the Wisconsin Legislature in 1977. Six counties in the Southeastern Wisconsin Region, Kenosha, Ozaukee, Racine, Walworth, Washing-

ton, and Waukesha, have adopted farmland preservation plans which were subsequently certified by the Wisconsin Land Conservation Board (see Map 4).

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 1993, exclusive agricultural zoning ordinances certified by the Wisconsin Land Conservation Board had been adopted by 46 local units of government in the Region. Twenty-seven towns, seven 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 County have also adopted exclusive agricultural zoning in conformance with the standards of the Wisconsin Farmland Preservation Act. In addition, the City of Elkhorn administers extraterritorial zoning, including exclusive agricultural zoning, in the Towns of Delavan, Geneva, and Lafayette (see Map 4).

Regional Land Use Inventory

Reliable basic planning and engineering data, collected on a uniform, areawide basis, are essential to the formulation of workable development 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 reinventories completed in 1970, 1975, 1980, and 1985. In 1993, the Land Use Division completed work on a reinventory of land use in the Region based upon new aerial photography taken in the spring of 1990. The inventory update involved a comparison of 1990 aerial photographs and corresponding 1985

Table 2

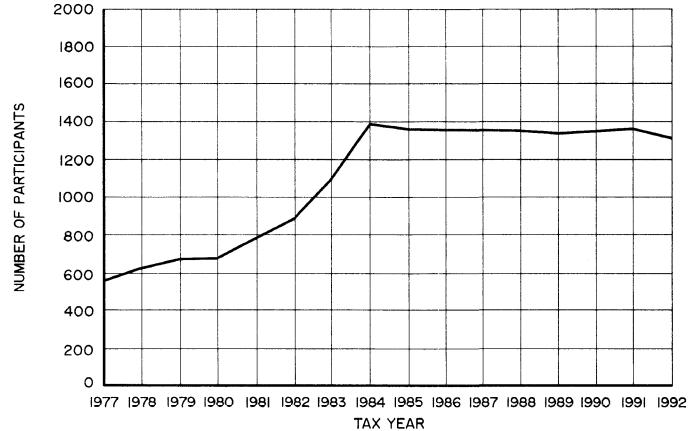
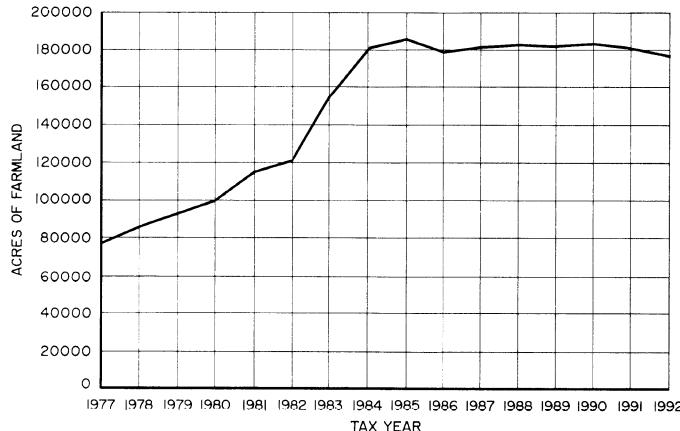
PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM: TAX YEAR 1992

County	Participants				Acres of Farmland				Farmland Preservation Program Acres as a Percent of Prime Agricultural Land	Acres of Prime Agricultural Land: 1990		
	Zoning Certificates	Long-Term Agreements	Total		Zoning Certificates	Long-Term Agreements	Total					
			Number	Percent of Region			Number	Percent of Region				
Kenosha	33	8	41	3.1	4,131	1,545	5,676	3.2	7.6	74,911		
Milwaukee	4	0	4	0.3	263	0	263	0.1	19.6	1,340		
Ozaukee	247	8	255	19.4	31,122	648	31,770	18.0	44.1	72,015		
Racine	29	3	32	2.4	5,190	451	5,641	3.2	5.7	98,520		
Walworth	692	0	692	52.7	95,641	0	95,641	54.1	45.6	209,537		
Washington	120	34	154	11.7	15,787	4,163	19,950	11.3	18.8	105,854		
Waukesha	129	7	136	10.4	17,057	787	17,844	10.1	18.2	98,158		
Region	1,254	60	1,314	100.0	169,191	7,594	176,785	100.0	26.8	660,335		

NOTE: The total number of agreements by county as shown in this table may differ from figures shown on Map 3 in cases where a single agreement pertains to lands located in more than one civil division.

Figure 7

PARTICIPATION IN THE WISCONSIN FARMLAND PRESERVATION PROGRAM FOR THE REGION: TAX YEARS 1977-1992



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. The results of the new inventory are being used in county and local as well as regional land use planning efforts.

Residential Subdivision Platting Activity

The Commission annually monitors land subdivision activities in the Region. A total of 4,803

residential lots were created in the Region during 1993 through subdivision plats, compared with 4,650 lots platted in 1992. Of the residential lots created in 1993, 4,146 lots, or about 86 percent, were served by public sanitary sewers; the remaining 657 lots, or 14 percent, were served by onsite septic tank sewage disposal systems (see Table 4 and Map 5). In the seven counties in Southeastern Wisconsin, the number of residential lots created through subdivision plats in 1993 ranged from a low of 212 lots in Racine County to a high of 1,962 lots in Waukesha County. The historic trend in residential platting activity since 1960 is shown for the Region and by county in Figure 8.

Table 3

**AVERAGE TAX-CREDIT LEVELS
UNDER THE WISCONSIN FARMLAND
PRESERVATION PROGRAM: TAX YEAR 1992**

County	Average Property Tax	Average Tax Credit	
		Amount	Percent of Property Tax
Kenosha	\$5,298	\$1,737	32.8
Milwaukee	2,782	393	14.1
Ozaukee	5,048	1,146	22.7
Racine	6,161	874	14.2
Walworth	5,217	1,324	25.4
Washington	5,319	1,253	23.6
Waukesha	4,771	1,185	24.8
Region	\$5,156	\$1,252	24.3

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.

**Regional Land Use Plan
Implementation Study**

In December 1991, the Commission, acting in response to a request from the Governor and the Legislature through the Wisconsin Department of Transportation, authorized a study relating to implementation of the then adopted, design year 2000 regional land use plan. To oversee the study, the Commission created a 25-member Advisory Committee.

The basic purpose of the study was to examine the extent to which development in the Region, over the period from 1970 through 1985, occurred in conformance with, or at variance to, the year 2000 regional land use plan and to recommend, as might be found desirable, means by which implementation of the regional land use plan could be strengthened. In preparing the study, the Committee determined to utilize the second-generation regional land use plan as the basis for its work. That plan was adopted in 1977 and had as a base year 1970 and a design year 2000. The Committee examined in depth the various elements of the year 2000 regional land use plan, quantified the status of plan implementation, and considered the various regulatory and other measures that are currently available to promote implementation of the regional land use plan.

Conclusions Concerning Implementation Status

The Advisory Committee examined the status of implementation of the second-generation regional land use plan as of 1985, midway through the 30-year plan design period of 1970 through 2000. The findings of the Committee may be summarized as follows:

1. While the regional population remained virtually unchanged from 1970 to 1985, households increased slightly more than forecast and jobs increased slightly less than forecast. The overall scale of growth approximated that anticipated by the year 1985 in the regional land use plan.
2. About 139 square miles of land were committed to urban use over the 15-year period, about 5 percent more than planned. Because there was no population growth during that period, however, urban population density declined to about 3,600 persons per square mile, about 12 percent less than planned.
3. Of the 139 square miles of new urban development created by 1985, about 52 percent was located in areas recommended for such development in the plan. The remaining 48 percent was located in scattered, outlying areas, contrary to plan recommendations.
4. About 65 square miles of land were converted to residential use during the 15-year period, about 12 percent more than envisioned in the plan. Much of the new residential development took place not in the medium-density category as recommended, but in the low-density category. While the plan had envisioned that 32 square miles of new medium-density residential development would occur by 1985, only about 17 square miles of such development actually occurred. While the plan envisioned that only about 12 square miles of new development would occur at low densities, about 41 square miles of such development actually occurred.
5. Public sanitary sewer service was provided to about 45 percent of the 139 square miles of new development. Public water supply service was provided to about 35 percent of

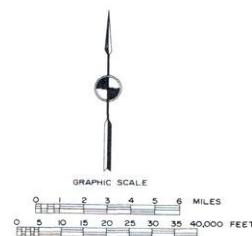
Map 3

PARTICIPATION IN THE WISCONSIN
FARMLAND PRESERVATION
PROGRAM BY MINOR CIVIL DIVISION
IN THE REGION: TAX YEAR 1992

LEGEND

19
2358
NUMBER OF ZONING CERTIFICATES ISSUED
 8
856
NUMBER OF LONG-TERM AGREEMENTS
 856
NUMBER OF ACRES CERTIFIED
 856
NUMBER OF ACRES UNDER LONG-TERM AGREEMENTS

ACRES CERTIFIED OR UNDER
LONG-TERM AGREEMENTS



Map 4

CERTIFICATION STATUS OF
FARMLAND PRESERVATION PLANS
AND EXCLUSIVE AGRICULTURAL ZONING
IN THE REGION: TAX YEAR 1993

LEGEND

EXCLUSIVE AGRICULTURAL ZONING CERTIFIED
BY THE WISCONSIN LAND CONSERVATION BOARD

COUNTY-ENACTED ZONING

TOWN-ENACTED ZONING

CITY / VILLAGE-ENACTED ZONING^a

COUNTY FARMLAND PRESERVATION PLAN
CERTIFIED BY THE WISCONSIN LAND
CONSERVATION BOARD



^a THE CITY OF ELKHORN ADMINISTERS
EXTRATERRITORIAL ZONING,
INCLUDING EXCLUSIVE AGRICULTURAL
ZONING, IN PORTIONS OF THE TOWNS
OF DELAVAN, GENEVA, AND
LAFAYETTE.

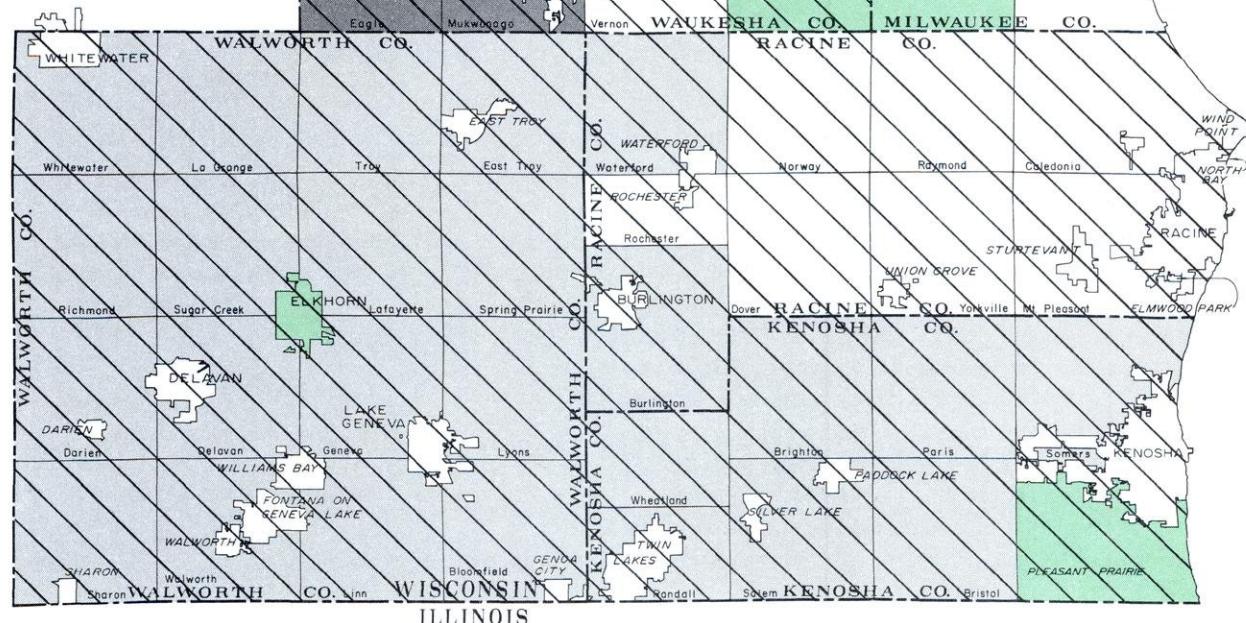
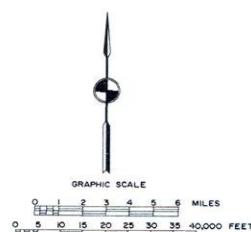


Table 4
RESIDENTIAL SUBDIVISION PLATTING ACTIVITY IN THE REGION: 1993

County	Sewered Lots		Unsewered Lots		Total Lots	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Region
Kenosha	404	100.0	0	--	404	8.4
Milwaukee	776	100.0	0	--	776	16.2
Ozaukee	518	96.1	21	3.9	539	11.2
Racine	212	100.0	0	--	212	4.4
Walworth	243	98.8	3	1.2	246	5.1
Washington	579	87.2	85	12.8	664	13.8
Waukesha	1,414	72.1	548	27.9	1,962	40.9
Region	4,146	86.3	657	13.7	4,803	100.0

the new urban development. During the 15-year monitoring period, about 30 square miles of unsewered existing development was retrofitted with sewer service, while about 14 square miles of existing urban development without public water supply was retrofitted with such service. The net result was that by 1985 sanitary sewer service was provided to 71 percent of the developed urban area, down from 73 percent in 1970, and to 87 percent of the regional population, up from 85 percent in 1970. Also by 1985, public water supply service was provided to 57 percent of the developed area, down from 63 percent in 1970, and to 80 percent of the population, up from 79 percent in 1970.

6. Significant declines in industrial employment occurred over the monitoring period at many of the older industrial centers in the Region. While 16 of the 17 centers existing in 1970 continued to meet the employment threshold for classification as a major center, employment at one center no longer met that threshold. All five proposed new industrial centers were under development in accordance with plan recommendations. However, two additional centers, both in Waukesha County, were developed in areas not recommended in the plan. In addition, the development

Map 5
RESIDENTIAL PLATTING ACTIVITY IN THE REGION: 1993

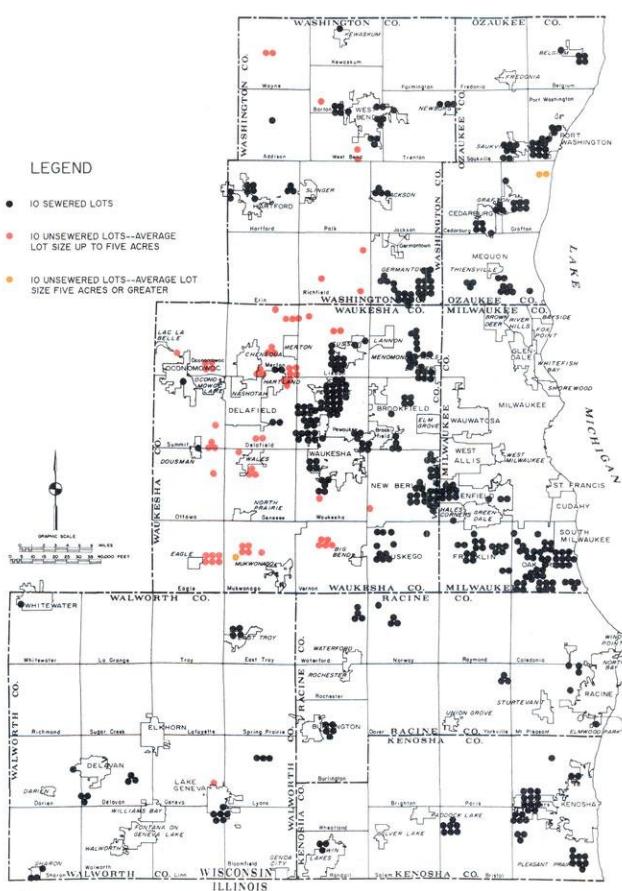
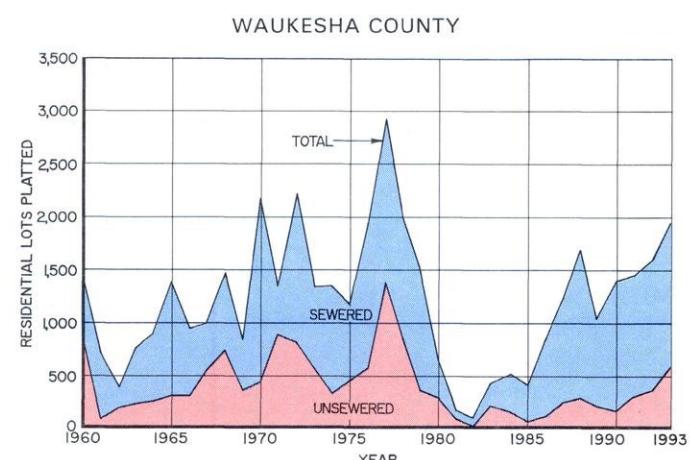
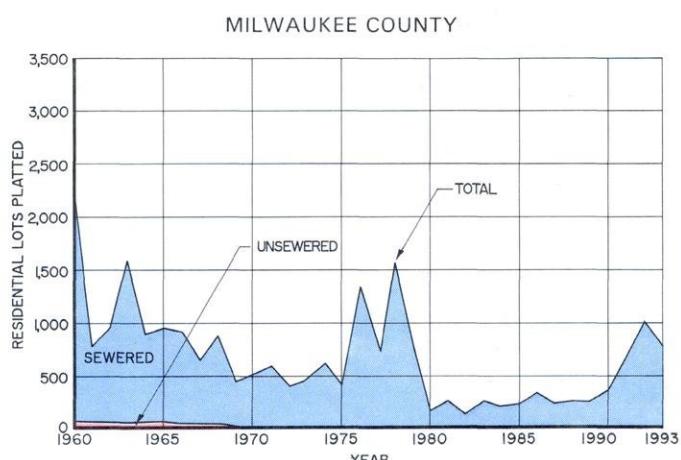
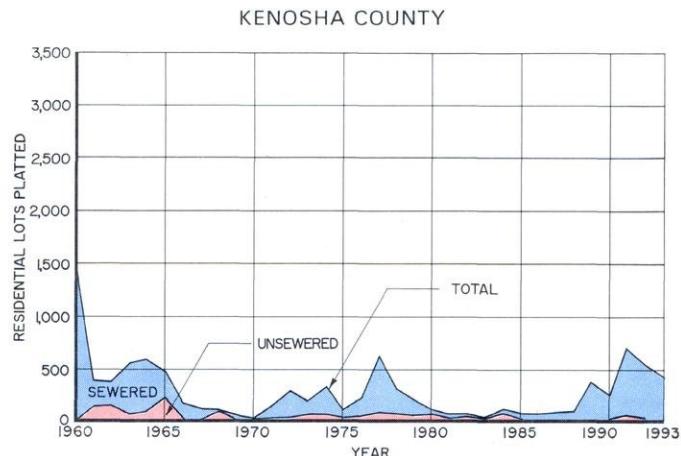
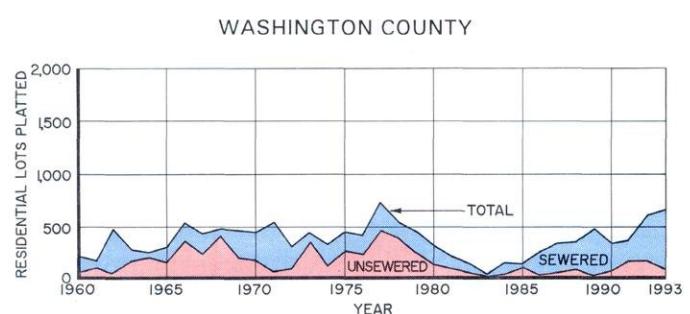
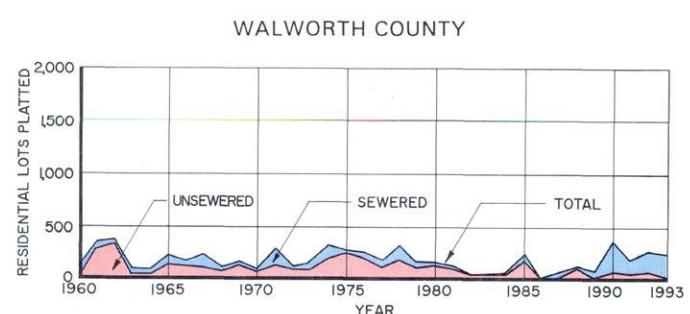
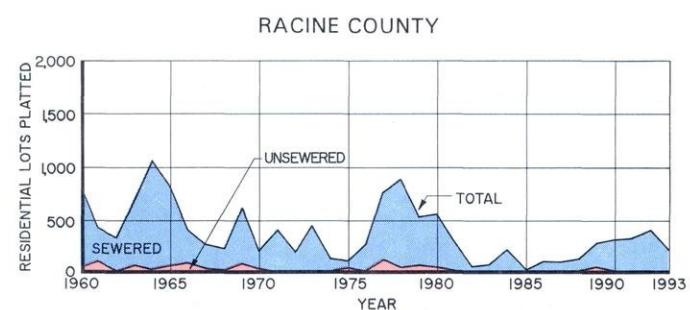
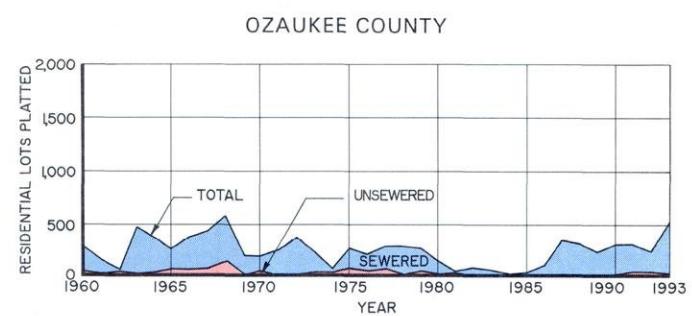
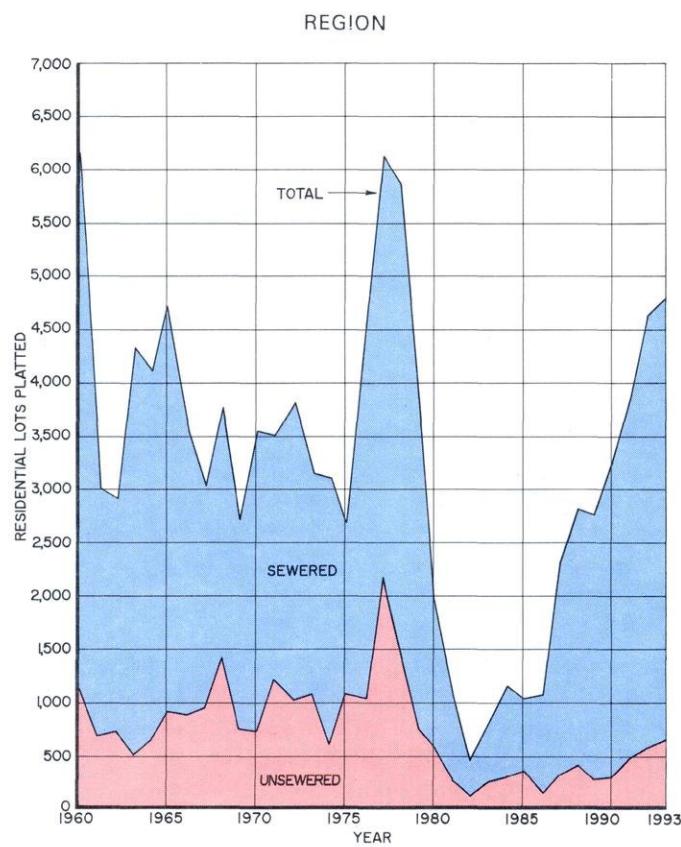


Figure 8

RESIDENTIAL LOTS PLATTED IN THE REGION AND ITS COUNTIES: 1960-1993



of four other potential major industrial centers was either begun or announced in areas not recommended for such development in the plan.

7. Monitoring data indicate that 12 of the 13 major commercial centers that existed in 1970 continued to meet the requisite employment threshold in 1985. Two of the three proposed new centers were developed in accordance with the plan recommendations, with initial development having taken place at the third planned new center. In addition, however, the development of seven other potential major commercial centers of both the office and retail types was either begun or announced in areas not recommended for such development in the plan.
8. Significant progress has been made in implementing the major outdoor recreation center element of the regional land use plan. Of the 15 proposed new centers identified in the first- and second-generation regional land use plans, 13 have been publicly acquired and developed in whole or in part for public use. The two new sites yet to be acquired are still in open land uses and remain available for public purchase. One new major park site was acquired in a location not recommended in the plan.
9. Over the 15-year monitoring period, there were both gains and losses in primary environmental corridor lands, with a net loss of about 7.5 square miles of corridor land, or about 2 percent. Most gains occurred in rural portions of the Region, while losses occurred in both the rural and urban portions of the Region. About 350 square miles, or about 74 percent of the total of 476 square miles, of corridor lands have been fully or substantially protected through public ownership or public land use regulation. The unprotected corridor lands consist largely of upland corridors in the rural portions of the Region.
10. By 1985, about 92 square miles of prime agricultural land had been converted to urban use in the Region. This represents 75 square miles more than planned. About 585 square miles of prime farmland, or

56 percent of the total, had been properly zoned to reduce the likelihood of conversion to urban uses.

Given the foregoing findings, the Advisory Committee drew the following conclusions as to the status of land use plan implementation:

1. There is a need to strengthen efforts to protect and preserve the primary environmental corridors of the Region. While substantial progress has been made, both in publicly acquiring corridor lands and in exercising proper land use control on such lands, the upland corridor areas remain vulnerable to loss through inappropriate development.
2. There is a need to strengthen efforts to preserve and protect the prime agricultural lands of the Region. The rate of prime agricultural land loss is five times greater than necessary. Only about one-half the total stock of prime farmland has been properly zoned despite efforts by the State to provide a measure of property-tax relief.
3. No need exists to change the way in which the major outdoor recreation element of the regional land use plan is being carried out. That element of the plan has been substantially implemented, with only two proposed major parks remaining to be acquired.
4. There is a significant need to strengthen efforts to channel urban land market forces so as to provide a more compact, contiguous, and efficient urban development pattern. In terms of total land area, only about one-half of the new urban residential development is occurring in areas recommended for such development in the regional plan, with less than one-half of the new urban development being provided with public sanitary sewer and water supply services. The continuing diffusion of unsewered, low-density residential development throughout much of the Region needs to be significantly abated.
5. It would be desirable to abate the trend toward the decentralization of job locations in the Region. Employment at the older and more centrally located major industrial centers in particular is declining well below

planned levels. A need exists to strengthen the present efforts to revitalize the older major industrial centers of the Region.

Conclusions Concerning Plan Implementation Measures

The Advisory Committee also examined the various measures that are currently available for use in Wisconsin to aid in regional land use plan implementation. These measures include simply the task of collecting, analyzing, and disseminating sound planning and engineering data; the provision by the Regional Planning Commission of advisory and review services to county and local governments and State and Federal agencies; a variety of educational efforts undertaken by the Regional Planning Commission, at times in cooperation with the University of Wisconsin-Extension; plan refinement and detailing efforts by county and local governments; land acquisition by public agencies and private nonprofit corporations; the public regulation of land use; the public regulation at the State level of sanitary sewers and private onsite sewage disposal systems; and public tax policies that seek to influence land use decisions. After reviewing in detail these various plan implementation measures, the Committee drew the following basic conclusions:

1. The continued development and dissemination of sound planning and engineering data on a uniform, areawide basis by the Regional Planning Commission represents a very effective way in which the regional land use plan recommendations can be implemented and the objectives underlying those recommendations achieved. Consequently, this activity needs continued attention by the Regional Planning Commission and continued funding support by Federal, State, county, and local governments.
2. The general, areawide nature of the regional land use plan makes it imperative that county and local governments undertake planning efforts to adopt, refine, and detail the regional plan, thereby giving the regional plan more specific meaning and promoting better understanding and acceptance at the county and local levels of government. A greater commitment to the cooperative preparation of county and local land use plans and of supporting sewer service area plans is needed so that the regional land use plan recommendations can be carried into the greater depth and detail needed to apply such implementation measures as zoning, land subdivision control, and public land acquisition properly and effectively. The process of carrying out such focused planning efforts helps to build a broader base of understanding and sense of "ownership" of the regional land use plan at the county and local level. Consequently, the Committee concluded that county and local governments should undertake more detailed land use planning efforts within the framework of the regional land use plan.
3. It is important that county and local governments seek timely review comments on development proposals from the Regional Planning Commission on a day-to-day basis. While it should not be expected that local officials will always concur in the findings and recommendations that the Commission may make in response to requests for review of local development proposals, such a process will assure that the regional plan recommendations will be taken into account when development decisions are made. Consequently, the Advisory Committee concluded that county and local governments should be encouraged to seek regional review comments on local development proposals of significance.
4. Public ownership of land is the most effective way to implement those elements of the regional land use plan which deal with the protection and preservation of the natural resource base. The reality, however, is that funding for public purchase of all corridor lands is not available. To maximize the effective use of available funds, the Committee concluded that county and local governments should give more attention to acquisition techniques that involve less than fee simple purchase.
5. Zoning by county and local governments can be a highly effective measure for implementing the regional land use plan. Its application on a uniform, areawide basis, however, requires a broad understanding by elected officials and by the

general public of the plan recommendations and of the reasons underlying those recommendations, so that the political will necessary to exercise fully the discretionary zoning authority now available under Wisconsin law is developed. As a plan implementation measure, zoning is stronger when it is undertaken jointly by two levels of government. Zoning is also more effective when the proper administrative staff and legal support is provided so that the zoning regulations are effectively administered.

6. The integration of regional and State plans and the linking of State regulatory decisions to the recommendations contained in those plans creates a very effective regional land use plan implementation measure. This is best evidenced by the incorporation of the areawide water quality management plan for Southeastern Wisconsin, which has as a fundamental element the regional land use plan, into the State Water Quality Management Plan adopted by the Wisconsin Natural Resources Board and then by requiring State regulatory decisions to be made in a manner consistent with the plan. The Committee concluded that this plan implementation technique is underutilized, since it is not currently applicable to the rural portions of the Region.
7. The failure of neighboring communities to reach agreement as to municipal boundary changes and the provision of utility services can contribute to the accommodation of urban development in locations at variance with the regional land use plan recommendations. The Committee took note of a recent State law creating a new procedure for boundary and service agreements with State oversight and approval and concluded that local governments in the Region should seek to take advantage of the new law so that intergovernmental boundary and service disputes do not constitute an impediment to plan implementation.
8. Land subdivision control regulations, encompassing not only subdivision plats but certified survey maps as well, can be an effective means to implement certain detailed aspects of the regional land use

plan. The Committee concluded that county and local governments should make more effective use of these existing regulations to ensure the dedication or reservation of environmentally sensitive lands, to control properly access to arterial highways, and to make sure that urban development is amenable to transit service and use.

Review of Preliminary Findings and Recommendations

The Advisory Committee's preliminary recommendations for strengthening regional land use plan implementation in Southeastern Wisconsin were selectively presented for review and comment over an approximately six-month period beginning in December 1992 and extending through May 1993.

The process of seeking review comments on the preliminary recommendations of the Advisory Committee consisted of three steps: face-to-face meetings with the Secretaries and senior staff of six key State agencies, at which meetings the preliminary recommendations of the Advisory Committee were presented and discussed in detail; discussions with key officials of several major interest groups; and a briefing on the preliminary recommendations to the Executive Committee of the Southeastern Wisconsin Regional Planning Commission.

Final Recommendations

Drawing on its preliminary recommendations and on careful review and consideration of comments received with regard to those recommendations during the review process, the Advisory Committee formulated its final recommendations. These final recommendations are as follows:

Recommendation
No. 1: Evaluate State Farmland Preservation Program and Consider Changing the Basis for Farmland Assessments and Attendant Property-Tax Relief

The Wisconsin Department of Agriculture, Trade and Consumer Protection should evaluate the effectiveness of the current Wisconsin Farmland Preservation Program and, as may be necessary or desirable, make modifications thereto. In such study, the Department should consider the first two modifi-

cations to the program listed below. The Wisconsin Department of Revenue should consider the last two modifications listed below.

1. Requiring that county farmland preservation plans be updated and recertified periodically and that all farmland preservation zoning actions and tax credit decisions be directly related to such plans.
2. Adopting a less inclusive definition of prime farmlands, seeking the redefinition to focus the program on truly large blocks of such land not needed for urban development, while avoiding the expenditure of tax credits on lands planned to be converted to urban use.
3. Establishing a system whereby operating farmland within the farmland preservation program would be assessed for real estate tax purposes upon its value for agricultural use only.
4. Providing direct property-tax credits to operating farmers rather than the indirect provision of property-tax relief through income-tax credits.

Recommendation
No. 2: Promote Compact and Contiguous Urban Development

The State of Wisconsin should take the following two actions to address problems associated with continued diffusion of low-density urban development, supported by onsite sewage disposal systems and private wells, over large areas of the Region.

1. Formulation and adoption by the State Legislature of a comprehensive State policy favoring and promoting more compact, efficient urban development. This would require State agencies, particularly the Wisconsin Departments of Administration; Development; Natural Resources; Transportation; Agriculture, Trade and Consumer Protection; and Industry, Labor and Human Relations, to reflect that policy in the formulation and promulgation of administrative rules and in day-to-day regulatory and other decision making and to coordinate policies of individual agencies where they may, in an increasingly

complex society, work toward conflicting ends, especially as regards the encouragement or channeling of urban development to locations imposing substantial direct or indirect costs to taxpayers, threats to the public health and safety, or harm to the environment.

2. Linking State and county regulatory decisions concerning the number and location of private sewage disposal systems to the recommendations and provisions of the State Water Quality Management Plan as adopted by the Wisconsin Department of Natural Resources. That plan includes the areawide water quality management plan for Southeastern Wisconsin, an important element of which is the regional land use plan. The linking would take place either:
 - a. By authorizing the Wisconsin Department of Natural Resources to require that any regulations or actions of the Wisconsin Department of Industry, Labor and Human Relations relative to the approval of private sewage disposal systems be consistent with the State Water Quality Management Plan adopted by the Wisconsin Department of Natural Resources pursuant to the requirements of the United States Clean Water Act; or, in the alternative,
 - b. Through county regulation of private sewage disposal systems after delegation by the Wisconsin Department of Industry, Labor and Human Relations, or by the State Legislature, of the authority to counties so electing to impose regulations consistent with the State Water Quality Management Plan.

Recommendation
No. 3: Protect and Preserve Upland Environmental Corridors

The Wisconsin Department of Natural Resources should seek the following changes through administrative rules, and, if necessary, legislation to ensure that, through State oversight, all primary environmental corridor areas are protected and preserved in the manner recommended in the regional land use plan:

1. The existing State-county and State-local floodplain-shoreland zoning partnership should be broadened to include all the

delineated primary environmental corridor areas. The existing State policy protects only the floodland and wetland portions of the corridors located along navigable streams and around navigable lakes and such portions of the corridors within urban sewer service areas that can be demonstrated to have adverse water quality impacts if developed. Through the new partnership and the zoning standards envisioned, the State would require county and local municipal governments to exercise zoning to protect all primary environmental corridor lands.

2. The statutory basis whereby the Wisconsin Department of Natural Resources denies approval of sanitary sewer extensions needed to effect urban development conflicting with the plan recommendations should be broadened to encompass other adverse environmental impacts consistent with the Department mission as the public steward of the natural resources of the State. At present, the basis for such denial is narrowly founded on adverse water quality impacts.
3. Working with the Wisconsin Department of Industry, Labor and Human Relations, the Wisconsin Department of Natural Resources should effect a change in the Administrative Code to eliminate the current "loophole" whereby private sanitary sewer extensions to serve certain residential and commercial structures are exempt from the water quality management plan review conformance process. The current rules are inequitable to individual land-owners and result in the construction of buildings in corridors contrary to plan recommendations.

Recommendation
No. 4: Ameliorate
Problems
Created by Job
Decentralization

The following actions
should be taken:

1. Those local units of government within the Region which have aging industrial centers, such as the Cities of Glendale, Kenosha, Milwaukee, Racine, Waukesha, and West Allis and the Village of West Milwaukee, should undertake strategic and physical planning efforts for each such center. The purpose of this detailed planning would be to determine the extent to

which each center may be expected to remain as a major industrial employment center and the extent to which the area concerned might better be converted to other land uses.

2. A special study should be undertaken to examine the causes of, and possible means for modifying, the present trend of industrial, commercial, and office job decentralization and ameliorate its effects, including the potential institution of some form of tax base sharing mechanism that: a) would provide for the more equitable distribution in metropolitan areas of the benefits of the increased property-tax base that major new employment centers create and b) might help to reduce tax base competition among communities, competition which can work against the best interest of the metropolitan area as a whole. This study should be conducted at the regional level through a public-private partnership and should be directed by a committee which would include public officials and private-sector professionals knowledgeable about the complex factors which underlie the trends toward decentralization of industrial, commercial, and office employment and the fiscal impacts of such development on local governments.

The study and its preliminary and final recommendations are documented in SEWRPC Memorandum Report No. 68, Regional Land Use Plan Implementation in Southeastern Wisconsin: Status and Needs, May 1993. The Advisory Committee formally presented its report to the Regional Planning Commission in June 1993. The Commission took no action on the report, but referred it to each of the seven counties of the Region for their review and consideration. The Commission also continued to monitor the activities of State agencies with regard to how their activities and policies influenced implementation of the regional land use plan.

ECONOMIC AND DEMOGRAPHIC BASE ANALYSIS

During 1993, the Division continued to monitor secondary data sources on changes in population, employment, and school enrollment levels and to provide pertinent socio-economic data in support of the work of the Land Use, Transportation, and Environmental Planning Divisions.

Table 5

REGIONAL EMPLOYMENT BY CATEGORY: 1980, 1990, AND 1993

Employment Category	1980	1990 ^a	1993	1980-1990 Change		1990-1993 Change	
				Number	Percent	Number	Percent
Agriculture	12,800	9,800	9,200	-3,000	-23.4	-600	-6.1
Construction	25,800	32,500	33,100	6,700	26.0	600	1.8
Manufacturing							
Food and Kindred Products	20,900	17,000	16,300	-3,900	-18.7	-700	-4.1
Printing and Publishing	16,300	23,500	24,500	7,200	44.2	1,000	4.3
Primary Metals	16,600	11,700	11,000	-4,900	-29.5	-700	-6.0
Fabricated Metals	31,800	27,500	24,000	-4,300	-13.5	-3,500	-12.7
Nonelectrical Machinery	73,100	57,100	50,900	-16,000	-21.9	-6,200	-10.9
Electrical Machinery	40,100	24,000	23,600	-16,100	-40.1	-400	-1.7
Transportation Equipment	21,500	8,700	9,800	-12,800	-59.5	1,100	12.6
Other Manufacturing	41,500	57,600	57,500	16,100	38.8	-100	-0.2
Subtotal	261,800	227,100	217,600	-34,700	-13.3	-9,500	-4.2
Transportation, Communication, and Utilities	39,600	40,900	41,700	1,300	3.3	800	2.0
Wholesale Trade	43,500	50,900	51,300	7,400	17.0	400	0.8
Retail	131,900	155,700	153,400	23,800	18.0	-2,300	-1.5
Finance, Insurance, and Real Estate	41,200	49,900	51,600	8,700	21.1	1,700	3.4
Services	158,200	218,700	239,600	60,500	38.2	20,900	9.6
Government and Education	120,700	139,500	145,700	18,800	15.6	6,200	4.4
Self-Employed, Except Farm	46,200	63,000	65,200	16,800	36.4	2,200	3.5
Miscellaneous ^b	2,500	2,300	2,300	-200	-8.0	0	0.0
Total	884,200	990,300	1,010,700	106,100	12.0	20,400	2.1

^aOn 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 jobs to other manufacturing jobs.

^bIncludes agricultural services, forestry, commercial fishing, mining, and unclassified jobs.

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 in terms of "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 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 1980, 1990, and 1993 is set forth in Table 5 by employment category.

The number of jobs in the Region in 1993 was estimated at 1,010,700, an increase of 20,400

jobs, or about 2 percent, from the 1990 level of 990,300 jobs. As shown in Table 5, all of the employment sectors, except agriculture, manufacturing, retail trade, and "miscellaneous" jobs—including agricultural services, forestry, commercial fishing, mining, and jobs not included in other categories—provided more jobs in 1993 than in 1990. In terms of jobs lost, the largest decrease in employment between 1990 and 1993 occurred in the manufacturing sector, a decrease of 9,500 jobs, or about 4 percent.

Employment distribution by county is shown in Table 6. In five counties, Kenosha, Ozaukee, Walworth, Washington, and Waukesha, there were more jobs in 1993 than in 1990, with the largest absolute increase, 19,400 jobs, occurring

Table 6
REGIONAL EMPLOYMENT BY COUNTY: 1980, 1990, AND 1993

County	1980	1990	1993	1980-1990 Change		1990-1993 Change	
				Number	Percent	Number	Percent
Kenosha	50,100	46,500	49,700	-3,600	-7.2	3,200	6.9
Milwaukee	542,300	578,200	564,800	35,900	6.6	-13,400	-2.3
Ozaukee	25,600	32,200	36,200	6,600	25.8	4,000	12.4
Racine	76,100	82,200	81,300	6,100	8.0	-900	-1.1
Walworth	31,100	37,100	42,100	6,000	19.3	5,000	13.5
Washington	31,400	41,800	44,900	10,400	33.1	3,100	7.4
Waukesha	127,600	172,300	191,700	44,700	35.0	19,400	11.3
Region	884,200	990,300	1,010,700	106,100	12.0	20,400	2.1

in Waukesha County. In Milwaukee and Racine Counties, there were respectively about 13,400, or about 2 percent, and 900, or about 1 percent, fewer jobs available in 1993 than in 1990.

Comparison of Actual and Alternative Future Employment Levels

In 1984, the Commission developed a set of projections of regional employment change for the design year 2010. These projections 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, have been and 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, May 1984.

Because of the increasing uncertainty surrounding future population levels, the Commission selected 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 "low-growth" and "high-growth" extremes of future regional employment levels; the third was intended to identify an intermediate-growth 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 (2nd Edition) were developed using an approach similar to that used successfully by the Commis-

sion 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 projections of total regional employment levels to the year 2010 under the high-growth and low-growth 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.

Subsequent to the preparation of the 2010 employment forecasts and as part of the preparation of the 2010 regional land use plan, the Technical Coordinating and Advisory Committee on Regional Land Use Planning reviewed the employment forecasts in view of recent changes in the economic structure and employment distribution within the Region. Upon completion of this review, the Committee recommended that the intermediate-growth future as set forth in Technical Report No. 10 (2nd Edition) be adjusted and used as the basis for the 2010 recommended plan, which was subsequently adopted. The following table, figures, and discussion therefore reflect the forecast on which the year 2010 regional land use plan, as adopted, is based, as well as alternative projections considered.

Employment in the Region in 1993 was anticipated to total 1,027,500 jobs under the high-growth scenario; 908,700 jobs under the adopted plan; and 820,100 jobs under the low-growth

Table 7

ACTUAL AND ALTERNATIVE FUTURE NUMBER OF JOBS BY COUNTY: 1993

County	Estimated 1993 Jobs	Alternative Future 1993 Jobs		
		Low-Growth Scenario	Adopted Plan	High-Growth Scenario
Kenosha	49,700	45,900	51,500	59,100
Milwaukee	564,800	483,500	532,200	580,900
Ozaukee	36,200	24,000	28,000	34,400
Racine	81,300	73,100	82,400	101,200
Walworth	42,100	30,700	35,100	43,800
Washington	44,900	32,700	37,200	45,600
Waukesha	191,700	130,200	142,300	162,500
Region	1,010,700	820,100	908,700	1,027,500

scenario. The estimated 1993 level of 1,010,700 jobs lies about 2 percent below the level anticipated under the high-growth scenario and about 11 percent and 23 percent, respectively, above the levels anticipated under the adopted plan and the low-growth scenario. The 1993 employment levels for the Region and each of its seven counties under each of the three alternative futures and the 1993 estimated employment levels for the Region and its counties are set forth in Table 7 and Figure 9.

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 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 Figure 10. 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 976,400 persons in 1993. Between 1990 and 1993, the civilian labor force increased by about 35,200 persons, or about 4 percent, from a 1990 level of 941,200 persons.¹ During the same time period, the number of employed members of the civilian labor force increased from about 903,400 in 1990 to about 933,600 in 1993, an increase of 30,200 persons, or about 3 percent. The number of unemployed members of the civilian labor force increased from about 37,800 in 1990 to

¹The 1990 total, employed, and unemployed civilian labor force estimates previously set forth in the Commission's 1990 Annual Report were revised by the U. S. Bureau of Labor Statistics during 1991. The revised 1990 data are presented in this Annual Report. The revised 1990 total civilian labor force level of 941,200 as presented in this Annual Report is 11,700, or about 1.2 percent, less than the original estimate of 952,900 presented in the 1990 Annual Report. Similarly, the revised 1990 employed civilian labor force level of 903,400 is 12,200, or about 1.3 percent, less than the original estimate of 915,600 and the revised 1990 unemployed civilian labor force level of 37,800 is 500, or about 1.3 percent, greater than the original estimate of 37,300.

Figure 9

ACTUAL AND ALTERNATIVE FUTURE COUNTY AND REGIONAL EMPLOYMENT LEVELS: 1960-2010

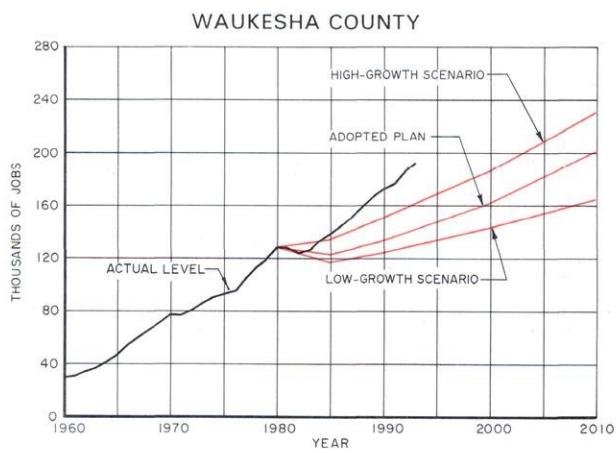
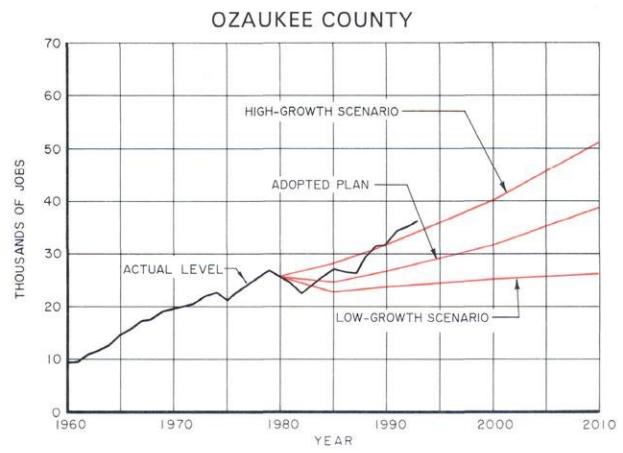
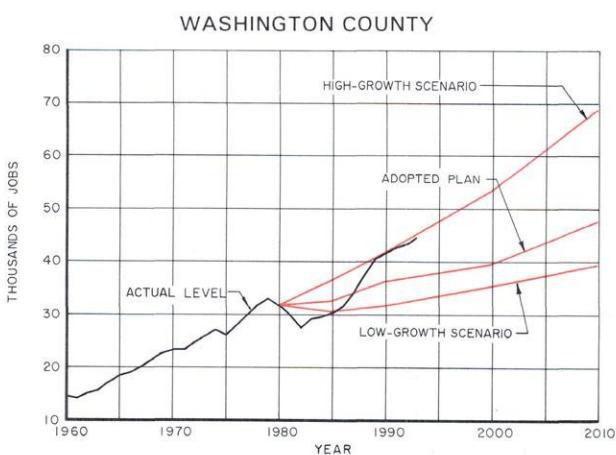
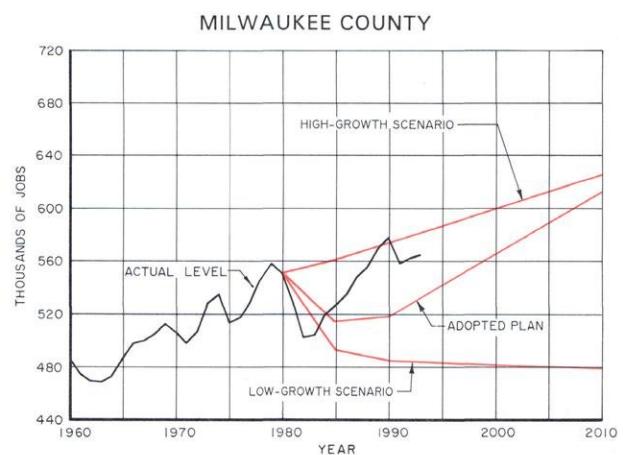
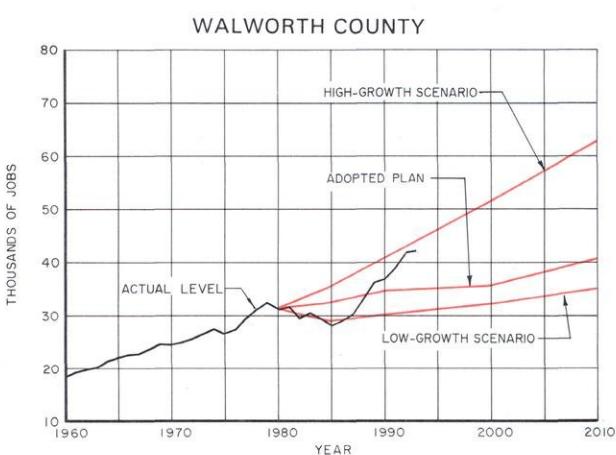
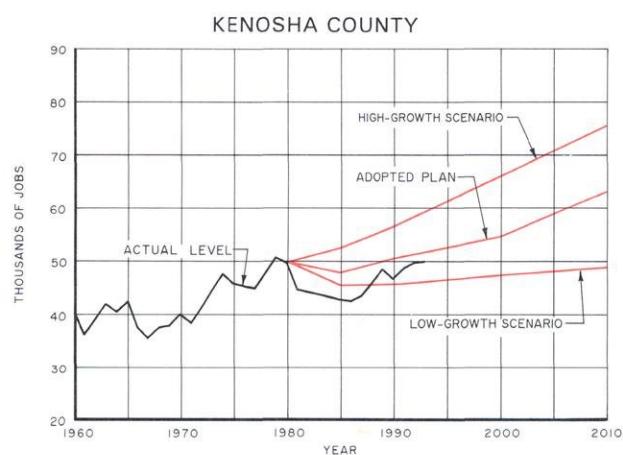
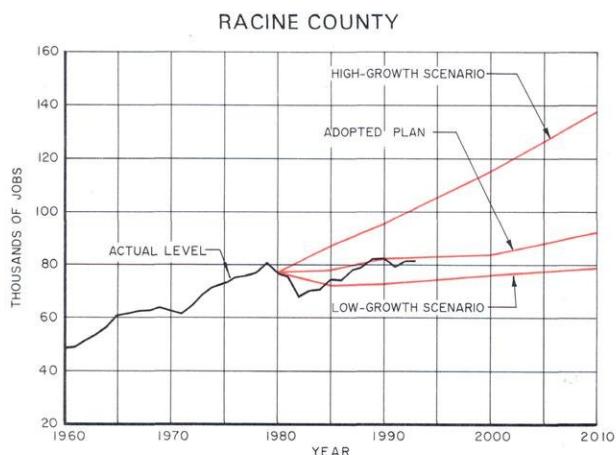
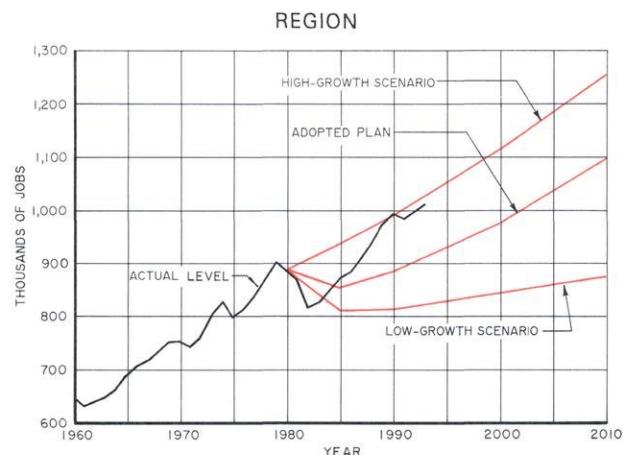


Figure 10

TRENDS IN SELECTED MEASURES OF EMPLOYMENT FOR THE REGION AND ITS COUNTIES: 1975-1993

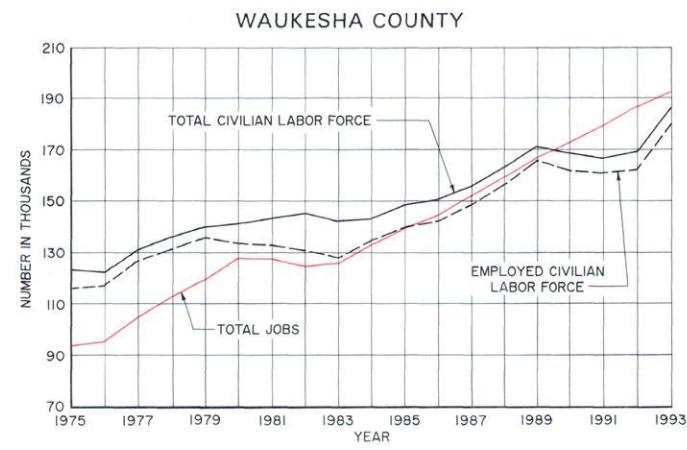
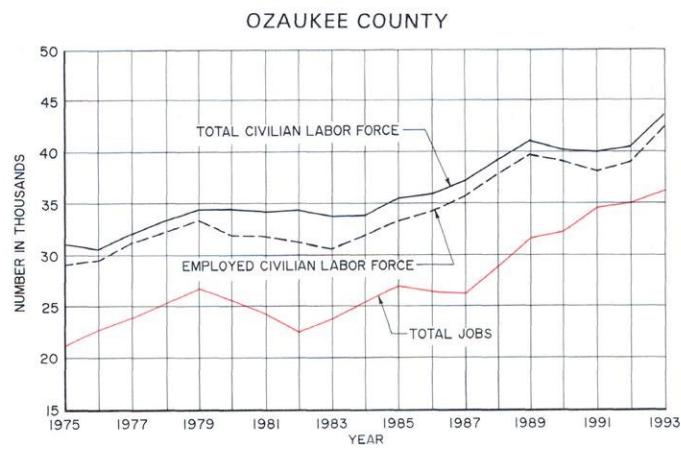
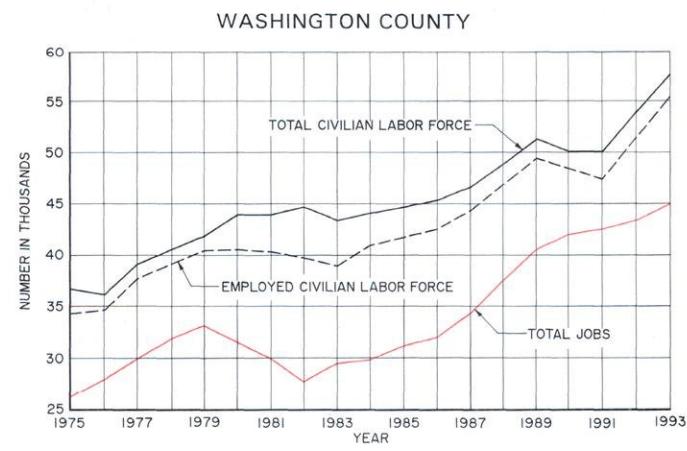
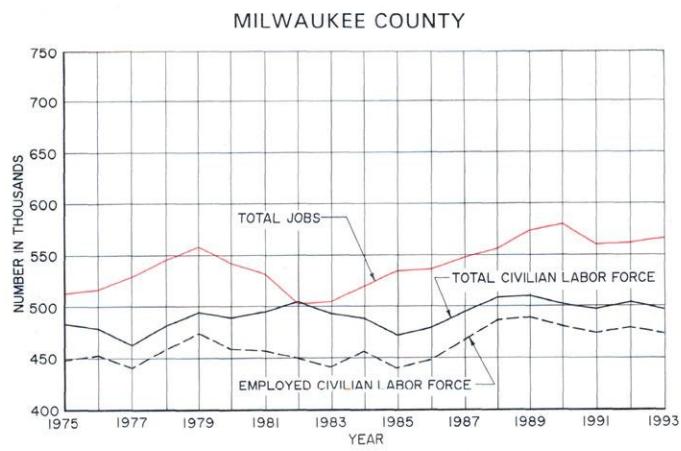
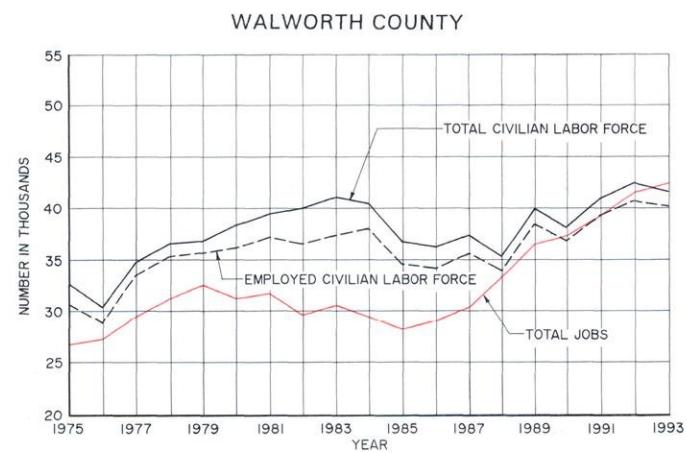
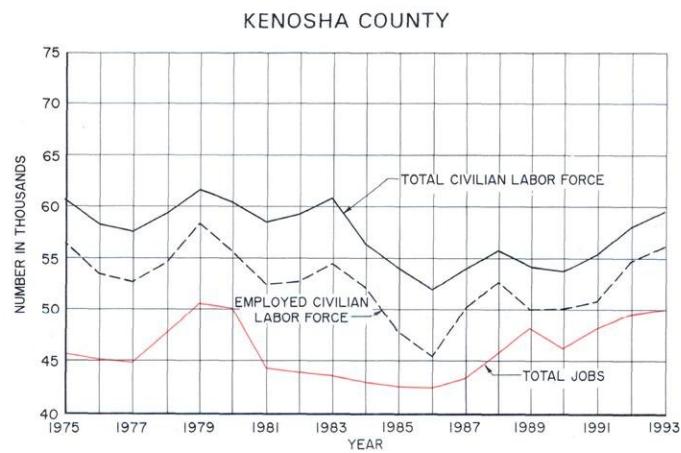
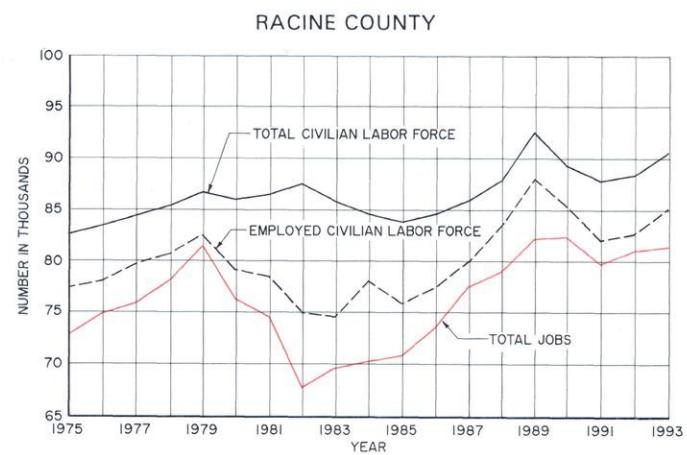
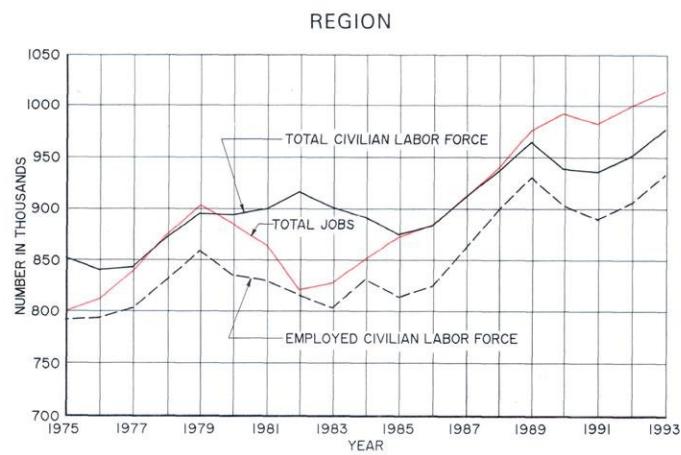


Table 8

POPULATION IN THE SOUTHEASTERN WISCONSIN REGION BY COUNTY: 1980, 1990, AND 1993

County	Population			1980-1990 Change		1990-1993 Change	
	1980 Census	1990 Census	1993 Estimate	Number	Percent	Number	Percent
Kenosha	123,100	128,200	133,400	5,100	4.1	5,200	4.1
Milwaukee	965,000	959,300	967,800	-5,700	-0.6	8,500	0.9
Ozaukee	67,000	72,800	75,600	5,800	8.7	2,800	3.8
Racine	173,100	175,100	180,100	2,000	1.2	5,000	2.9
Walworth	71,500	75,000	78,100	3,500	4.9	3,100	4.1
Washington	84,900	95,300	102,400	10,400	12.2	7,100	7.5
Waukesha	280,200	304,700	318,900	24,500	8.7	14,200	4.7
Region	1,764,800	1,810,400	1,856,300	45,600	2.6	45,900	2.5

about 42,800 in 1993, an increase of about 5,000, or about 13 percent. The unemployment rate in 1993 was 4.4 percent, compared to 4.0 percent in 1990.

Actual Population Levels

The size of the resident population of the Region increased from about 1,764,800 residents in 1980 to about 1,810,400 residents in 1990, an increase of about 45,600 residents, or about 3 percent.² This increase was considerably larger than the increase of 8,700 residents, or less than 1 percent, from 1970 to 1980, but still much smaller than the increases of 333,000 residents, or about 27 percent, from 1950 to 1960, and 182,500 residents, or about 12 percent, from 1960 to 1970.

The Wisconsin Department of Administration estimates of 1993 resident population levels for the Region and its counties are set forth in Table 8. The Department has statutory respon-

sibility for preparing intercensal population estimates as a basis for distributing State shared taxes to local units of government. These estimates are based upon symptomatic indicators of population change, including automobile registrations, the number of persons filing income-tax returns, and the dollar value for exemptions for dependents claimed on income-tax returns. In 1993, the resident population of the Region was estimated by the Department to be about 1,856,300 persons, an increase of about 45,900 persons, or about 3 percent, over the 1990 Census population level. Every county in the Region experienced population increases between 1990 and 1993, ranging from a low of about 2,800 persons, or about 4 percent, in Ozaukee County to a high of about 14,200 persons, or about 5 percent, in Waukesha County.

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 consists of 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 provide one important basis for the evaluation of changes in resident population levels.

²The 1990 total resident population level for Kenosha County set forth in the Commission's 1990 Annual Report was revised by the U. S. Bureau of the Census during 1991, and the revised data for 1990 were presented in the 1991 Annual Report. Upon further review in 1992, the U. S. Bureau of the Census determined that no revision to the original Kenosha County population level of 128,181 was required. Therefore, this report restores the original population level for 1990 for Kenosha County in Table 8.

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

Between the Census date of April 1, 1990, and January 1, 1993, the total population increase of 45,900 persons resulted from a natural increase of about 37,000 persons and a net in-migration of about 8,900 persons. Natural increase in the Region has been relatively stable since 1980, ranging from about 9,000 to 14,000 persons yearly. Since 1990, Milwaukee County has recorded a net out-migration of about 12,200 persons, while all other counties in the Region have recorded net in-migration, ranging from a low of about 1,500 persons in both Ozaukee and Racine Counties to a high of about 8,400 persons in Waukesha County.

Comparison of Actual and Alternative Future Population Levels

In 1984, the Commission 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 provided one of the bases upon which all adopted regional plan elements, particularly the adopted regional land use and regional transportation system plans, have been and will be reappraised and extended to the year 2010. The projections are documented in SEWRPC Technical Report No. 11 (2nd Edition), The Population of Southeastern Wisconsin, June 1984.

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 "low-growth" and "high-growth" extremes of future regional population levels; the third was intended to identify an "intermediate-growth" 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.

Subsequent to the preparation of the 2010 population forecasts and as part of the preparation of the 2010 regional land use plan, the Technical Coordinating and Advisory Committee on Regional Land Use Planning reviewed the population forecasts in view of the findings of the 1990 U. S. Census of Population and Housing. Upon completion of this review, the Committee recommended that the intermediate-growth future, as set forth in Technical Report No. 11 (2nd Edition), be revised and used as the basis for the 2010 recommended plan, which was subsequently adopted. The following table, figure, and discussion therefore reflect the recommended plan population data as revised under the direction of the Committee prior to the adoption of the plan by the Commission.

Under the high-growth scenario, the population level of the Region was anticipated to be about 1.99 million persons in 1993. The actual 1993 regional population level of 1.86 million persons noted above is about 7 percent below this anticipated level. Under the low-growth scenario, the population level of the Region was anticipated to be about 1.58 million persons in 1993. The actual 1993 population level is about 17 percent above this level. Under the adopted plan, the population level of the Region was anticipated to be about 1.77 million persons in 1993. The actual 1993 population level is about 5 percent above this level. The 1993 population levels for each of the Region's seven counties under each of these three alternative futures and the 1993 county population levels are set forth in Table 9 and Figure 11.

Actual Household Levels

The Commission annually prepares an estimate of the number of households within the Region. This estimate is derived from the most recent available estimates of population based upon Census data, modified to reflect changes in household size projected under the adopted year 2010 regional land use plan.

The number of households in the Region increased from about 628,000 households in 1980 to about 676,100 households in 1990, an increase

Table 9

ACTUAL AND ALTERNATIVE FUTURE RESIDENT POPULATION LEVELS BY COUNTY: 1993

County	1993 Population	Alternative Future 1993 Population		
		Low-Growth Scenario	Adopted Plan	High-Growth Scenario
Kenosha	133,400	108,500	121,200	140,900
Milwaukee	967,800	852,700	918,100	973,000
Ozaukee	75,600	60,000	71,000	90,700
Racine	180,100	151,100	167,600	193,700
Walworth	78,100	66,300	80,000	91,800
Washington	102,400	77,300	100,500	120,800
Waukesha	318,900	266,700	310,100	375,100
Region	1,856,300	1,582,600	1,768,500	1,986,000

of 48,100 households, or about 8 percent. This increase is less than the increase in households between 1970 and 1980, 91,500, or about 17 percent, and between 1960 and 1970, when the number of households increased by about 70,600, or about 15 percent. This rate of increase is also significantly less than the increase in households between 1950 and 1960, when the number of households increased by 111,400, or about 31 percent.

The estimated number of households in the Region in 1993 is shown by county in Table 10. Between 1990 and 1993, the number of households in the Region increased from about 676,100 households in 1990 to about 703,200 households in 1993, an increase of 27,100 households, or about 4 percent. Each county in the Region experienced an increase in household levels during the period from 1990 to 1993, ranging from a low of 1,600 households, or about 6 percent, in Ozaukee County to a high of 8,300 households, or about 8 percent, in Waukesha County.

Comparison of Actual and Alternative Future Household Levels

As in the preparation of employment and population projections, the conceptual framework used by the Commission to develop the household projections was the "alternative futures" method. Using this method, three alternative future household scenarios, low-growth, intermediate-growth, and high-growth, were developed. Each of these scenarios is closely linked to a corresponding economic scenario for the Region. As with the year 2010 employment and population forecasts, the Technical Coordinating

and Advisory Committee on Regional Land Use Planning reviewed the year 2010 household forecasts in light of the findings of the 1990 U. S. Census of Population and Housing. Upon completion of this review, the Committee recommended that the intermediate-growth future be revised and used as the basis for the 2010 recommended plan, which was subsequently adopted. The following table, figure, and discussion therefore reflect the recommended plan household data as revised under the direction of the Committee prior to the adoption of the plan by the Commission.

Under the high-growth scenario, it was anticipated that there would be 716,600 households in the Region in 1993. The estimated 1993 regional household level of 703,200 is about 2 percent below this anticipated level. Under the low-growth scenario, it was anticipated that there would be 630,200 households in the Region in 1993. The estimated 1993 regional household level is about 12 percent above this level. Under the adopted plan, it was anticipated that there would be 667,100 households in the Region in 1993. The estimated 1993 regional household level is about 5 percent above this level. The actual and alternative future 1993 household levels for each of the Region's seven counties are set forth in Table 11 and Figure 12.

School Enrollment

Enrollment in public and nonpublic schools within the Region totaled about 368,700 students in 1993, representing an increase of 19,800 students, or about 6 percent, over the 1990 level of 348,900 students, as indicated in Table 12.

Figure 11

ACTUAL AND ALTERNATIVE FUTURE COUNTY AND REGIONAL POPULATION LEVELS: 1950-2010

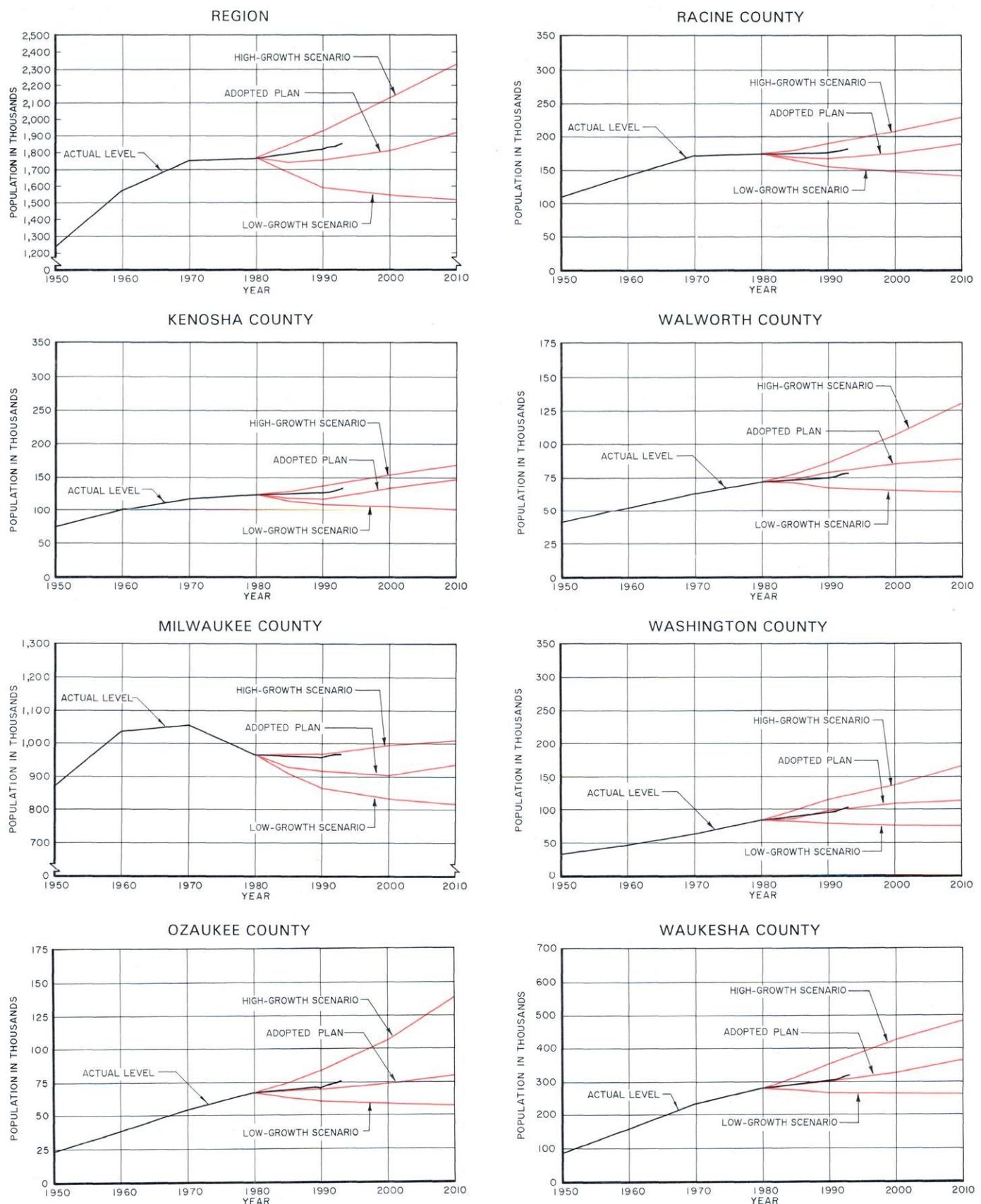


Table 10
HOUSEHOLDS IN THE REGION BY COUNTY: 1980, 1990, AND 1993

County	Households			1980-1990 Change		1990-1993 Change	
	1980 Census	1990 Census	1993 Estimate	Number	Percent	Number	Percent
Kenosha	43,100	47,000	50,200	3,900	9.0	3,200	6.8
Milwaukee	363,600	373,100	379,200	9,500	2.6	6,100	1.6
Ozaukee	21,800	25,700	27,300	3,900	17.9	1,600	6.2
Racine	59,400	63,700	66,100	4,300	7.2	2,400	3.8
Walworth	24,800	27,600	29,500	2,800	11.3	1,900	6.9
Washington	26,700	33,000	36,600	6,300	23.6	3,600	10.9
Waukesha	88,600	106,000	114,300	17,400	19.6	8,300	7.8
Region	628,000	676,100	703,200	48,100	7.7	27,100	4.0

Table 11
ACTUAL AND ALTERNATIVE FUTURE HOUSEHOLD LEVELS BY COUNTY: 1993

County	1993 Households	Alternative Future 1993 Households		
		Low-Growth Scenario	Adopted Plan	High-Growth Scenario
Kenosha	50,200	42,400	45,100	50,300
Milwaukee	379,200	360,300	367,400	373,800
Ozaukee	27,300	22,000	24,700	30,300
Racine	66,100	57,500	61,200	68,000
Walworth	29,500	26,100	30,100	33,100
Washington	36,600	27,300	33,900	39,000
Waukesha	114,300	94,600	104,700	122,100
Region	703,200	630,200	667,100	716,600

Enrollment in public schools was about 298,400 students in 1993, about 15,200 students, or 5 percent, above the 1990 level of 283,200. Enrollment in nonpublic schools was about 70,800 students in 1993, about 4,600 students, or 7 percent, above the 1990 level of 65,700.

Map 6 shows public school enrollment changes between 1990 and 1993 for public 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 single districts for the purpose of preparing this map. Some 53 districts, or 96 percent of the public K-12 and the combined union high school and K-8 districts, have experienced enrollment increases since 1990. The remaining two districts, Greendale and Norris, experienced enrollment decreases during this period of less than 1 percent and about 24 percent, respectively.

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

Figure 12

ACTUAL AND ALTERNATIVE FUTURE COUNTY AND REGIONAL HOUSEHOLD LEVELS: 1950-2010

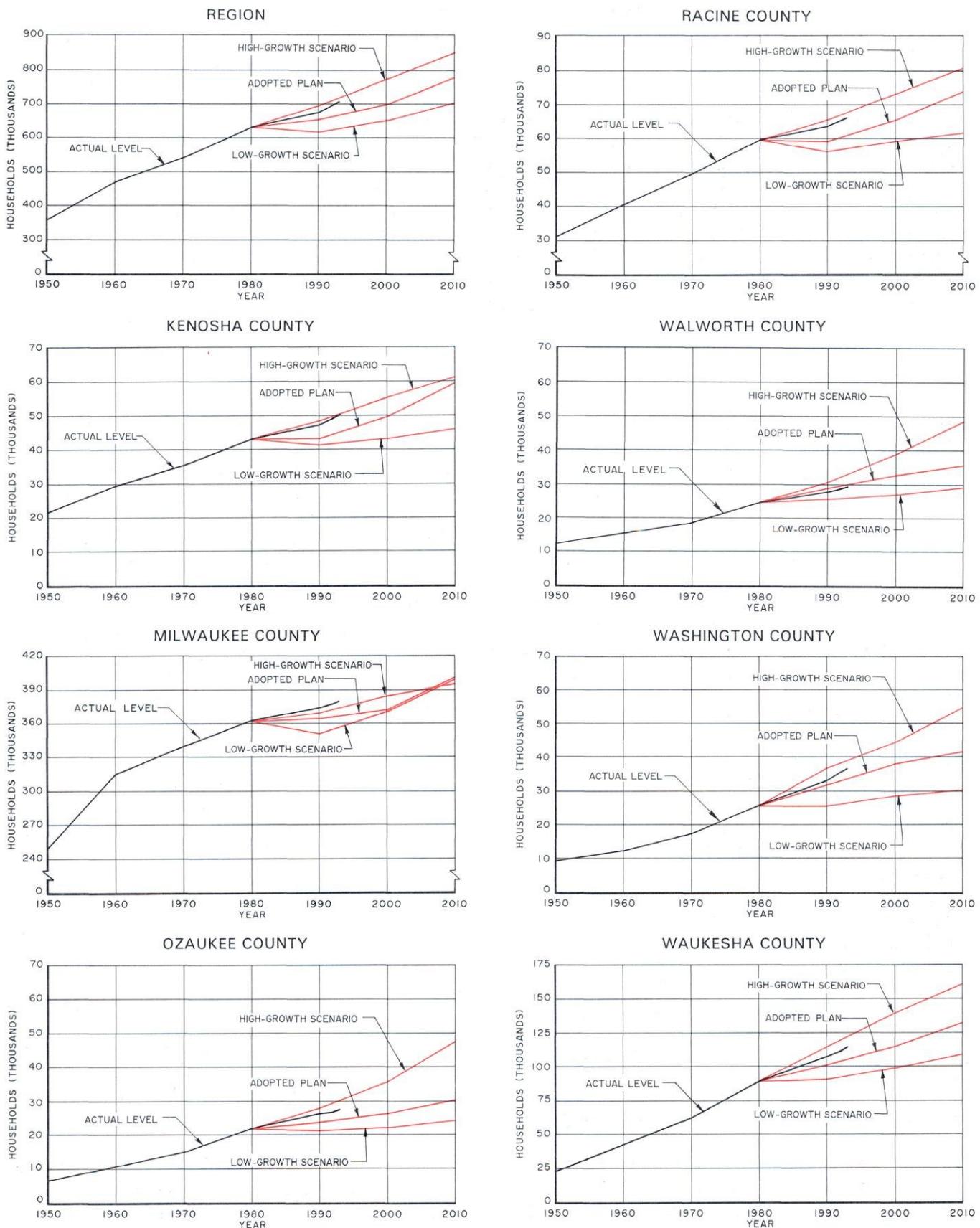


Table 12
REGIONAL SCHOOL ENROLLMENT BY COUNTY: 1980, 1990, AND 1993

County	1980	1990	1993	Difference			
				1980-1990		1990-1993	
				Number	Percent	Number	Percent
Kenosha	26,700	25,000	26,700	-1,700	-6.4	1,700	6.8
Milwaukee	184,900	178,700	187,000	-6,200	-3.4	8,300	4.6
Ozaukee	15,000	13,700	15,000	-1,300	-8.7	1,300	9.5
Racine	38,800	35,200	36,100	-3,600	-9.3	900	2.6
Walworth	13,700	13,200	14,300	-500	-3.6	1,100	8.3
Washington	21,500	20,000	22,100	-1,500	-7.0	2,100	10.5
Waukesha	68,700	63,100	67,500	-5,600	-8.2	4,400	7.0
Region	369,300	348,900	368,700	-20,400	-5.5	19,800	5.7

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 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.

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 ranges 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, compact disks, and microfiche cards containing data for the Southeastern Wisconsin Region. Assistance is provided to local units of government, the public, and local businesses in accessing these materials.

PARK AND OPEN SPACE PLANNING

On December 1, 1977, the Commission adopted a regional park and open space plan for Southeastern Wisconsin consisting of two basic ele-

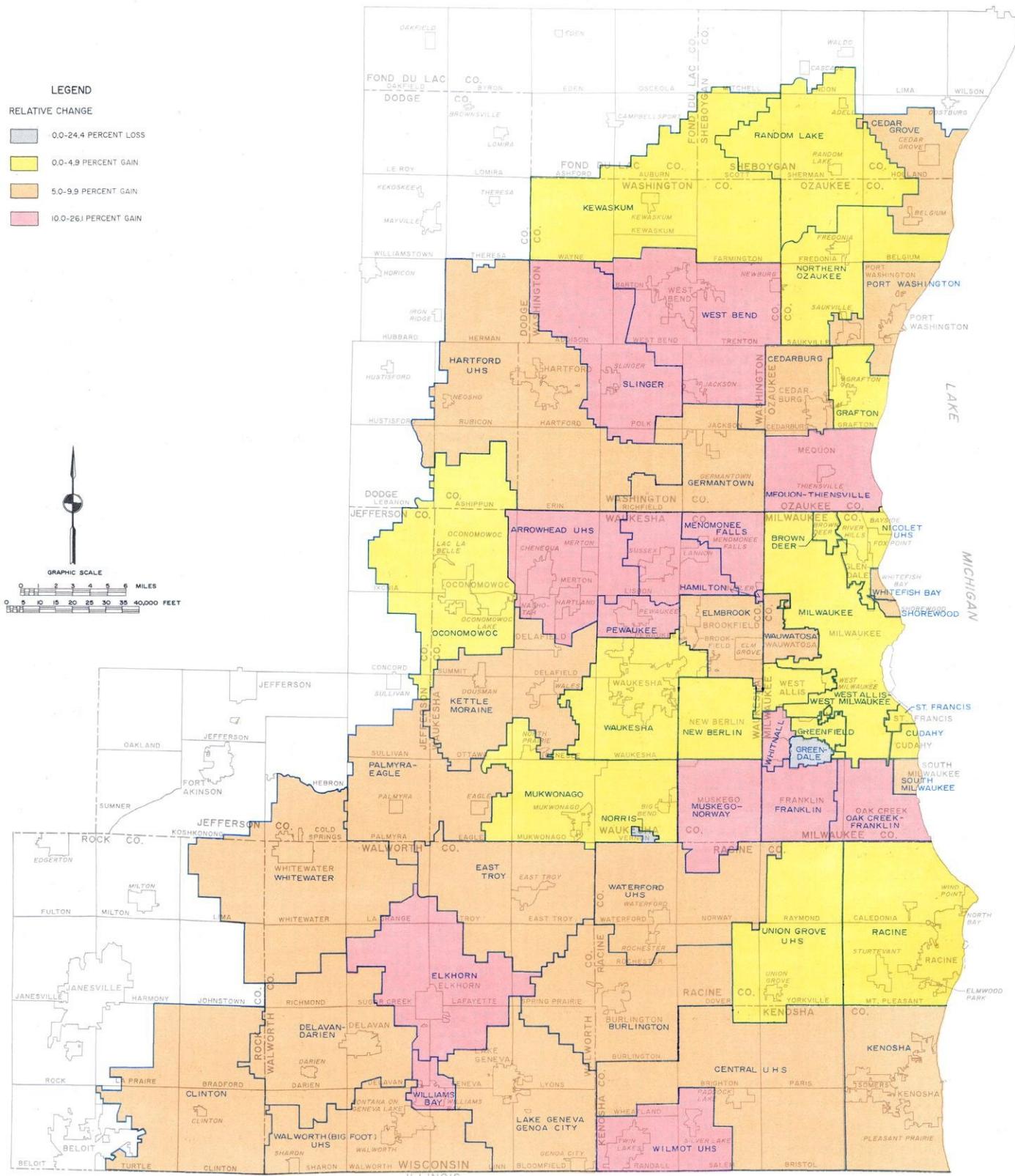
ments: an open space preservation element and an outdoor recreation element. The open space preservation element consists of recommendations for the preservation of primary environmental corridors and prime agricultural land. The outdoor recreation element consists of: 1) a resource-oriented outdoor 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 original plan is documented in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, November 1977.

Five of the seven constituent counties in Southeastern Wisconsin, Kenosha, Milwaukee, Racine, Washington, and Waukesha Counties, adopted the 1977 regional plan as their county plan in 1978. In addition, the Commission prepared a refinement of the regional plan as it related specifically to Ozaukee County. That plan was adopted by Ozaukee County in 1978. In addition, the 1977 plan was endorsed by the Wisconsin Natural Resources Board in January 1979.

Subsequently, the Commission prepared updated, refined, and detailed year 2000 park and open space plans for each of the seven counties of the

Map 6

RELATIVE CHANGES IN PUBLIC SCHOOL ENROLLMENT IN THE REGION: 1990-1993



Region. Each of these plans is documented in a SEWRPC community assistance planning report.³ Between 1987 and 1992, the Commission adopted these seven county-level plans as amendments to the regional park and open space plan.⁴ In addition, the seven counties of the Region have each adopted the updated, refined, and detailed year 2000 park and open space plans for their respective counties.

Map 7 graphically summarizes the regional park and open space plan, as amended through these updated county-level plans.

During 1993, the Commission staff continued its program of assistance to communities in the preparation of local park and open space plans which ensure the continued eligibility of local units of government for State and Federal assistance for the acquisition and development of outdoor recreation and open space sites proposed in such plans. Staff efforts during the year in this regard consisted of inventory and analysis work required in support of a park and open space plan for the City of New Berlin.

³See SEWRPC Community Assistance Planning Report No. 131, A Park and Open Space Plan for Kenosha County, November 1987; SEWRPC Community Assistance Planning Report No. 132, A Park and Open Space Plan for Milwaukee County, November 1991; SEWRPC Community Assistance Planning Report No. 133, A Park and Open Space Plan for Ozaukee County, July 1987; SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County, September 1988; SEWRPC Community Assistance Planning Report No. 135, A Park and Open Space Plan for Walworth County, February 1991; SEWRPC Community Assistance Planning Report No. 136, A Park and Open Space Plan for Washington County, March 1989; and SEWRPC Community Assistance Planning Report No. 137, A Park and Open Space Plan for Waukesha County, December 1989.

⁴In its resolution (Revised Resolution No. 90-3) adopting SEWRPC Community Assistance Planning Report No. 136 as an amendment to the regional park and open space plan, the Commission made several changes to the language of the initially published report.

DATA PROVISION AND TECHNICAL ASSISTANCE

Economic and Demographic Data

The Land Use Division devotes 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 1993, the Division prepared letter responses to 221 requests for population, economic, and related information from the Commission data files. In addition, 43 requests were handled by telephone and 50 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 1993 in performing this function:

- Provision of 1990 estimated employment levels for a portion of Milwaukee County to a Wisconsin Department of Transportation consultant completing a study of the design of the Marquette Interchange in downtown Milwaukee.
- Provision of 1990 Federal Census of Population demographic data to the Elkhorn School District for use in facilities planning.
- Provision of Federal Census historical housing unit value data to the Waukesha County Executive's office for use in determining changing housing values in Waukesha County.
- Provision of "ultimate" population, household, employment, and land use data to a City of Hartford consultant for use in the preparation of the City's wastewater treatment facilities plan.
- Provision of 1990 Federal Census of Population demographic data to the Racine County Economic Development Corporation for use in economic planning programs.

Land Use and Park and Open Space Data

The land use and park and open space files are extensively used by State, county, and local

Map 7

REGIONAL PARK AND OPEN SPACE PLAN: 2000, AS AMENDED

LEGEND

URBAN DEVELOPMENT

OTHER RURAL LAND

COUNTY OR STATE PARK
AND OPEN SPACE SITES

 EXISTING MAJOR SPECIAL SITE

▲ EXISTING MAJOR PARK

▲ EXISTING OTHER PARK

PROPOSED MAJOR PARK

▲ PROPOSED OTHER RAB

OR OPEN SPACE SITE

RECREATION CORRIDOR

NATURAL RESOURCES

PRIMARY ENVIRONMENTAL CORRIDOR

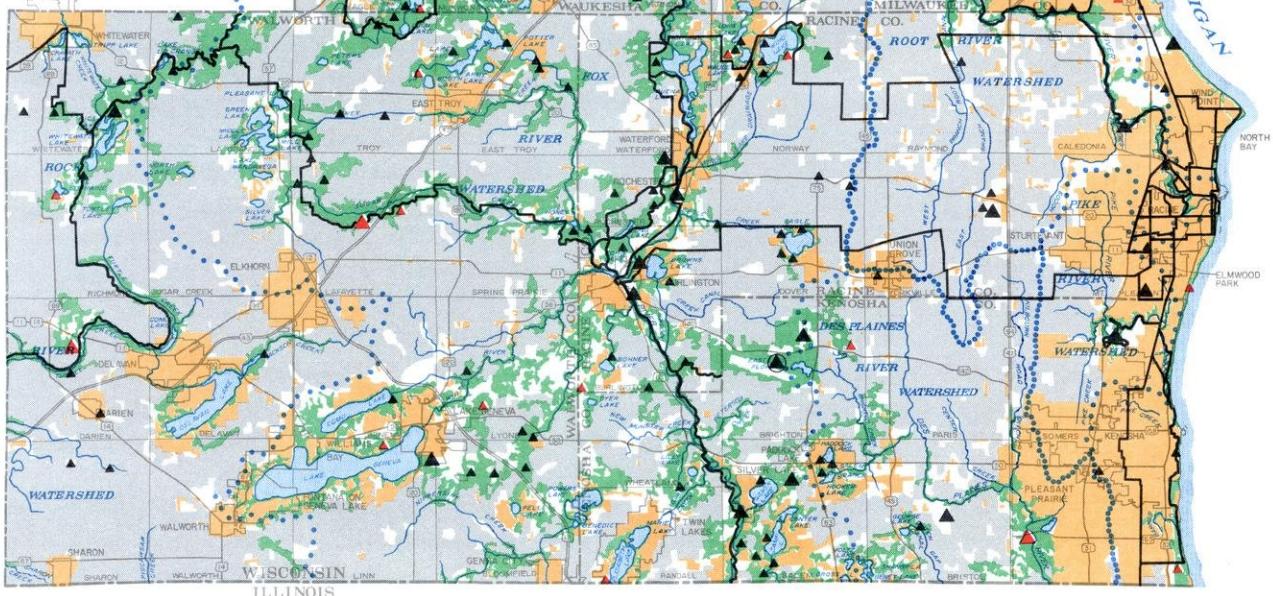
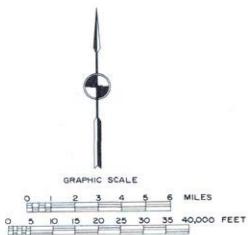
SURFACE WATER

PRIME AGRICULTURAL

LAND

NOTE: INDIVIDUAL COUNTY PARK AND OPEN SPACE PLAN MAPS MAY

SELECTED PARK SITES, RECREATION CORRIDORS AND NATURAL RESOURCE FEATURES.



governmental units and agencies and by private interests. Examples of the provision of land use and park and open space data during 1993 include the following:

- Provision of detailed maps showing the regional land use plan as that plan relates to the respective specific areas of jurisdiction of various county and local units of government, including Racine, Walworth, and Waukesha Counties, and the Towns of Barton in Washington County and Norway and Waterford in Racine County.
- Provision of land use, natural resource, and park and open space data to the Wisconsin Department of Natural Resources for use in the preparation of the Menomonee Valley Greenway feasibility study.
- Provision of population, land use, and natural resource data to the Town planner for the Towns of Bristol and Salem in Kenosha County for use in the preparation of comprehensive land use plans.
- Provision of an analysis of the environmental significance of a natural area site in the primary environmental corridor in the Town of East Troy, Walworth County, proposed for acquisition by the Town for park and open space purposes.
- Provision of land use and natural resource data for the Towns of Merton, Oconomowoc, and Ottawa in Waukesha County to the Waukesha County Park and Planning Commission for use in the preparation of town land use plans.
- Provision of land use and natural resource information for the Chiwaukee Prairie in Kenosha County and the Cedarburg Bog in Washington County to the U. S. Department of the Interior, National Park Service, for use in the preparation of a report on the status of National Natural Landmarks.
- Provision of an evaluation of the environmental and recreational significance of five parcels of Milwaukee County parkland proposed for disposition by the Milwaukee County Department of Parks, Recreation and Culture.

- Provision of a description of the extent and quality of the primary environmental corridor located on a parcel in the Town of Burlington, Racine County, proposed for mineral extraction for use by the Racine County Planning and Development Division in its consideration of a request for a change in zoning on that parcel.

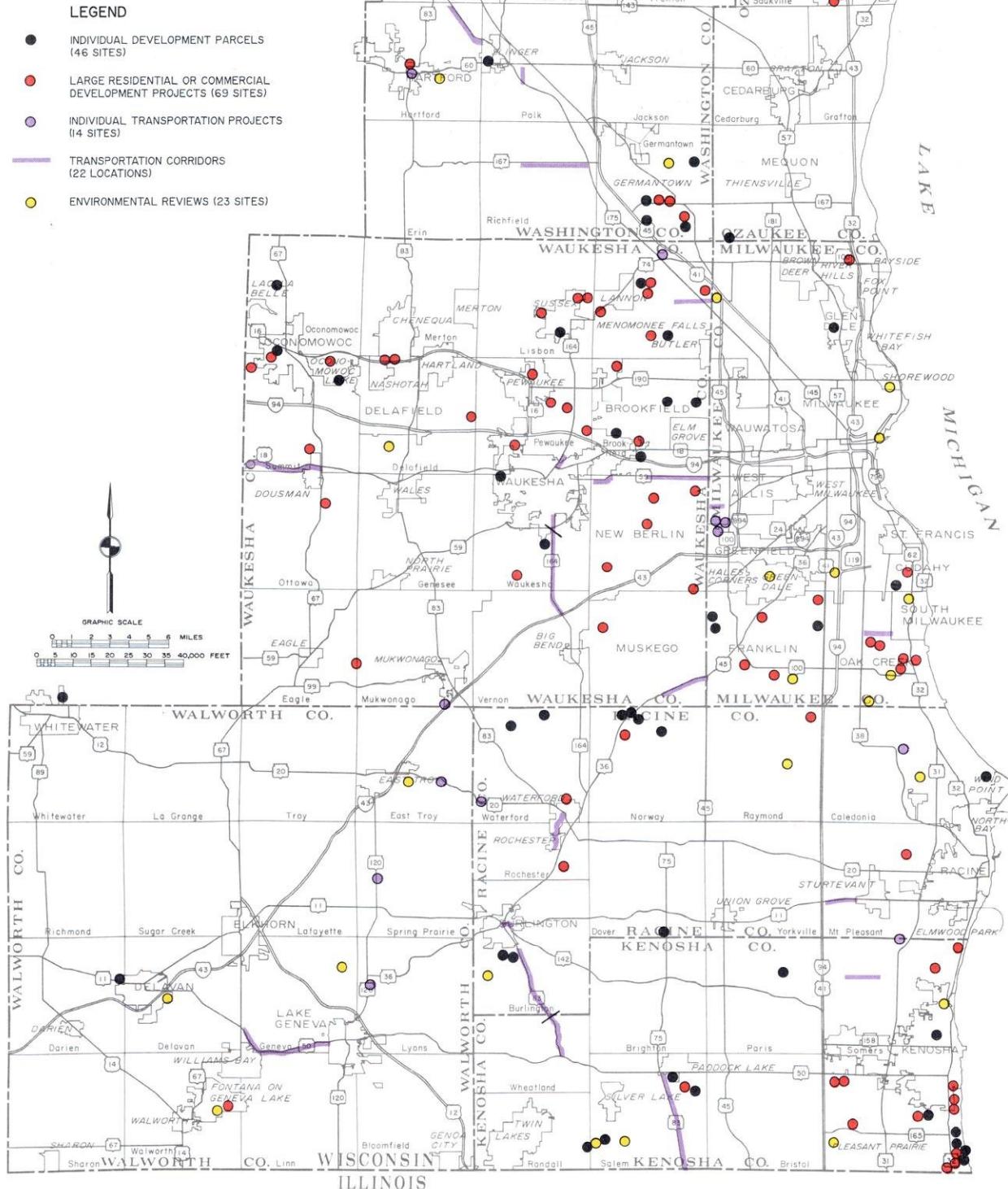
Special Environmental Inventories, Assessments, and Evaluations

A continuing demand is being placed upon the Commission to help Federal, State, and local units and agencies of government in evaluating and assessing the environmental significance and quality of specific development 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 1993, the Commission fulfilled a total of 174 requests for such information. Most of 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 on individual parcels in order to facilitate sound consideration by local governments of proposals for private development. During 1993, 46 such requests were fulfilled at sites throughout the Region (see Map 8). Each of these requests was made by a county or local planner or engineer who needed detailed field information in order to carry out local planning and land use control responsibilities properly. Once staked in the field by the Commission staff, the precise boundaries of environmentally significant areas were surveyed by private land surveyors retained by the landowner and the results of the survey were placed on the face of certified survey maps and plats of survey.
- Requests for field evaluation, identification, and delineation of wetland and/or primary environmental corridors on large residential and commercial development sites to determine whether there are environmentally sensitive areas of concern. The Commission encourages such evaluations prior to the preparation and commitment of detailed land use planning and site development considerations. During 1993, 69 such

Map 8

LOCATIONS OF SPECIAL
ENVIRONMENTAL INVENTORIES,
ASSESSMENTS, AND EVALUATIONS
INVOLVING FIELD WORK: 1993



requests were fulfilled throughout the Region (see Map 8). Once staked in the field by the Commission staff, the precise boundaries of environmentally significant areas were surveyed by private land surveyors retained by the landowner and the results of the survey were placed on the face of certified survey maps and plats of survey.

- Requests for the field identification and evaluation of environmentally sensitive sites associated with transportation improvement projects. During 1993, 36 such project-related requests were fulfilled, with requests coming from the Wisconsin Depart-

ment of Transportation and the Waukesha County Department of Transportation. The project sites and corridors were largely concentrated in Racine, Washington, and Waukesha Counties (see Map 8).

- Finally, the Commission fulfilled requests for the survey of specific sites to identify and evaluate the flora and fauna present, including a determination as to whether any wetlands and/or rare, threatened, or endangered species occur on the subject site. During 1993, 23 such requests by Federal and State agencies, as well as county and local governments, were fulfilled throughout the Region (see Map 8).

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 future travel will probably 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 1993 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 planning for the elderly and disabled; transportation improvement programming; railway transportation planning; air transportation planning; and data provision and technical assistance.

As the official metropolitan planning organization for transportation planning in the Southeastern Wisconsin Region, the Commission not only conducts transportation planning work

programs with its own staff and with consultants, but also oversees related subregional transportation planning by other governmental agencies. In 1993, 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, whether or not they are directly conducted by the Commission.

DATA COLLECTION, COLLATION, AND DEVELOPMENT

During 1993, 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 13

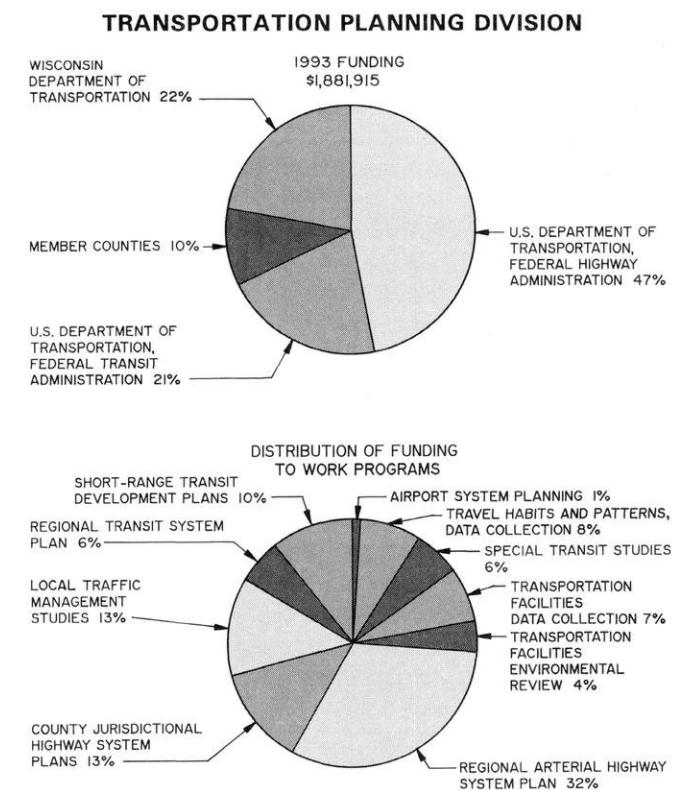


Table 13
AUTOMOBILE AVAILABILITY

County	1963	1972	1992	1993
Kenosha	35,160	48,010	69,340	69,560
Milwaukee	304,120	397,690	452,860	449,350
Ozaukee	14,320	24,430	44,130	44,900
Racine	47,580	68,270	93,630	93,400
Walworth	19,440	27,430	44,450	45,640
Washington	16,240	27,030	54,990	56,620
Waukesha	61,900	102,910	188,880	191,610
Total	498,760	695,770	948,280	951,080

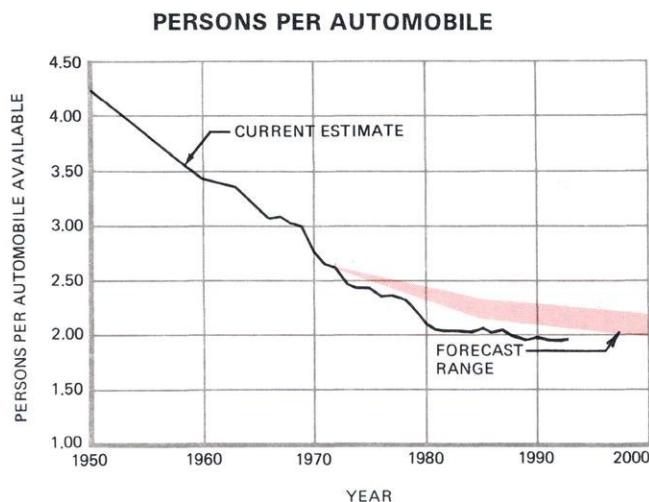
Automobile and Truck Availability

The number of automobiles available to residents of the Region in 1993 totaled about 951,080. This represents an increase of 2,800, or about 0.3 percent, over the 1992 level of 948,280 (see Table 13). Increases in automobile availability in 1993 occurred in each county in the Region, with the exception of Milwaukee and Racine Counties, 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 1993 was 2.2 percent.

The number of persons per automobile within the Region was estimated to be 1.95 in 1993, essentially the same as that estimated in 1992, as shown in Figure 14. The estimated number of automobiles available within the Region in 1993 may be compared to the forecast range of automobile availability as developed under the long-range regional transportation system plan, as shown in Figure 15, which depicts the historical and forecast growth in automobile availability. The 1993 forecast automobile availability ranged from 920,000 under the adopted regional transportation system plan to 1,000,000 under the "no-build" alternative. Thus, the 1993 regional automobile availability of 951,080 was about 4.9 percent lower than the "no-build" forecast, and about 3.4 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 191,720, an increase of about 2,810, or about 1.5 percent, over

Figure 14



the 1992 level of 188,910 trucks (see Table 14 and Figure 16). The increase in 1993 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 both 1992 and 1993. The number of light trucks available in 1993 totaled about 150,110, an increase of 2,230, or about 1.5 percent, over the number of light trucks available in 1992. The number of heavy trucks and municipal trucks totaled 41,610 in 1993, an increase of about 580 trucks, or about 1.4 percent, from the 1992 level of 41,030. The average annual rate of growth in motor truck availability within the Region from 1963 to 1993 was 4.2 percent.

Table 14
TRUCK AVAILABILITY

County	1963	1972	1992	1993
Kenosha	4,860	7,040	18,500	18,700
Milwaukee	25,870	33,350	64,870	64,810
Ozaukee	2,290	3,290	8,480	8,690
Racine	6,200	9,140	22,460	22,750
Walworth	4,490	6,430	15,300	16,060
Washington	3,410	5,400	16,280	16,530
Waukesha	8,280	15,060	43,020	44,180
Total	55,400	79,710	188,910	191,720

Figure 15

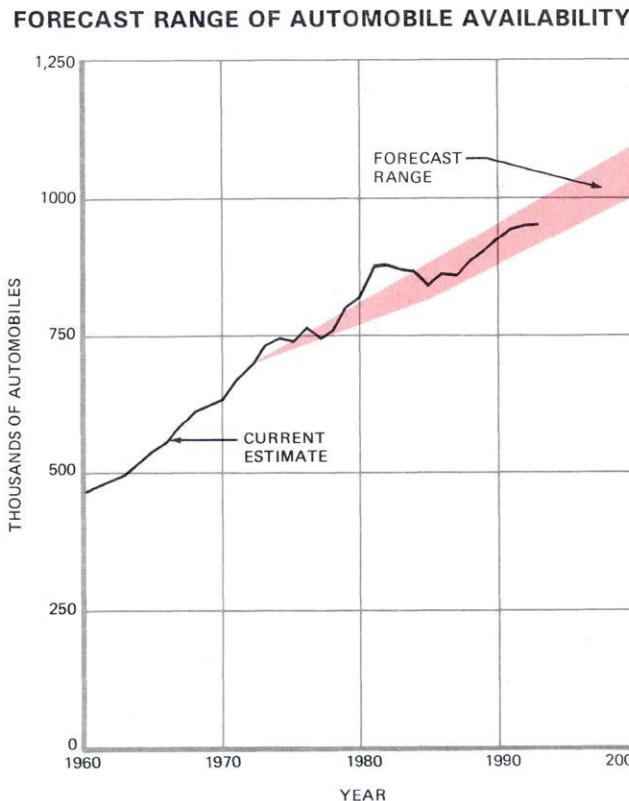
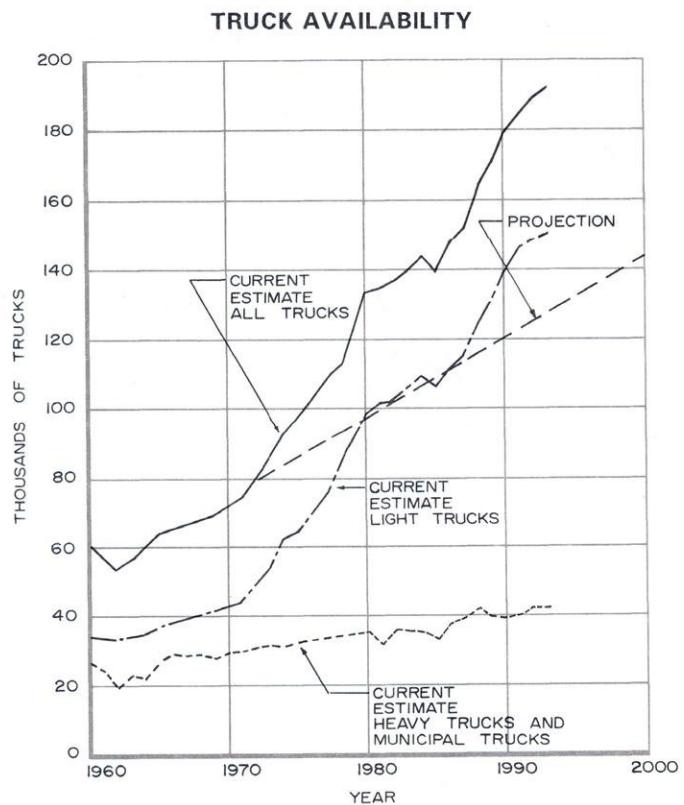


Figure 16



Public Transit Ridership

Publicly owned mass transit service was provided in the Region in 1993 through seven intracounty systems and two intercounty systems (see Table 15 and Figure 17). As shown in Table 15, total public transit ridership in the Region decreased from about 48.6 million passengers in 1992 to about 46.8 million passengers in 1993, a decrease of about 4 percent. This

decrease is largely attributable to the decrease in ridership on the Milwaukee County Transit System, as detailed below.

Intracounty Services

Milwaukee County

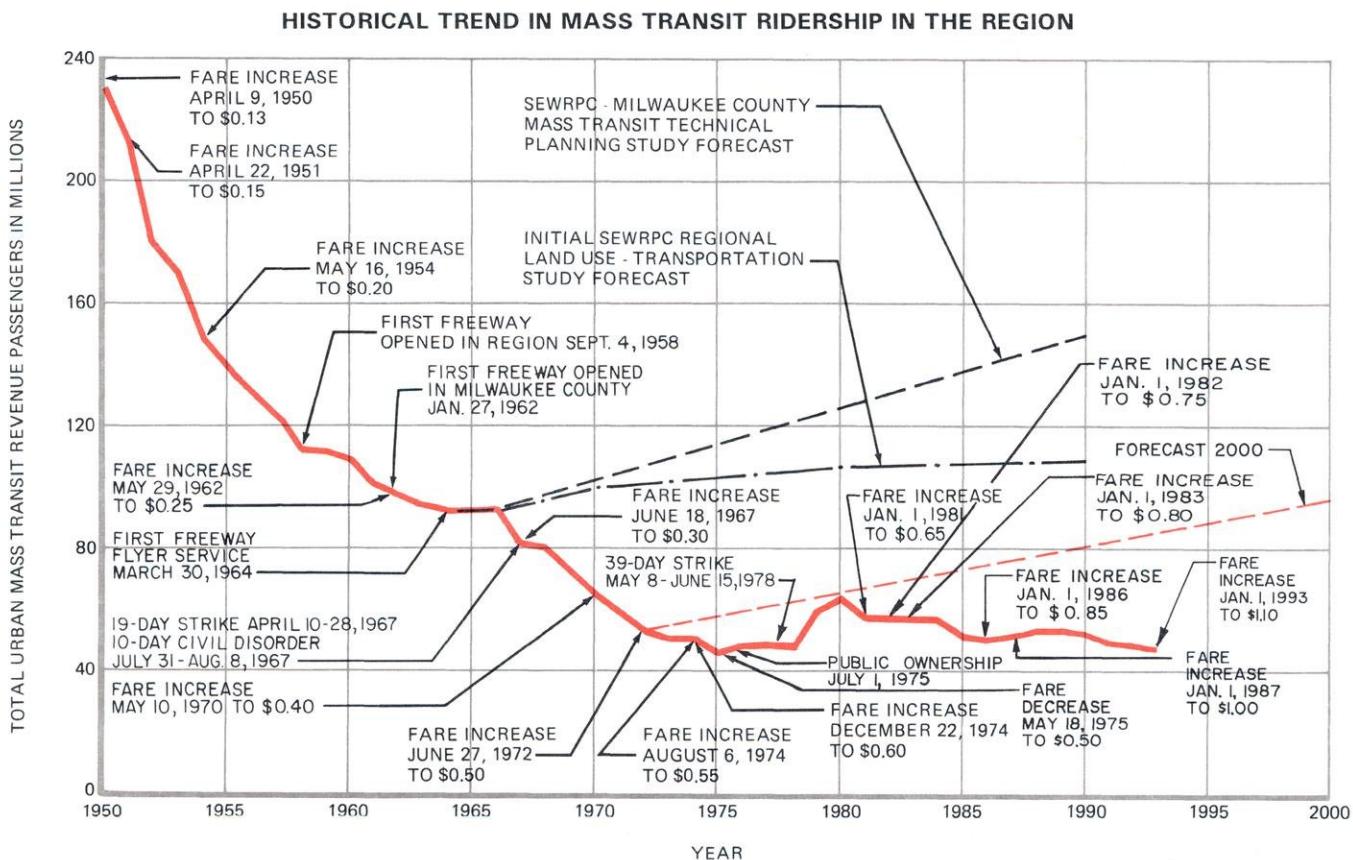
Ridership on the Milwaukee County Transit System, which provides publicly subsidized, fixed-route transit service, decreased by about

Table 15
PUBLIC TRANSIT RIDERSHIP

Transit Services	1963	1972	1991	1992	1993	Percent Change 1992-1993
Intracounty Systems						
Milwaukee County	88,546,000	52,141,000	46,460,000	44,791,300	42,864,200	-4.3
City of Racine	2,907,000	526,000	1,829,000	1,820,600	1,798,100	-1.2
City of Kenosha	1,876,000	503,000	1,128,000	1,103,800	1,148,300	4.0
City of Waukesha	451,000	227,000	434,000	461,300	472,400	2.4
City of Whitewater	--	--	38,000	35,300	41,600	17.8
City of Hartford	--	--	8,000	18,000	19,400	7.8
City of West Bend	--	--	--	--	54,100	--
Subtotal	93,780,000	53,397,000	49,897,000	48,230,300	46,398,100	-3.8
Intercounty Systems						
Waukesha-Milwaukee Counties . . .	534,000 ^a	240,000	290,000	299,400	310,600	3.7
Kenosha-Racine-Milwaukee Counties	230,000 ^a	153,000	82,000	82,600	79,500	-3.8
Subtotal	764,000	393,000	372,000	382,000	390,100	2.1
Region Total	94,544,000	53,790,000	50,269,000	48,612,300	46,788,200	-3.8

^aEstimated.

Figure 17



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.

Figure 18

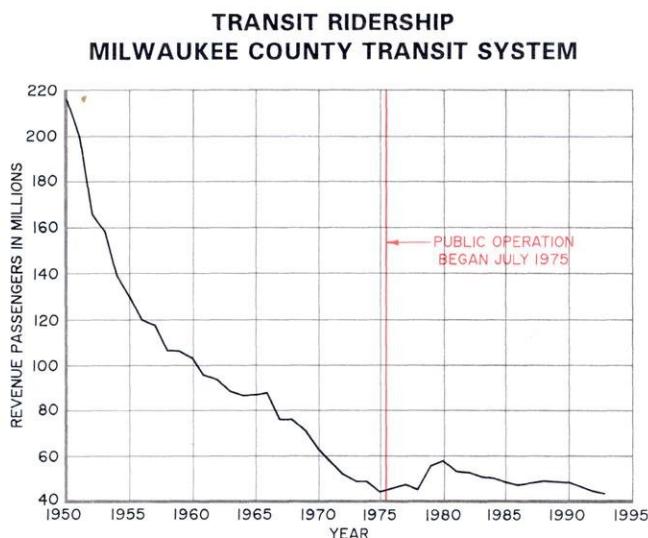
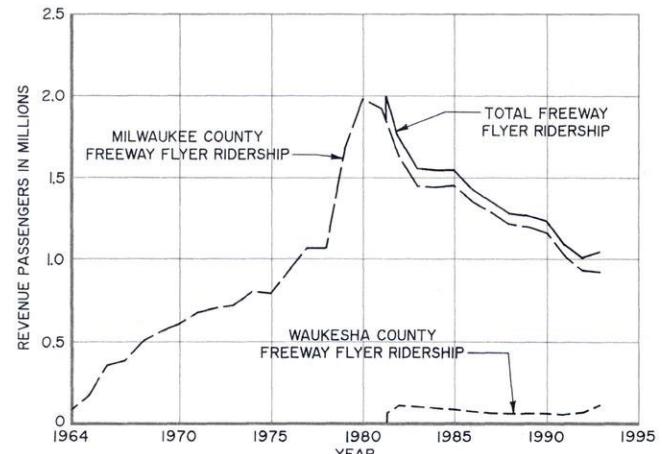


Figure 19

FREEWAY FLYER RIDERSHIP: MILWAUKEE AND WAUKESHA COUNTY TRANSIT SYSTEMS



4 percent from the 1992 level of about 44.8 million revenue passengers to about 42.9 million revenue passengers (see Figure 18). This decrease in systemwide ridership occurred even though the transit system implemented a second major express bus route serving the southwest corridor of the County between the Milwaukee central business district and the Southridge Shopping Center. A portion of the decrease in ridership may be attributed to an increase in the basic cash fare for the Milwaukee County Transit System, which was raised from \$1.00 to \$1.10 per one-way trip in January 1993. Also raised were fares for freeway flyer bus service, which were increased from \$1.25 to \$1.35 per one-way trip, and the price of a weekly pass or a book of 10 tickets, which increased from \$8.50 to \$8.75. The number of bus miles operated in revenue service by the Milwaukee County Transit System decreased by about 1 percent during 1993, from about 17.8 million bus miles in 1992 to about 17.6 million bus miles in 1993.

During 1993, freeway flyer bus service was operated by Milwaukee County from 15 outlying parking terminals to either the Milwaukee central business district or the University of Wisconsin-Milwaukee. Ridership on the freeway flyer bus service totaled about 921,000 revenue passengers in 1993, a decrease of about 1 percent from the 929,200 revenue passengers carried in

1992 (see Figure 19). This decrease in freeway flyer ridership may be attributed in part to continued low fuel prices, ample and reasonably priced parking in the Milwaukee central business district, and the continuing decentralization of homes and jobs to outlying communities.

City of Racine

During 1993, ridership on the fixed-route public transit system serving the City of Racine decreased by about 1 percent, from the 1992 level of approximately 1,820,600 revenue passengers to about 1,798,100 revenue passengers in 1993 (see Figure 20). The number of bus miles operated in revenue service decreased by about 2 percent during 1993, from about 1,257,300 bus miles in 1992 to about 1,226,900 bus miles in 1993. The ridership decrease for 1993 can be attributed in part to service reductions implemented in May 1993 at the request of the Town of Mt. Pleasant. The service reductions entailed eliminating service over portions of two bus routes which had been provided on a contract basis to the Town. The basic fare for the Racine transit system remained at \$0.60 in 1993, unchanged from 1992.

Transit ridership declines on the City of Racine transit system during 1982 and 1983 and again during the years 1985 through 1993 broke a

Figure 20

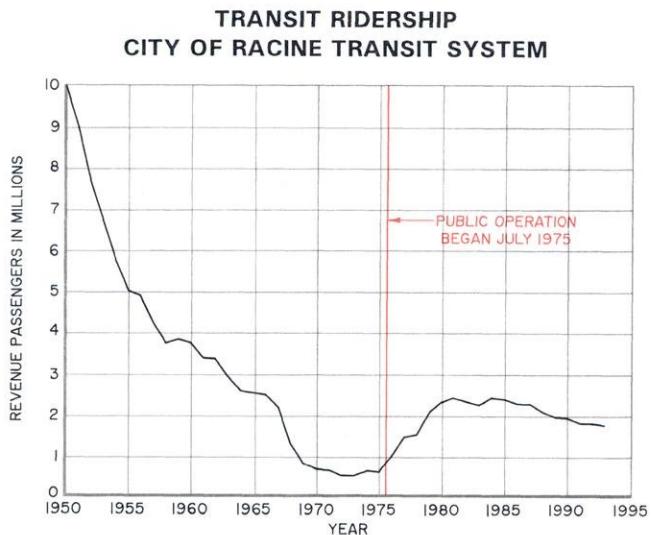
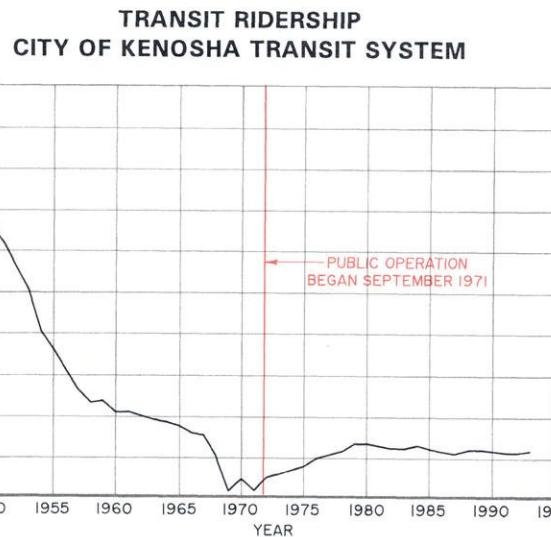


Figure 21



trend of increasing ridership which began in July 1975 upon 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 through 1979.¹ Nearly all 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 through 1988.² Several of the routing changes recommended under the new plan were implemented by the transit system by December 1985. During 1993, the Commission completed work on a third Racine-area transit system development plan for the period 1993 through 1997.³ Details regarding this plan are set forth in a separate section of this Annual Report.

City of Kenosha

Ridership on the fixed-route public transit system serving the City of Kenosha increased during 1993 (see Figure 21). Ridership during the year approximated 1,148,300 revenue passengers, an increase of about 4 percent from the 1992 ridership level of about 1,103,800 revenue passengers. The number of bus miles operated in revenue service totaled about 860,800, an increase of about 10 percent from the 781,600 bus miles operated during 1992. The increases in system ridership and service levels in 1993 may be largely attributed to changes to the transit system implemented in midyear. These changes included the addition of a new route serving the north side of the City; a reduction in peak-period headways from 60 to 30 minutes on two bus routes; and the establishment of two new satellite transfer centers outside of the Kenosha central business district. These routing and service changes were based on the recommendations of a new transit system development plan completed by the Commission in 1991, as noted below. The basic fare for the Kenosha system was raised from \$0.60 to \$0.75 per one-way trip in August 1993.

¹See SEWRPC Community Assistance Planning Report No. 3, Racine Area Transit Development Program: 1975-1979, June 1974.

²See SEWRPC Community Assistance Planning Report No. 79, Racine Area Transit System Plan and Program: 1984-1988, May 1984.

³See SEWRPC Community Assistance Planning Report No. 204, Racine Transit System Development Plan: 1993-1997, City of Racine, Wisconsin, June 1993.

To assist in the public operation of the transit system, the Commission prepared, at the request of the City, a five-year transit system development plan in 1976 for the years 1976 through 1980.⁴ 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 system development plan for the City of Kenosha transit system for the period from 1984 through 1988.⁵ Virtually all the routing changes recommended under the new plan were implemented by the transit system in late December 1984. During 1991, the Commission completed work on a third transit system development plan for the period from 1991 through 1995.⁶ This plan, described in the Commission's 1991 Annual Report, was adopted by the Commission as an element of the regional transportation plan in June 1992, thus superseding the second-generation plan adopted in 1985. The majority of the routing and service changes recommended under the new plan were implemented by the City in August 1993.

City of Waukesha

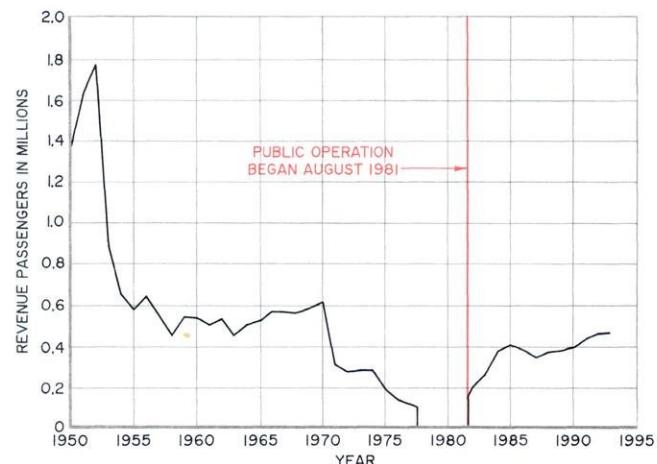
Local bus service was reestablished in the City of Waukesha in August 1981, when the City placed into full-scale operation a new fixed-route transit system. The community had previously been without public transit service since June 1976, when local bus service provided by a private transit operator 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.⁷ The new Waukesha transit system and its routes, schedule, service levels, and fare structure were implemented essentially as recommended by

⁴See SEWRPC Community Assistance Planning Report No. 7, Kenosha Area Transit Development Program: 1976-1980, March 1976.

⁵See SEWRPC Community Assistance Planning Report No. 101, Kenosha Area Transit System Plan and Program: 1984-1988, June 1984.

⁶See SEWRPC Community Assistance Planning Report No. 183, Kenosha Transit System Development Plan: 1991-1995, September 1991.

Figure 22
TRANSIT RIDERSHIP
CITY OF WAUKESHA TRANSIT SYSTEM



that plan. In December 1989 the Commission completed work on another transit development plan for the period from 1988 through 1992.⁸ During calendar year 1993, the system carried approximately 472,400 revenue passengers, an increase of about 2 percent over the 461,300 revenue passengers carried on the system during 1992 (see Figure 22). This increase in ridership may be attributed in part to the extension of bus service over one route into the Blue Mound Road corridor in the Town of Brookfield and the City of Brookfield in late 1992. The number of bus miles operated in revenue service totaled about 561,500, an increase of about 7 percent from the 523,900 bus miles operated in 1992. The basic fare for the City of Waukesha transit system during 1993 was \$0.60, unchanged from 1992.

City of Whitewater

In January 1986, the City of Whitewater in Walworth County initiated operation of a shared-ride taxicab service. Operated on a

⁷See SEWRPC Community Assistance Planning Report No. 31, Waukesha Area Transit Development Program: 1981-1985, February 1980.

⁸See SEWRPC Community Assistance Planning Report No. 154, A Transit System Development Plan for the City of Waukesha: 1988-1992, December 1989.

Figure 23

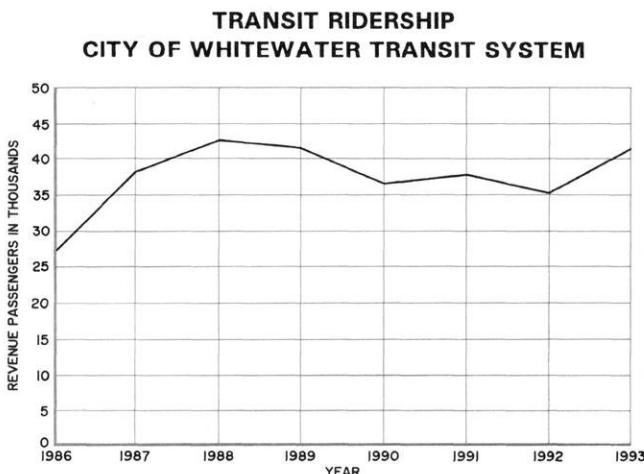
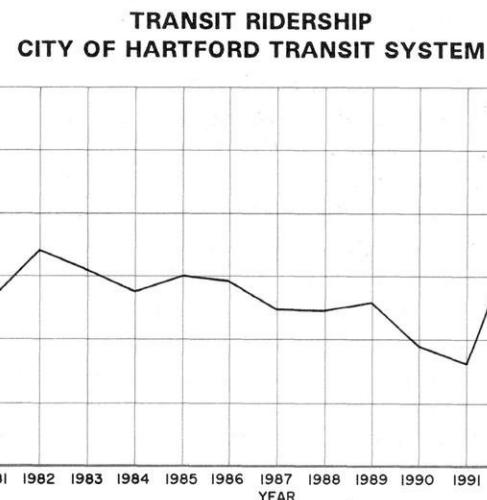


Figure 24



contract basis 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. The service was initiated using Federal funds available for capital and operating assistance under the Federal Section 18 rural transportation assistance program. During 1993, the Whitewater taxicab service carried approximately 41,600 revenue passengers, an increase of about 18 percent from the 35,300 revenue passengers carried in 1992 (see Figure 23). It operated about 82,400 total vehicle miles during 1993, an increase of about 50 percent from the 54,800 total vehicle miles operated in 1992. During 1993, adult fares for the service remained at \$2.00 per one-way trip, with a half-fare program provided for students and elderly and disabled users.

City of Hartford

Publicly operated transit service was also provided during 1993 by the City of Hartford in Washington County, which operated a shared-ride taxicab service through 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. During 1993, the Hartford taxicab service carried approximately 19,400 revenue passengers and operated about 46,600 total vehicle miles. These figures represent an increase of about

8 percent from the 18,000 revenue passengers carried in 1992 (see Figure 24), and an increase of about 2 percent from the 45,600 total vehicle miles operated during 1992. The increase in ridership for 1993 occurred despite an increase in passenger fares from \$1.00 per one-way trip in 1992 to \$1.25 per one-way trip in 1993. The fare applies to all persons over three years of age traveling within the City limits.

City of West Bend

On January 21, 1993, the City of West Bend initiated operation of a new publicly subsidized shared-ride taxicab system to provide public transit service within the City and its environs. The institution of this taxicab service was guided by a transit system development plan prepared by the Regional Planning Commission in 1991 at the request of the City.⁹ The operating characteristics of the new West Bend shared-ride taxicab system, including its service levels and fare structure, were implemented essentially as recommended in that plan. The taxicab service is available seven days a week for travel pri-

⁹See SEWRPC Community Assistance Planning Report No. 189, A Transit System Feasibility Study and Development Plan for the City of West Bend: 1992-1996, February 1991.

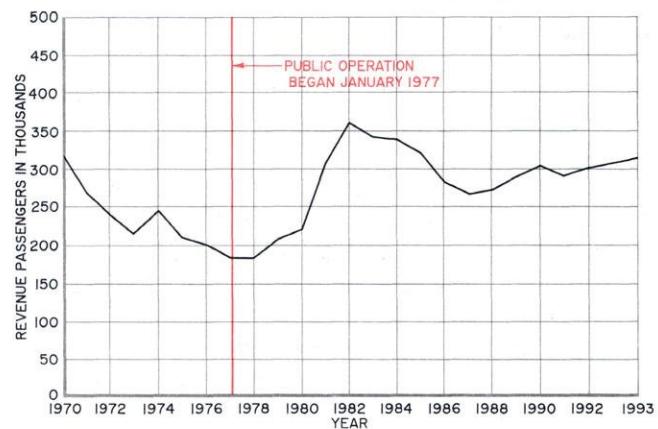
marily within the City of West Bend and immediately adjacent areas, and is operated on a contract basis by Johnson School Bus Service, Inc. During 1993, the West Bend taxicab service carried approximately 54,100 revenue passengers and operated about 184,500 total vehicle miles of service. The actual ridership on the taxicab system was about 46 percent above the forecast ridership of about 37,100 revenue passengers for the first year of system operation. The taxicab service charges a base adult fare of \$2.00 per one-way trip with reduced fares available for students, elderly persons and persons with disabilities, and groups of riders traveling between the same origin and destination.

Intercounty Services

Waukesha County

During 1993, Waukesha County operated nine regular bus routes serving the major travel corridor between Waukesha County and downtown Milwaukee, an increase of two routes over the seven provided during 1992. Waukesha County contracts for all elements of their operation from two transit operators in the Milwaukee area. Seven of the routes are operated by Wisconsin Coach Lines, Inc., and the remaining two are operated by Milwaukee County as extensions of the Milwaukee County Transit System. The seven routes operated by Wisconsin Coach Lines included two routes between Waukesha and downtown Milwaukee and one route between Oconomowoc and downtown Milwaukee which have been sponsored by Waukesha County since 1977; a freeway flyer route operated between Oconomowoc and downtown Milwaukee, initiated by Waukesha County in 1981; and a freeway flyer route operated between Mukwonago and downtown Milwaukee, initiated in 1992. The remaining two Wisconsin Coach Lines, Inc., routes include a new freeway flyer route between Waukesha and downtown Milwaukee resulting from a restructuring of the Waukesha-Milwaukee bus routes implemented in 1993; and a new fixed-route deviation shuttle bus route between the New Berlin Industrial Park and a bus stop at the Brookfield Square Shopping Center, also initiated in 1993. The two routes operated by the Milwaukee County Transit System were initiated in 1981 and include one freeway flyer bus route operated between the Village of Menomonee Falls and downtown Milwaukee and one route providing local bus

Figure 25
TRANSIT RIDERSHIP
WAUKESHA COUNTY TRANSIT SYSTEM



service from Milwaukee County to the Brookfield Square Shopping Center. The bus routes initiated during 1981 were three 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 service be implemented on a trial basis.¹⁰ Additional service changes were made in 1988 on the basis of the analyses and recommendations presented in a new transit service plan for Waukesha County completed by the Commission in that year.¹¹

During 1993, total ridership on the Waukesha County transit system increased by about 4 percent, from 299,400 trips in 1992 to 310,600 trips in 1993 (see Figure 25). Transit fares on the Waukesha County Transit System, which are distance-related, were between \$1.00 and \$2.50 in 1993, unchanged from 1992. The number of bus

¹⁰See SEWRPC Community Assistance Planning Report No. 44, Proposed Public Transit Service Improvements—1980, Waukesha County, Wisconsin, July 1980.

¹¹See SEWRPC Community Assistance Planning Report No. 105, Waukesha County Transit Plan: 1988-1992, September 1988.

miles operated in revenue service increased from about 412,500 bus miles in 1992 to about 485,200 bus miles in 1993, or by about 18 percent.

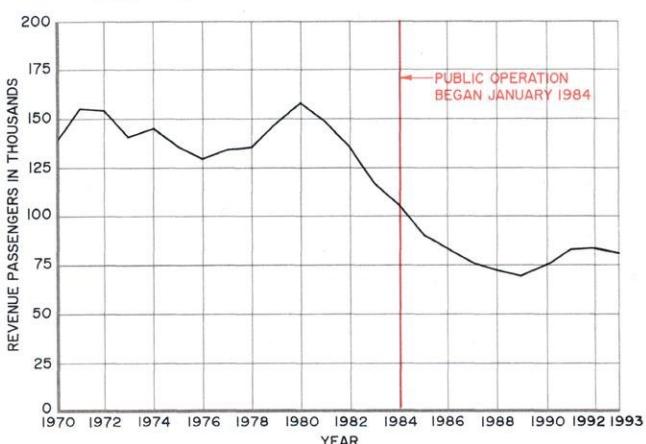
As noted above, four of the nine routes operated by Waukesha County in 1993 were operated as freeway flyer routes. As shown in Figure 19, total ridership on freeway flyer routes operated by Waukesha County in 1993 was about 119,400 revenue passengers, an increase of 53 percent from the 78,200 revenue passengers carried on Waukesha County-operated freeway flyer routes in 1992. Most of this increase can be attributed to the restructuring in 1993 of the Wisconsin Coach Lines, Inc., bus routes operating between Waukesha and downtown Milwaukee, which provided additional freeway flyer bus service in this corridor. The freeway flyer service in Waukesha County served a total of seven outlying parking terminals in 1993.

Kenosha-Racine-Milwaukee Service

During 1993, the City of Racine, in a joint effort with the City of Kenosha and with Racine and Kenosha Counties, continued to provide commuter bus service between downtown Milwaukee and the Racine and Kenosha areas. The commuter bus service had been provided by a private transit operator, Wisconsin Coach Lines, Inc. This service is provided over surface arterial streets as an express bus service. Until 1984, the route was operated without public subsidy; the passenger and freight revenues were sufficient to offset the operating costs. More recently, however, the operation of the route suffered a loss. During 1984, the company approached the four governmental units and asked for financial subsidy for the operation of the route. As a result, the four local units of government joined to help provide the company with the necessary financial assistance, through the State of Wisconsin, to operate the bus service.

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 commuter 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 79,500 revenue passengers during 1993, a decrease of about 4 percent from the 1992 ridership level of about 82,600 revenue pas-

Figure 26
TRANSIT RIDERSHIP: KENOSHA-RACINE-MILWAUKEE AREA TRANSIT SERVICE



sengers (see Figure 26). The number of bus miles operated in revenue service increased slightly, from 254,400 bus miles in 1992 to 268,300 bus miles in 1993, an increase of about 5 percent. Transit fares for the express commuter bus service, which are distance-related, ranged from \$1.00 to \$4.20 per one-way trip in 1993, unchanged from 1992.

Public Transit Stations

Progress in providing the public transit stations recommended in the adopted year 2000 transportation plan is summarized on Map 9. During 1993, one new public transit station was constructed at the intersection of IH 94 and W. Ryan Road in Milwaukee County, bringing the total number of existing transit stations with parking facilities to 20 for 1993 versus 19 existing stations in 1992.¹² The number of

¹²The number of transit stations with parking facilities existing in the Region in 1992, given as 19 in this report, is one greater than the 18 reported as existing in 1992 in the Commission's 1992 Annual Report. The change in the number of stations reported for 1992 is the result of the reclassification of an existing facility as a public transit station. The totals given for available parking spaces and parking space utilization for 1992 have been adjusted accordingly.

Map 9

RAPID TRANSIT SYSTEM
PLAN FOR THE REGION: 2000

LEGEND

EXISTING SYSTEM

- TRANSIT STATION-PRIVATE RETAIL CENTER
- ▲ TRANSIT STATION-PUBLICLY CONSTRUCTED
- IO STATION NUMBER (SEE TABLE I-6)
- RAPID BUS-ON-FREWAY TRANSIT ROUTE
- NONFREEWAY EXTENSION OF RAPID TRANSIT ROUTE

2000 ADOPTED PLAN

- ▲ PROPOSED TRANSIT STATION-PUBLICLY CONSTRUCTED
- PROPOSED EXPRESS BUS-ON-FREWAY TRANSIT ROUTE
- PROPOSED NONFREEWAY EXTENSION
- PROPOSED DEMONSTRATION COMMUTER RAIL TRANSIT LINE



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

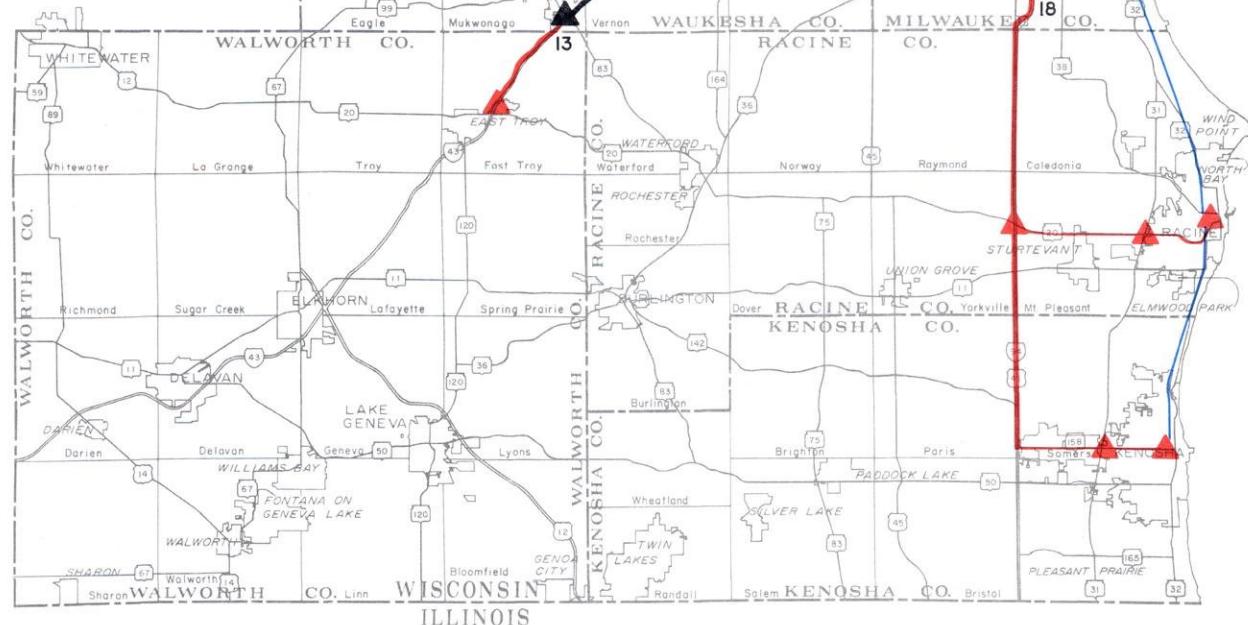


Table 16

AVERAGE WEEKDAY USE OF PARKING AT FREEWAY FLYER TERMINALS: 1993

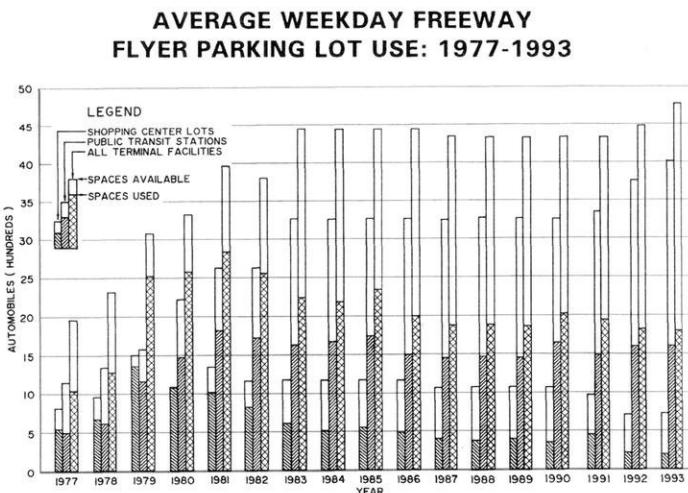
Number ^a	Location	Available Parking Spaces	Autos Parked on an Average Weekday: 1993	Percent of Spaces Used
	Public Transit Stations			
1	Milwaukee Area Technical College (Mequon)	200	14 ^b	7
2	Northridge (Milwaukee)	100	31	31
3	Brown Deer (River Hills)	250	124	50
4	North Shore (Glendale)	120 ^c	37	31
5	Pilgrim Road (Menomonee Falls)	65	61	94
6	W. Good Hope Road (Milwaukee)	135	13 ^b	10
7	Timmerman Field (Milwaukee)	140	33	24
8	W. Watertown Plank Road (Wauwatosa)	200	86	43
9	STH 67 and CTH DR (Summit)	80	48	60
10	IH 94 and CTH G (Pewaukee)	50	27	54
11	Goerke's Corners (Brookfield)	250	146	58
12	State Fair Park (Milwaukee)	200	147	74
13	IH 43 and STH 83 (Mukwonago)	95	49	52
14	IH 43 and STH 164 (Big Bend)	100	29	29
15	IH 43 and Moorland Road (New Berlin)	200	31	16
16	Whitnall (Hales Corners)	370	214	58
17	W. Loomis Road (Greenfield)	415	123	30
18	Ryan Road (Oak Creek)	300	41	14
19	W. College Avenue (Milwaukee)	530	263	50
20	W. Holt Avenue (Milwaukee)	240	78	33
	Subtotal	4,040	1,595	39
	Shopping Center Lots			
21	Kohl's (Brown Deer)	125	60	48
22	Silver Mill (Milwaukee)	100	13	13
23	Phar-Mor (Brookfield)	200	50	25
24	Olympia (Oconomowoc)	50	- ^d	- ^d
25	Southridge (Greendale)	250	70	28
	Subtotal	725	193	27
--	Total	4,765	1,788	38

^aSee Map 9.^bPublic transit service was not provided to this station during 1993. The number of autos parked represents use by carpoolers.^cThe capacity of the North Shore Transit Station was reduced from 175 spaces to 120 spaces in 1993 as a result of the 1992 reconstruction of the IH 43/W. Silver Spring Drive interchange.^dData not available.

shopping center lots used as freeway flyer terminal facilities remained at five during 1993. Table 16 and Figure 27 provide data on both the number of parking spaces available and the number of parking spaces used on an average weekday in 1993 at all transit stations by patrons of freeway flyer bus service and carpoolers. As shown in the table, transit service was

provided at 18 of the 20 public transit/park-ride stations and at five shopping center lots. The total of 25 freeway flyer terminal facilities represents an increase of one facility from the 24 facilities that existed in 1992. The number of spaces available at public transit/park-ride stations increased to 4,040 spaces in 1993 from 3,795 spaces in 1992, and at shopping center lots

Figure 27



remained at 725 spaces in 1993. The total number of spaces available increased to 4,765 spaces in 1993 from the 4,520 spaces available in 1992.

Of the 4,040 spaces available at the 20 public transit/park-ride stations, 1,595 spaces were used on an average weekday during 1993, a utilization rate of about 39 percent. Of the 725 spaces available at the five shopping center lots, 193 spaces were utilized during 1993, a utilization rate of about 27 percent. In total, about 38 percent of all available parking spaces were used on an average weekday during 1993.

Public Transit Operating Subsidies

Transit operating subsidies in the Region during 1993 totaled about \$66.4 million, compared with about \$59.5 million during 1992, as shown in Table 17. The per-ride operating subsidies for the individual intracounty public transit operators in the Region in 1992 and 1993, respectively, were as follows: Milwaukee County, \$1.15 and \$1.35 (see Figure 28); City of Racine, \$1.63 and \$1.71 (see Figure 29); City of Kenosha, \$1.68 and \$1.75 (see Figure 30); City of Waukesha, \$2.59 and \$2.81 (see Figure 31); City of Whitewater, \$2.34 and \$2.18 (see Figure 32); and City of Hartford, \$5.10 and \$3.91 (see Figure 33). For the City of West Bend system, which began operation in 1993, the per-ride operating subsidy for that year was \$3.97. For the Waukesha County transit service, the per-ride operating subsidies

in 1992 and 1993, respectively, were \$4.14 and \$4.76 (see Figure 34); for the Kenosha-Racine-Milwaukee County transit service, the per-ride operating subsidies in 1992 and 1993, respectively, were \$5.11 and \$5.03 (see Figure 35).

Carpool Parking Facilities

During 1993, the Commission collected data on the use of available parking supply at carpool parking facilities within the Region. As shown in Table 18, 18 publicly owned carpool parking facilities were in operation at key freeway interchanges in the outlying areas of the Region in 1993. During 1993, about 459 of the total 1,260 parking spaces available were used on an average weekday (see Figure 36). This represents a utilization rate of 36 percent in 1993, about the same as that of 1992. The progress in providing the carpool parking lots recommended in the adopted year 2000 regional transportation plan is summarized on Map 10.

Traffic Count Data

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.

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, May 1978. The plan extends and amends the regional transportation system plan for the design year 1990 adopted in 1966. The adopted plan, as amended from time to time since 1978, is summarized graphically on Map 11. 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 27 percent, from a total of about 4.5

Table 17
PUBLIC TRANSIT OPERATING SUBSIDIES WITHIN THE REGION: 1992-1993

Transit Services	Public Transit Operating Assistance (dollars)							
	1992 Actual				1993 Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Intracounty Services								
Milwaukee County	5,123,100	35,040,400	11,530,100	51,693,600	5,089,900	37,873,300	14,738,300	57,701,500
City of Racine	907,200	1,578,400	479,100	2,964,700	830,800	1,655,000	597,900	3,083,700
City of Kenosha	549,900	982,500	320,300	1,852,700	540,800	1,077,500	391,500	2,009,800
City of Waukesha	185,100	633,400	375,000	1,193,500	191,200	706,300	428,700	1,326,200
City of Whiteewater	30,300	52,300	--	82,600	35,900	54,600	--	90,500
City of Hartford	29,200	43,800	18,800	91,800	28,500	42,700	4,700	75,900
City of West Bend	--	--	--	--	73,100	109,700	32,000	214,800
Subtotal	6,824,800	38,330,800	12,723,300	57,878,900	6,790,200	41,519,100	16,193,100	64,502,400
Intercounty Services								
Waukesha-Milwaukee Counties	335,600	749,900	155,100	1,240,600	358,400	939,500	179,600	1,477,500
Kenosha-Racine-Milwaukee Counties ...	--	283,800	138,000	421,800	--	278,300	121,800	400,100
Subtotal	335,600	1,033,700	293,100	1,662,400	358,400	1,217,800	301,400	1,877,600
Region Total	7,160,400	39,364,500	13,016,400	59,541,300	7,148,600	42,736,900	16,494,500	66,380,000

Transit Services	Operating Subsidy per Ride (dollars)							
	1992 Actual				1993 Estimated			
	Federal	State	Local	Total	Federal	State	Local	Total
Intracounty Services								
Milwaukee County	0.11	0.78	0.26	1.15	0.12	0.88	0.35	1.35
City of Racine	0.50	0.87	0.26	1.63	0.46	0.92	0.33	1.71
City of Kenosha	0.50	0.89	0.29	1.68	0.47	0.94	0.34	1.75
City of Waukesha	0.40	1.37	0.82	2.59	0.40	1.50	0.91	2.81
City of Whiteewater	0.86	1.48	--	2.34	0.86	1.31	0.01	2.18
City of Hartford	1.62	2.43	1.05	5.10	1.47	2.20	0.24	3.91
City of West Bend	--	--	--	--	1.35	2.03	0.59	3.97
Average	0.14	0.79	0.27	1.20	0.15	0.89	0.35	1.39
Intercounty Services								
Waukesha-Milwaukee Counties	1.12	2.50	0.52	4.14	1.15	3.02	0.59	4.76
Kenosha-Racine-Milwaukee Counties ...	--	3.44	1.67	5.11	--	3.50	1.53	5.03
Average	0.88	2.71	0.76	4.35	0.92	3.12	0.77	4.81
Region Average	0.15	0.81	0.26	1.22	0.15	0.91	0.36	1.42

Figure 28

PUBLIC TRANSIT OPERATING SUBSIDIES: MILWAUKEE COUNTY TRANSIT SYSTEM

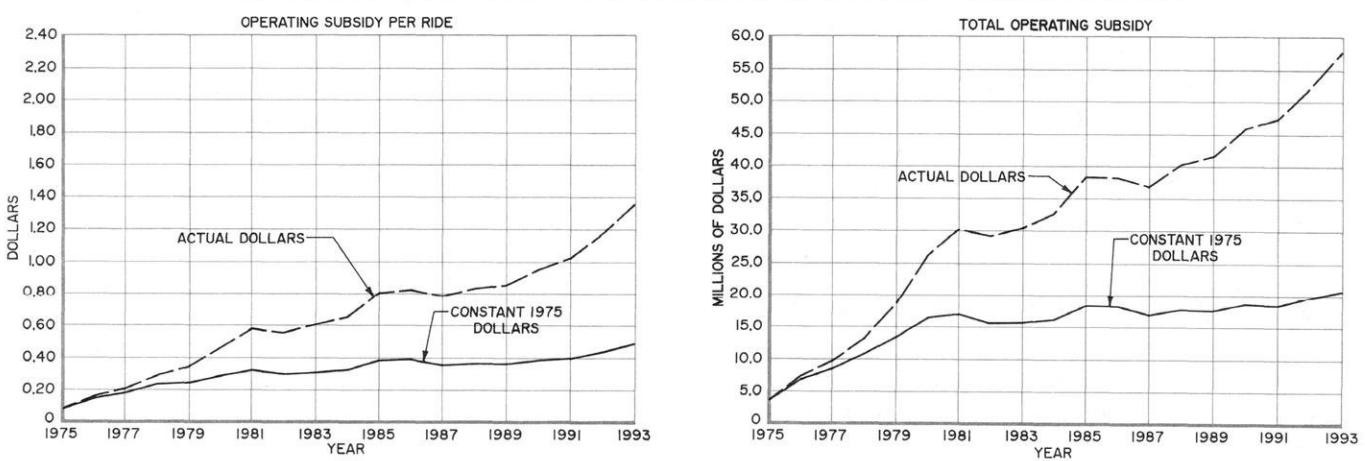


Figure 29

PUBLIC TRANSIT OPERATING SUBSIDIES: CITY OF RACINE TRANSIT SYSTEM

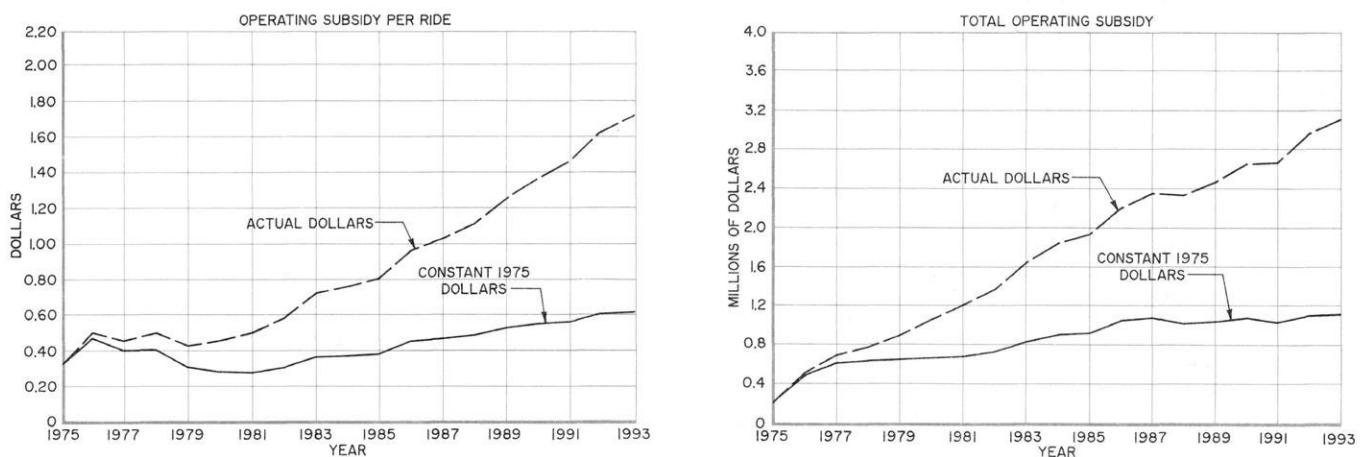


Figure 30

PUBLIC TRANSIT OPERATING SUBSIDIES: CITY OF KENOSHA TRANSIT SYSTEM

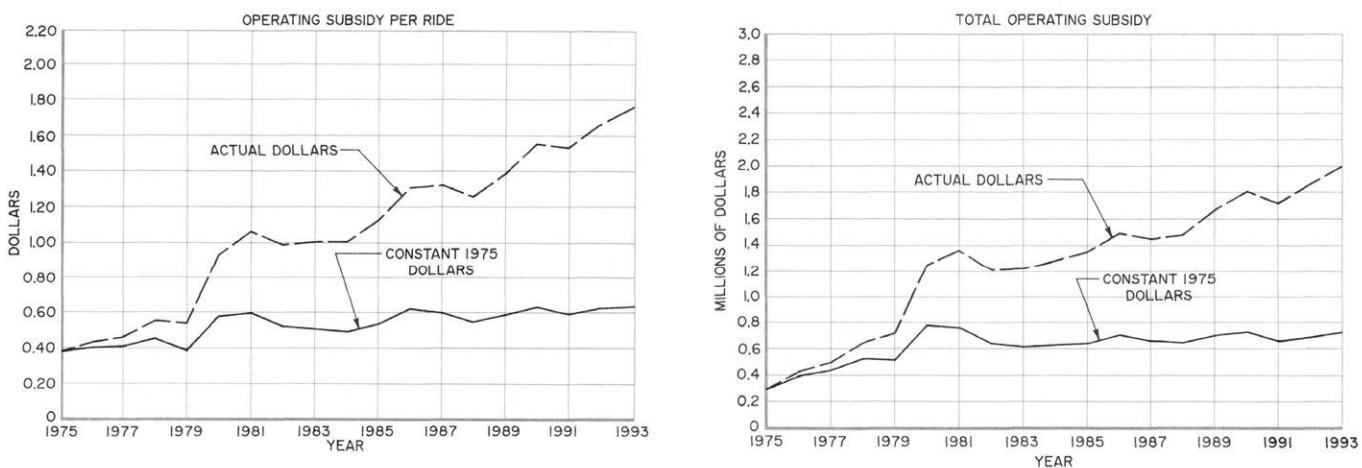


Figure 31

PUBLIC TRANSIT OPERATING SUBSIDIES: CITY OF WAUKESHA TRANSIT SYSTEM

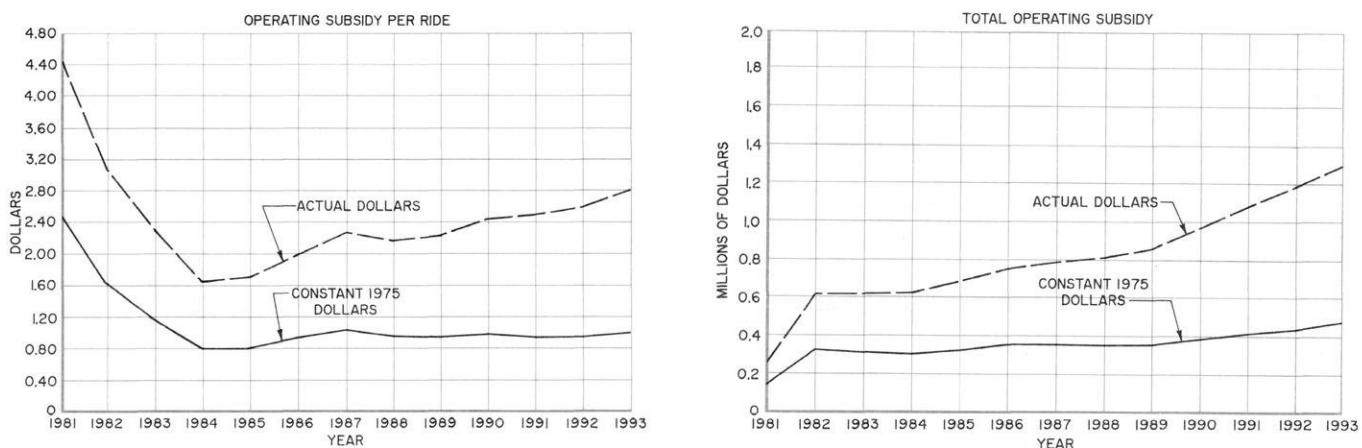


Figure 32

PUBLIC TRANSIT OPERATING SUBSIDIES: CITY OF WHITEWATER TRANSIT SYSTEM

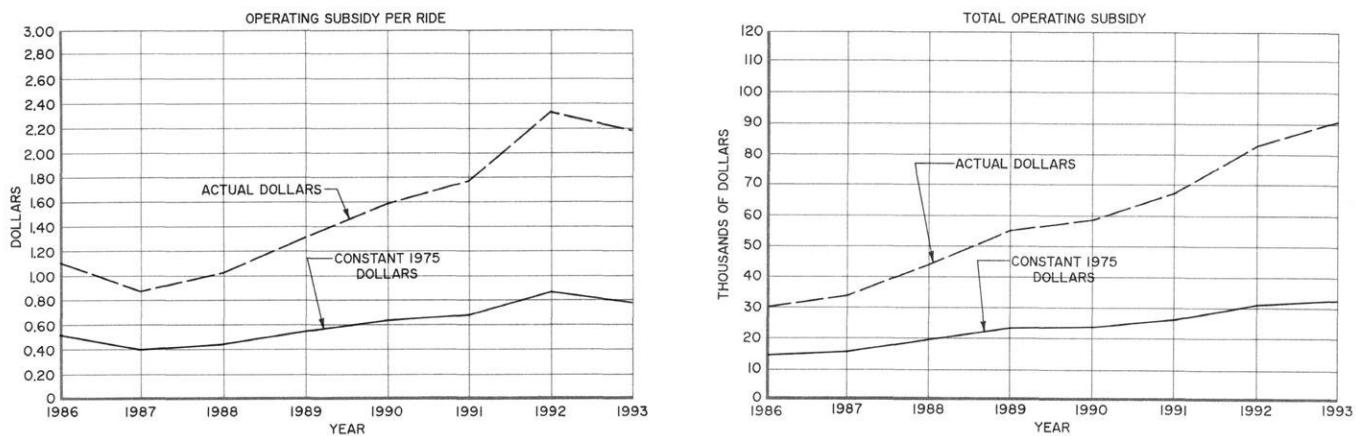


Figure 33

PUBLIC TRANSIT OPERATING SUBSIDIES: CITY OF HARTFORD TRANSIT SYSTEM

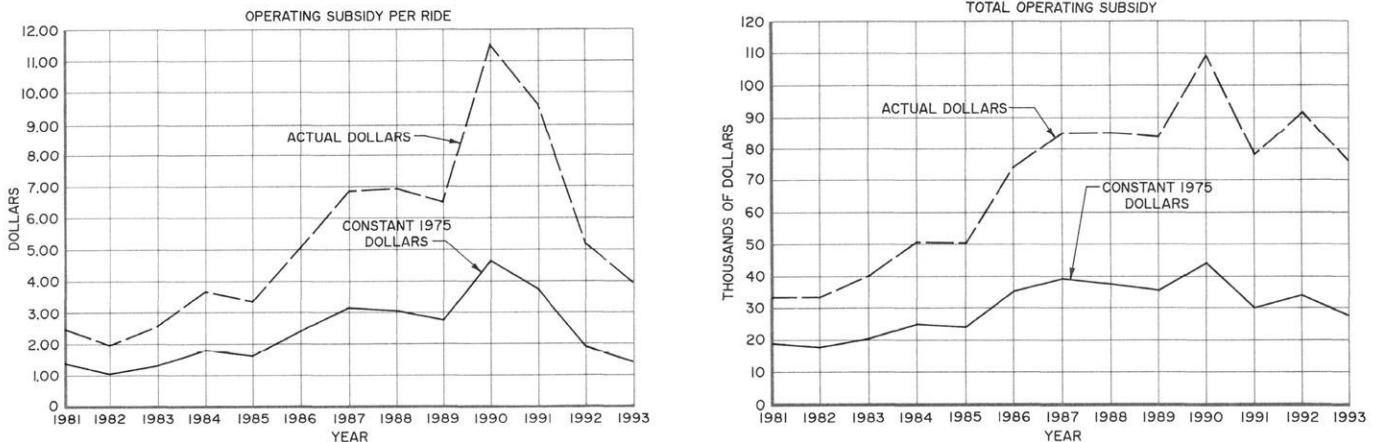


Figure 34

PUBLIC TRANSIT OPERATING SUBSIDIES: WAUKESHA COUNTY TRANSIT SYSTEM

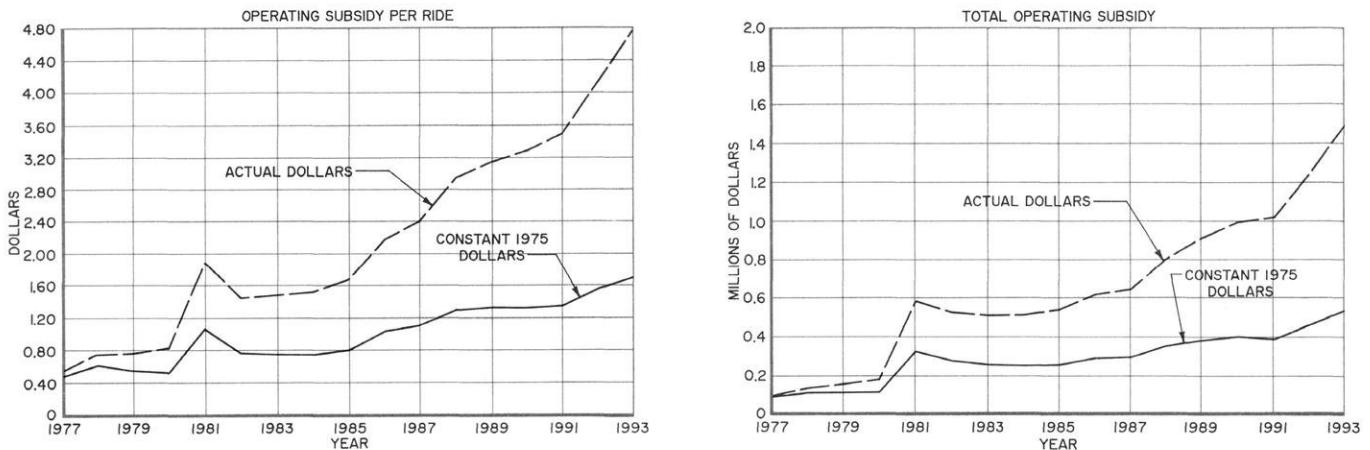
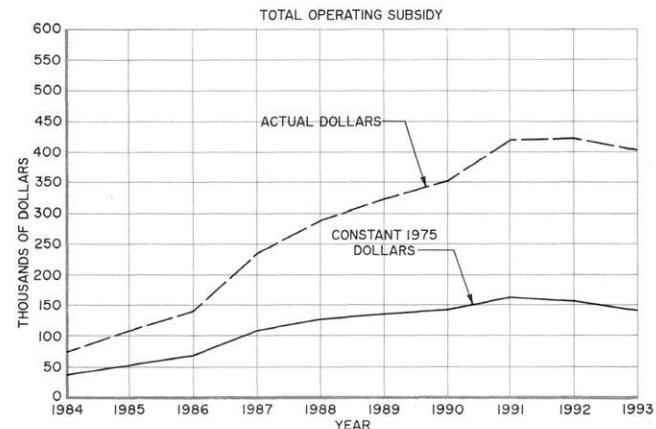
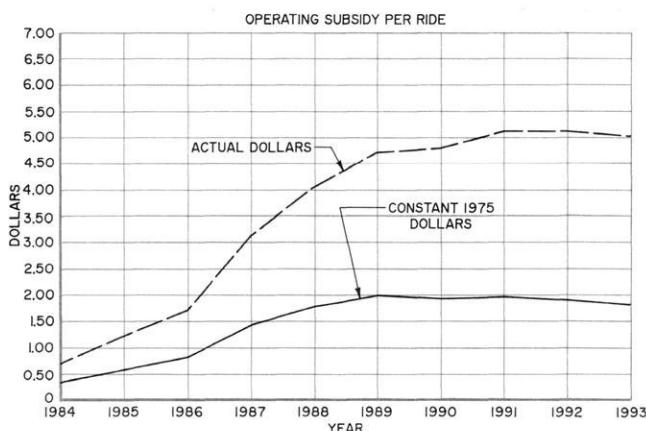


Figure 35

PUBLIC TRANSIT OPERATING SUBSIDIES: KENOSHA-RACINE-MILWAUKEE COUNTY TRANSIT SYSTEM



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 regional land use objectives.

New Third-Generation Regional Transportation System Plan under Preparation

During 1993, work continued on the preparation of a new, third-generation, design year 2010 regional transportation system plan. This new plan, which is being prepared as part of the Commission's periodic review and reappraisal of major elements of the comprehensive regional plan, is being designed to serve and promote implementation of the adopted third-generation regional land use plan. The new plan is also being designed to meet the requirements of the Federal Intermodal Surface Transportation Efficiency Act of 1991 and the Federal Clean Air Act Amendments of 1990, and must also be fully coordinated with the forthcoming Wisconsin State Air Quality Implementation Plan.

The new plan is being designed to address the changing population, household, and employment levels and distributions and travel demand and traffic flows and the attendant transportation problems of the Region; to identify the transportation facility and service needs arising from those changing patterns and problems; to identify traffic management measures and alternative transportation improvements to meet the identified needs; and to identify the institutional and financial arrangements and resources needed to implement the needed improvements. The plan will incorporate the findings and recommendations of recently completed county jurisdictional highway system plans, detailed corridor plans, and facility-specific plans. The plan will also include bicycle and pedestrian facilities elements, which elements are being prepared under a separate planning effort.

Preparation of the new regional transportation system plan is being overseen by the Commission's Technical Coordinating and Advisory Committee on Regional Transportation System Planning. The membership of this Advisory Committee is listed in Appendix B of this Annual Report. In preparing the plan, the Commission and the Advisory Committee will address 15 specific Federal metropolitan transportation planning requirements set forth in a document prepared by the Commission entitled Study Design for the Continuing Regional Land Use-Transportation Study: 1992-2000. The Advisory Committee approved, and the Commission

Table 18
AVERAGE WEEKDAY USE OF PARKING AT CARPOOL LOTS: 1993

Number ^a	Location	Available Parking Spaces	Autos Parked on an Average Weekday: 1993	Percent of Spaces Used
1	Ozaukee County STH 57 and STH 84 (Fredonia)	10	5	50
	IH 43 and STH 32/STH 84 (Port Washington)	50	13	26
	IH 43 and STH 57 (Grafton)	100	14	14
	IH 43 and CTH C (Cedarburg)	50	26	52
5	Washington County			
	STH 60 and CTH P (Jackson)	30	15	50
	USH 41 and CTH Y (Germantown)	100	22	22
7	Waukesha County			
	USH 41 and Pilgrim Road (Menomonee Falls)	65	61 ^b	94
	STH 16 and CTH P (Oconomowoc)	45	16	36
	STH 16 and CTH C (Nashotah)	50	14 ^b	28
	STH 16 and STH 83 (Chenequa)	65	13	20
	STH 67 and CTH DR (Summit)	80	48 ^b	60
	IH 94 and CTH C (Delafield)	30	18	60
	IH 94 and CTH G (Pewaukee)	50	27 ^b	54
	IH 94 and STH 164 (Pewaukee)	80	39	49
	IH 43 and STH 83 (Mukwonago)	95	49 ^b	52
	IH 43 and STH 164 (Big Bend)	100	29 ^b	29
	IH 43 and CTH Y (New Berlin)	60	19	32
	IH 43 and Moorland Road (New Berlin)	200	31 ^b	16
--	Total	1,260	459	36

^aSee Map 10.

^bWhile constructed to serve as a carpool parking facility, this facility also served as a terminal for freeway flyer or express bus service to the Milwaukee central business district. The number of parking spaces used on an average weekday includes autos parked by both carpoolers and transit patrons.

published, this document in February 1993. The third-generation regional transportation system planning effort is being carried out in accordance with that study design.

During 1993, work began on the preparation of the planning report which is to document the new plan. Commission staff prepared, and the Advisory Committee reviewed and approved, the introductory chapter of the plan report, as well as report chapters setting forth the basic principles and concepts underlying the planning effort; describing the status of implementation of the adopted year 2000 regional transportation system plan; presenting the findings of definitive inventories of the existing transportation facilities and services in the Region, of travel habits and patterns within the Region, and of changes in those habits and patterns over the

past three decades; describing anticipated growth and change within the Region, specifically as that growth and change relate to the adopted year 2010 regional land use plan and to "alternative futures" for the Region; and setting forth the objectives, principles, and standards guiding preparation of the new regional transportation system plan.

That report, SEWRPC Planning Report No. 41, A Regional Transportation System Plan for Southeastern Wisconsin: 2010, is expected to be submitted in preliminary form for public review and comment; subsequently modified by the Advisory Committee as appropriate in light of public comments received; and submitted to the Regional Planning Commission for consideration and adoption during 1994.

Map 10

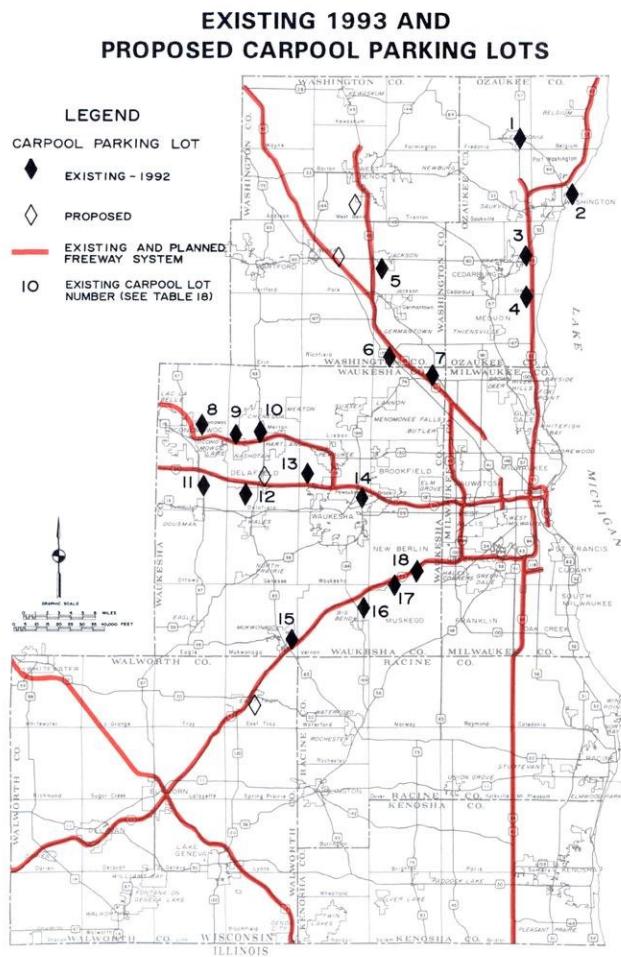
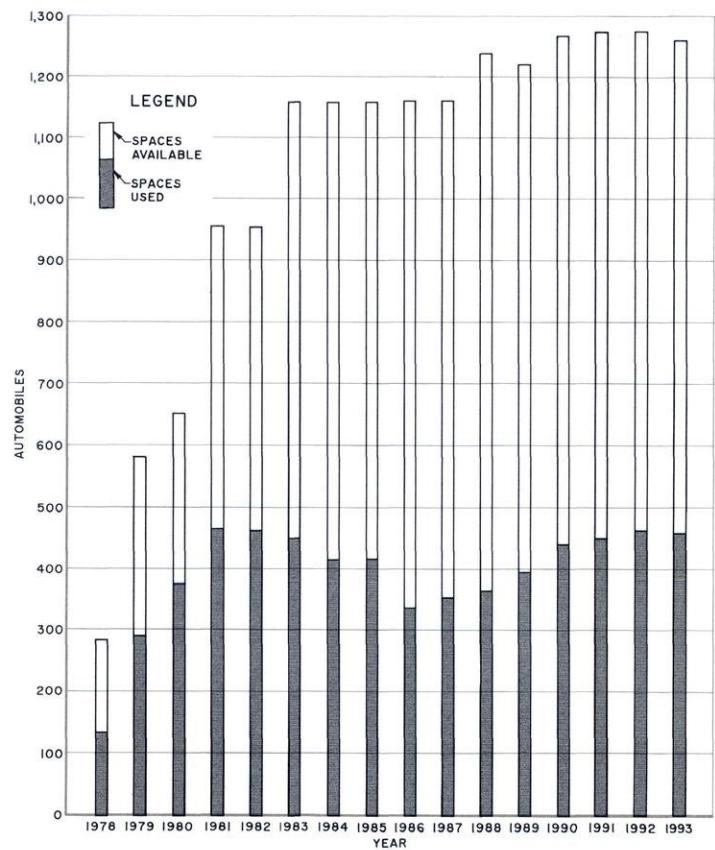


Figure 36

AVERAGE WEEKDAY CARPOOL PARKING LOT USE: 1978-1993



Review of Lake Arterial Extension Proposals

At the request of the Wisconsin Department of Transportation and working with an advisory committee of local public officials established by the Department, the Commission in 1991 completed the first phase of a detailed study of the proposed Lake Arterial extension in Milwaukee, Racine, and Kenosha Counties. The results of this work effort are set forth in SEWRPC Memorandum Report No. 64, Lake Arterial Extension Planning Study, August 1991. The report documents the findings of the first, or facility planning, phase of the study. The second phase of the study, the conduct of preliminary engineering, is now being carried out by the Wisconsin Department of Transportation.

The facility planning phase of the study reviewed alternative ways in which to provide additional arterial street capacity in the Lake Arterial corridor. After examining six basic alternative alignments for providing such capacity, it was concluded that the preliminary engineering phase should give detailed consideration to three basic alternatives: 1) the long-planned alignment of the Lake Arterial on new right-of-way paralleling the Chicago & North Western Transportation Company freight line right-of-way, 2) an alignment that would follow the long-planned Lake Arterial route in Racine County, connecting with S. Pennsylvania Avenue in Milwaukee County, and 3) an alignment following the long-planned Lake Arterial route in Racine County connecting with STH 38 (S. Howell Avenue) in Milwaukee County. A

Map 11

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

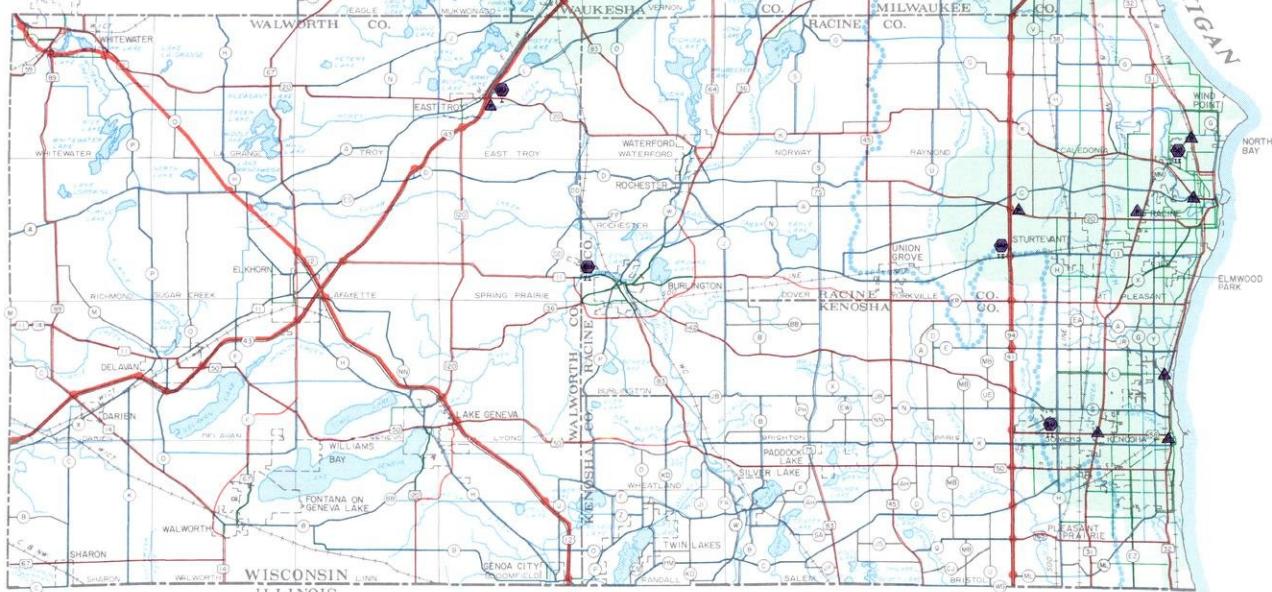
GU-II GENERAL UTILITY STAGE II

GU-I GENERAL UTILITY STAGE I

BU-II BASIC UTILITY STAGE II



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



preliminary engineering study focusing on these three alignments was under way during 1993. However, following public meetings held to inform the public and seek opinion on alternatives, the Wisconsin Department of Transportation determined that a "no-build" alternative would be selected as the preferred alternative to be documented in the environmental impact document to be published in 1994. This decision by the Department will be reflected in the new, third-generation regional transportation system plan now under preparation.

New Travel Survey for Southeastern Wisconsin Completed

In 1993, the Commission completed a comprehensive travel survey within the Region to provide data needed to properly reevaluate the existing regional transportation system plan and to aid in the design of the new, third-generation plan. Information collected as part of the new travel survey was compared to data obtained through similar surveys conducted by the Commission in 1963 and 1972. Such a comparison has allowed for the identification of long-term trends in travel characteristics and patterns.

The data collected through the survey have also been used to update, test, and recalibrate and revalidate the Commission travel simulation models for the Region. These models are essential for the preparation of forecasts of travel patterns and traffic volumes that may be expected to be carried on each existing and proposed highway and transit facility in the Region. The travel data and travel simulation models will be needed also to properly evaluate transportation control measures required by the 1990 Federal Clean Air Act Amendments; to study potential light rail development in the greater Milwaukee area; to study commuter rail and express bus service in the Region; and to enable continuing study of highway, transit, and transportation system management measures.

The comprehensive travel survey consisted of four major elements and four special surveys. Two elements, a survey of resident household travel and a survey of public transit travel, were completed in 1991. Surveys of truck travel and external travel were completed in 1992. Also completed in 1992 were three of the four special surveys: 1) a group-quartered population survey; 2) a screenline survey; and 3) a taxi, limousine, and specialized carrier survey. An intercity bus

and rail survey was completed in 1993. Some of the major findings of the third comprehensive travel survey conducted within the Region are described below.

Total Trip Making

Approximately 5.9 million person-trips, including both internal and external trips, were made within the Region on an average weekday in 1991. This represents an increase of about 2.1 million person-trips, or about 56 percent, since 1963 and an increase of 1.2 million person-trips, or 27 percent, since 1972. In each of the three benchmark years, it was found that about 94 percent of all person-trips had both trip origin and destination within the Region. Such internal travel patterns, therefore, represent one of the primary determinants of the need for, and location and capacity of, future transportation facilities and services within the Region. While total trip making has increased by about 56 percent since 1963, the resident population has increased by only about 10 percent. During the same time period, however, the number of households in the Region increased by about 45 percent and the number of jobs increased by about 56 percent. These findings indicate that increases in trip making within the Region are more closely related to increases in households and jobs than to increases in resident population.

Vehicle Use

Approximately 4.9 million vehicle-trips were made within the Region on an average weekday in 1991. This represents an increase of about 2.3 million vehicle-trips, or 93 percent, since 1963 and an increase of about 1.5 million vehicle-trips, or 45 percent, since 1972. Of these 4.9 million vehicle-trips, about 4.6 million, or 93 percent, were made internal to the Region. Vehicle-trips made internal to the Region have increased faster than person-trips, particularly since 1972, indicating that an increasing proportion of total trips are made by automobile or truck. Indeed, between 1972 and 1991, internal vehicle-trips increased by about 40 percent, while internal person-trips increased by only about 24 percent.

Truck Travel

In 1963, 1972, and 1991, approximately 89 percent of total internal vehicle-trips were made by automobile or taxi and only 11 percent were

made by truck. Moreover, truck travel did not exhibit, in any of the three survey years, the same sharp concentrations of trip movement patterns as auto travel, neither by hour of the day nor day of the week. These findings indicate that, with respect to highway facilities, the transportation challenge within the Region concerns primarily the movement of people rather than of goods.

Daily Travel Patterns

The hourly distributional patterns of internal person-trips observed in 1963, 1972, and 1991 indicated that, despite substantial increases in total trip volumes, the regular ebb and flow of travel remained markedly stable both in the number of trips by trip purpose and in the size and timing of peak periods. Nearly one-third of all daily travel occurred in the two morning and two afternoon peak hours. Of these peak-hour movements, trips to and from work comprised about 47 percent in 1963, 44 percent in 1972, and 41 percent in 1991. While these data indicate a steady decline in the proportion of peak-hour traffic volumes that work trips comprise, one of the primary transportation problems within the Region continues to be meeting the peak demand of travel to and from work. These findings further indicate that the location of future employment centers remains an important factor affecting both travel demand and transportation facilities within the Region.

Mode of Internal Person-Trips

The proportion of total travel made by personal vehicles—automobiles and personal-use trucks—within the Region has also remained relatively stable since 1972, increasing only slightly since 1963. Indeed, auto trips accounted for 92 percent of all internal person-trips in both 1991 and 1972 and about 87 percent in 1963. Auto-oriented travel is, however, increasingly becoming no-passenger, or auto-driver, travel. Auto-driver trips increased from 2.9 million, or 70 percent of auto-oriented travel, in 1972, to nearly 4.1 million, or 79 percent of auto-oriented travel, in 1991, an increase of 41 percent since 1972.

The increasing predominance of auto-driver trips is reflected in the decreasing average vehicle occupancy rate, that is, the number of vehicle occupants per vehicle-trip, which decreased from 1.45 persons in 1963 to 1.42 persons in 1972 and to 1.26 persons in 1991. Average weekday public

transit ridership has also shown successive decreases over the benchmark years; 324,000 revenue passenger trips in 1963, 186,000 in 1972, and 172,200 in 1991. The proportion of total trips made by transit has also decreased over time: from 9 percent in 1963 to 4 percent in 1972 and to 3 percent in 1991. The decline in transit use occurred despite a 56 percent increase in total person-trips on an average weekday in the Region between 1963 and 1991. In 1991, bicycle and pedestrian trips represented less than 1 percent of the total internal person-trips.

Changing Transit Ridership

Important changes have occurred in the composition of public transit users over time within the Region, most obviously with respect to household income. The survey findings indicated that lower-income households constituted a larger share of all households with members using public transit in 1991 than in 1963 and 1972. Households which earned under \$14,000 per year, expressed in constant 1991 dollars, comprised about 32 percent of all transit-using households in 1991, as opposed to about 17 percent in 1963 and 15 percent in 1972. It follows then that transit trips made by members of lower-income households comprised a larger share of all transit trips made in 1991 than in the previous survey years. Indeed, members of households earning under \$14,000 per year made about 38 percent of all transit trips in 1991, as opposed to about 17 percent in 1963 and 15 percent in 1972. As a result, transit trips made by persons from households which earned \$14,000 or less per year increased by 20 percent between 1963 and 1991. Conversely, transit trips made by persons from households which earned \$27,900 or more per year decreased by 65 percent during the same time period.

These findings indicate that the decline in transit ridership between 1963 and 1991 occurred primarily among persons from more affluent households, leaving the use of mass transit to persons from lower-income households. The reasons for this decline may include the movement of more affluent households from traditional local transit service areas; the increase in the number of persons living in poverty in those same areas; and cutbacks in transit service that promoted mode shifts among those able to own and operate a personal vehicle. The income characteristics of the existing users of public transit may indicate

that the significant percentage decreases in transit use which occurred between 1963 and 1991 may not continue into the future, unless sizable reductions in service are made. The findings also indicate that such reductions in service may significantly reduce the mobility of those residents of the Region who are most dependent on public transit service.

Trip Purpose

Trips which have either an origin or a destination at home were found to comprise about 80 percent of the total internal person-trips in each of the survey benchmark years. This emphasizes the importance of the home as a generator of trips. Thus, future transportation facility and service requirements within the Region will be determined largely by the amount and location of future residential development.

In all three survey years, home-based work trips comprised slightly less than 25 percent of total internal trips, home-based shopping trips comprised about 15 percent, other home-based trips comprised about 33 percent, and school trips ranged from 9 percent in 1963 to 11 percent in 1991. The distribution of trips among trip purposes was found to be quite similar in each of the three survey years. This stability demonstrates that aspects of travel are indeed orderly and regular over time.

Travel between Subareas

The growth in regional internal person-travel has occurred primarily in the suburban and exurban areas of the Region. Suburban areas in this respect are defined as developed urban portions of the Region located adjacent to and surrounding the Cities of Milwaukee, Racine, and Kenosha; exurban areas are defined as outlying portions of Ozaukee, Racine, Walworth, Washington, and Waukesha Counties. Map 12 shows the magnitude of trip making, excluding trips made for the purpose of attending school, between the Region's major subareas in 1963, 1972, and 1991.

While average weekday travel, excluding school trips, with both trip origin and destination within the central Milwaukee urban area remained relatively stable at between 1.8 million and 1.9 million person-trips from 1963 to 1991, such travel within the suburban area of the Region increased substantially, from 277,700

person-trips in 1963, to 547,300 person-trips in 1972, and to 922,000 person-trips in 1991. Average weekday travel with both trip origin and destination within the exurban area increased from 86,900 person-trips in 1963, to 172,100 person-trips in 1972, and to 312,700 person-trips in 1991. Between 1963 and 1991, the 644,300-trip increase in suburban-area travel represented about 38 percent of the total internal person-trip growth of approximately 1.68 million, excluding school trips. The 225,800-trip increase in exurban-area travel represented about 13 percent of the growth in internal person-travel, excluding school trips, within the Region. These changes were clearly foreseen and commented upon in the Commission's first-generation regional transportation system plan, completed in 1966. These findings are consistent with the fact that nearly 66 percent of all growth in regional households and 68 percent of all growth in employment within the Region between 1963 and 1991 occurred in the suburban and exurban areas.

Commission Adopts New Jurisdictional Highway System Plan for Ozaukee County

In January 1993, the Commission adopted a new, second-generation jurisdictional highway system plan for Ozaukee County as an amendment to the regional transportation system plan. The new plan, which was adopted by the Ozaukee County Board of Supervisors in October 1992, is set forth in the Commission document entitled Amendment to the Ozaukee County Jurisdictional Highway System Plan: 2010, February 1992, and was summarized in the Commission's 1992 Annual Report. The new plan amends SEWRPC Planning Report No. 17, A Jurisdictional Highway System Plan for Ozaukee County, December 1973.

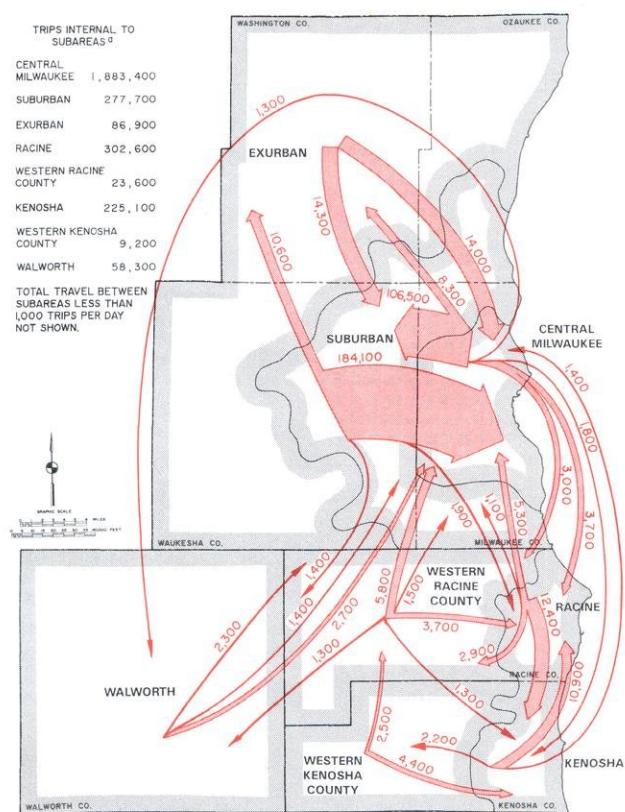
Development Plan for the IH 94 West Corridor

Work continued during 1993 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-Jefferson 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

Map 12

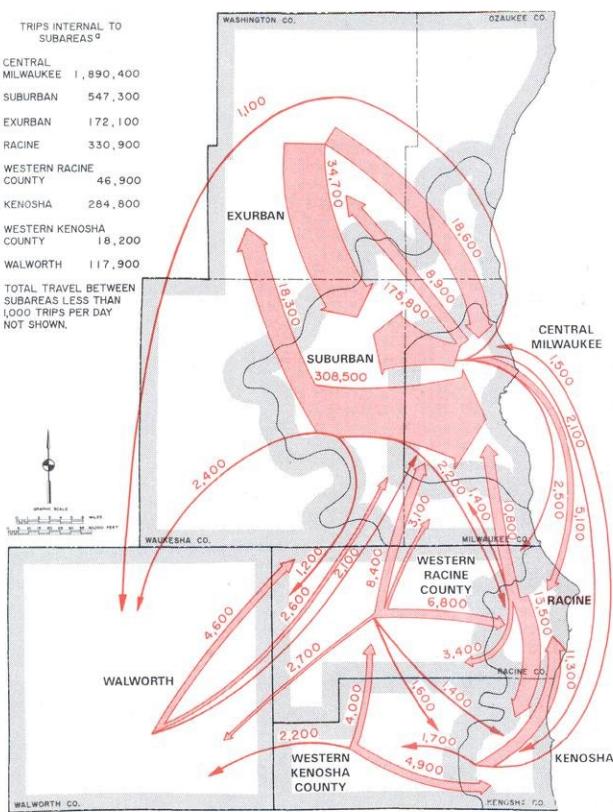
AVERAGE WEEKDAY PERSON-TRAVEL BETWEEN SUBAREAS
IN SOUTHEASTERN WISCONSIN: 1963, 1972, AND 1991

1963



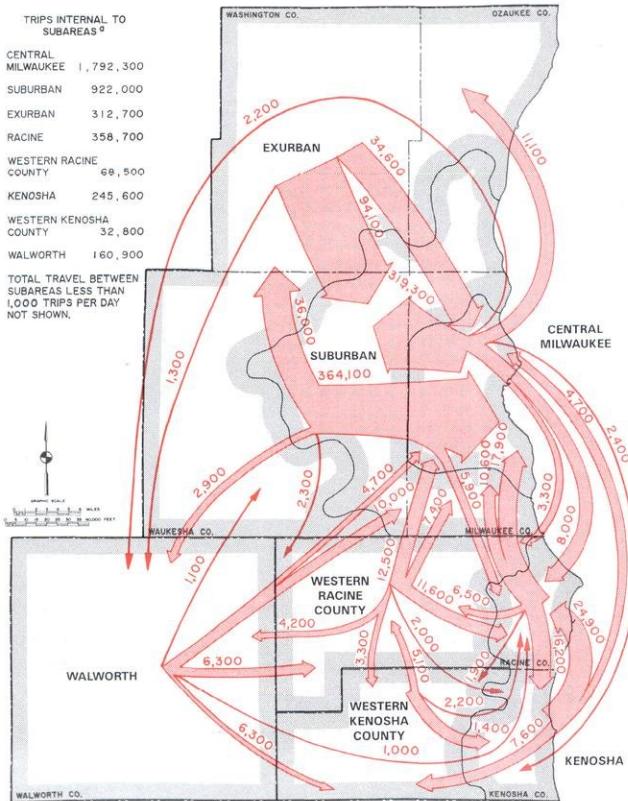
^a TRIPS ARE BASED ON THE RESIDENT HOUSEHOLD SURVEYS AND INCLUDE TRIPS FOR ALL PURPOSES EXCEPT SCHOOL.

1972



^a TRIPS ARE BASED ON THE RESIDENT HOUSEHOLD SURVEYS AND INCLUDE TRIPS FOR ALL PURPOSES EXCEPT SCHOOL.

1991



^a TRIPS ARE BASED ON THE RESIDENT HOUSEHOLD SURVEYS AND INCLUDE TRIPS FOR ALL PURPOSES EXCEPT SCHOOL.

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 the 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.

Prior to 1993, the Advisory Committee considered initial report materials developed by Commission staff setting forth inventory findings regarding natural resources; existing land uses and land use regulations; and existing and forecast population, housing, and employment data. The Committee also reviewed proposed objectives and standards for land use development within the corridor. The Committee also reviewed and considered alternative land use development plans for the corridor for the design year 2010, and reviewed anticipated transportation impacts associated with each of the alternative land use plans. Modifications of the land use plan were recommended by the Committee on the basis of a review of the transportation system impacts brought about by the preliminary land use alternatives, and final land use plans were prepared for analysis in 1993.

During 1993, work on the preliminary plan was completed with the identification of transportation recommendations attendant to the final land use plan, along with additional development proposals in the City of Oconomowoc area and the City of Delafield in the vicinity of STH 83 and IH 94. The preliminary plan for the subregion was endorsed by the Advisory Committee and it is anticipated that a public hearing on the plan will be held in the spring of 1994. It is intended that the subregional plan be released concurrently with and be fully coordinated with the third-generation regional transportation system plan.

City of West Bend Transportation System Plan

Work on a detailed transportation system plan for the City of West Bend continued in 1993 after

the adoption of a land use plan for the City in June 1992. In 1992, inventories related to the physical and operating characteristics of the arterial street and highway system were completed. Existing and anticipated future traffic problems on the existing arterial street and highway system based on current and forecast design year 2010 traffic volumes were identified. During 1993, as part of this local-level planning effort, an analysis of the adopted Washington County jurisdictional highway system plan was undertaken with regard to improvements recommended under that plan to arterials within the local-level study area. This analysis was undertaken to determine what additional improvements might be needed to accommodate full—or ultimate—development within the West Bend planning area. While development within the area is not expected to exceed planned levels by the year 2010, the West Bend transportation system plan will identify and evaluate arterial street improvements needed to accommodate potential development beyond planned levels.

At the end of 1993, a preliminary plan had been prepared for presentation to the Advisory Committee early in 1994.

TRANSPORTATION SYSTEMS MANAGEMENT PLANNING AND TRAFFIC ENGINEERING

During 1993, the Commission continued a work effort to carry out transportation systems management studies for communities in Southeastern Wisconsin. One such study was under way during the year for the Village of Brown Deer regarding perceived through traffic and vehicular speed problems on a segment of N. 68th Street in the Village between W. Dean Road and W. Brown Deer Road. Another such study under way during the year involved traffic control and pavement marking on the segment of W. Bender Road which crosses the Milwaukee River in the City of Glendale. In addition, work efforts attendant to ridesharing and transit system short-range planning were carried out.

Ridesharing Programs

One of the recommendations of the regional transportation systems management plan is the continued promotion of ridesharing. The Commission has provided assistance to ridesharing efforts in the Milwaukee metropolitan area since

the 1970s. This assistance has included the conduct of studies and the provision of computer facilities to official Milwaukee-area ridesharing programs originally administered by Milwaukee County. The computer facilities were used to match potential carpoolers with each other. In 1987, administrative responsibilities for the conduct of the Milwaukee-area 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 1993, there were 93 inquiries made to the Wisconsin Department of Transportation concerning carpooling. Of this total, 37 matches were found in the computerized file maintained by the Commission, and in each such case the requesting individual was provided with a list of potential carpoolers.

Also during the year, the Department informed the Commission that it would, during 1994, assume full responsibility for the Milwaukee-area ridesharing program, including responsibility for the provision of computer facilities for the matching program.

Racine Transit System Development Plan

During 1993, the Commission completed a new transit system development plan for the City of Racine public transit system. The plan, documented in SEWRPC Community Assistance Planning Report No. 204, Racine Transit System Development Plan: 1993-1997, City of Racine, Wisconsin, June 1993, was prepared at the request of the City by the Commission working in cooperation with City staff. The City's Public Transit Planning Advisory Committee, composed of elected and appointed public officials, leaders of area nonprofit organizations and businesses, and concerned citizens, provided guidance in the preparation of the plan. The new plan is intended to update a previous transit system development plan prepared by the Commission for the City in 1984.

The transit system development plan is a short-range action plan covering the years 1993 through 1997. It is based on a thorough evaluation of the performance of the City's existing transit system, an analysis of the personal travel

habits and patterns of City residents and the transportation needs associated with the existing land use pattern, and an evaluation of alternative service patterns. The plan recommends a coordinated set of service and capital improvements which, if implemented, should provide efficient and effective public transit service consistent with available financial resources. Included in the plan is a five-year staging plan for the recommended improvements. The plan also identifies the financial commitments and actions required of the various levels and agencies of government involved in plan implementation.

The recommended plan for the City's fixed-route transit service, known as the Belle Urban System, calls for a number of changes in the existing route alignments and schedules for Routes No. 1, 2, 3, 4, 6, 9, and 10 of the system to be implemented as soon as possible. The routing change proposed for Route No. 1 is intended to extend service to an industrial park in the City of Racine and Town of Mt. Pleasant by eliminating service over an unproductive route segment. The routing changes proposed for Routes No. 2, 3, 4, and 6 are intended to eliminate unproductive route segments in the Town of Mt. Pleasant and to provide for a north-south, east-west grid of bus routes serving the west side of the City of Racine. The changes in Routes No. 2, 3, and 4 should also allow for a more logical westward extension of these routes to serve areas which are expected to develop by the end of the planning period. The service change proposed for Route No. 9 is intended to improve route performance by reducing service during the midday off-peak period. Finally, the changes proposed for Route No. 10 are intended to increase the amount of service provided during high-ridership periods and to improve transfer coordination with other City bus routes. The alignments of the transit system bus routes with these recommended routing changes are shown on Map 13.

The recommended plan also identifies additional routing adjustments and scheduling changes which may be warranted by 1997 if development in the study area continues to occur as envisioned by City staff at this time. The routing changes which may need to be considered by 1997 include: 1) the extension of Route No. 1 into the Town of Caledonia to serve the area around the Green Tree Shopping Center; 2) extensions

of Route No. 2 to the north into the Town of Caledonia to serve the Olympia Brown School and Western Publishing Company along Erie Street, and to the west along 21st Street and Oaks Road to serve an area of potential industrial development; 3) the extension of Route No. 3 to the west over 16th Street to serve J. I. Case High School and adjacent residential and commercial areas; and 4) the extension of Route No. 4 to the west over Washington Avenue and CTH H to serve the commercial office and industrial development which is expected to occur within this corridor. In addition, minor routing adjustments would be proposed for Routes No. 5 and 6 to compensate for routing changes made in Routes No. 1 and 3. Route No. 11 in the Town of Caledonia would be eliminated, as its most productive route segments would now be served by Routes No. 1 and 2 of the transit system.

It was also proposed to make the service provided over Routes No. 9 and 10 more comparable to the service provided over the other routes of the transit system by 1) extending days of operation for Route No. 9 to include weekdays outside of the fall, spring, and summer class sessions at the University of Wisconsin-Parkside, as well as all Saturdays; and 2) extending the weekday hours of operation for Route No. 10 to include the weekday midday period. Importantly, while the 1997 element of the recommended plan proposes routing changes to extend transit service to developing areas, service to these areas would be warranted only if recent development trends in the study area continue and the areas are deemed by local officials to warrant transit service. Should development of these areas occur at a slower pace than currently envisioned, the additional service changes proposed for implementation by 1997 would be accordingly delayed. The recommended 1993 transit system would then continue to be operated in these areas.

Implementation of the recommended transit system development plan will require that several capital improvement projects be undertaken for the transit system between 1993 and 1997. These capital improvement projects will include the "remanufacture" or replacement of between 26 and 28 of the 42 buses in the existing bus fleet; the acquisition of equipment for, and the making of needed modifications to, the existing transit system operating garage; the

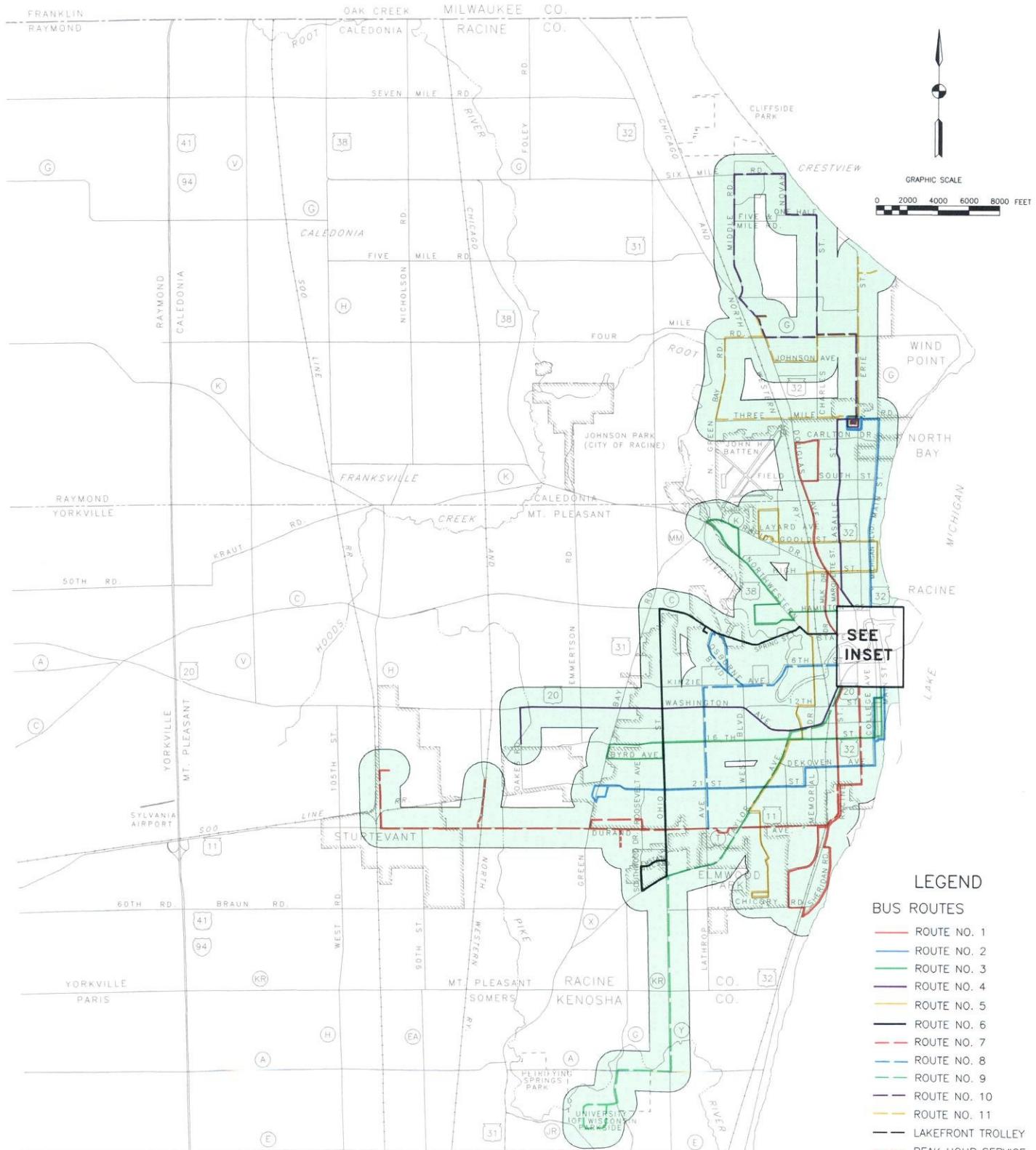
replacement and upgrading of existing computer equipment and software; and the acquisition of other operating and service equipment. The recommended plan does not suggest any significant changes to the City's current public transit services for disabled persons as a result of the routing and service changes recommended for the City's fixed-route transit system. The City will, however, be able to begin providing main-line accessible bus service over the bus routes of the transit system as vehicles in its bus fleet become equipped with wheelchair lifts through either the remanufacture of older vehicles in the bus fleet or the purchase of new replacement vehicles as called for under the recommended program of capital projects.

The plan is partially based upon, and contains, projections of ridership and service levels for the recommended transit system as well as projections of operating expenses, revenues, deficits, and sources of funding for the recommended transit system over the 1993 through 1997 period. The City of Racine would bear most of the responsibility for implementing the plan. This responsibility includes refining the recommended routing and service changes, applying for Federal and State transit assistance funds needed to help finance the operation of and capital projects for the recommended transit system, and satisfying the various administrative requirements associated with the receipt and use of Federal transit assistance funds. The local governmental units and agencies which contract for transit service from the Belle Urban System—including the Towns of Caledonia and Mt. Pleasant, the Village of Sturtevant, and the University of Wisconsin-Parkside—will also need to continue to provide local funds for the contract transit services to assure their continued operation.

Upon adoption, the new transit system development plan will serve as a guide for use by City officials in keeping the Belle Urban System responsive to the changing development patterns and service needs of the City while at the same time improving the effectiveness and efficiency of the public transit services provided. Implementation of the plan would concentrate available resources and capabilities on actions which will have the most significant positive impact on transit system performance, thus assuring the most effective use of limited public financial resources. At year's end, the plan was

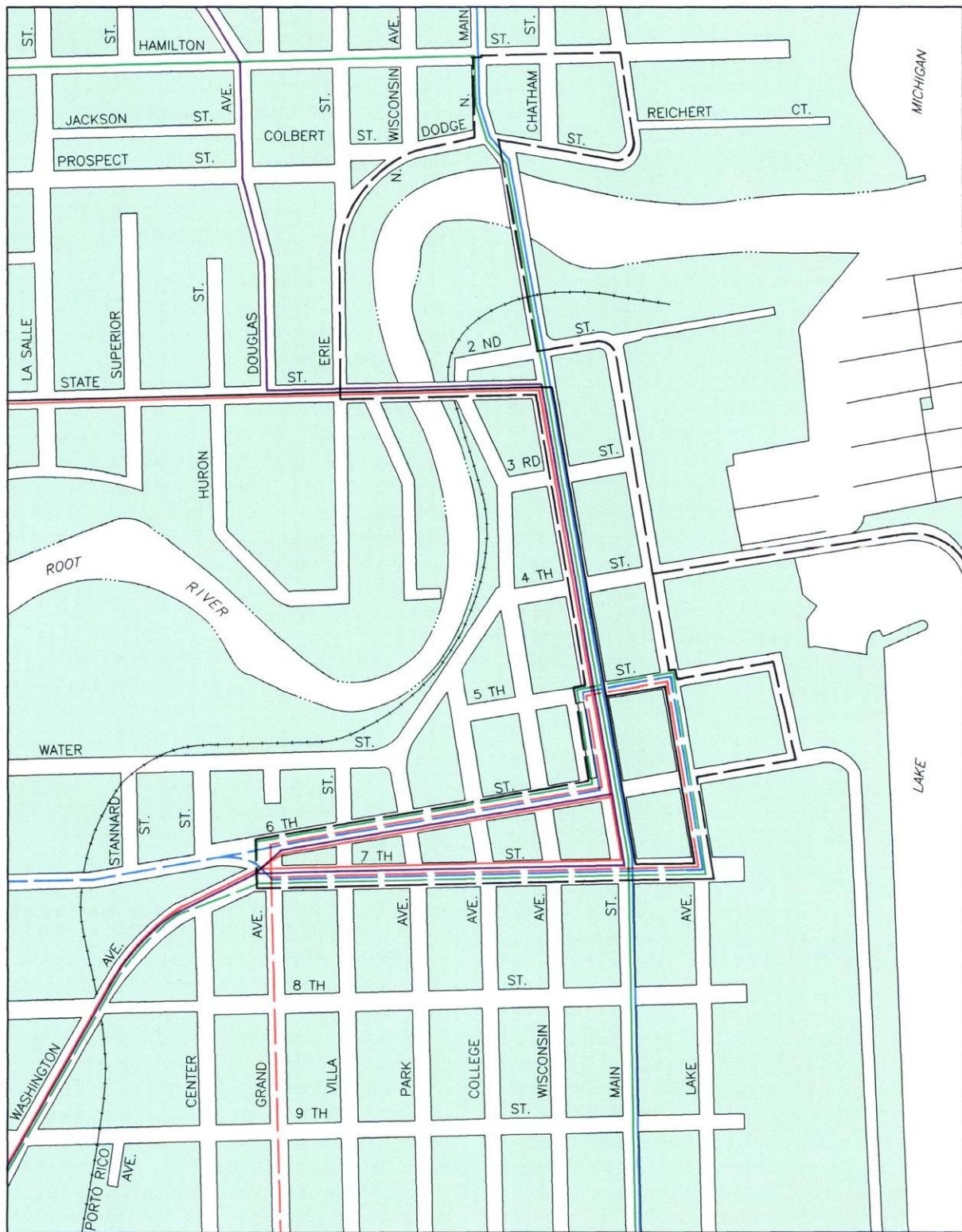
Map 13

RECOMMENDED ROUTE STRUCTURE FOR THE BELLE URBAN SYSTEM: 1993

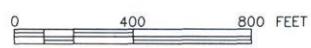


TRANSIT SERVICE AREA

Inset to Map 13



INSET GRAPHIC SCALE



under consideration by the City of Racine Transit and Parking Commission. However, several of the recommended routing changes affecting contract service for the Town of Mt. Pleasant were implemented at the specific request of Town officials prior to formal plan adoption by the City of Racine.

City of Port Washington Taxicab Service Analysis

During 1993, the City of Port Washington requested the Commission to undertake a study of the extent of the need for, desirable structure of, and means of providing a demand-responsive transit system in the Port Washington area. In response to this request, the Commission staff undertook a study to identify the potential ridership, fare-box revenue, operating and capital costs, and local subsidies required for a shared-ride taxicab system based upon assumptions provided by the City concerning proposed fares and desired service characteristics. Estimates were prepared for three operating scenarios identified by the City, each envisioning different hours of operation for the proposed system. Based upon the findings of the study, the City decided to pursue implementation of a shared-ride taxicab system which would operate from 9:00 a.m. to 5:00 p.m. on Mondays, Tuesdays, and Thursdays; from 9:00 a.m. to 9:00 p.m. on Wednesdays, Fridays, and Saturdays; and from 9:00 a.m. to 1:00 p.m. on Sundays. The system would not operate on holidays. The service would be provided with a maximum response time of 30 minutes and with passenger fares of \$1.50 per one-way trip for adults and \$1.00 per one-way trip for students, elderly persons, and persons with disabilities. The City would provide two new vans for the service—one van accessible to persons with disabilities and one nonaccessible—and lease both vans to a contract operator to provide the service.

Following a decision by the City to establish the recommended public shared-ride taxicab system, the Commission staff prepared for the City the grant applications for Federal and State funding assistance, including Federal and State operating assistance to subsidize 70 percent of the estimated 1994 operating costs of the system, and Federal capital assistance to offset 80 percent of the costs of purchasing the two new vans. The Commission staff also assisted the City in competitively procuring a contract

transit operator by preparing the request-for-proposals document distributed by the City to solicit service proposals from prospective contract transit operators. At the end of the year, the City had selected Johnson School Bus Service, Inc., which also operates a shared-ride taxicab system for the City of West Bend, as the contract operator for the taxicab service and had tentatively set February 1, 1994, as the start-up date for the new system.

Milwaukee County Short-Range Transit Planning

During 1993, 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 updating of programs for the inclusion of business enterprises operated by the disadvantaged, minorities, and women in the provision of transit service.

TRANSPORTATION PLANNING FOR THE ELDERLY AND DISABLED

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, April 1978. 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 semi-ambulatory 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 trans-

portation-handicapped persons to arrange for their own transportation by taxi or private wheelchair van 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 Disabled Persons

The adopted transportation plan for the transportation-handicapped was amended during 1987 following the completion of public transit plans for disabled 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 and is implementing regulations issued by the U. S. Department of Transportation in 1986. The 1986 regulations required that each recipient's public transportation program make services available to disabled 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 semi-ambulatory persons, 2) providing fixed-route bus service which is accessible to wheelchair-bound and semi-ambulatory persons over the regular routes operated by the recipient, or 3) providing a mix of accessible specialized transportation and accessible bus services. The public transit programs then recommended 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, May 1987; 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, all published in June 1987. These plan documents have since been superseded by the plan documents described in the following section.

sons—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, all published in June 1987. These plan documents have since been superseded by the plan documents described in the following section.

Americans with Disabilities Act

On July 26, 1990, the Americans with Disabilities Act (ADA) was signed into law. The Act can be characterized as an omnibus civil rights law for persons with disabilities. With respect to public transit service, the ADA includes two provisions that will have a significant impact on the operation of public transit services. One provision requires all vehicles used in providing fixed-route transit for which purchase or lease contracts are entered into after August 26, 1990, to be accessible to persons with disabilities, including those using wheelchairs. A second provision requires all public entities that provide fixed-route transit service to provide comparable paratransit service to disabled persons unable to use the fixed-route system. Regulations designed to implement this paratransit service provision of the ADA were issued by the U. S. Department of Transportation, Federal Transit Administration (FTA), on September 6, 1991. These regulations amended previous Federal regulations pertaining to the provision of paratransit services to the disabled. Specifically, the comparable paratransit service provided by each public entity must:

1. Serve any individual with a permanent or temporary disability who is unable independently to board, ride, or disembark from the buses used to provide fixed-route transit service; or is capable of using an accessible bus providing fixed-route transit service, but no accessible bus is available for the desired trip; or is unable to travel to or from the boarding or disembarking location on the fixed-route transit system.
2. Serve all trip origins and destinations within three-quarters of a mile on either side of the regular noncommuter bus routes operated by the public transit agency.

3. Provide service on a desired day in response to a request made before the end of normal business hours on the previous day and make reservation service available during both normal weekday business hours and during similar hours on weekends and holidays preceding a normal service day.
4. Limit fares for disabled individuals to no more than twice the full fare for fixed-route transit service.
5. Eliminate fares for needed personal-care attendants.
6. Eliminate restrictions based on trip purpose.
7. Provide service during the same hours and on the same days as the fixed-route service.
8. Eliminate capacity constraints, such as restrictions on the number of trips an individual can take, waiting lists, consistent denial of trip requests on the basis of insufficient capacity, and consistent untimeliness with respect to scheduled pickup times or trip durations.

The 1991 regulations required each public entity operating a fixed-route transit system to prepare and submit to the FTA by January 26, 1992, a plan for providing the required complementary paratransit service. Additionally, in each case, annual updates of the initial plan, which would document the progress achieved in implementing the plan and any significant changes to the plan content or timetable, were also required to be submitted each year thereafter. The five public entities in the Region that operate fixed-route transit systems, Milwaukee and Waukesha Counties and the Cities of Kenosha, Racine, and Waukesha, each requested Commission assistance in preparing the initial paratransit service plans submitted in January 1992 to comply with the new Federal regulations, as well as in preparing the annual updates submitted in January of each subsequent year amending the initial paratransit plans. The most recent plan updates as of year's end, those for 1993, are documented in a series of SEWRPC memorandum reports¹³ which were published in January 1993 and adopted by the Commission during that month as amendments to the 1978 regional

elderly-handicapped transportation plan. These five 1993 amendments, whose plan documents were summarized in the 1992 Annual Report, thus supersede a series of earlier amendments to the regional elderly-handicapped transportation plan, as set forth in a footnote to Table 1 of this 1993 Annual Report.

Further assistance was provided during 1993 by the Commission to each transit operator in preparing the required annual updates of the 1992 plans to be submitted in January 1994. Summaries of each operator's current paratransit service plan, along with the progress made since 1992 in implementing the proposed changes to the paratransit services identified in each operator's current paratransit service plan, are provided in the following sections.

Milwaukee County

The current paratransit service plan for the Milwaukee County Transit System proposes that the County comply with the current Federal regulations by making modifications to the County's existing paratransit service for disabled persons, provided through the Milwaukee County user-side subsidy program. Under this program, eligible disabled users have their transportation publicly subsidized so that they can purchase service from participating private service providers of their choice. With the user-side subsidy program, the user has the freedom to choose the service provider and when and where he or she wishes to travel within Milwaukee County. During 1993, one private taxicab company and 14 private van carriers were under contract with the County to participate in the program.

¹³See SEWRPC Memorandum Reports No. 73, A Paratransit Service Plan for Disabled Persons: 1993 Update/Milwaukee County Transit System; No. 74, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Kenosha Transit System; No. 75, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Racine Transit System; No. 76, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Waukesha Transit System Utility; and No. 77, A Paratransit Service Plan for Disabled Persons: 1993 Update/Waukesha County Transit System, all published in January 1993.

Milwaukee County's 1994 plan update indicates that the County has made substantial progress since 1992 in implementing most of the modifications to the user-side subsidy program proposed under the 1992 plan and the 1993 plan update. The 1994 plan update indicates that at the end of 1993, the user-side subsidy program was in compliance with all Federal ADA eligibility requirements and with all but two ADA service criteria: those regarding 1) coordination with contiguous/overlapping service areas, and 2) scheduling service for trip requests on a "next-day" basis. The County is on schedule to implement between 1994 and 1997 the modifications proposed to bring the user-side subsidy program into compliance in these areas. No changes to the timetable are proposed in the 1994 plan update, which also proposes to continue to call for the Milwaukee County Transit System to achieve full compliance with the Federal paratransit service requirements by January 1, 1997.

During 1993, about 423,200 one-way trips were made under the user-side subsidy program, an increase of about 4 percent over the 406,300 one-way trips made under the program during 1992. Fares for the user-side subsidy program were increased from \$2.00 to \$2.20 per one-way trip on February 1, 1993.

Waukesha County

The current paratransit service plan for the Waukesha County Transit System proposes that the County comply with the current Federal regulations by making modifications to the County's existing program providing paratransit service for disabled persons unable to use its fixed-route bus service, the parallel commuter bus program. Under the current program, Waukesha County offers door-to-door lift-equipped van service to disabled individuals for trips with origins and destinations within one mile on either side of three regular noncommuter bus routes which are subsidized by Waukesha County within the major travel corridor between the City of Waukesha and the City of Milwaukee central business district. The paratransit service offered under the parallel commuter bus program during 1993 was administered for the Waukesha County Transportation Department by the Waukesha County Department of Aging and directly operated by the County through the Department of Aging's Ride-Line transportation

program—a countywide, advance-reservation, door-to-door transportation service for elderly and disabled individuals.

Waukesha County's 1994 plan update indicates that the County has made substantial progress since 1992 in implementing most of the modifications to the parallel commuter bus program proposed under the 1992 plan and the 1993 plan update. The 1994 plan update indicates that at the end of 1993, the parallel commuter bus program was in compliance with all Federal ADA eligibility requirements and with all but one ADA service criterion: that regarding the provision of paratransit service with days and hours of operation identical to those for the County's fixed-route bus service. In achieving this level of compliance, the County had succeeded in meeting two ADA criteria during 1993 which it had not proposed to meet until 1994: 1) the scheduling of trip requests on a "next-day" service basis, and 2) the removal of restrictions on the number of trips which program users can make into Milwaukee County. The County's 1994 plan update also indicates that beginning in 1994, the County will contract for the provision of the paratransit service from a private contractor, Nichols Medical Transports, Ltd., which will be responsible for providing the equipment and personnel needed to operate the paratransit service. Consequently, the 1994 update proposes that the County paratransit service plan be modified to no longer call for the purchase of paratransit vehicles by the County. No other changes are proposed in the 1994 plan update, which proposes to continue to call for Waukesha County to achieve full compliance with Federal paratransit service requirements by January 1, 1995.

During 1993, about 6,500 one-way trips were made under the program, a 400 percent increase over the 1,300 one-way trips made under the program during 1992.

City of Kenosha

The current paratransit service plan for the City of Kenosha Transit System proposes that the City comply with the current Federal regulations by making modifications to the City's existing paratransit service for disabled persons provided through the Kenosha County Care-A-Van program. This paratransit service is designed to provide door-to-door transportation to disabled

individuals who are unable to use the fixed-route bus service provided by the City's fixed-route transit system. To provide the service, the City annually participates in, and contributes funds to, the Care-A-Van program, a door-to-door paratransit service administered by the Kenosha County Department of Aging and provided by the Kenosha Achievement Center, Inc. The funds annually contributed to the program by the City of Kenosha, however, are used specifically to support the provision of paratransit service for disabled persons who are certified as unable to use the City's fixed-route transit system and who use the service to travel within only that portion of Kenosha County east of IH 94 plus an area of commercial development within the County located west of IH 94 at the intersection of IH 94 and STH 50. The service is provided on a contract basis by the Kenosha Achievement Center, Inc., and is available throughout the area served by the City's fixed-route transit system.

The City of Kenosha's 1994 plan update indicates that all the modifications proposed under the 1992 plan were implemented during 1992 in accordance with the plan timetable or with only minor delays. The City's paratransit service, consequently, is currently in full compliance with Federal regulations. The 1994 plan update does, however, propose some minor changes to the City's complementary paratransit service to provide additional capacity for the paratransit service to keep the service in compliance during 1994 and subsequent years. These proposed changes include: 1) contracting with local taxicab operators to provide service for ambulatory disabled individuals who do not require an accessible vehicle for their trips, and 2) more closely screening the trip requests of users to determine if their trips could be served by main-line accessible bus service instead of paratransit service. To assist in the proposed trip eligibility screening, it is proposed that the City assume responsibility for taking all trip reservations for complementary paratransit service using Kenosha Transit System staff.

During 1993, about 16,300 one-way trips were made on the paratransit service, an increase of about 19 percent over the 13,700 one-way trips made on the service during 1992.

City of Racine

The current paratransit service plan for the City of Racine transit system proposes that the City comply with the current Federal regulations by making modifications to the existing paratransit service for disabled persons provided through the City's paratransit program. The City's paratransit service is designed to provide door-to-door transportation to disabled individuals who are unable to use the fixed-route bus service provided by the City's fixed-route bus system, the Belle Urban System. To provide the service, the City of Racine annually participates in, and contributes funds to, the paratransit program administered by the Racine County Human Services Department. The funds annually contributed to the program by the City of Racine, however, are used specifically to support the provision of paratransit service for disabled persons who are certified as transportation-handicapped and who use the service to travel within only that portion of Racine County east of IH 94 and to the University of Wisconsin-Parkside in Kenosha County. The service is provided on a contract basis by Laidlaw-Jelco, Inc., and is available throughout the area served by the City's fixed-route transit system.

The City of Racine's 1994 plan update indicates that all the modifications proposed under the 1992 plan were implemented during 1992 in accordance with the plan timetable or with only minor delays. The plan update proposes no significant changes or additions to the original plan recommendations. The City's paratransit service, consequently, is in full compliance with Federal regulations.

During 1993, about 30,700 one-way trips were made on the paratransit service, a decrease of about 12 percent from the 34,700 one-way trips made on the service in 1992.

City of Waukesha

The current paratransit service plan for the City of Waukesha Transit System Utility proposes that the City comply with the current Federal regulations by making modifications to the existing paratransit service for disabled persons provided through the City's METROLIFT program. The paratransit service provided under the METROLIFT program is designed to provide door-to-door transportation to disabled individu-

als who are unable to use the fixed-route bus service provided by the City's fixed-route bus system, Waukesha Metro Transit. To provide the service offered under the METROLIFT program, the Waukesha Transit System Utility currently contracts with Dairyland Buses, Inc., a private "yellow school bus" operator in the area.

The City of Waukesha's 1994 plan update indicates that all the service modifications proposed under the 1992 plan were implemented during 1992 in accordance with the plan timetable or with only minor delays. The City was also in the process of acquiring the three small buses recommended by the plan. The 1994 plan update proposes no significant changes in, or additions to, the original plan. The City's paratransit service, consequently, is currently in full compliance with Federal regulations.

During 1993, about 16,200 one-way trips were made on the paratransit service, an increase of about 28 percent over the 12,700 one-way trips made on the service during 1992.

Adoption Status

All the original 1992 paratransit service plans and the 1993 paratransit service plan updates had been adopted by the respective public transit operators involved and by the Commission prior to their transmittal to the Federal Transit Administration in 1992 and 1993, respectively. At the end of 1993, all the 1994 paratransit service plan updates described above had been completed and were being published by the Commission. All of the 1994 paratransit plan updates were scheduled to be acted upon by the respective communities involved and by the Commission early in 1994.

TRANSPORTATION IMPROVEMENT PROGRAMMING

In October 1993, the Commission amended the previously adopted six-year transportation improvement program (TIP) for Southeastern Wisconsin. The previously adopted program is set forth in a document entitled A Transportation Improvement Program for Southeastern Wisconsin: 1993-1998, December 1992. The 1993 amendment to 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 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.

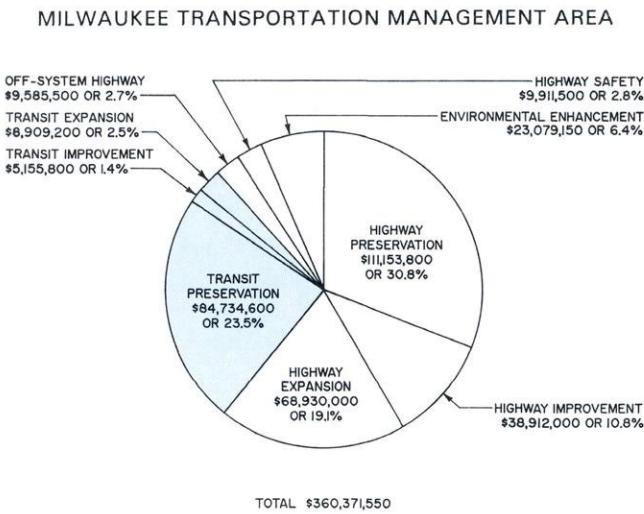
The 1993-1998 TIP, as amended, identifies all highway and mass transportation projects in the two transportation management areas of the Region, the Milwaukee transportation management area, which includes Milwaukee, Ozaukee, Washington, and Waukesha Counties, and the Kenosha-Racine-Waukesha transportation management area, programmed for implementation during this six-year period with the aid of U. S. Department of Transportation funds administered through the Federal Highway Administration (FHWA) and the Federal Transit Administration. Following approval of the amendment to the 1993-1998 TIP by the Inter-governmental 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 amendment to the program on October 13, 1993.

The amended 1993-1998 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 Milwaukee-Waukesha County line to the Marquette Interchange, modernization of the Marquette Interchange, and reconditioning of the Zoo Freeway (IH 894) between IH 94 and IH 43 and of the Airport Freeway (IH 43/IH 894) between the Zoo Freeway (IH 894) and S. 20th Street. 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 construction of alternate fuel facilities for the Milwaukee County Transit System, the Kenosha Transit System, and the City of Waukesha Transit System Utility. 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 Brown Deer Interchange on IH 43 in Milwaukee County, as well as reconstruction of the Waukesha bypass between CTH X and Sunset Drive in the City of Waukesha.

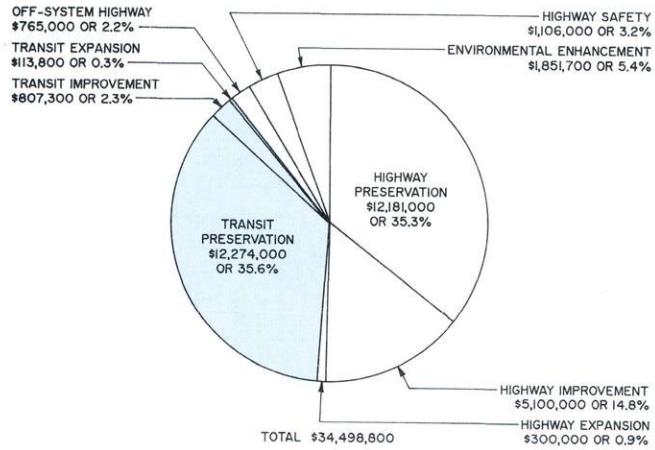
The amended 1993-1998 TIP contains 1,040 projects for the six-year programming period, representing a total potential investment in

Figure 37

**DISTRIBUTION OF EXPENDITURES IN 1994 OF THE AMENDED 1993-1998
TRANSPORTATION IMPROVEMENT PROGRAM BY PROJECT CATEGORY**



KENOSHA-RACINE-WALWORTH
TRANSPORTATION MANAGEMENT AREA



transportation improvement and services of about \$2.15 billion. Of this total, \$1.05 billion, or about 49 percent, is proposed to be provided in Federal funds; \$657 million, or about 30 percent, in State funds; and \$441 million, or about 21 percent, in local funds.

While the entire six-year program is an important planning tool, the second year is of primary interest, because a transportation system improvement project in the Region may be eligible for Federal funding in 1994 only if it is included in the second year of the TIP. Proposed expenditures total \$394,870,350 in 1994, and include 216 highway improvement and 86 transit projects. A cost summary for these projects is shown in Table 19.

In order to provide a basis for a better understanding of the types of transportation improvements proposed to be undertaken in the Region, 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 37

reflects graphically the proposed expenditures in 1994 for these nine project categories for each of the two transportation management areas. At least three of the expenditure patterns apparent in the figures deserve comment:

- A significant portion, 56 percent, of financial resources is to be devoted to the preservation of the existing transportation facilities and services in 1994. This allocation of resources is especially notable when it is realized that virtually none of the funding for routine highway maintenance activities, such as 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 represents a small portion of the total expenditures in the Region. About 18 percent of the total expenditures in the Region is proposed for this purpose in 1994.
- A significant portion of financial resources is devoted to public transit projects, accounting for about 28 percent of the programmed resources in 1994. Of the total programmed resources for public transit, 87 percent is for preservation, and only 5 percent and 8 percent for service improvement and expansion, respectively.

Table 19

COST SUMMARY OF PROJECTS WITHIN 1994 OF THE AMENDED 1993-1998 TRANSPORTATION IMPROVEMENT PROGRAM BY TRANSPORTATION MANAGEMENT AREA, COUNTY, AND FUNDING SOURCE

Transportation Management Area	Proposed 1994 Expenditures
Milwaukee Area	
Milwaukee County	
Federal	\$134,645,950
State	117,068,200
Local	54,510,200
Total	\$306,224,350
Ozaukee County	
Federal	\$ 5,456,200
State	369,900
Local	1,865,900
Total	\$ 7,692,000
Washington County	
Federal	\$ 11,203,300
State	5,509,300
Local	686,700
Total	\$ 17,399,300
Waukesha County	
Federal	\$ 14,054,500
State	3,713,300
Local	11,288,100
Total	\$ 29,055,900
Milwaukee Area Subtotal	
Federal	\$165,359,950
State	126,660,700
Local	68,350,900
Total	\$360,371,550
Kenosha-Racine-Walworth Area	
Kenosha County	
Federal	\$ 7,854,300
State	1,423,700
Local	2,786,900
Total	\$ 12,064,900
Racine County	
Federal	\$ 6,064,900
State	6,026,400
Local	2,834,200
Total	\$ 14,925,500
Walworth County	
Federal	\$ 4,879,200
State	1,898,900
Local	730,300
Total	\$ 7,508,400
Kenosha-Racine-Walworth Area Subtotal	
Federal	\$ 18,798,400
State	9,349,000
Local	6,351,400
Total	\$ 34,498,800
Region Total	
Federal	\$184,158,350
State	136,009,700
Local	74,702,300
Total	\$394,870,350

Table 20

**ACTIVE COMMON-CARRIER RAILWAY MAINLINE MILEAGE
IN SOUTHEASTERN WISCONSIN: DECEMBER 31, 1993**

County	Chicago & North Western Transportation Company		Wisconsin Central Transportation Corporation		CP Rail System		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
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	7.3	5.0	1.0	49.9	9.9
Washington	--	--	52.6	10.4	--	--	22.5	4.5	--	--	75.1	14.9
Waukesha	31.2	6.2	26.6	5.3	25.6	5.1	22.2	4.4	1.3	0.3	106.9	21.2
Total	175.0	34.7	136.7	27.1	95.5	18.9	90.9	18.0	6.3	1.3	504.4	100.0

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.

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, 1993, railway freight service was being provided within Southeastern Wisconsin over a total of 504 miles of active railway line by five railway companies. Three of the five carriers operated about 81 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 Transportation Corporation, which operated 137 miles, or 27 percent of the railway miles in the Region; and the CP Rail System, which operated 95 miles, or 19 percent of the railway miles in the Region. Operation of the remaining 19 percent of the railway mileage in the Region was divided among two other carriers: the Wisconsin & Southern Railroad Company, 91 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 CP Rail System trackage, with stops in 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, 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 common-carrier railway lines in Southeastern Wisconsin are shown on Map 14. The extent of railway mileage in each of the seven counties is set forth in Table 20.

The only significant change during 1993 involved the acquisition of the Fox River Valley Railroad Company by Fox Valley & Western, Ltd., a subsidiary of Wisconsin Central Transportation Corporation, which is also the parent company of Wisconsin Central Ltd. In January 1992, an agreement was announced under which Fox Valley & Western would acquire the operating assets of the Fox River Valley Railroad Company and the Green Bay and Western

Map 14

COMMON-CARRIER RAILWAY
FREIGHT LINES IN SOUTHEASTERN
WISCONSIN: DECEMBER 31, 1993

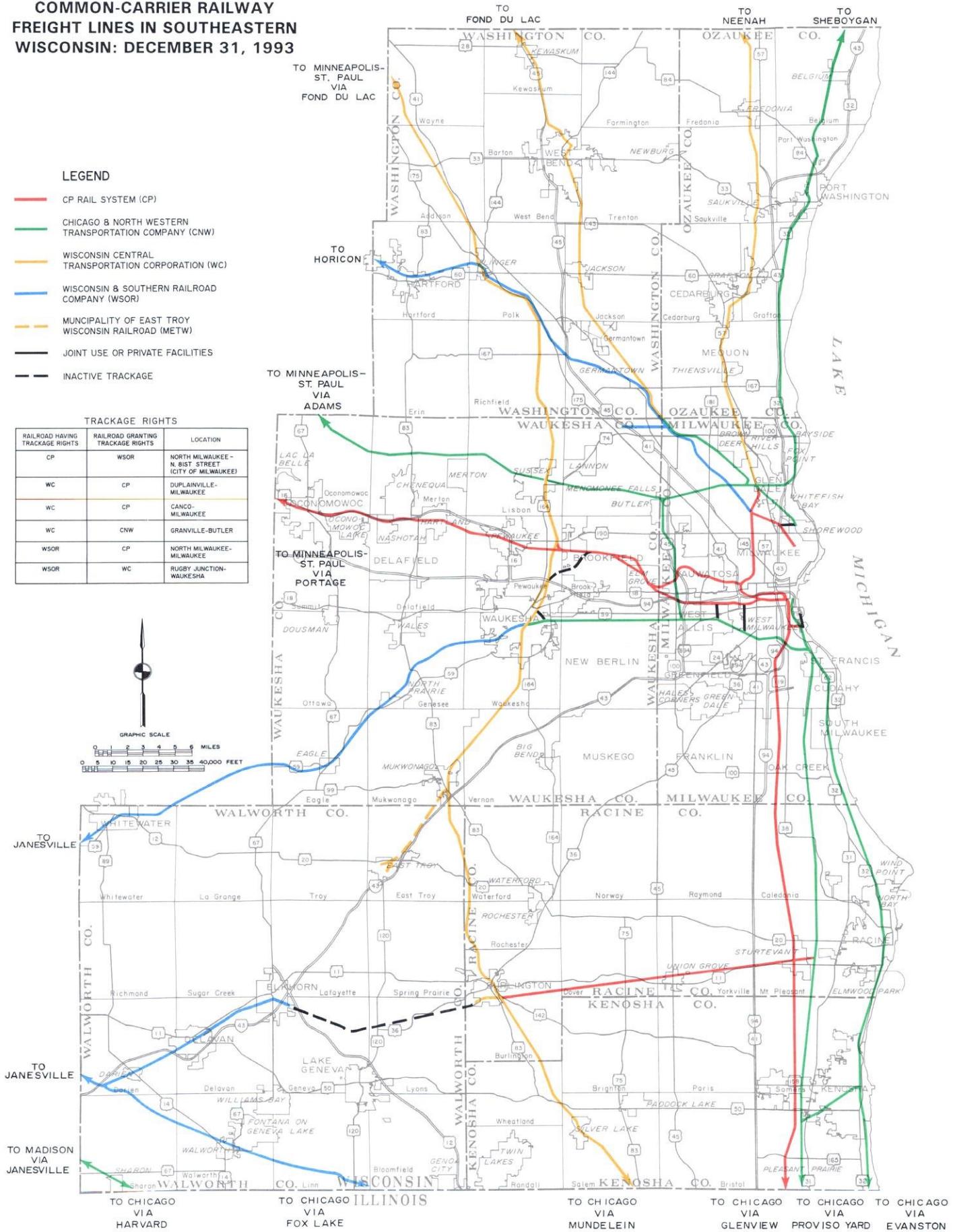
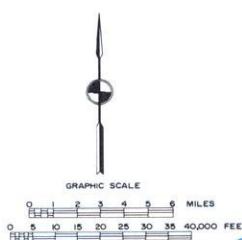
TO MINNEAPOLIS
ST. PAUL
VIA
FOND DU LAC

LEGEND

- CP RAIL SYSTEM (CP)
- CHICAGO & NORTH WESTERN
TRANSPORTATION COMPANY (CNW)
- WISCONSIN CENTRAL
TRANSPORTATION CORPORATION (WC)
- WISCONSIN & SOUTHERN RAILROAD
COMPANY (WSR)
- MUNICIPALITY OF EAST TROY
WISCONSIN RAILROAD (METW)
- JOINT USE OR PRIVATE FACILITIES
- INACTIVE TRACKAGE

TRACKAGE RIGHTS

RAILROAD HAVING TRACKAGE RIGHTS	RAILROAD GRANTING TRACKAGE RIGHTS	LOCATION
CP	WSOR	NORTH MILWAUKEE - N. SIXTH STREET (CITY OF MILWAUKEE)
WC	CP	DUPLAINEVILLE - MILWAUKEE
WC	CP	CANCO - MILWAUKEE
WC	CNW	GRANVILLE-BUTLER
WSOR	CP	NORTH MILWAUKEE - MILWAUKEE
WSOR	WC	RUGBY JUNCTION - WAUKESHA



Railroad Company from Itel Rail Corporation. The former Fox Valley Railroad's main line extends from Butler Yard--near Milwaukee--to Fond du Lac, Appleton, and Green Bay. The railway was formed in 1988 from railway lines sold by the Chicago & North Western Transportation Company. The Green Bay and Western Railroad Company's trackage was located entirely outside of the Southeastern Wisconsin Region. The Interstate Commerce Commission approved the acquisition in December 1992, and the actual purchase occurred in August 1993. Operations and marketing efforts of Fox Valley & Western, Ltd., are coordinated with those of Wisconsin Central Ltd. to permit single-carrier service for shippers.

At the end of 1993, two railway line segments in the Region remained potential candidates for future abandonment, based on notifications filed by the carriers. Both segments are operated by CP Rail System and have served few customers in recent years. One is a 7.5-mile-long segment of rail line located within Racine County between the east side of the City of Burlington and the west side of the unincorporated settlement of Kansasville. The other is an 0.8-mile-long segment located between N. Richards Street and E. Chambers Street in the City of Milwaukee on what remains of the former Milwaukee Road Chestnut Street Line, or "Beer Line."

AIR TRANSPORTATION PLANNING

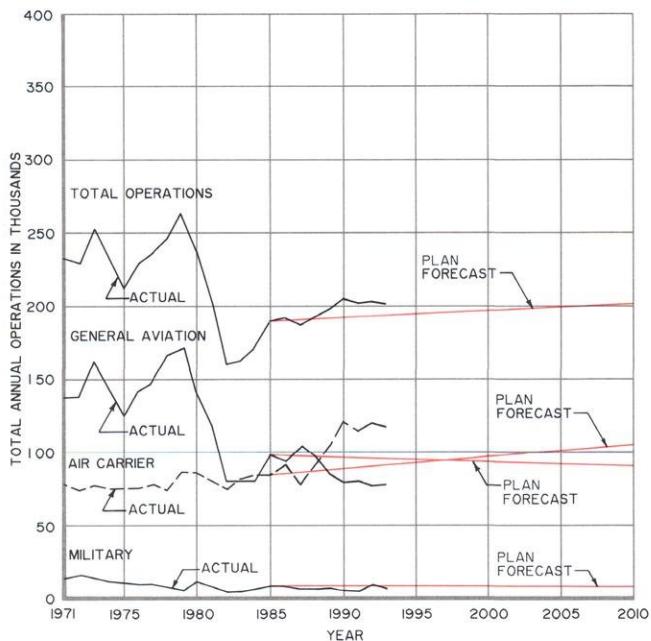
During 1993, Commission activities in air transportation and airport planning included the continued monitoring of aviation activities within the Region; the continued monitoring of, and provision of technical assistance to, airport master planning activities; and other related airport planning activities. 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, May 1987, and is shown on Map 15.

Aviation Activity

The Commission staff continued to monitor aviation activity within the Region during 1993. 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

Figure 38

ANNUAL AIRCRAFT OPERATIONS AT GENERAL MITCHELL INTERNATIONAL AIRPORT, MILWAUKEE



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 38, in 1993 aircraft operations of all types at Mitchell International totaled about 201,300, representing a slight decrease from the 203,000 operations in 1992. The 1993 total is about 5 percent above the 192,400 operations forecast to occur at Mitchell International during 1993 under the 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 1993 totaled about 118,000, about the same as the 1992 level of 118,900 operations. General aviation operations at Mitchell International Airport totaled about 77,500 during 1993, also about the same as the 1992 level of 77,100 operations. Military aircraft operations at Mitchell International Airport during 1993 totaled about 5,800, a decrease of about 17 percent from the 1992 level of 7,000 operations.

From 1992 to 1993, the number of air carrier enplaning and deplaning passengers at General Mitchell International Airport increased by about 100,000, to about 4,522,000 passengers, or

Map 15

REGIONAL AIRPORT SYSTEM PLAN: 2010

LEGEND

PUBLIC USE AIRPORT SITES

● PUBLIC OWNERSHIP

○ PRIVATE OWNERSHIP

AIRPORT CLASSIFICATION

T TRANSPORT

GU-II GENERAL UTILITY-STAGE II

GU-I GENERAL UTILITY-STAGE I

BU-II BASIC UTILITY-STAGE II

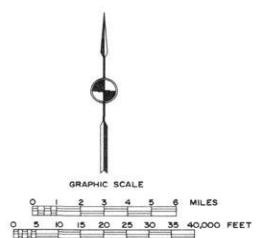


Table 21
GENERAL AVIATION AIRCRAFT BASED IN THE REGION

County	1960	1965	1970	1975	1980	1985	1990	1993
Kenosha	28	60	76	148	123	112	195	194
Milwaukee	338	362	356	371	388	373	358	347
Ozaukee	19	13	32	28	29	27	28	26
Racine	65	89	108	151	179	207	228	201
Walworth	23	31	48	82	98	121	127	152
Washington	45	63	118	136	158	165	191	180
Waukesha	118	163	243	255	304	350	341	320
Total	636	781	981	1,171	1,279	1,355	1,468	1,420

Figure 39

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

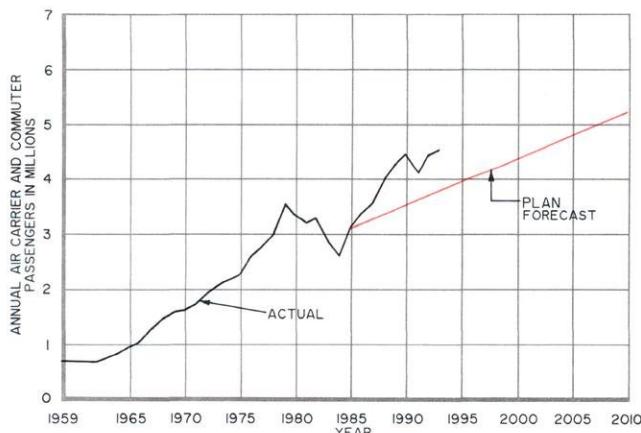
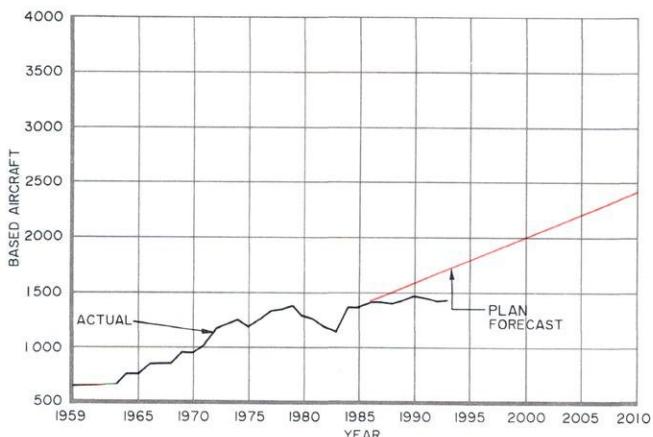


Figure 40

GENERAL AVIATION AIRCRAFT BASED IN THE REGION



about 2 percent above the 1992 level of about 4,422,000 passengers. The 1993 level was about 775,000, or about 21 percent, greater than the 3,747,000 passengers forecast for 1993 under the regional airport system plan, as shown in Figure 39.

General aviation activity can also be measured in terms of the number of aircraft based within Southeastern Wisconsin. As shown in Figure 40 and Table 21, a total of 1,420 aircraft were based in the Region in 1993, representing virtually no change from the total number of aircraft based in the Region during 1992. The number of aircraft based in the Region during 1993 was about 25 percent lower than the total of 1,884 forecast for 1993 under the regional airport system plan.

Reevaluation of the Regional Airport System Plan

During 1993, work was begun on a reevaluation of the second-generation regional airport system plan, which was adopted in 1987. This work effort involves a refinement of the adopted regional airport system plan and is being based upon a careful reevaluation of that second-generation plan, using forecasts to the design year 2010. It will recommend a coordinated set of airport facility and service improvements that will provide the Region with an airport system able to serve the business, commercial, sport, and personal general aviation needs of the area, as well as its scheduled air carrier, cargo, and military aviation needs, in an efficient and cost-effective manner. The updated and revised plan

will be based on inventories and analyses of the existing airport facilities and aviation demand in the Region, as well as an evaluation of alternative airport improvements which would adequately meet the existing and probable future aviation needs. The findings of the supporting inventories, analyses, forecasts, and evaluation of alternatives, as well as the recommended updated and revised plan, will be summarized in a planning report.

Three principal factors underscore the need for this reevaluation of the regional airport system plan. First, the potential development of the Kenosha Regional Airport as a major commercial air cargo facility by the City of Kenosha would require a reclassification of this airport along with an amendment to the adopted regional airport system plan. Second, there is a need to maintain consistency with the new, updated statewide airport system plan for which work was begun in late 1993. Third, the Commission was aware of issues concerning the development of airport facilities in various areas of the Region, including Burlington, Elkhorn, and Hartford, the proper resolution of which issues requires analyses within the context of an amended regional airport system plan.

During September 1993, the Commission initiated work on this project, including study organization, reactivation of the Technical Coordinating and Advisory Committee on Regional Airport System Planning, preparation of introductory materials, review of the current status of plan implementation, identification of airport system planning issues, and collection of airport facility and activity inventory data. Extensive work was completed on significant portions of the first five chapters of what will be the study planning report. Work on the regional airport system plan reevaluation is being coordinated with similar work being undertaken for the update of the Wisconsin State airport system plan.

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, establishes 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 Regional, West Bend Municipal, 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 in the City of Racine, East Troy Municipal Airport, and Burlington Municipal Airport. During 1993, work continued on an airport master plan update for the Kenosha Regional Airport and on an initial airport master plan for Capitol Airport, in the City of Brookfield. Also during 1993, local officials were considering significant improvements at West Bend Municipal Airport, Waukesha County-Crites Field, and Burlington Municipal Airport which would require airport master plan update work and revision of each airport's layout plan. The Commission staff also continued to provide planning data, technical information, and other assistance to these local efforts.

During 1987, Milwaukee County began an update of the airport master plan for General Mitchell International Airport, 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. Under the resulting updated master plan, recommended short-term improvements include the long-recommended extensions of the two primary runways by 1,000 feet and 2,000 feet, respectively; the extension of the parallel north-south runway; the realignment and reconstruction of the existing east-west general aviation runway; the construction of new taxiways and taxiway

exits; and the decommissioning of the northwest-southeast general aviation runway. Recommended long-term improvements include the acquisition of land for and the construction of an east-west parallel primary runway; the construction of additional air carrier terminal gates and ticketing and baggage claim facilities; the construction of additional public and employee parking facilities; and the expansion of air cargo facilities. In September 1993, the Milwaukee County Board of Supervisors adopted this master plan update. The findings and recommendations of this master plan update will be reviewed and, as appropriate, incorporated by the Commission in its reevaluation of the regional airport system plan.

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 1993:

- At the request of the Wisconsin Department of Transportation, data were provided from the 1989 enplaning passenger survey, the 1991 Amtrak survey, and the 1992 external travel survey in support of the Department's multimodal statewide passenger planning activities. The results of the 1991 Amtrak survey were published in January 1993 as SEWRPC Memorandum Report No. 57, Amtrak Milwaukee-Chicago Passenger Survey Findings: June 1991.
- At the request of the Village of Union Grove, a traffic study of 11th Avenue between USH 45 and Vine Street was conducted to address concerns over angle parking and the intersection control at the intersection of 11th Avenue and USH 45.
- At the request of Kenosha County, a traffic study of STH 83 in the Town of Salem was conducted to address concerns over traffic safety and roadway capacity.

- At the request of Kenosha County, a traffic impact study was conducted for a proposed library to be located in the southeast quadrant of the intersection of CTH AH and STH 83 in the Town of Salem.
- At the request of the City of Franklin, a traffic impact analysis was conducted for the proposed City of Franklin Business Park.
- At the request of the Village of Union Grove, a traffic study of 10th Avenue between State Street and Vine Street in the Village was conducted to address concerns over parking and access.
- At the request of Walworth County, a traffic study of CTH BB between Brink Road and Hillside Road in the Town of Linn was conducted to address safety concerns.
- At the request of the Wisconsin Department of Development, a traffic impact study of the Target Distribution Center in the City of Oconomowoc was conducted.
- At the request of the City of Milwaukee, a traffic impact study of the proposed closure of W. Wisconsin Avenue between N. 11th Street and N. 16th Street was conducted.
- At the request of the City of Brookfield, a traffic engineering study of selected streets in the Canterbury Hill subdivision in the City was completed.
- Traffic forecasts were provided in support of these local projects: STH 20 and 90th Street in the Town of Mt. Pleasant, Racine County; CTH W in the Villages of Rochester and Waterford; CTH Q in the Village of Germantown; E. Drexel Avenue in the City of Oak Creek; CTH EZ and CTH ML in the Village of Pleasant Prairie; W. Canal Street in the City of Milwaukee; W. Edgerton Avenue in the Village of Hales Corners; W. College Avenue, E. Moreland Boulevard, E. North Street, N. Pewaukee Road, E. St. Paul Avenue, E. Whiterock Avenue, and E. Main Street in the City of Waukesha; CTH ES in the City of New Berlin and Town of Vernon, Waukesha County; and CTH G, CTH T, CTH JJ, CTH SS, Main Street, and Wisconsin Avenue in the Town of Pewaukee and the Village of Pewaukee, Waukesha County.

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 its 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, to develop recommendations concerning environmental protection and enhancement, to monitor levels of environmental

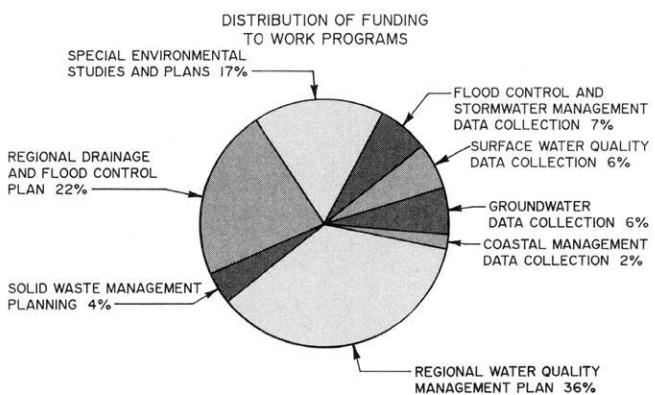
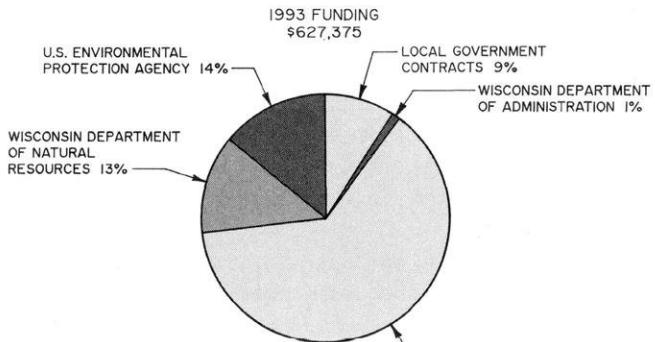
quality in the Region, and to respond to requests for data and technical assistance, activities were conducted in 1993 in four identifiable program areas: water quality management planning; watershed, floodland, and stormwater management planning; coastal management planning; and solid waste management planning.

WATER QUALITY MANAGEMENT PLANNING

During 1993, 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 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

Figure 41

ENVIRONMENTAL PLANNING DIVISION



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 in the adopted regional plan as needed. 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.

The 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, September 1978; Volume Two, Alternative Plans, February 1979; and Volume Three, Recommended Plan, June 1979. The plan provides recommendations for the control of water pollution from such point sources as sewage treatment plants, points of separate and combined sewer overflow, and industrial waste outfalls and from such nonpoint sources 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, for the review and approval of public sanitary sewer extensions by that Department, 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

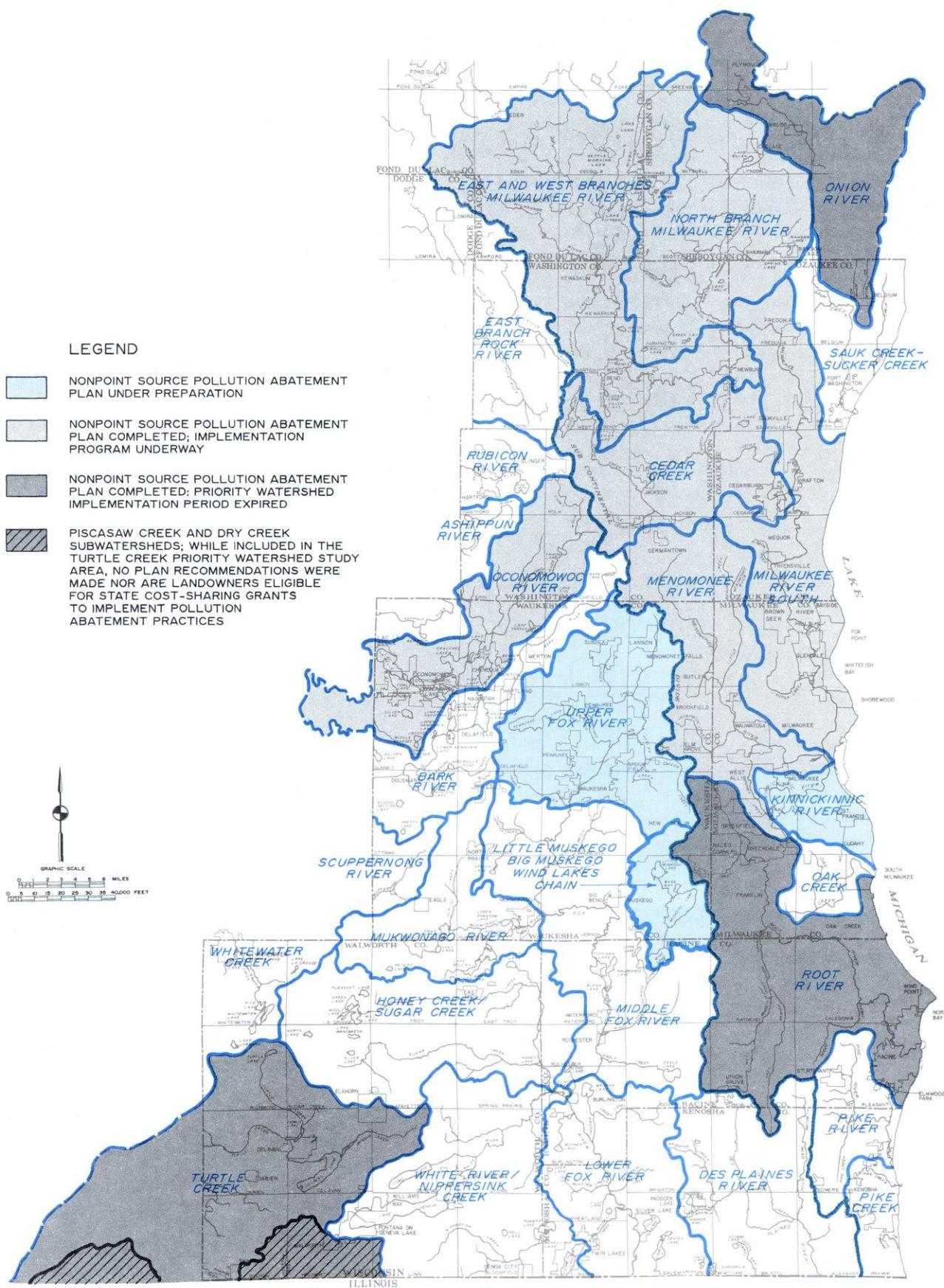
The adopted regional water quality management plan recommends that local agencies charged with responsibility for nonpoint source pollution control prepare refined and detailed local-level nonpoint source pollution control plans. Such plans are to identify the nonpoint source pollution control practices 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 amounting to 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 Department of Natural Resources has divided the Southeastern Wisconsin Region into 28 "priority" watersheds, as shown on Map 16. Prior to 1993, 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 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

Map 16

STATUS OF PRIORITY WATERSHEDS IN SOUTHEASTERN WISCONSIN: 1993



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 the North Branch of the Milwaukee River priority watershed, both of which lie partly within Ozaukee and Washington Counties; for the Menomonee River priority watershed, which lies in Milwaukee, Ozaukee, Washington, and Waukesha Counties; for the Milwaukee River South priority watershed, which lies in Ozaukee and Milwaukee Counties; and for the Cedar Creek priority watershed, which lies in Ozaukee and Washington Counties. During 1993, work continued on the preparation of plans for the Upper Fox (Illinois) River watershed in Washington and Waukesha Counties; for the Kinnickinnic River watershed in Milwaukee County; and for the Little Muskego-Big Muskego-Wind Lakes chain subwatershed, which lies in Milwaukee, Racine, and Waukesha Counties.

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 streambank erosion control, landfill site runoff control, stormwater runoff control, and the installation of spent-oil disposal stations. For rural areas, the plans include specific recommendations for improved cropping practices, better livestock waste management, streambank 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 usually ends five years after the end of the project sign-up phase.

The respective implementation periods of the completed priority watershed plans are summarized in Table 22. For the Root River, Onion River, and Turtle Creek priority watersheds, the full project implementation period has ended. As shown in Table 22, the project implementation end dates for the other priority watersheds with completed detailed plans range from December 1994 to March 2000.

The Wisconsin Department of Natural Resources is continuing with the preparation of three other priority watershed plans. It is anticipated that plans for the Upper Fox (Illinois) River watershed and the Little Muskego-Big Muskego-Wind Lakes chain subwatershed will be completed early in 1994. The Kinnickinnic River watershed plan is also expected to be completed in 1994.

During 1993, the Commission continued to assist the Department of Natural Resources in the preparation of the priority watershed plans, data collection and analysis, and report production efforts for the priority watersheds. The Commission staff attended interagency coordinating meetings with the Department. In addition, base mapping and planned land use mapping were provided to the Wisconsin Department of Natural Resources for use in the Kinnickinnic River watershed priority watershed planning program, and wetland inventory mapping was provided to the Department for the Little Muskego-Big Muskego-Wind Lakes chain subwatershed priority watershed planning program.

Also during 1993, the Commission continued to assist the counties and other local units of government of the Region in establishing sound nonpoint source pollution abatement measures. The following are examples of such work:

- At the request of Kenosha County, review comments and recommendations were made to improve stormwater management non-point source pollution controls and construction erosion controls attendant to plans for the Randall School expansion in the Town of Randall; for four subdivisions, one in the Town of Bristol, two in the Town of Salem, and one in the Town of Somers; and for three governmental and institutional developments, one each in the Towns of Bristol, Salem, and Somers.
- At the request of the Village of Menomonee Falls, the Commission staff reviewed and provided recommendations for refinement of a proposal for the construction of a wet detention basin along the North and South Branches of the Oakwood Tributary to Lilly Creek. The detention basin was recommended in the stormwater management and flood control plan prepared for the Village by the Commission.

Table 22

IMPLEMENTATION PERIODS OF COMPLETED AND APPROVED PLANS IN SOUTHEASTERN WISCONSIN: 1993

Watershed	Counties	Date Selected	Date Plan Completed	Project Sign-Up End Date	Project Implementation End Date
Root River	Racine Milwaukee Waukesha Kenosha	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 Dodge	1983	1986	April 1989	December 1994
East and West Branches of the Milwaukee River	Washington Ozaukee Fond du Lac Sheboygan Dodge	1984	1989	December 1993 ^a	June 1997
North Branch of the Milwaukee River	Washington Ozaukee Sheboygan Fond du Lac	1984	1989	December 1993 ^a	July 1997
Menomonee River	Washington Waukesha Milwaukee Ozaukee	1984	1991	October 1994 ^a	October 1999
Milwaukee River South	Ozaukee Milwaukee	1984	1991	October 1994 ^a	October 1999
Cedar Creek	Ozaukee Washington	1984	1992	March 1995 ^a	March 2000

^aUrban nonpoint source management practices can be signed up during the entire project implementation period.

- At the request of Ozaukee County, the Commission staff reviewed and provided recommendations for refinement of an environmental analysis, a stormwater management plan, and an erosion control plan for a proposed golf course in the Town of Saukville.
- At the request of the Town of Delavan, Walworth County, the Commission staff conducted field investigations and provided recommendations with regard to design details of the Delavan Lake Inlet wetland complex being created to reduce nonpoint source pollutant loadings to Delavan Lake.

Lake Water Quality Management Planning

The adopted regional water quality management plan recommends 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 Wisconsin Department of Natural Resources 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 Commission community assistance planning reports. These reports describe the existing chemical, biological, and physical water quality conditions of each lake in question; 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 the required point and nonpoint source pollution abatement measures.

Prior to 1993, comprehensive lake water quality management plans were completed for the following lakes: Powers in Kenosha and Walworth Counties; Wind in Racine County; Ashipupun, La Belle, Pewaukee, North, Oconomowoc, and Okauchee in Waukesha County; Geneva in Walworth County; and Friess in Washington County. These plans have been adopted by the Commission as amendments to the regional water quality management plan. In addition, a lake use management plan was completed for Waubeesee Lake and the Anderson Canal, which connects Long Lake (Kee Nong Go Mong Lake) to Waubeesee Lake, in Racine County. This plan, however, is not intended for adoption as an amendment to the regional water quality management plan.

In addition to these management plans for lakes, the Commission continued to provide technical assistance to certain lake districts and associations. During 1993, the Commission participated in lake-related meetings convened by the Wisconsin Department of Natural Resources and the Wisconsin Association of Lakes. Technical assistance relating to selected lake management needs was provided to lake associations or districts for Camp and Center Lakes in Kenosha County; Delavan Lake and Whitewater-Rice Lakes in Walworth County; Friess Lake in Washington County; Big Muskego Lake, Eagle

Spring Lake, Lake Keesus, Little Muskego Lake, Lower and Middle Genesee Lakes, North Lake, Pretty Lake, Upper Nemahbin Lake, and Upper and Lower Phantom Lakes in Waukesha County.

Assistance in preparing applications for State grants in partial support of lake protection and management planning was provided for 12 of these lakes. In addition, information provided included an analysis of pollutant loadings, water quality conditions, and fluctuating water levels. Work continued on the Fowler Lake management plan for the City of Oconomowoc, which was completed in draft form during 1993 and is scheduled for final publication early in 1994.

During 1993, the Commission completed an aquatic plant management plan for the Phantom Lakes, Waukesha County. The plan, documented in SEWRPC Memorandum Report No. 81, Aquatic Plant Management Plan for Phantom Lakes, Waukesha County, Wisconsin, July 1993, was prepared by the Commission at the request of the Phantom Lakes Management District, sets forth a revised aquatic plant management plan for the Lakes, and is designed to form an integral part of any future comprehensive lake management plan prepared for the Lakes. The District has adopted the plan.

Also during 1993, the Commission completed a lake protection plan for Silver Lake, Waukesha County. This plan, documented in SEWRPC Memorandum Report No. 82, A Lake Protection Plan for Silver Lake, Waukesha County, Wisconsin, July 1993, was prepared by the Commission at the request of the Town of Summit and the Silver Lake Environmental Association, Inc.

Local and Subregional Sewerage Facilities Planning

During 1993, 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 Wisconsin Legislature in 1978 and administered by the Wisconsin Department of Natural Resources, and good engineering practice. Work activities during 1993 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, particularly 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.

The Commission was directly involved in the following local and subregional sewerage facility planning efforts in 1993:

- 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. During 1993, detailed facility planning was largely completed by 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 Burlington and Bohner's Lake Sanitary District, Racine County, for the Bohner Lake area; and the Pell Lake Sanitary District, in Walworth County, for the Pell Lake area. The detailed planning studies are designed to ascertain the need for sewerage facilities and the probable cost of installing such facilities. The facility planning programs for the Powers Lake and Bohner Lake areas conducted by consultants using funding provided by the Wisconsin Department of Natural Resources based upon grant application materials prepared by the Commission. During 1993, the Commission continued to assist in these efforts through the provision of needed data for use in these facility plans, by review of plan materials, by participating in local committee and public meetings to discuss the findings of these facility plans, and by the preparation of amendments to the regional water quality management plan as appropriate to incorporate the findings of these local plans.
- Continued assistance to local units of government in the Region in developing modifications to existing public sewerage systems or providing new centralized sanitary sewer service to existing urban development. During 1993, local sewerage facilities plans were completed for the Town of Bristol Sanitary District No. 4 in Kenosha County, the Village of Jackson in

Washington County, and the City of Brookfield in Waukesha County. These plans set forth recommendations for the construction of new sewerage facilities in accordance with the recommendations of the adopted regional water quality management plan. As such, these facilities plans were recommended by the Commission to the Wisconsin Department of Natural Resources for approval. At year's end similar sewerage facilities plans were under development for the Town of Yorkville Sewer Utility District No. 1 in Racine County, the Village of Darien and the Lauderdale Lakes area, both in Walworth County, the City of Hartford in Washington County, and the Village of Newburg in Washington and Ozaukee Counties.

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 second-generation 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 also 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.

As noted above, the regional water quality management plan adopted in 1979 originally

identified 85 sanitary sewer service areas. Subsequent to adoption of the original plan, the Commission has conducted a continuing effort to refine and detail the planned sewer service areas of the Region through local-level planning efforts resulting in amendments to the regional water quality management plan. During 1993, these efforts included the following:

- The adoption by the Commission of first-generation refined and detailed sanitary sewer service area plans for the Eagle Lake Sewer Utility District, Town of Dover, Racine County; and jointly for the City of Delafield and Village of Nashotah in Waukesha County. These plans were adopted by the respective local units of government concerned in 1992.
- The completion and adoption by the Commission of first-generation refined and detailed sanitary sewer service area plans for the Village of Newburg in Ozaukee and Washington Counties; the City of Lake Geneva in Walworth County; and jointly for the Villages of Lannon and Menomonee Falls in Waukesha County. These plans were also adopted by the respective local units of government concerned during 1993.
- The completion and adoption by the Commission of a third-generation local-level sanitary sewer service area plan for the Village of Belgium, Ozaukee County, whose prior plans were completed in 1987 and 1984; and of second-generation local-level plans for the Village of East Troy and environs, Walworth County, whose prior plan was completed in 1984; the Town of Lyons Sanitary District No. 2 and the Country Estates Sanitary District, both located in the Town of Lyons, Walworth County, whose prior plan was completed in 1987; and the Village of Slinger, Washington County, whose prior plan was completed in 1985. Each of these updated and revised plans was also adopted locally during 1993.
- The adoption by the Commission of minor amendments to the sewer service area plans for the Village of Twin Lakes, Kenosha County; the City of Racine, Racine County; the Williams Bay-Geneva National-Lake Como sewer service area of the Walworth County Metropolitan Sewerage District,

plan amendments was also adopted locally during 1993.

By the end of 1993, as a result of this ongoing refinement and detailing process, a total of 70 of the 85 initially identified sanitary sewer service areas had been refined and detailed. Because the refinement and detailing process sometimes involves the redefinition and combination of previously defined areas, these 70 originally defined areas have been combined into a total of 57 currently defined areas.

In addition, the refinement and detailing process sometimes has resulted in the creation of new sanitary sewer service areas which were not envisioned in the original 1979 regional water quality management plan. As of the end of 1993, nine such areas have been delineated by amendments to the regional water quality management plan. These nine new areas are: the City of Franklin portion of the Milwaukee Metropolitan Sewerage District in Milwaukee County; Alpine Valley, Army Lake, the Country Estates Sanitary District, and Griedanus Landfill, all located in Walworth County; the Eagle Spring Lake Sanitary District, the Village of Lannon portion of the Lannon-Menomonee Falls area, and the Mukwonago County Park area in Waukesha County; and Rainbow Springs, lying in both Waukesha and Walworth Counties.

The existing status of all planned sanitary sewer service areas is summarized in Table 23 and on Map 17. The table identifies the 85 initially identified sewer service areas; the 70 initially identified sewer service areas for which the recommended plan refinement process was completed at the end of 1993; and the 57 redefined areas and the nine new areas resulting from that refinement process. The table also identifies the documents setting forth each refined and detailed sewer service area and the respective dates on which the Commission adopted those documents as amendments to the regional water quality management plan.

Sewer service area refinement plans under preparation at the end of 1993 included plans for the Village of Twin Lakes, Kenosha County, and the City of Oak Creek portion of the Milwaukee Metropolitan Sewerage District in Milwaukee 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 1993, review comments were provided on 234 public sanitary sewer extensions and 217 private main sewers or building sewer extensions, distributed by county as shown in Table 24.

WATERSHED, FLOODLAND, AND STORMWATER MANAGEMENT PLANNING

During 1993, Commission efforts in watershed, floodland, and stormwater management consisted of continued work on the stormwater management plan for the City of West Bend; the completion of a stormwater drainage and flood control system plan for Lilly Creek in the Village of Menomonee Falls; 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. Work also began in 1993 on the preparation of a comprehensive watershed plan for that portion of the Des Plaines River watershed lying within the State of Wisconsin. Map 18 indicates the coverage of the watershed studies conducted by the Commission through 1993.

Stormwater and Floodland Management Planning

During 1993, 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; the distinction between these two concepts is not 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

Table 23

PLANNED SANITARY SEWER SERVICE AREAS IN THE REGION: 1993

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Kenosha	Bristol-George Lake	Bristol	December 1, 1986	SEWRPC 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> , October 1986
	Bristol IH 94 Pleasant Prairie North	Bristol/Pleasant Prairie	December 2, 1985	SEWRPC Community Assistance Planning Report No. 106, <u>Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u> , November 1985
	Camp-Center Lakes Cross Lake Rock Lake Wilmot	Salem South	March 3, 1986	SEWRPC Community Assistance Planning Report No. 143, <u>Sanitary Sewer Service Area for the Town of Salem Utility District No. 2, Kenosha County, Wisconsin</u> , February 1986
	Hooker-Montgomery Lakes	Salem North	December 1, 1986	SEWRPC 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> , October 1986
	Kenosha Pleasant Park Somers	Kenosha	December 2, 1985	SEWRPC Community Assistance Planning Report No. 106, <u>Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u> , November 1985
	Paddock Lake	Paddock Lake	December 1, 1986	SEWRPC 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> , October 1986
	Pleasant Prairie South	Pleasant Prairie South	December 2, 1985	SEWRPC Community Assistance Planning Report No. 106, <u>Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin</u> , November 1985
	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> , May 1987

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Kenosha (continued)	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, May 1987</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, October 1990</u>
	Milwaukee Metropolitan Sewerage District (portion)	--	--	--
	South Milwaukee	--	--	--
Ozaukee	Belgium	Belgium	September 15, 1993	SEWRPC Community Assistance Planning Report No. 97, 3rd Edition, <u>Sanitary Sewer Service Area for the Village of Belgium, Ozaukee County, Wisconsin, August 1993</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 and the Village of Grafton, Ozaukee County, Wisconsin, May 1987</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, July 1984</u>
	Lake Church	--	--	--
	Mequon Thiensville	Mequon Thiensville	January 15, 1992	SEWRPC Community Assistance Planning Report No. 188, <u>Sanitary Sewer Service Area for the City of Mequon and the Village of Thiensville, Ozaukee County, Wisconsin, January 1992</u>
	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, September 1983</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, September 1983</u>
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, April 1986</u>

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Racine (continued)	Eagle Lake	Eagle Lake	January 18, 1993	SEWRPC Community Assistance Planning Report No. 206, <u>Sanitary Sewer Service Area for the Eagle Lake Sewer Utility District, Racine County, Wisconsin</u> , December 1992
	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> , November 1986
	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> , August 1990
	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> , August 1990
	Waterford/Rochester Tichigan 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> , May 1986
	Wind Lake	--	--	--
	Yorkville	--	--	--
Walworth	--	Alpine Valley	December 4, 1989	Amendment to the Regional Water Quality Management Plan – 2000, <u>Towns of East Troy, LaFayette, and Spring Prairie, and Village of East Troy</u> , December 1989
	Darien	Darien	September 23, 1992	SEWRPC Community Assistance Planning Report No. 123, 2nd Edition, <u>Sanitary Sewer Service Area for the Village of Darien, Walworth County, Wisconsin</u> , July 1992
	Delavan Delavan Lake Elkhorn Walworth County Institutions Williams Bay Lake Como --	Delavan-Delavan Lake Elkhorn Williams Bay-Geneva National-Lake Como Griedanus Landfill	December 4, 1991	SEWRPC Community Assistance Planning Report No. 56, 2nd Edition, <u>Sanitary Sewer Service Areas for the Walworth County Metropolitan Sewerage District</u> , November 1991
	East Troy Potter Lake --	East Troy Potter Lake Army Lake	June 16, 1993	SEWRPC Community Assistance Planning Report No. 112, 2nd Edition, <u>Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin</u> , June 1993

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Walworth (continued)	Fontana	--	--	--
	Genoa City	Genoa City	March 6, 1989	SEWRPC Community Assistance Planning Report No. 175, <u>Sanitary Sewer Service Area for the Village of Genoa City, Kenosha and Walworth Counties, Wisconsin</u> , February 1989
	Lake Geneva	Lake Geneva	January 18, 1993	SEWRPC Community Assistance Planning Report No. 203, <u>Sanitary Sewer Service Area for the City of Lake Geneva and Environs, Walworth County, Wisconsin</u> , December 1992
	Lyons	Lyons Country Estates Sanitary District	September 15, 1993	SEWRPC Community Assistance Planning Report No. 158, 2nd Edition, <u>Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin</u> , August 1993
	Sharon	--	--	--
	Walworth	--	--	--
	Whitewater	Whitewater	September 14, 1987	SEWRPC Community Assistance Planning Report No. 94, <u>Sanitary Sewer Service Area for the City of Whitewater, Walworth County, Wisconsin</u> , September 1987
Washington	Allenton	Allenton	March 11, 1985	SEWRPC Community Assistance Planning Report No. 103, <u>Sanitary Sewer Service Area for the Allenton Area, Washington County, Wisconsin</u> , September 1984
	Germantown	Germantown	September 8, 1983	SEWRPC Community Assistance Planning Report No. 70, <u>Sanitary Sewer Service Area for the Village of Germantown, Washington County, Wisconsin</u> , July 1983
	Hartford	Hartford	June 21, 1984	SEWRPC Community Assistance Planning Report No. 92, <u>Sanitary Sewer Service Area for the City of Hartford, Washington County, Wisconsin</u> , March 1984
	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> , May 1985

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Washington (continued)	Kewaskum	Kewaskum	March 7, 1988	SEWRPC Community Assistance Planning Report No. 161, <u>Sanitary Sewer Service Area for the Village of Kewaskum, Washington County, Wisconsin</u> , December 1988
	Newburg	Newburg	March 3, 1993	SEWRPC Community Assistance Planning Report No. 205, <u>Sanitary Sewer Service Area for the Village of Newburg, Ozaukee and Washington Counties, Wisconsin</u> , March 1993
	Slinger	Slinger	September 15, 1993	SEWRPC Community Assistance Planning Report No. 128, <u>2nd Edition, Sanitary Sewer Service Area for the Village of Slinger, Washington County, Wisconsin</u> , September 1993
	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> , December 1982
Waukesha	Beaver Lake	--	--	--
	Brookfield East Elm Grove Brookfield West	Brookfield East Brookfield West	December 4, 1991	SEWRPC Community Assistance Planning Report No. 109, <u>Sanitary Sewer Service Area for the City and Town of Brookfield and the Village of Elm Grove, Waukesha County, Wisconsin</u> , November 1991
	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> , February 1984
	Delafield-Nashotah Nashotah-Nemahbin Lakes	Delafield-Nashotah	January 18, 1993	SEWRPC 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> , November 1992
	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> , December 1990
	--	Eagle Spring Lake	December 2, 1985	<u>Amendment to the Regional Water Quality Management Plan—2000, Eagle Spring Lake Sanitary District</u> , December 1985

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Waukesha (continued)	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> , April 1985
	Menomonee Falls --	Menomonee Falls Lannon	June 16, 1993	SEWRPC Community Assistance Planning Report No. 208, <u>Sanitary Sewer Service Areas for the Villages of Lannon and Menomonee Falls, Waukesha County, Wisconsin</u> , June 1993
	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> , November 1990
	--	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> , June 1984
	Muskego	Muskego	March 3, 1986	SEWRPC Community Assistance Planning Report No. 64, 2nd Edition, <u>Sanitary Sewer Service Area for the City of Muskego, Waukesha County, Wisconsin</u> , March 1986
	New Berlin	New Berlin	December 7, 1987	SEWRPC Community Assistance Planning Report No. 157, <u>Sanitary Sewer Service Area for the City of New Berlin, Waukesha County, Wisconsin</u> , November 1987
	North Lake	--	--	--
	North Prairie	--	--	--
	Oconomowoc-Lac La Belle Silver Lake	Oconomowoc	March 6, 1989	SEWRPC Community Assistance Planning Report No. 172, <u>Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin</u> , February 1989
	Oconomowoc Lake	--	--	--
	Okauchee Lake	--	--	--
	Pewaukee	Pewaukee	June 17, 1985	SEWRPC 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 1985
	Pine Lake	--	--	--

Table 23 (continued)

County	Name of Initially Defined Sanitary Sewer Service Area(s)	Name of Refined and Detailed Sanitary Sewer Service Area(s)	Date of SEWRPC Adoption of Plan Amendment	Plan Amendment Document
Waukesha (continued)	--	Rainbow Springs	June 21, 1984	<u>Amendment to the Regional Water Quality Management Plan – 2000, Village of Mukwonago, Towns of East Troy and Mukwonago, June 1984</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, February 1983</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, June 1985</u>

continues to be extensively involved in flood control planning, its work efforts in recent years have been increasingly directed toward stormwater management planning.

In 1993, 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, the Commission staff reviewed 11 stormwater management plans for new development within the County. The reviews included consideration of stormwater drainage, non-point source pollution control, and construction erosion control. Where appropriate, the reviews were conducted within the broader context of the adopted watershed studies and the regional water quality management plan.
- At the request of Milwaukee County, the Commission staff completed hydrologic and hydraulic analyses enabling the determination of the 100-year recurrence interval floodplain boundary for an unnamed tributary to the Root River in the Oakwood Park golf course in the City of Franklin.

- At the request of Milwaukee County, hydraulic analyses were performed for alternative proposals for replacement bridges over the Brown Deer Park Tributary at the South Brown Deer Park Drive. The hydraulic model used in the analyses was developed by the Commission staff under the stormwater drainage and flood control system plan prepared by the Commission for the Milwaukee Metropolitan Sewerage District.
- The Commission staff completed the review and evaluation of a proposal by the Village of Brown Deer to construct a detention storage facility on the North Tributary to Southbranch Creek as recommended in the drainage and flood control study prepared by the Commission for the Milwaukee Metropolitan Sewerage District.
- An agricultural drainage and urban stormwater management plan for Racine County Farm Drainage District No. 1 in the vicinity of the Village of Waterford was completed. The agricultural drainage system and the urban stormwater management system in the study area have become interconnected as development has proceeded. A recommended plan was developed following consideration of alternatives designed to

Map 17

RECOMMENDED SANITARY SEWER SERVICE AREAS IN THE REGION: 1993

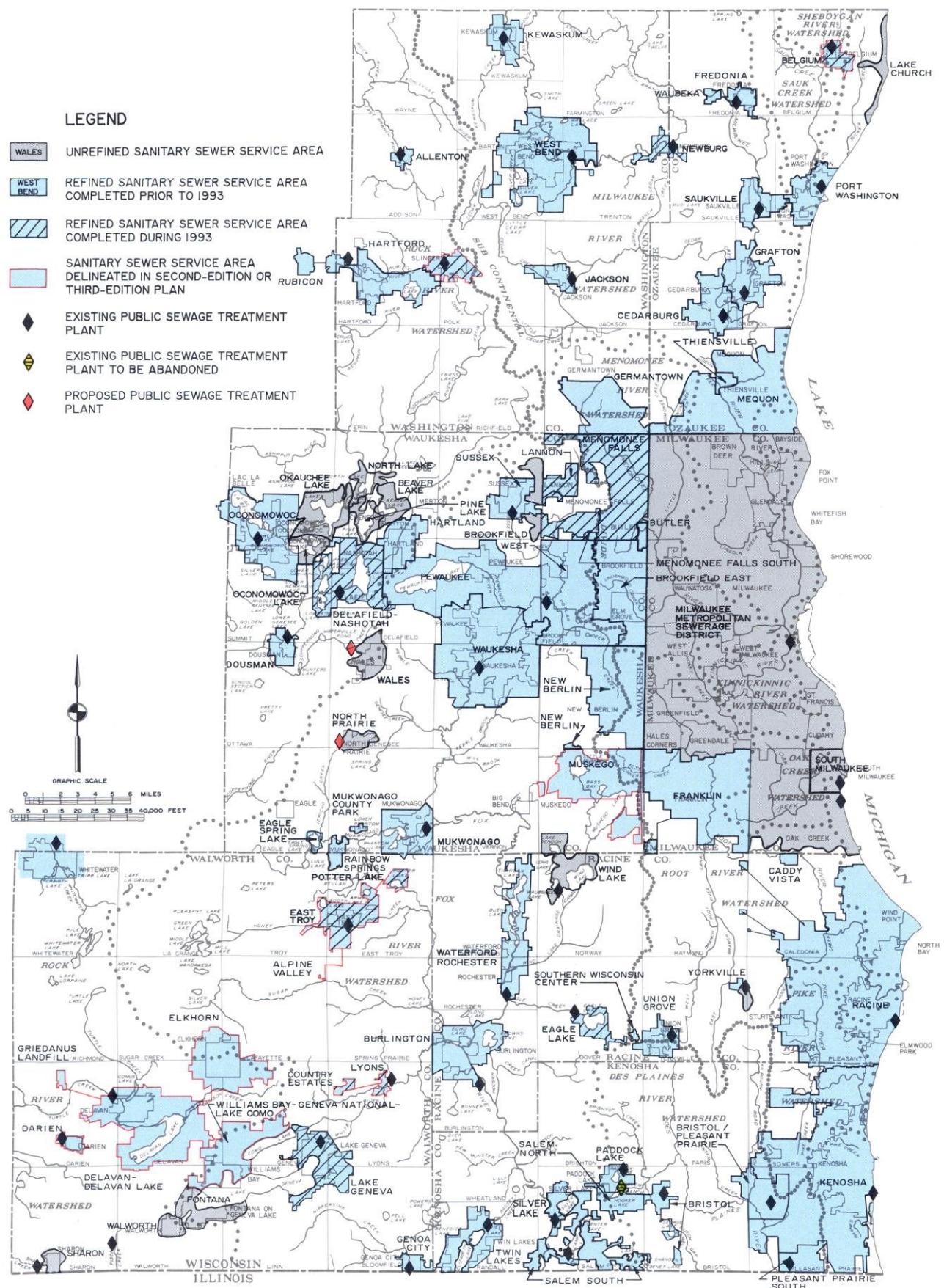


Table 24

SANITARY SEWER EXTENSION REVIEWS: 1993

County	Public Sanitary Sewer Extensions	Private Main Sewer or Building Sewer Extensions	Total
Kenosha	37	11	48
Milwaukee	40	38 ^a	78
Ozaukee	19	11	30
Racine	29	30	59
Walworth	24	17	41
Washington	30	34	64
Waukesha	55	76	131
Total	234	217	451

^aThe Commission has delegated the responsibility for the review of building sewer extensions within the City of Milwaukee to the City. During 1993, 319 reviews of building sewer extensions were conducted by the City.

address both the improvement of the efficiency of the agricultural drainage system, which consists of subsurface drain tile with a lift station at the system outlet, and the upgrading of the urban stormwater management system, which consists of storm sewers, open channels, and detention basins discharging to the drain tile system and ultimately to the lift station. The plan includes consideration of wetland issues related to the provision of improved agricultural drainage. Key details of the recommended plan are shown in graphic summary form on Map 19.

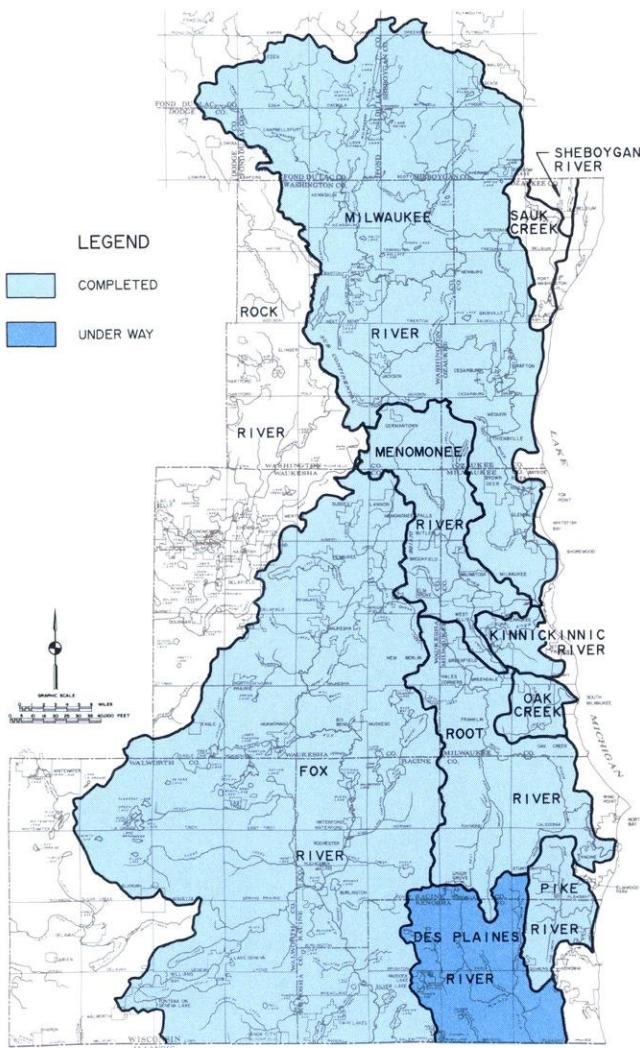
- A preliminary draft of the third volume of the City of West Bend stormwater management plan, which volume deals with the Milwaukee River direct drainage area, was completed and presented to City staff. This document is the third in a series of four volumes which address existing and future stormwater management needs in the City of West Bend and environs.
- The Commission staff completed hydrologic and hydraulic analyses of Poplar Creek in the City of New Berlin. The results of those analyses are to be used for revision of the Federal flood insurance study for the City. The Commission analyses resulted in a consistent set of flood profiles for reaches of Poplar Creek where floodplains were previously mapped under two different programs—the Federal flood insurance pro-

gram and the State of Wisconsin Chapter NR 129 floodplain mapping program. At year's end, the study and supporting analyses were under review by the Wisconsin Department of Natural Resources and the Federal Emergency Management Agency prior to the expected formal incorporation of the study results into the City's floodplain zoning ordinance.

- The Commission staff made informational presentations regarding stormwater management and related wetland issues to officials, staff, and citizens of the Villages of Fontana-on-Geneva Lake, River Hills, and Williams Bay.
- The Commission staff routinely provides hydrologic and hydraulic data to Federal, State, and local agencies and units of government and to private consultants for use in the design of bridges and culverts along streams in the Region, in the facilities design phases of projects recommended under Commission plans, and in other related water resource projects. During 1993, data were provided for: 1) the Pike River in the Town of Somers, Kenosha County; 2) the unnamed tributary to the Fox River Chain of Lakes which flows through Camp and Center Lakes in the Town of Salem, Kenosha County; 3) the Upper Root River and Oak Creek in the City of Franklin; 4) the Root River in the Cities of Franklin, Greenfield, Oak Creek, Racine, and West Allis, the Village of Greendale, and the Towns of Caledonia, Mt. Pleasant, and Raymond; 5) Hale Creek in the City of West Allis; 6) the Kinnickinnic River in the City of Milwaukee; 7) the Little Menomonee River in the City of Milwaukee; 8) the Menomonee River in the Cities of Milwaukee and Wauwatosa and the Villages of Germantown and Menomonee Falls; 9) the North Branch of Oak Creek in the Cities of Milwaukee and Oak Creek; 10) the North Branch of the Root River in the City of West Allis; 11) Oak Creek in the City of Oak Creek; 12) the North Tributary to Southbranch Creek in the Village of Brown Deer; 13) Poplar Creek in the City of Brookfield and the Town of Brookfield; 14) the Fox River in the City of Waukesha and the Town of Brookfield; and 15) Willow Springs Creek in the Village of Lannon.

Map 18

**SEWRPC WATERSHED STUDIES
UNDER WAY OR COMPLETED: 1993**



In 1994, 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.

*Stormwater Management and
Flood Control Plan for Lilly Creek
in the Village of Menomonee Falls*

During 1993, the Commission completed a stormwater management and flood control plan for the Lilly Creek subwatershed in the Village of Menomonee Falls. The plan is documented in

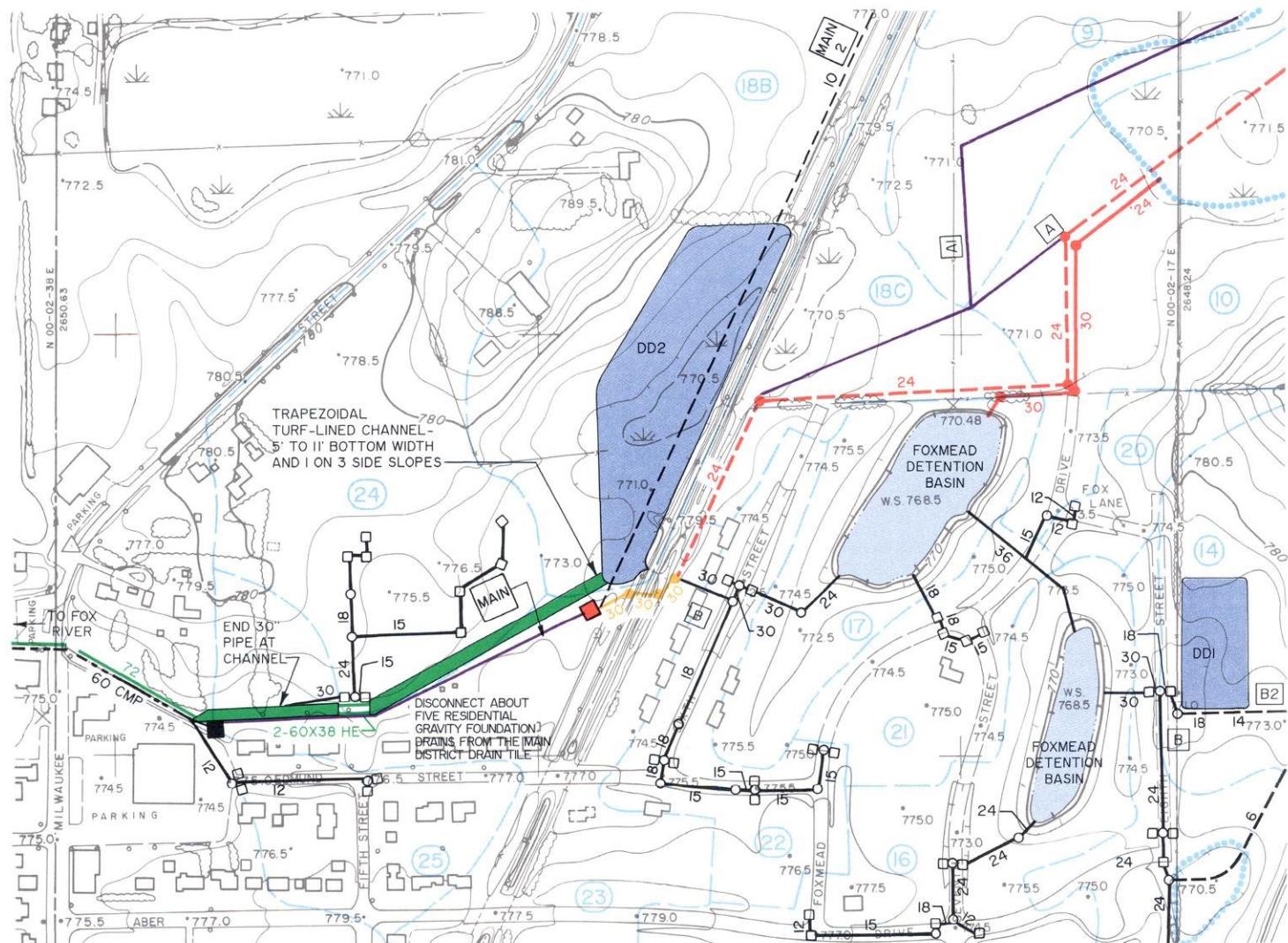
SEWRPC Community Assistance Planning Report No. 190, A Stormwater Management and Flood Control Plan for the Lilly Creek Subwatershed, Village of Menomonee Falls, Waukesha County, Wisconsin, February 1993. The plan is intended to serve as a guide to Village and State officials in making sound decisions concerning the development of stormwater management and flood control facilities in the Lilly Creek subwatershed. In so doing, the plan refines and details the previously adopted comprehensive plan for the Menomonee River watershed, of which Lilly Creek is a part. The Lilly Creek subwatershed encompasses nearly six square miles and lies completely within the Village.

The plan consists of three elements: a stormwater drainage plan element, a water quality management plan element, and a flood control plan element. Several alternative plans were developed and evaluated under each of these three plan elements. The recommended stormwater management and flood control plan refines and integrates the preferred alternative plan elements into an overall system for stormwater management and flood control in the Lilly Creek subwatershed under planned urban development conditions. Those planned conditions essentially envision the full build-out of all developable lands in the subwatershed. The use of ultimate conditions is appropriate for stormwater management and flood control planning because it helps ensure that components of the envisioned system will be adequately sized for any increased hydraulic and pollutant loadings which would occur as upstream tributary areas are developed. The resident population of the subwatershed area is expected to increase from about 5,900 persons in 1985 to about 17,800 persons under planned urban development conditions.

The plan contains specific recommendations for the development of minor and major stormwater drainage facilities, including detention storage facilities; for the abatement of nonpoint source pollution; for stream-bank erosion and streambed scour control; and for flood control. The minor drainage system facilities were designed for 10-year recurrence interval flows and volumes. The major drainage system components and the flood control components were designed for 100-year recurrence interval flows and volumes. The water quality management components were designed to function most efficiently during storms with recurrence intervals of two years or

Map 19

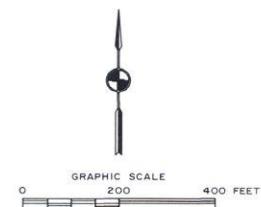
RECOMMENDED AGRICULTURAL DRAINAGE AND URBAN STORMWATER MANAGEMENT
PLAN FOR RACINE COUNTY FARM DRAINAGE DISTRICT NO. 1: DETAIL AREA^a



LEGEND

-  SUBBASIN BOUNDARY
-  SUBBASIN DESIGNATION
-  WETLAND BOUNDARIES AS SHOWN ON 1990 SEWRPC LAND USE INVENTORY MAPS
-  EXISTING DISTRICT TILE, WITH SIZE IN INCHES, AND DESIGNATION
-  EXISTING VILLAGE OF WATERFORD STORM SEWER WITH SIZE IN INCHES, AND MANHOLE TO BE RETAINED
-  EXISTING STORMWATER INLET
-  EXISTING DRAINAGE DISTRICT LIFT STATION TO BE ABANDONED
-  EXISTING CULVERT TO BE RETAINED AND SIZE IN INCHES
-  EXISTING DRAIN TILE TO BE ABANDONED UNDER PLANNED DEVELOPMENT CONDITIONS
-  PROPOSED STORM SEWER, WITH SIZE IN INCHES, AND MANHOLE
-  PROPOSED STORM SEWER, WITH SIZE IN INCHES, AND MANHOLE TO REPLACE EXISTING DRAIN TILE OR STORM SEWER
-  PROPOSED CULVERT AND SIZE IN INCHES
-  PROPOSED DRAIN TILE, WITH SIZE IN INCHES, AND MANHOLE TO REPLACE DISTRICT DRAIN TILE (TO BE SEALED IN EXISTING WETLANDS)
-  PROPOSED LIFT STATION-ONE 12cfs (5,380 gpm) PUMP AND ONE 5cfs (2,240gpm) PUMP-TO DISCHARGE TO PROPOSED OPEN CHANNEL
-  PROPOSED OPEN CHANNEL
-  EXISTING WET DETENTION BASIN TO BE RETAINED
-  PROPOSED DRY DETENTION BASIN AND DESIGNATION

^a SEE MAP 8, SEWRPC MEMORANDUM REPORT NO. 79, AN AGRICULTURAL DRAINAGE AND URBAN STORMWATER MANAGEMENT PLAN FOR RACINE COUNTY FARM DRAINAGE DISTRICT NO. 1, VILLAGE OF WATERFORD AND TOWNS OF NORWAY AND WATERFORD, RACINE COUNTY, WISCONSIN, SEPTEMBER 1993, FOR THE COMPONENTS OF THE RECOMMENDED PLAN IN AREAS OUTSIDE OF BOUNDARIES OF THIS MAP.



less. Map 20 shows the plan in graphic summary form for the entire subwatershed. Map 21 shows in more detail the stormwater drainage, water quality management, and flood control measures recommended for two of the 12 areal hydrologic units identified in the study.

The stormwater drainage plan element of the recommended plan envisions the following:

- The construction of approximately 9.9 miles of new reinforced concrete storm sewers ranging in diameter from 12 to 66 inches.
- The replacement of 800 lineal feet of storm sewers.
- The installation of 1,200 lineal feet of 36-inch-diameter reinforced concrete diversion pipe.
- The construction of 2,100 lineal feet of roadside swales.
- The preservation in natural conditions of much of the existing system of streams tributary to Lilly Creek.
- The replacement of culverts at eight road crossings.
- The floodproofing of five houses.
- The construction of four new dry detention basins.
- The preservation of four existing wetlands that function as natural runoff detention areas.

Implementation of the stormwater drainage element of the plan may be expected to eliminate all structural flood damages along tributaries to Lilly Creek during floods with recurrence intervals of up to and including 100 years. Implementation may also be expected to reduce the exposure of people to drainage-related inconveniences by providing minor system conveyance facilities designed for floods with recurrence intervals of up to and including 10 years.

The water quality management plan element of the recommended plan envisions the following:

- The construction of 11 wet detention basins solely for stormwater quality control.

- The use of grassed swales in areas of new suburban- and low-density residential development.
- The acceleration of street sweeping in industrial and commercial areas not tributary to wet detention basins.
- The enforcement of the Village's construction erosion control ordinance.
- The construction of 13 dual-purpose detention basins for the control of both quality and quantity of stormwater.

The recommended water quality management measures may be expected to substantially reduce existing nonpoint source pollutant loadings under planned land use conditions, and to achieve the desired water use objectives for Lilly Creek and its tributaries. These objectives include limited recreational use and the maintenance of warmwater forage fishery along Lilly Creek from W. Mill Road to the Menomonee River and limited recreational use and maintenance of a limited fishery along Lilly Creek upstream of W. Mill Road and along the tributaries to Lilly Creek.

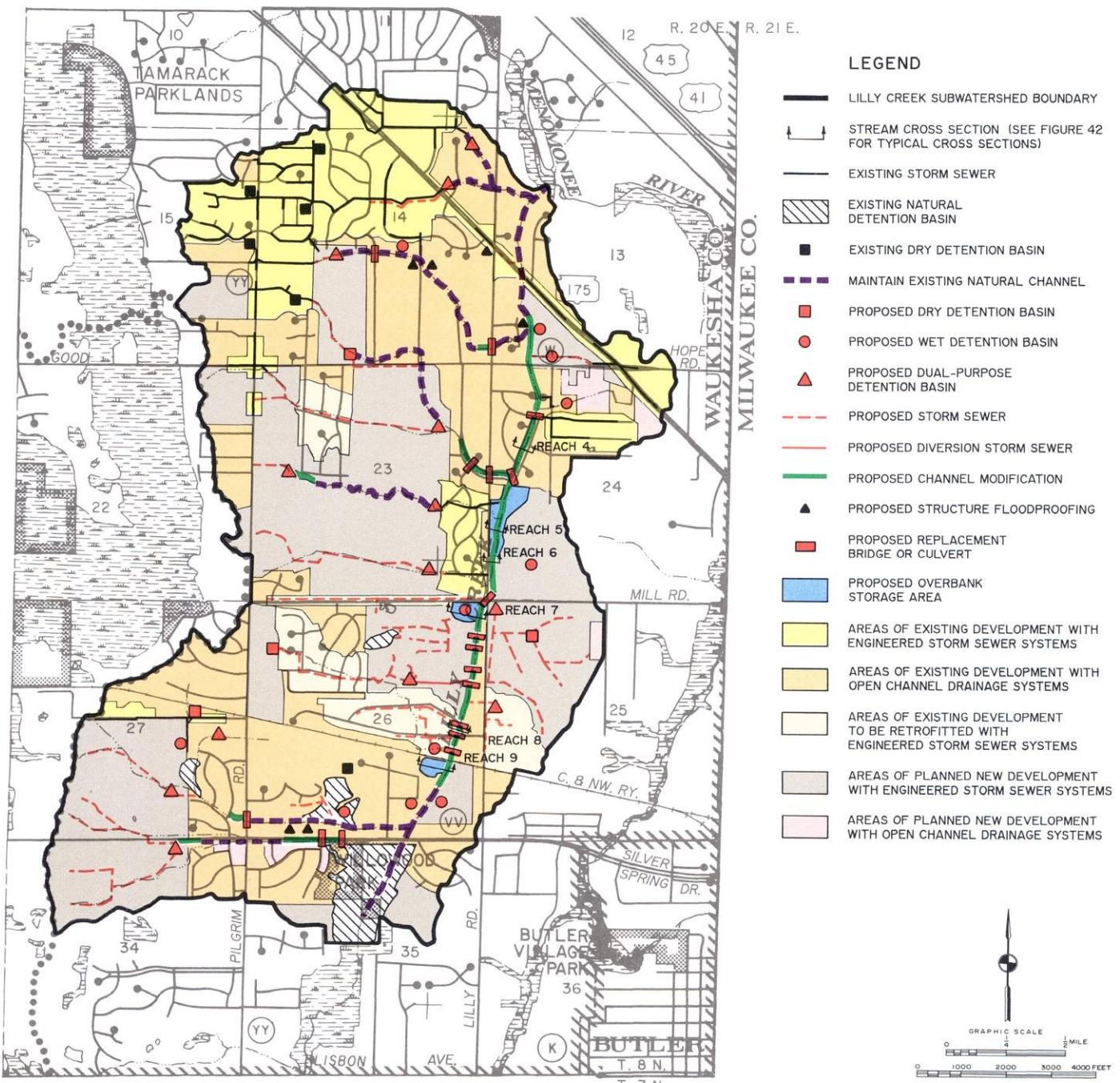
The flood control plan element of the recommended plan envisions the following:

- The widening and deepening of about two miles of the Lilly Creek channel.
- The replacement and/or removal of the bridges and culverts at Brentwood Drive, Lilly Road, W. Mill Road, Kaul Avenue, Bobolink Drive, and three private drives.
- The floodproofing of one house.
- The creation of two wetland overbank storage areas and one dry overbank storage area.
- The implementation of stream restoration and enhancement measures to improve aquatic and terrestrial habitat conditions along the stream corridor.

Typical cross sections of the existing and proposed Lilly Creek channel are shown on Figure 42. Implementation of the flood control element of the plan may be expected to eliminate

Map 20

RECOMMENDED SYSTEM PLAN FOR STORMWATER MANAGEMENT
AND FLOOD CONTROL IN THE LILY CREEK SUBWATERSHED



Map 21

RECOMMENDED SYSTEM PLAN FOR STORMWATER MANAGEMENT AND FLOOD CONTROL IN HYDROLOGIC UNITS I AND K IN THE LILLY CREEK SUBWATERSHED

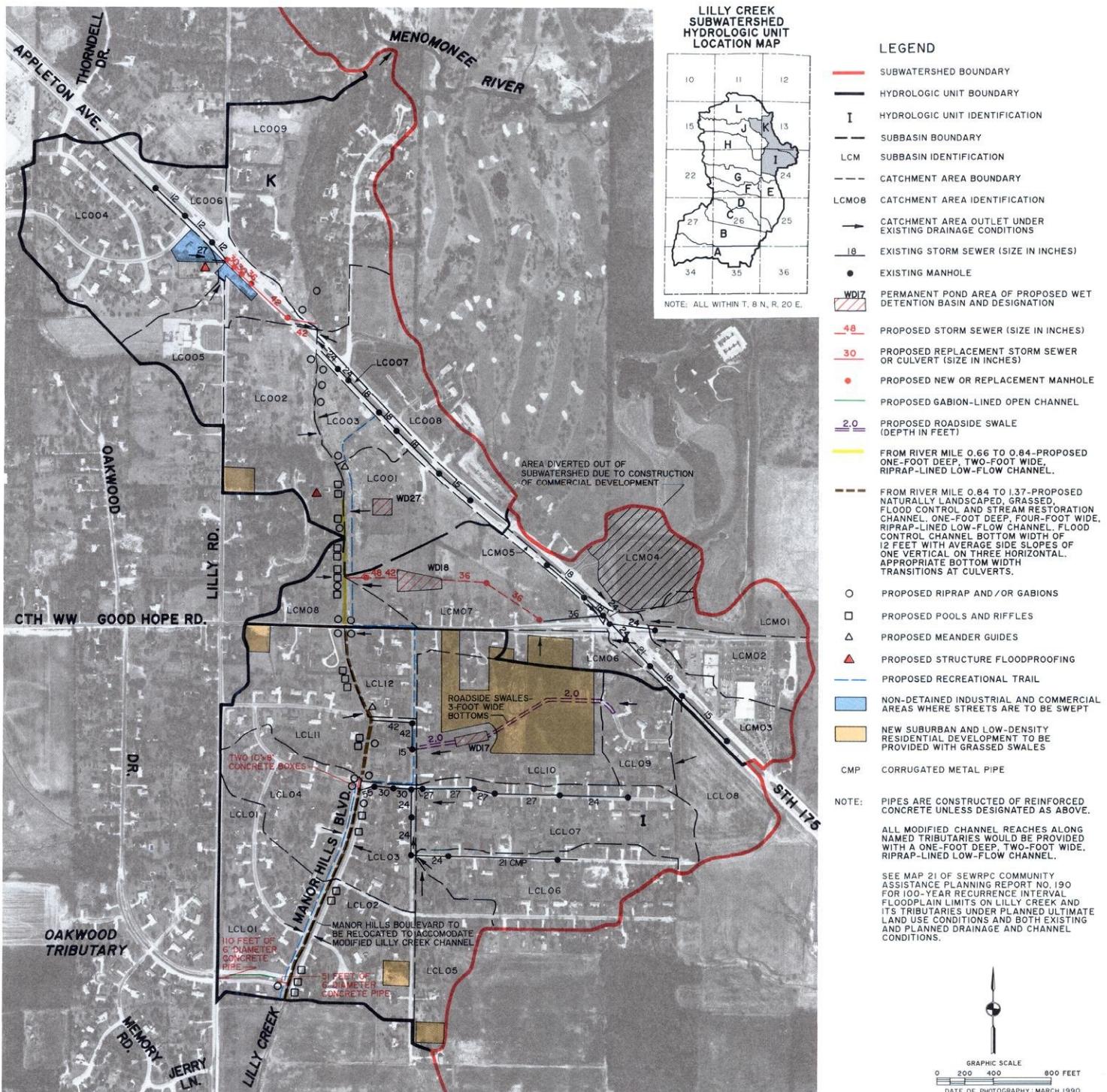
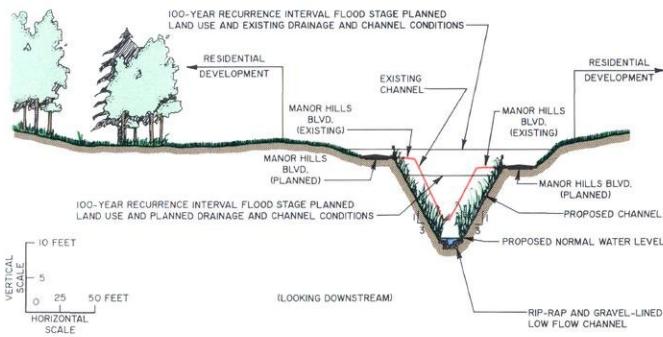


Figure 42

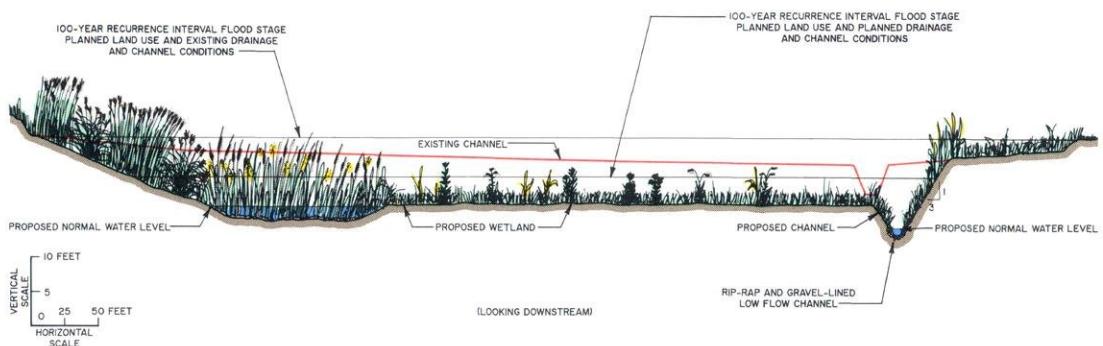
124

TYPICAL CROSS SECTIONS OF EXISTING AND PROPOSED CHANNEL ALONG LILLY CREEK

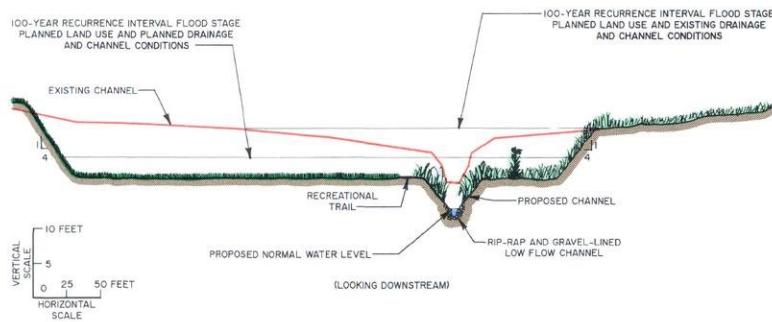
REACH 4: RIVER MILE 0.84—1.37



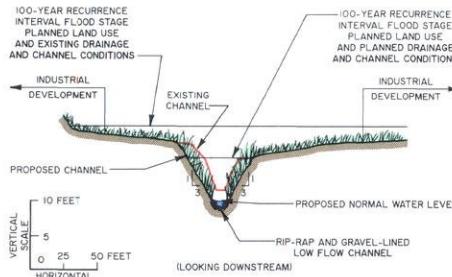
REACH 7: RIVER MILE 1.88—2.32



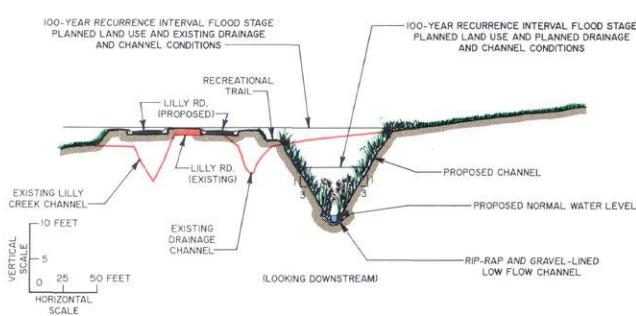
REACH 5: RIVER MILE 1.37—1.71



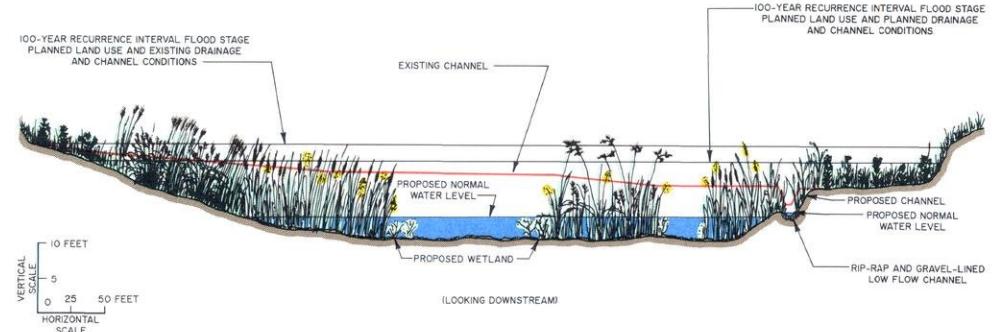
REACH 8: RIVER MILE 2.32—2.59



REACH 6: RIVER MILE 1.71—1.88



REACH 9: RIVER MILE 2.59—2.74



NOTE: See Map 20 for cross-section locations.

all structural monetary flood damages during floods with recurrence intervals of 100 years or less. Map 22 presents, for a portion of Lilly Creek, a comparison of the extent of the 100-year recurrence interval floodplain under planned land use, drainage, and channel conditions and under planned land use and existing drainage and channel conditions.

The Lilly Creek plan is the first stormwater management and flood control plan completed by the Commission since the enactment of regulations limiting certain activities which have negative environmental impacts on wetlands as set forth in Chapter NR 103 of the Wisconsin Administrative Code. That chapter sets forth procedures for evaluating projects and their potential impacts on wetlands, which procedures are to be applied by the Wisconsin Department of Natural Resources in making regulatory decisions. One of the requirements of Chapter NR 103 is that an analysis of alternative actions and the impacts of proposed actions be performed for any proposed activity which requires Wisconsin Department of Natural Resources approval and which is located within a wetland.

Because certain stormwater management and flood control measures considered during the development of the Lilly Creek plan would involve disturbance of wetlands, the report includes a systems-level wetland alternative and impact analysis. As a result of that analysis, some facilities proposed to be located in wetlands were modified to avoid disturbance of wetlands, while others were judged to be the only practicable alternative available to achieve the plan's multiple objectives of controlling stormwater runoff and flood damage, reducing non-point source water pollution, and restoring and enhancing aquatic and riparian habitat. Where a measure was determined to be the only practicable alternative, it was retained as part of the recommended plan described above. The alternatives analysis, when supplemented with project-specific data, is intended to be adequate for the State permitting process at such time as the Village of Menomonee Falls determines to move forward with specific features of the recommended plan.

Map 23 presents the results of the wetlands analysis, identifying those wetlands determined to have important functional values for storm-

water management and water pollution control and which, therefore, are recommended for preservation in a natural state; those wetlands which need to be modified to accommodate plan-recommended measures where no practical alternative is available; and those wetlands found to have no practical functional values for stormwater management, water quality protection, and flood control. In addition, Map 23 identifies two locations where the plan recommends that wetlands be created.

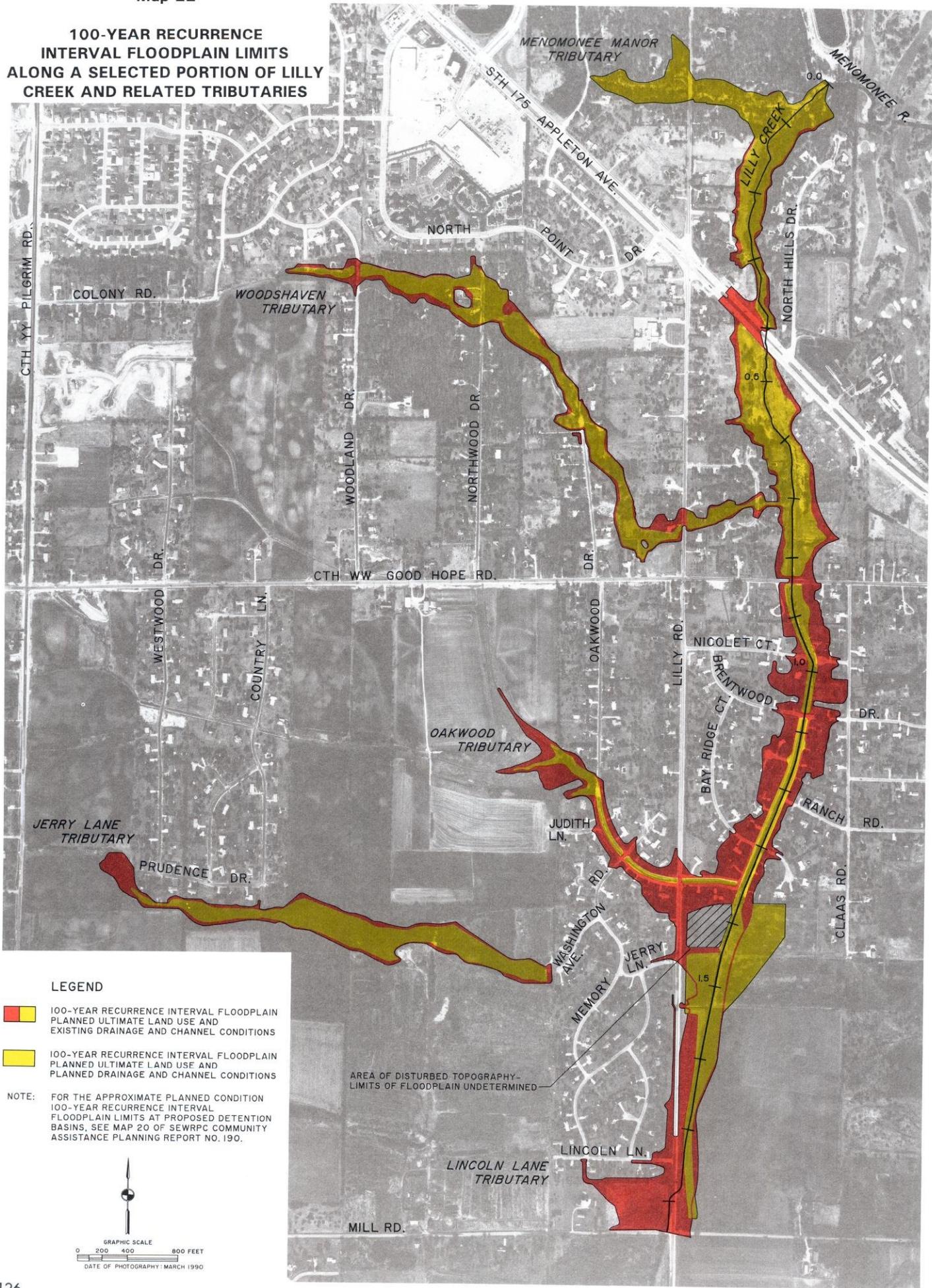
Pike River Watershed Plan Implementation Activities

As a result of efforts undertaken in 1992 by the local units of government within the Pike River watershed to begin implementation of the flood-land management recommendations set forth in the adopted Pike River watershed plan, the Wisconsin Department of Natural Resources decided in 1993 to prepare an environmental impact statement for the planned flood control measures prior to the issuance of permits. The watershed plan, as documented in SEWRPC Planning Report No. 35, A Comprehensive Plan for the Pike River Watershed, June 1983, was described in the Commission's 1983 Annual Report.

The Pike River Watershed Committee, whose membership is listed in Appendix B of this 1993 Annual Report, has been actively involved in an advisory capacity with regard to the environmental impact statement preparation process. A work group consisting of selected Committee members, local officials and staff, Regional Planning Commission staff, a representative of an environmental group, and Wisconsin Department of Natural Resources staff was established to develop refinements and environmental enhancement details for the recommended flood control plan to be incorporated into the environmental impact statement process. These refinements and details include fish habitat enhancement, open space environmental enhancement, layouts for a Pike River Parkway recreational trail, and stream vegetation buffer areas. Most of these refinements were foreseen in the initial watershed plan, but had not been specifically detailed at the system level of planning in anticipation of the provision of more detail at the design stage. However, such detailing was considered to be needed prior to design to be incorporated into the environmental impact statement.

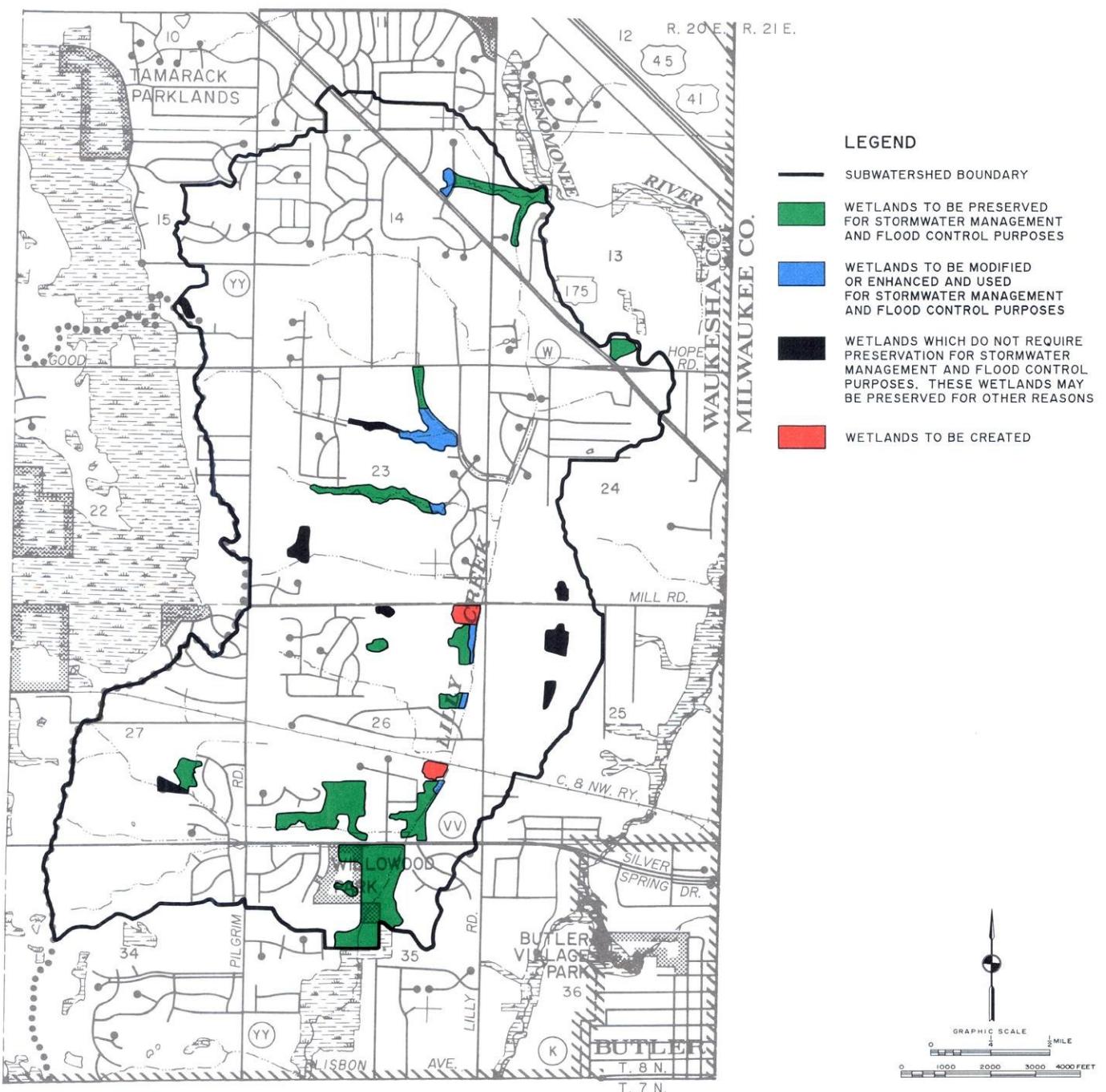
Map 22

100-YEAR RECURRENCE
INTERVAL FLOODPLAIN LIMITS
ALONG A SELECTED PORTION OF LILLY
CREEK AND RELATED TRIBUTARIES



Map 23

RELATIONSHIP OF STORMWATER MANAGEMENT AND FLOOD CONTROL
RECOMMENDATIONS TO WETLANDS IN THE LILLY CREEK SUBWATERSHED



At the end of 1993, the work group had completed the refinement and detailing of the flood control plan, readying that work for incorporation into an amendment to the Pike River watershed plan. The watershed plan amendment and the Wisconsin Department of Natural Resources environmental impact statement are scheduled for completion in 1994.

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 (Illinois), 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 a total of about 65 additional miles of stream channel, with data for about one mile of that total having been developed in 1993. Large-scale flood hazard maps prepared to Commission specifications are available for the riverine areas along about 550 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. The large-scale mapping total represents a 2 percent increase over the 1992 total.

Flood Insurance Rate Studies

Under the National Flood Insurance Act of 1968, the Federal Emergency Management Agency 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. The Agency 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 the Agency 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 the Agency to carry out the flood insurance 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 1993 is shown on Map 25. During 1993, the revision of a second study of Poplar Creek in the City of New Berlin was being conducted by Commission staff. It is the intent of the Federal Emergency Management Agency to update older studies, depending upon need and funding availability.

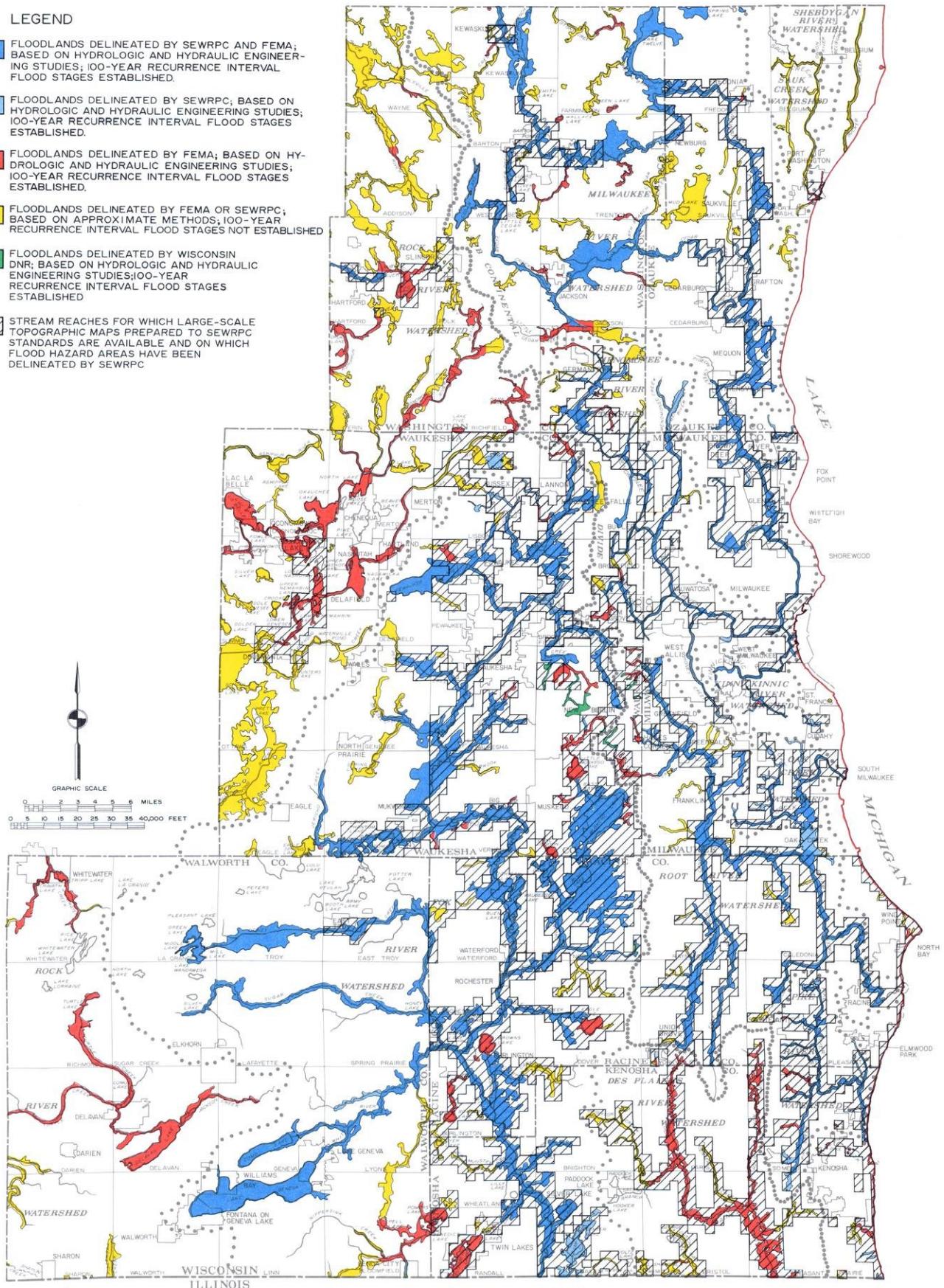
As shown on Map 25, as of 1993, there were 24 cities or villages in the Region for which the Federal Emergency Management Agency had not conducted a flood insurance rate study. In eight cases, the Agency has instead published a "flood hazard boundary map," which shows the approximate location of floodlands without the support of detailed engineering studies. The remaining 16 cities or villages in the Region are not considered by the Agency 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 the Agency 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 the Federal Emergency Management Agency, the Commission staff 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 pro-

Map 24

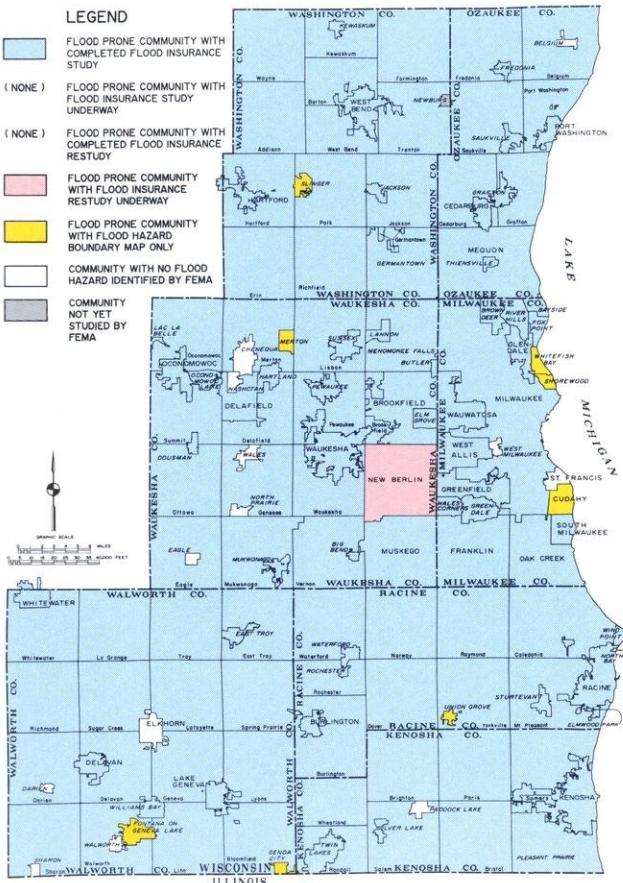
DELINEATION OF FLOODLANDS: 1993

LEGEND



Map 25

STATUS OF FLOOD
INSURANCE STUDIES: 1993



gram, 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). The U. S. Geological Survey annually publishes the

data collected under this streamflow monitoring program. In 1993, there were 22 continuous recording streamflow gages in operation to monitor stream reaches entering, lying within, or originating within the Region. The total number of gages is three more than in 1992. 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, one gage was supported by the Fontana/Walworth Water Pollution Control Commission (WPCC), one gage was supported by the City of Brookfield, two gages were supported by the Wisconsin Department of Natural Resources, one gage was supported by the U. S. Army Corps of Engineers, one gage was operated for the National Water Quality Assessment study, and two were supported by the Illinois Department of Transportation. One gage supported by the Wisconsin Department of Natural Resources, the gage supported by the City of Brookfield, and the gage operated for the National Water Quality Assessment study were placed in operation in 1993. Also during 1993, the continuous stage recorder gage at Wilmot on the Fox River was relocated. Its new location is near New Munster on the Fox River. This change in location was made to provide a better hydraulic control location than that which had been afforded at the Wilmot site since the removal of the Wilmot Dam in 1993, which resulted in the gage location being affected by downstream backwater conditions. This gage is supported by the Illinois Department of Transportation.

COASTAL MANAGEMENT PLANNING

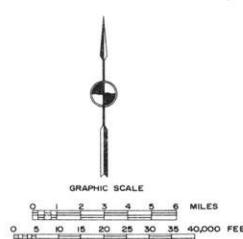
During 1993, the Commission continued to provide assistance to the Wisconsin Department of Administration's Bureau of Energy and Coastal Policy Analysis in the conduct of the Wisconsin Coastal Management Program. This program is intended to coordinate governmental activities toward achieving the objective 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.

Map 26

LOCATION OF U. S. GEOLOGICAL SURVEY STREAM GAGING STATIONS: 1993

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-OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE FONTANA/WALWORTH WATER POLLUTION CONTROL COMMISSION (1)
- ▲ CONTINUOUS STAGE RECORDER GAGE-OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE CITY OF BROOKFIELD (1)
- ▲ CONTINUOUS STAGE RECORDER GAGE-OPERATED BY THE U.S. GEOLOGICAL SURVEY FOR THE NATIONAL WATER QUALITY ASSESSMENT STUDY (1)
- ▲ CONTINUOUS STAGE RECORDER GAGE-NO LONGER IN OPERATION (2)
- ▲ 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)
- 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



1978-1981
05-4270
WHITEWATER
(WHITEWATER CREEK)

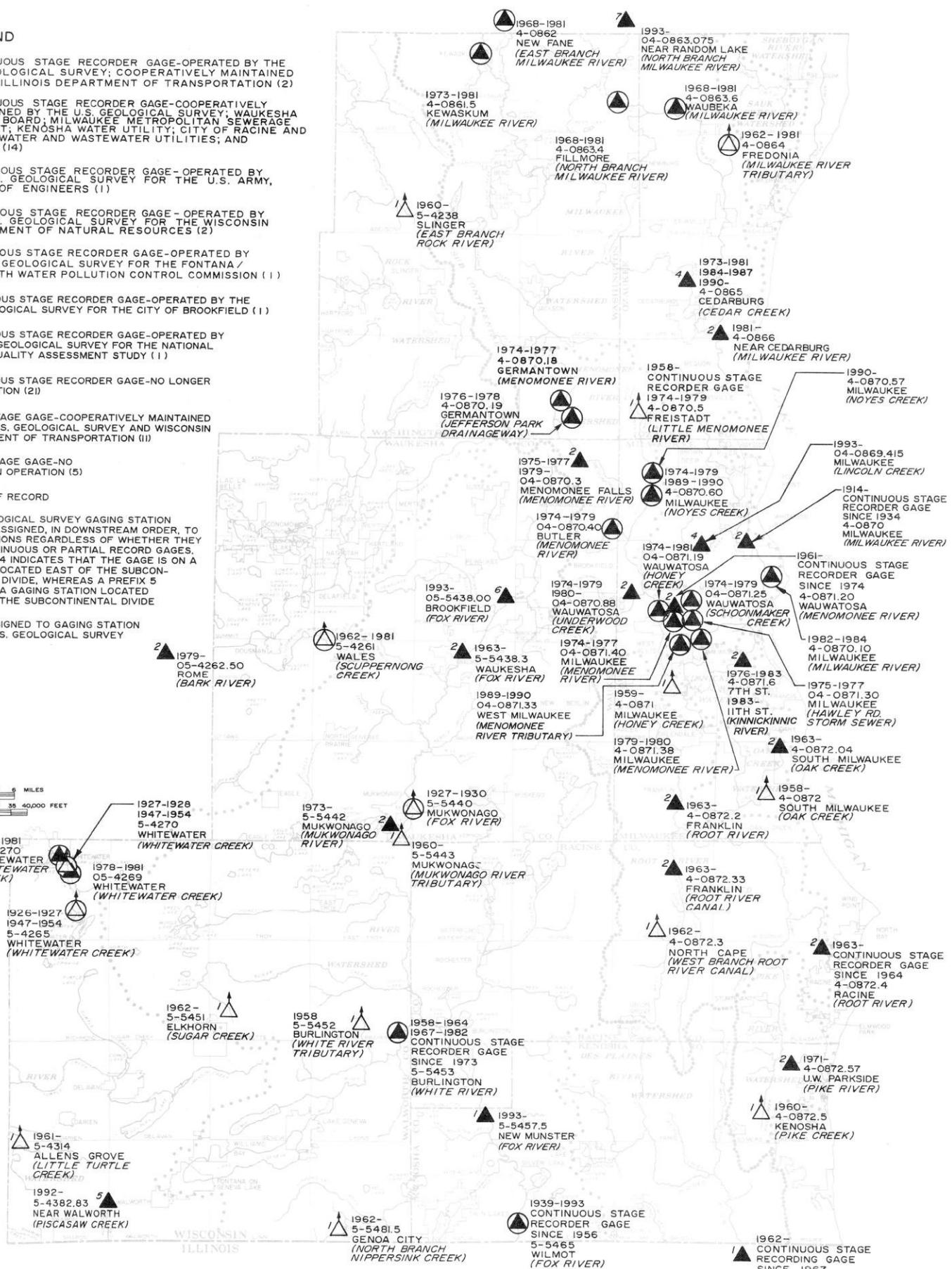
1978-1981
05-4269
WHITEWATER
(WHITEWATER CREEK)

1926-1927
1947-1954
5-4265
WHITEWATER
(WHITEWATER CREEK)

3▲ 1939-
5-4315
CLINTON
(TURTLE
CREEK)

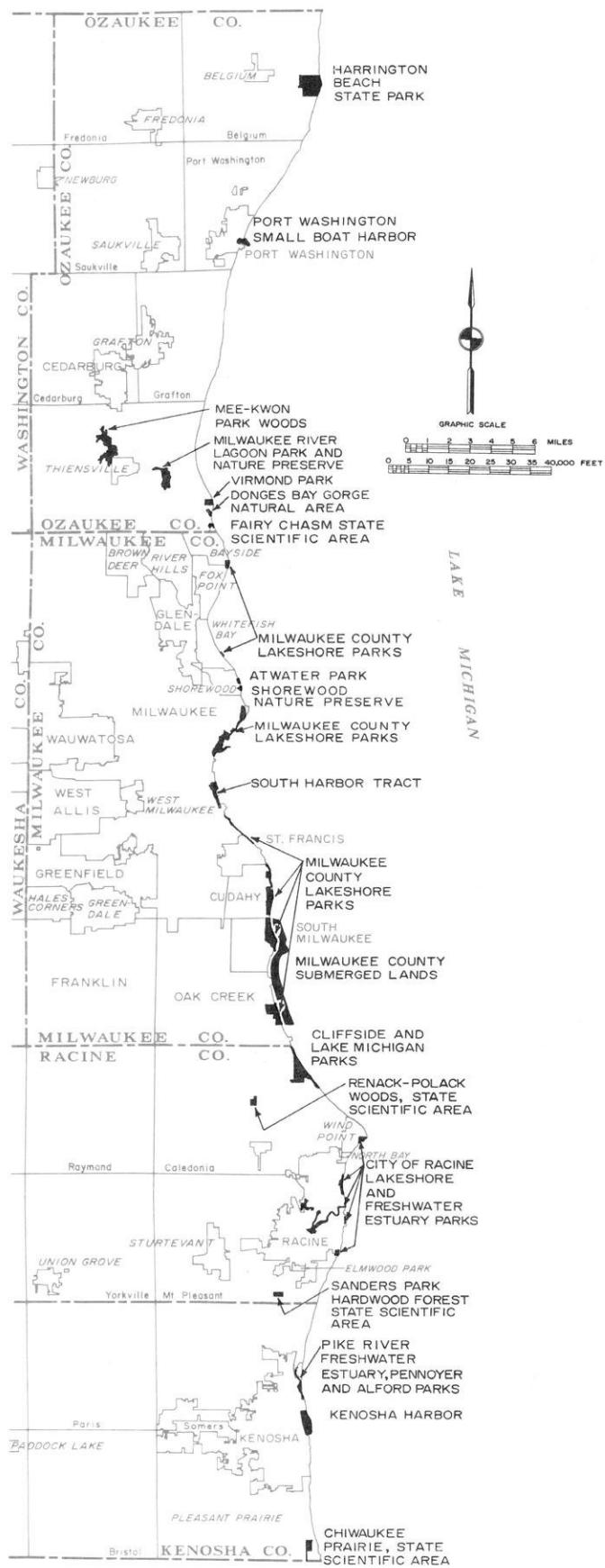
1961-
5-4314
ALLENS GROVE
(LITTLE TURTLE
CREEK)

1992-
5-4382.83
NEAR WALWORTH
(PISCASAW CREEK)



Map 27

DESIGNATED COASTAL AREAS IN SOUTHEASTERN WISCONSIN: 1993



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 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 1993, 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.

In 1993, 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 PLANNING

During 1993, 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. These plans were described, respectively, in the 1989, 1987, and 1982 Annual Reports. Also during 1993, at the request of the Walworth County Solid Waste Management Board, work continued on an update of the Walworth County solid waste plan. This update is scheduled for completion early in 1994.

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; economic development project planning services; and economic development, housing, and public facility grant assistance.

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 a community within the Region.

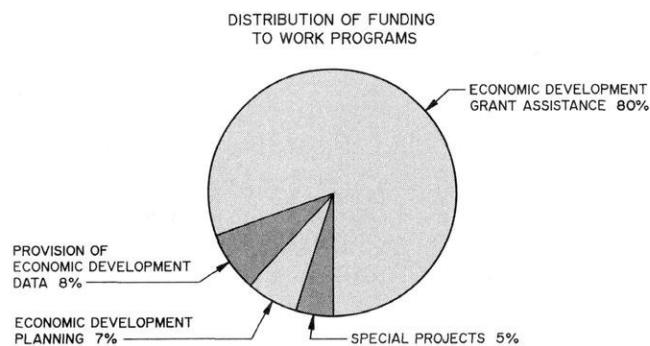
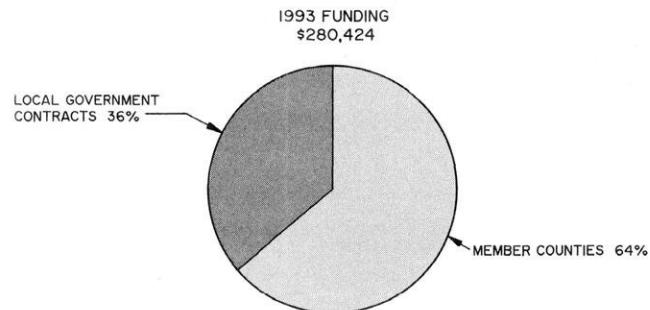
There has been an increasing interest in carefully planning local economic development programs in order to contain the rising costs of promoting economic development. In order to attract new and retain existing employers, some communities have chosen to purchase land for industrial parks and to provide the necessary infrastructure for development. Examples of the latter policy include 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 such streetscape amenities as trees and curbside benches. Because the costs of

these improvements 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 boundaries, 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 such 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.

During 1993, the Commission engaged in the following local economic development program planning efforts:

Figure 43

ECONOMIC DEVELOPMENT ASSISTANCE DIVISION



- Completion of a City of Cudahy economic development fact book, published as SEWRPC Memorandum Report No. 83, City of Cudahy Economic Development Fact Book, Milwaukee County, Wisconsin, August 1993.
- Provision of the demographic and socio-economic data necessary to enable preparation of county overall economic development program plan annual reports for Kenosha, Racine, and Washington Counties. These reports serve to maintain county eligibility for Federal public works grants and revolving loan fund programs to further economic development.
- Participation in the formation of a Regional Economic Partnership—a marketing initiative that is being undertaken cooperatively by the seven counties in the Southeastern Wisconsin Region, the Wisconsin Electric Power Company, and the Commission.

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 1993, the Division prepared written responses from the Commission files to 76 requests for economic development-related data. In addition, the Division responded to approximately 360 requests made 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 1993:

- 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 Com-

mission demographic and socio-economic data were provided upon request. These types of data were provided to various units and agencies of government, nonprofit organizations, and businesses in Southeastern Wisconsin.

- Provision of assistance to local community staff and representatives of businesses interested in locating or expanding in communities in Southeastern Wisconsin, utilizing information on State and Federal business loan and infrastructure development programs. This assistance was provided on 65 separate occasions at locations in each of the Region's seven counties.

ECONOMIC DEVELOPMENT PROJECT PLANNING SERVICES

Economic development project planning involves conducting detailed economic development planning studies for local units of government, development corporations, and other organizations concerned with economic development and seeking Commission assistance. During 1993, the following representative project planning services were provided:

- The Commission staff completed updates for community economic profiles of the Cities of Cedarburg, Hartford, and South Milwaukee. These profiles are part of a series of community economic profiles originally prepared in 1984 and updated in 1988 and 1990 with the assistance of the Wisconsin Electric Power Company. The profiles are intended to be used by local units of government and private development organizations in Southeastern Wisconsin 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 statistics, financial and educational institutions, public and private utilities and public services, transportation facilities, housing stock, health facilities and services, and media outlets. In addition, each profile is illustrated with a map of the community and of the Southeastern Wisconsin Region. The series includes 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 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 prepared an update of the Corporation's industry attraction materials.
- Commission staff assisted the Racine County Economic Development Corporation with the conduct of a countywide business retention survey.
- Commission staff assisted the City of Waukesha in the design of a survey of local building inspection services. Survey distribution and data analysis are scheduled for completion in 1994.
- Commission staff assisted the Waukesha County Economic Development Corporation with the preparation of an industrial and business park site inventory and a map identifying the locations of industrial and business parks in Waukesha County.
- Commission staff conducted a consumer market and business survey for the City of Hartford. This survey effort included survey design, coding, keypunching, data analysis, and report preparation. The results of the survey were presented to the Hartford Business Improvement District and the Hartford Area Chamber of Commerce.
- Commission staff served on the Advisory Board for the Center for Urban Economic Development at the University of Wisconsin-Milwaukee and on the Waukesha Area Chamber of Commerce Economic Development Committee.

ECONOMIC DEVELOPMENT, HOUSING, AND PUBLIC FACILITY GRANT ASSISTANCE

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 after issuance of a grant award. The grant applications seek State or Federal funding to provide below-market-interest-rate loans to businesses or grants to local units of government 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 serving low- and moderate-income persons.

Grant Preparation

In 1993, the Commission assisted local units of government in obtaining a variety of economic development, public facility, and housing grants. Tables 25 and 26 provide a summary of this grant activity, which involved a total of about \$2.8 million in grants, about \$15.3 million in expected private investment, the expected creation of 251 new jobs and retention of three jobs, and the expected construction or rehabilitation of a total of 40 housing units. The specific grant awards are summarized as follows:

- The Village of Menomonee Falls was the recipient of a \$182,000 Wisconsin Community Development Block Grant-Economic Development award that was loaned to Performance Mold Products, Inc. The loan will be used to purchase capital equipment and inventory for the expansion of the business, which provides finished machined components for use in plastic injection molds. The loan is expected to result in 10 new jobs and generate \$512,000 in private investment.
- Washington County was the recipient of a \$207,000 Wisconsin Community Development Block Grant-Economic Development award that was loaned to Quad Tool and Design, Inc., located in the Town of Kewaskum. The loan will be used to finance capital equipment purchases and provide working capital for the start-up operation, which will manufacture special dies, tools, and jigs. The loan is expected to result in 12 new jobs and generate \$723,000 in private investment.
- The City of Hartford was the recipient of a \$136,500 Wisconsin Community Development Block Grant-Economic Development award that was loaned to K & L Progressive Tools, Inc. The loan will be used to finance capital equipment purchases and provide working capital for the start-up operation, which will manufacture special dies, tools, and jigs. The loan is expected to result in

Map 28

COMMUNITIES FOR WHICH
ECONOMIC DEVELOPMENT PROFILES
HAVE BEEN PREPARED: 1993

LEGEND

PROFILE PREPARED PRIOR TO 1993

UPDATED PROFILE IN 1993

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.

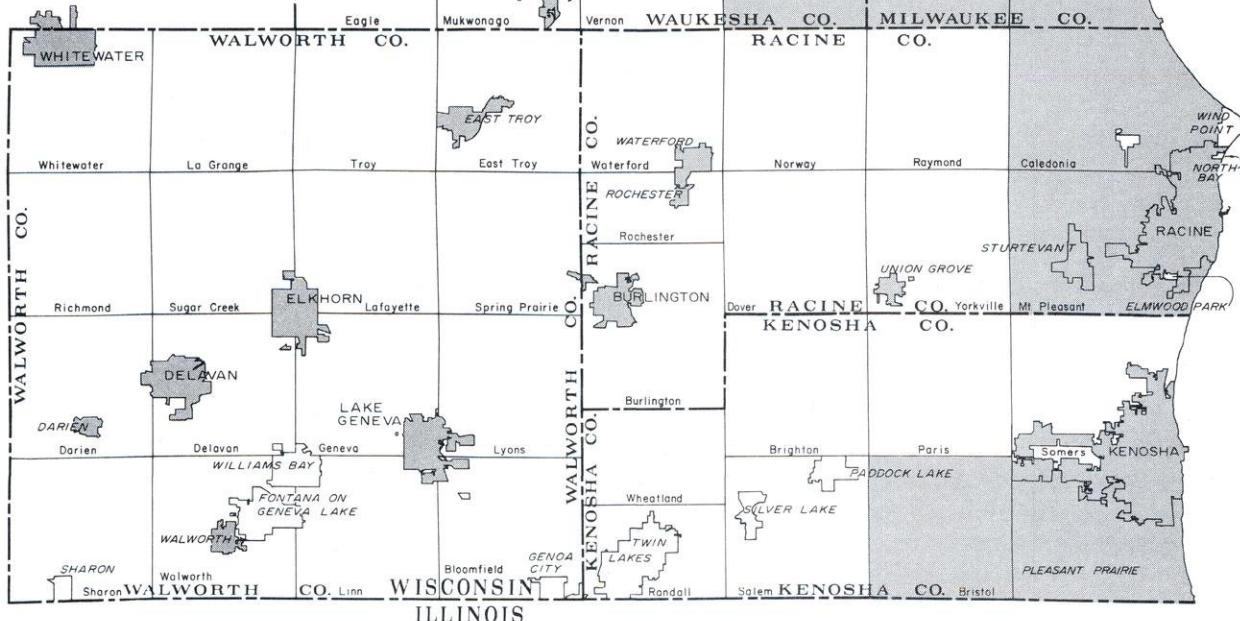
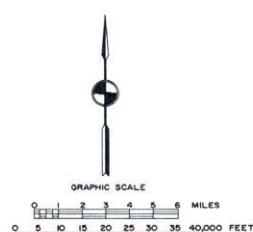


Table 25
ECONOMIC DEVELOPMENT GRANT ASSISTANCE: 1993

Project	Grant Amount	Private Investment	New Jobs	Retained Jobs
Community Development Block Grant-Economic Development				
Village of Menomonee Falls				
Performance Mold Products, Inc.	\$ 182,000	\$ 512,000	10	0
Washington County				
Quad Tool and Design, Inc.	207,000	723,000	12	0
City of Hartford				
K & L Progressive Tools, Inc.	136,500	136,500	7	0
City of Burlington				
Video Information System Training Associates, Inc.	107,000	170,000	6	0
City of Waukesha				
Huelsman/Cerreta Joint Venture	125,000	1,705,000	10	0
Subtotal	\$ 757,500	\$ 3,246,500	45	0
Community Development Block Grant-Revolving Loan Funds				
Village of Menomonee Falls				
Performance Mold Products, Inc.	\$ 75,000	N/A	N/A	N/A
Titan Plastics, Inc.	50,000	\$ 218,000	9	0
James L. Schaefer, d/b/a Signworks	33,500	34,000	2	3
City of Muskego				
Country Wetlands Nursery and Consulting, Ltd.	20,700	20,700	2	0
Kids Kampus South, Inc.	152,500	277,000	8	0
Subtotal	\$ 331,700	\$ 549,700	21	3
Wisconsin Development Fund-Major Economic Development (MED)				
Racine County				
Putzmeister, Inc.	\$ 300,000	\$ 3,700,000	53	0
Burlington Graphic Systems, Inc.	300,000	1,700,000	37	0
Subtotal	\$ 600,000	\$ 5,400,000	90	0
U. S. Economic Development Administration				
Racine County				
Revolving Loan Fund Recapitalization	\$ 300,000	\$ 200,000 ^a	50	0
U. S. Small Business Administration 7(a) Program				
Racine County Economic Development Corporation				
Arrow Heating and Air Conditioning, Inc.	\$ 52,000	N/A	N/A	N/A
Custom Control Products, Inc.	106,000	N/A	N/A	N/A
Creative Rehab, Inc.	75,000	N/A	N/A	N/A
Subtotal	\$ 233,000	--	--	--
Wisconsin Transportation Facilities Economic Assistance				
and Development (TEA)				
Town of Yorkville, Racine County				
Warren Industries, Inc.	\$ 193,000	\$ 5,400,000	45	0
Total	\$2,415,200	\$14,796,200	251	3

^aPublic-sector funds from Racine County.

seven new jobs and generate \$136,500 in private investment.

- The City of Burlington was the recipient of a \$107,000 Wisconsin Community Development Block Grant-Economic Development award that was loaned to Video Informa-

tion System Training Associates, Inc. The loan will be used to finance working capital expenditures for the expansion of the producer of educational video-based safety training courses. The loan is expected to result in six new jobs and generate \$170,000 in private investment.

Table 26
HOUSING GRANT ASSISTANCE: 1993

Project	Grant Amount	Private Investment	Housing Units
Home Investment Partnerships Program City of Hartford Community Development Authority Harthaven Apartments	\$200,000	\$543,000	17
Community Development Block Grant-Revolving Loan Funds Kenosha County Housing Rehabilitation Program	141,150	N/A	23
Total	\$341,150	\$543,000	40

- The City of Hartford Community Development Authority was the recipient of a \$200,000 Home Investment Partnerships Program (HOME) grant award that was provided by the Wisconsin Department of Administration, Division of Housing. The grant funds will be used to construct 17 new low- and moderate-income apartments in the City and generate \$543,000 in private investment.
- Putzmeister, Inc., was the recipient of a \$300,000 Wisconsin Development Fund-Major Economic Development loan that was used to assist in locating the firm in the Village of Sturtevant. The loan will be used to finance the purchase of capital equipment for the manufacturer of pumps and pumping equipment. The loan is expected to result in 53 new jobs and generate \$3.7 million in private investment.
- Burlington Graphic Systems, Inc., was the recipient of a \$300,000 Wisconsin Development Fund-Major Economic Development loan that was used to assist in locating the firm in the City of Racine. The loan will be used to finance the purchase of capital equipment for the custom screen printing and graphic design business. The loan is expected to result in 37 new jobs and generate \$1.7 million in private investment.
- Racine County was the recipient of a \$300,000 U. S. Economic Development Administration Title IX Long-Term Economic Deterioration grant award. The grant funds leveraged \$200,000 in public-sector funds from Racine County and will be used

to recapitalize the Racine County revolving loan fund program. It is expected that the grant funds will generate a minimum of 50 new jobs in the County.

- The Town of Yorkville, Racine County, was the recipient of a \$193,000 Wisconsin Transportation Facilities Economic Assistance and Development (TEA) grant award to assist Warren Industries, Inc., in locating in the GrandView Business Park. The grant will be used to finance roadway and storm sewer improvements in the business park. The grant award is expected to result in 45 new jobs and generate \$5.4 million in private investment.

The Commission staff assisted the City of Waukesha in determining the feasibility of utilizing \$125,000 in Waukesha Community Development Block Grant funds to partially finance the rehabilitation of the former Kline's Department Store building in the City. The project is expected to generate 10 new jobs and \$1,705,000 in private investment.

The Commission staff also assisted the Racine County Economic Development Corporation in obtaining approval for the following U. S. Small Business Administration (SBA) 7(a) applications on behalf of the following businesses located in the City of Racine: 1) a \$52,000 loan for Arrow Heating and Air Conditioning, Inc., to finance the acquisition of the business; 2) a \$106,000 loan for Custom Control Products, Inc., to refinance existing debt; and 3) a \$75,000 loan for Creative Rehab, Inc., to finance working capital expenditures.

The Commission staff initiated work on the following grant applications during 1993 that will be completed in 1994:

- A City of Muskego application for a Wisconsin Community Development Block Grant-Economic Development award that would be loaned to Cowtown, Inc. The monies obtained would be used to finance the purchase of land and furniture, fixtures, and equipment for the start-up of a new eating and drinking establishment in the City.
- A Racine County application for a Wisconsin Department of Industry, Labor and Human Relations grant award to finance a career counseling center in the County. The funds would be used to finance the acquisition of computer equipment and software for the career counseling center and 19 satellite locations in the County. Funds would also be used to finance staff training, project coordination, and leasehold improvement costs and the purchase of furniture for the counseling center.
- A Kenosha County application for a Wisconsin Community Development Block Grant award to finance the continuation of the housing rehabilitation program in the County. The grant funds would be used to rehabilitate 24 existing single-family residences in the County and to provide sanitary sewer and water connections for 20 new single-family residences.

Following is a list of the grant-related technical assistance activities that were conducted with the assistance of Commission staff in 1993:

- Provision of assistance to determine the feasibility of submitting Wisconsin Transportation Facilities Economic Assistance and Development (TEA) grant applications for the Cities of Burlington and Muskego.
- Provision of assistance to the Village of Menomonee Falls in determining the feasibility of submitting a Home Investment Partnerships Program (HOME) grant application for the construction of a new family-extension home to assist individuals with disabilities in Waukesha County.

- Provision of assistance to the City of Hartford in determining the feasibility of submitting a U. S. Farmers Home Administration Intermediary Relending Program grant application for the capitalization of a revolving loan fund in the City.
- Provision of assistance to the Village of East Troy in determining the feasibility of submitting a Wisconsin Community Development Block Grant-Economic Development grant application on behalf of a new business start-up in the Village.
- Provision of assistance to the Village of Union Grove in determining the feasibility of submitting a Wisconsin Community Development Block Grant-Public Facilities for Economic Development grant application and a Wisconsin Transportation Facilities Economic Assistance and Development (TEA) grant application on behalf of a local business retention project.
- Provision of assistance to Racine County in determining the feasibility of submitting a Wisconsin Community Development Block Grant-Public Facilities for Economic Development grant application on behalf of the GrandView Business Park project in the Town of Yorkville.
- Review of applications and submission of letters of support for six Wisconsin Department of Development Community-Based Economic Development grant applications for neighborhood groups in the City of Milwaukee: the East Side Housing Action Coalition, Inc.; the Fair Lending Coalition; Lisbon Avenue Neighborhood Development; the MetroWorks Business Development Centers; the Milwaukee Indian Economic Development Agency; and West End Development, Inc.

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 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 each grant award are met. During 1993, the Commission provided contract services to administer the following Federal and State grant awards:

1. A Wisconsin Community Development Block Grant-Economic Development grant award obtained by Kenosha County with Commission assistance in 1991 and used to provide a business loan to Nitro-Bar, Ltd.
2. A Wisconsin Community Development Block Grant-Economic Development grant award obtained by the Town of Bristol, Kenosha County, with Commission assistance in 1991 and used to provide a business loan to Northlake Engineering, Inc.
3. A Wisconsin Community Development Block Grant-Economic Development grant award obtained by the City of Hartford with Commission assistance in 1992 and used to provide a business loan to Mantz Automation, Inc.
4. A Wisconsin Community Development Block Grant-Economic Development grant award obtained by the City of Burlington with Commission assistance in 1992 and used to provide a business loan to RKW Ready-Mix, Inc.
5. A Wisconsin Department of Administration Housing Cost Reduction Initiative program grant award obtained by the City of Hartford with Commission assistance in 1991, with assistance in the administration of such grant being provided to the City with regard to the implementation of that part of the program which provides financial assistance to low- and moderate-income home buyers.
6. A Wisconsin Department of Administration Community Development Block Grant award obtained by the City of Hartford with Commission assistance in 1992 and used to assist low- and moderate-income residents through the rehabilitation of housing units in the City.
7. A Wisconsin Community Development Block Grant-Economic Development grant award obtained by the City of Port Wash-

ington with Commission assistance in 1992 and used to provide a business loan to Exactech, Inc.

8. A Wisconsin Community Development Block Grant-Economic Development loan obtained by QF & C Foot Apparel, Ltd., with Commission assistance in 1991, with assistance in the administration of such loan being provided to the City of Oconomowoc.

Details regarding each of the above grants are set forth in the Commission annual reports for the years in which they were respectively awarded.

In addition, the Commission provided contract services to administer the following grant awards made in 1993:

- A Wisconsin Community Development Block Grant-Economic Development grant award in the amount of \$182,000 obtained by the Village of Menomonee Falls with the assistance of the Commission. The grant funds were used to provide a business loan to Performance Mold Products, Inc., for the purchase of capital equipment and inventory for the expansion of the business. The loan is expected to result in 10 new jobs and generate \$512,000 in private investment.
- A Wisconsin Community Development Block Grant-Economic Development grant award in the amount of \$207,000 obtained by Washington County with the assistance of the Commission. The grant funds were used to provide a business loan to Quad Tool and Design, Inc., located in the Town of Kewaskum, for the purchase of capital equipment and the financing of working capital needs. The loan is expected to result in the creation of 12 new jobs and \$723,000 in private investment.
- A Wisconsin Community Development Block Grant-Economic Development grant award in the amount of \$136,500 obtained by the City of Hartford with the assistance of the Commission. The grant funds were used to provide a business loan to K & L Progressive Tools, Inc., for the financing of capital equipment purchases and working capital needs. The loan is expected to result in the creation of seven new jobs and \$136,500 in private investment.

- A Wisconsin Community Development Block Grant-Economic Development grant award in the amount of \$107,000 obtained by the City of Burlington with the assistance of the Commission. The grant funds were used to provide a business loan to Video Information System Training Associates, Inc., for the financing of working capital needs. The loan is expected to result in the creation of six new jobs and \$170,000 in private investment.
- A Wisconsin Department of Administration Home Investment Partnerships Program (HOME) grant award in the amount of \$200,000 obtained by the City of Hartford Community Development Authority with the assistance of the Commission. The grant funds are expected to be used to construct 17 new low- and moderate-income apartments in the City and generate \$543,000 in private investment.

Finally, the Commission provided technical assistance in the utilization and administration of revolving loan fund programs established through repayments on Wisconsin Community Development Block Grant awards during 1993 as follows:

- Provision of assistance to the Village of East Troy in conducting meetings with businesses interested in obtaining financing from the Village's revolving loan fund program, and in administering a \$45,000 Village loan for the Rodger N. and Catherine A. Trader, d/b/a Tradecraft Wood Products, expansion project that was provided with the assistance of the Commission in 1992.
- Provision of assistance to the Village of Menomonee Falls in conducting meetings with businesses interested in obtaining financing from the Village's revolving loan fund program and in completing the following activities: 1) utilization of \$75,000 in revolving loan funds for a working capital loan to Performance Mold Products, Inc., which loan is expected to generate 10 new jobs and \$512,000 in private investment; 2) administration of the Performance Mold Products loan; 3) utilization of \$50,000 in

revolving loan funds for a capital equipment loan to Titan Plastics, Inc., which loan is expected to generate nine new jobs and \$218,000 in private investment; 4) administration of the Titan Plastics loan; 5) utilization of \$33,500 in revolving loan funds to assist James L. Schaefer, d/b/a Signworks, with the purchase of an existing building; the loan is expected to generate two new jobs, retain three existing jobs, and generate \$34,000 in private investment; and 6) administration of the Signworks loan.

- Provision of assistance to the City of Muskego in conducting meetings with businesses interested in obtaining financing from the City's revolving loan fund program, in revising the City's revolving loan fund plan, and in completing the following activities: 1) utilization of \$20,700 in revolving loan funds for a working capital loan to Country Wetlands Nursery and Consulting, Ltd., which loan is expected to generate two new jobs and \$20,700 in private investment; 2) administration of the Country Wetlands Nursery and Consulting loan; 3) utilization of \$152,500 in revolving loan funds to finance the construction and operation of Kids Kampus South, Inc.; the loan is expected to generate eight new jobs and \$277,000 in private investment; and 4) administration of the Kids Kampus South loan.
- Provision of assistance to the City of Hartford, to Washington County, and to the Waukesha County Economic Development Corporation in reviewing revolving loan fund applications for their respective programs.
- Provision of assistance to the Kenosha County Housing Authority in utilizing and administering the Kenosha County housing rehabilitation revolving loan fund program, which included the following activities: 1) submission of 40 loan applications to the Kenosha County Housing Authority for review and approval; 2) conduct of closings for 23 revolving loan fund loans totaling \$141,150; 3) provision of information to 111 residents interested in the revolving loan fund program; and 4) administration of all outstanding revolving loan fund loans.



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 as well as 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. They 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 1993, educational efforts included:

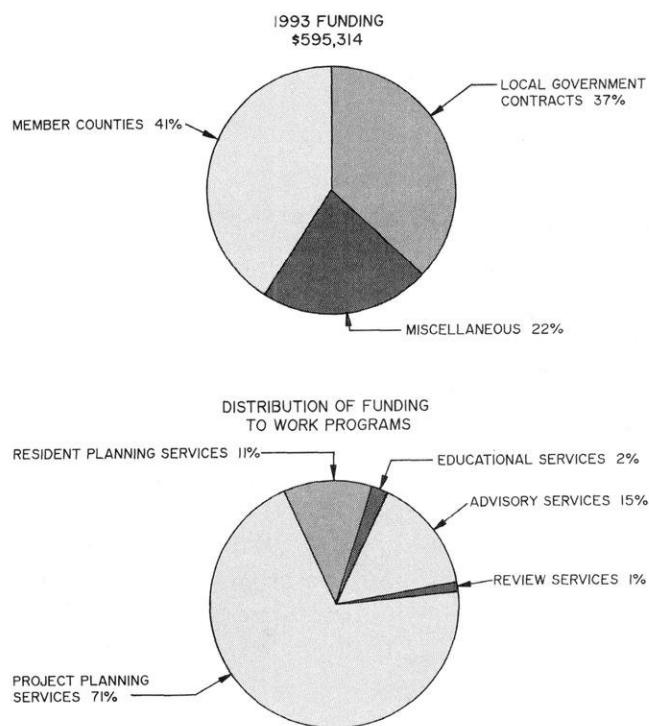
- Presentations regarding the general scope of the work of the Commission and the details of specific work programs to local governmental, student, professional, and civic groups, including classes at Waukesha County Technical College, the University of Wisconsin-Madison, the University of Wisconsin-Milwaukee, University of Wisconsin-Extension, and East Troy High School; to the Elmbrook School District Board of Education; to the Izaak Walton League; the Metropolitan Builders Association; the Ozaukee County Towns Association; and planning committees in the Towns of Farmington and Trenton, both in Washington County. A presentation on the Commission's new, design year 2010 regional land use plan was made on the local cable television station in the City of Hartford.
- Presentations on automated land information management and attendant demonstrations to the U. S. Army Corps of Engineers,

the Wisconsin Department of Natural Resources, the Wisconsin Department of Transportation, the Wisconsin Geological and Historical Survey, a University of Wisconsin-Madison planning class, Milwaukee County staff, Walworth County staff, Washington County staff, Waukesha County Park and Planning Commission members, City of Milwaukee staff, a Wisconsin Department of Transportation geographic information systems (GIS) users' group, and a group of economic development professionals from Poland.

- Presentations on wetland preservation to classes at the University of Wisconsin-Madison, the University of Wisconsin-Milwaukee, and Waukesha North High School; to the Wisconsin Chapter of The Nature Conservancy, the Golden Lasers Senior Citizens group in the Village of

Figure 44

COMMUNITY ASSISTANCE PLANNING DIVISION



Wales, the International Crane Foundation, the Lake Geneva Town and Country Club, the Wisconsin County Code Administrators, and to staff of the Milwaukee County Parks System. Commission staff also participated on Nature Conservancy project committees, participated in the Prairie Invertebrate Conference at Riveredge Nature Center in Newburg, and conducted tours for an annual meeting of State wetland managers in Madison.

- Wildlife and nature tours, conducted by Commission staff, of the Retzer Nature Center and Lulu Lake wetlands.
- Preparation of six Commission newsletters discussing Commission planning programs and related activities. The newsletters are distributed to over 2,600 public officials and interested citizens.
- Preparation and distribution to newspapers and to radio and television stations of two news releases announcing, respectively: 1) the receipt by the Commission of a second consecutive first-place award for printing presented at the "In-Print 93" international printing competition held in San Diego, California; and 2) the reelection of Mr. David B. Falstad of Racine County as the 1994 Chairman of the Southeastern Wisconsin Regional Planning Commission.
- Preparation of the Commission's 1992 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 1993 included:

- Provision of model zoning regulations governing buffer yards, business uses, construction site erosion control, exotic animal regulation, floodland and shoreland zoning, freeway noise control, home occupations, parking requirements, signs, site plan review, topographic preservation, upland conservation areas, waterfront protection,

wetland regulations, and zoning administration to the Racine County Planning and Development Division, the Cities of Brookfield, Elkhorn, Lake Geneva, and West Bend, and the Village of Hartland.

- Provision of a sample land subdivision control ordinance and subdivision ordinance administration materials to the Village of Mukwonago and the Town of Belgium.
- Discussion and recommendations concerning zoning of annexed land in the Village of Pewaukee.
- Preparation of land use plan proposals and requests for proposals for the City of Cudahy and the Villages of Pewaukee, Saukville, and Sussex.
- Assistance to 224 persons who visited the Commission offices in reading 579 flood insurance rate maps. In accordance with Federal Emergency Management Agency (FEMA) guidelines, the Commission staff has not, since September 1, 1989, provided certifications of flood hazard data to users. The Commission staff also responded to 53 telephone inquiries for information about the National Flood Insurance Program.

REVIEW SERVICES

Review services are intended to encourage the incorporation into local planning programs, plans, and plan implementation devices, such as zoning and subdivision control ordinances, of regional studies and plans. 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 1993 in the first review category:

- Review of, and comment on, 46 preliminary land subdivision plats, including three plats at the request of Kenosha County for subdivisions located in the Town of Salem; eight plats at the request of Racine County

Table 27
STATE AND FEDERAL GRANT REVIEWS: 1993

Review Category	Number of Reviews	Aggregate Amount of Federal and/or State Grant, Loan, or Mortgage Insurance Requests
Community Action	43	\$132,392,875
Community Development	11	9,740,932
Community Facilities	4	2,315,000
Conservation	34	96,275,007
Historic Programs	1	922,512
Housing	17	27,822,352
Law Enforcement	5	2,541,020
Park and Open Space	2	160,000
Solid Waste	2	5,602,962
Transportation	28	60,399,706
Total	147	\$338,172,366

for subdivisions located in the Towns of Burlington, Mt. Pleasant, Norway, and Rochester; three plats at the request of Walworth County for subdivisions located in the Towns of East Troy, Lyons, and Spring Prairie; three plats at the request of the City of Burlington; four plats at the request of the City of Hartford; one plat at the request of the City of New Berlin; four plats at the request of the City of Waukesha; two plats at the request of the Village of Belgium; one plat at the request of the Village of Fredonia; four plats at the request of the Village of Germantown; one plat at the request of the Village of Pewaukee; three plats at the request of the Village of Pleasant Prairie; two plats at the request of the Village of Saukville; one plat at the request of the Village of Sussex; one plat at the request of the Village of Williams Bay; one plat at the request of the Town of Pewaukee; and four plats at the request of the Town of Somers.

- Review of, and comment on, 15 certified survey maps, including the review of six certified survey maps in the City of Burlington and nine certified survey maps in the Town of Somers.

- Review of, and comment on, 38 petitions to rezone lands, including three rezoning petitions in the City of Burlington; 14 rezoning petitions in the Village of Menomonee Falls; one rezoning petition in the Village of Sussex; 14 rezoning petitions in the Town of Somers; and six rezoning petitions in the Town of Wheatland.

Commission activities regarding the review of Federal and State grant applications are summarized in Table 27. In total, review comments were provided for 147 applications for Federal and/or State grants, loans, or mortgage insurance guarantees requesting in the aggregate more than \$338 million in Federal and State financial assistance. Of the 147 requests, 19 were found to be in conformance with, and to serve to implement, the adopted regional plan elements and 128 were found to be not in conflict with the adopted regional plan elements. None was 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 28. Comments are provided, when required, relating the proposed projects and the data contained in the environmental impact statements to the adopted regional plans.

Table 28
ENVIRONMENTAL IMPACT STATEMENTS REVIEWED: 1993

Document Reviewed	Requesting Agency
Environmental Impact Statement to construct a fire service training facility at Milwaukee Area Technical College	Milwaukee Area Technical College-North Campus
Environmental Impact Statement to construct a public safety training facility at Milwaukee Area Technical College	Milwaukee Area Technical College-South Campus
Environmental Assessment for the proposed construction of the Geneva National Gary Player golf course in the Town of Geneva	Wisconsin Department of Natural Resources

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 1993, the following representative project planning efforts were conducted:

- Completion of a land use, urban design, and transportation plan for the Village of Hales Corners. This plan, documented in SEWRPC Community Assistance Planning Report No. 195, A Land Use, Urban Design, and Transportation Plan for Selected Arterial Street Corridors in the Village of Hales Corners, Milwaukee County, Wisconsin, May 1993, presents information, design criteria, and recommended development and redevelopment plans for the three major arterial corridors—USH 45/STH 100 (S. 108th Street), STH 24 (W. Janesville Road), and STH 24 and CTH OO (W. Forest Home Avenue)—that traverse the Village.

The plan suggests solutions to the proliferation of overhead utility lines prevalent in the Village; suggests landscaping, street-scaping, and buffering solutions to address concerns over the appearance of the arterial corridors; illustrates a proposed Village Center; and, in an appendix to the plan, suggests an access control management plan to improve traffic movement and safety. Proposed alternative solutions to the proliferation of overhead utility lines are illustrated in Figure 45.

- Completion of a land use plan for the City of Waukesha and environs. This plan, documented in SEWRPC Community Assistance Planning Report No. 169, A Land Use Plan for the City of Waukesha Planning Area: 2010, Waukesha County, Wisconsin, September 1993, refines and details the adopted regional land use plan.

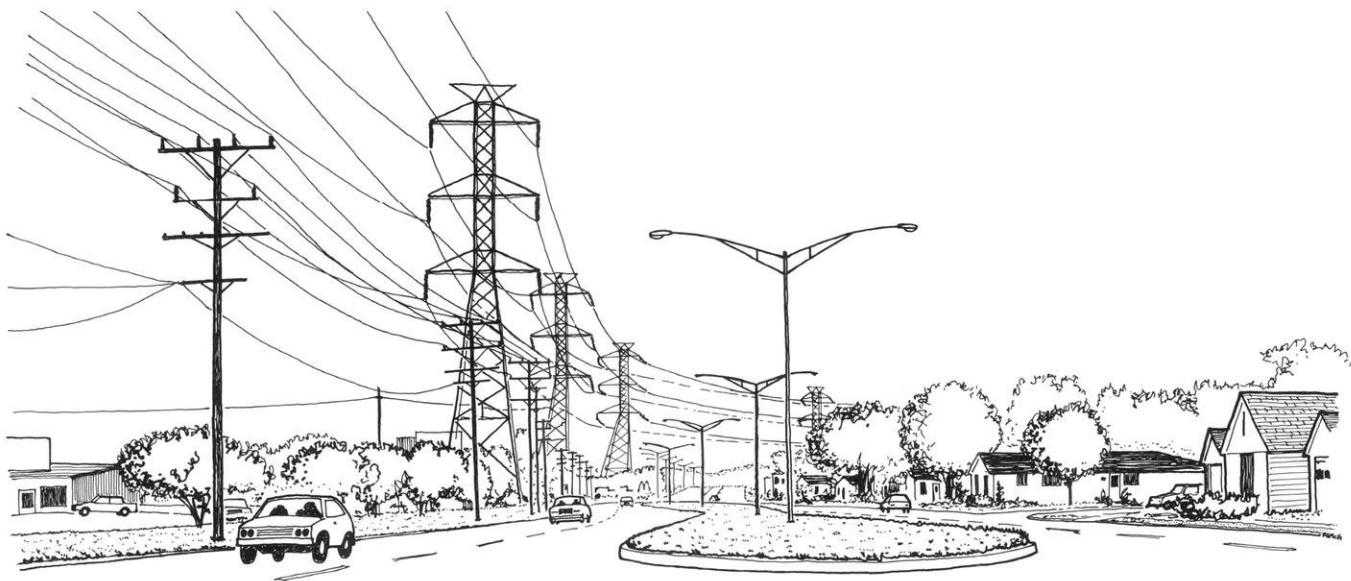
The plan provides guidelines for land use development in the City and environs to assist the City Plan Commission in making day-to-day development decisions. The recommended land use plan for the area is shown in graphic summary form on Map 29.

The plan report also sets forth a framework for further refinement of the development plan by delineating 23 neighborhood planning areas and six special planning districts. These delineations follow the long-standing objective and recommendation of the regional land use plan that urban areas be formed of, and developed in, a number of individual cellular units, as opposed to a single, large, formless mass. The neighborhood units are those areas most associated with the daily activities of family life. Each delineated residential neighborhood provides housing for a population that will support one elementary school. Each neighborhood should further provide a broad range of housing types, as well as a full complement of public and semipublic facilities needed by the families in the neighborhood, such as religious worship, neighborhood park, and

Figure 45

EXISTING AND POTENTIAL VIEWS ALONG S. 108TH STREET IN THE VILLAGE OF HALES CORNERS
ILLUSTRATING THE RESULTS OF BURYING SOME OR ALL EXISTING OVERHEAD UTILITY LINES

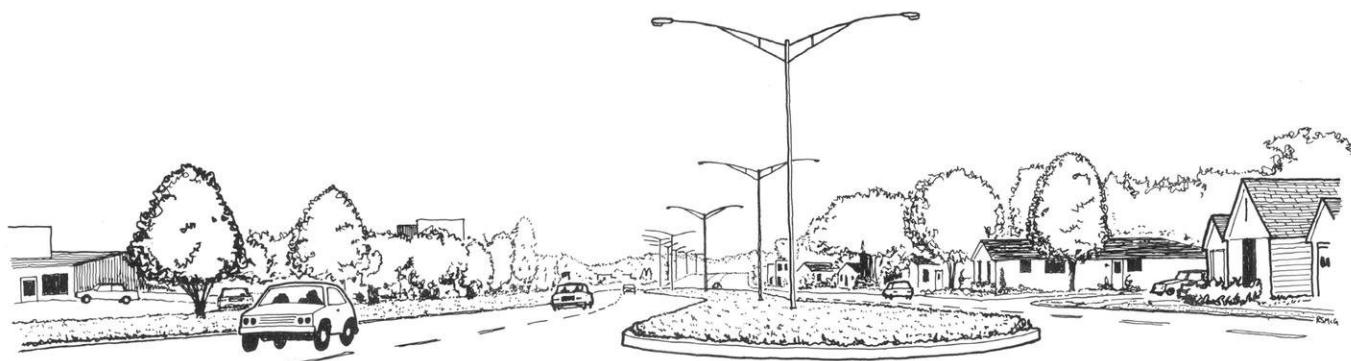
EXISTING VIEW: 1989

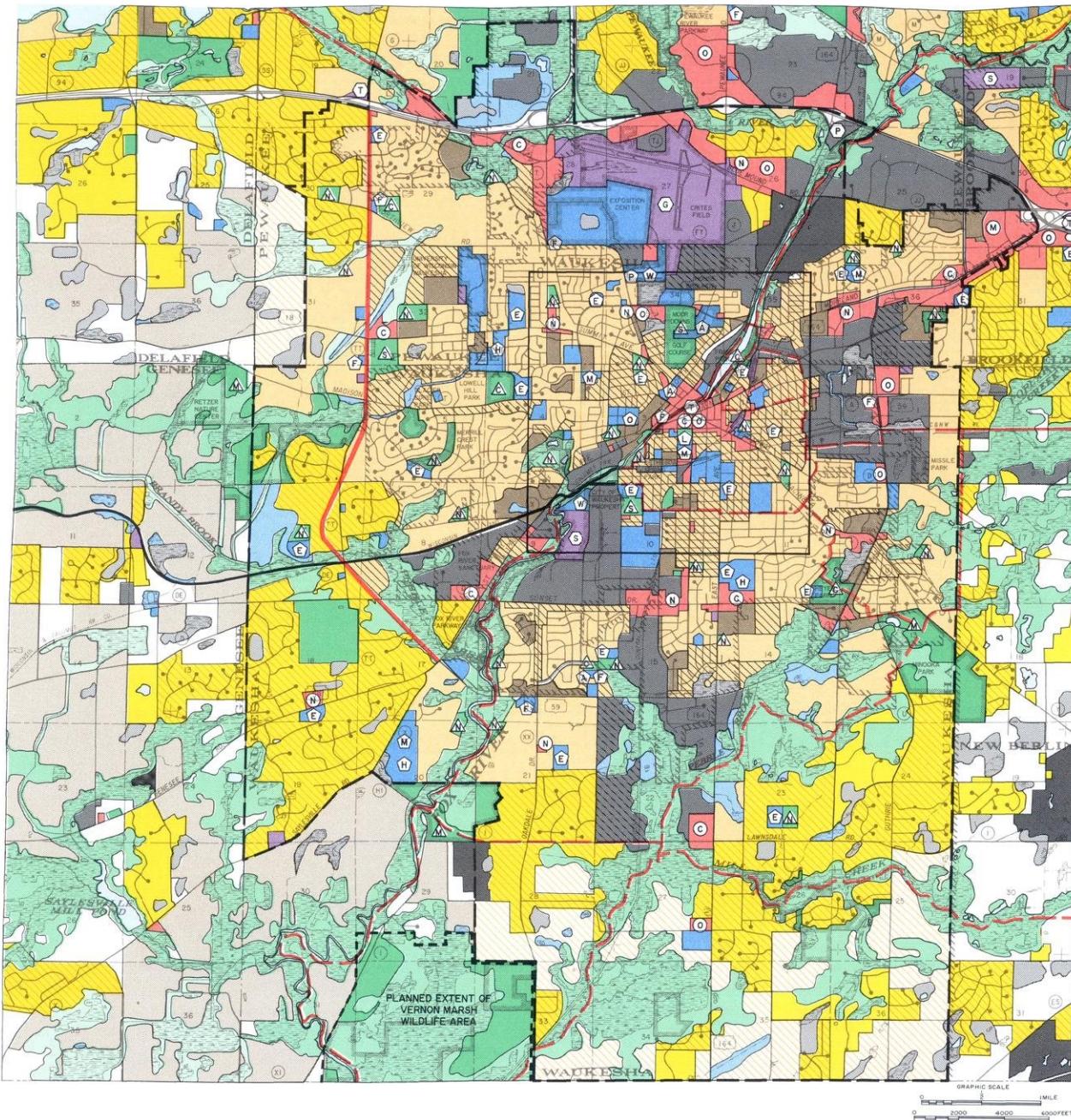


POTENTIAL VIEW AFTER CONVERSION OF PYLON TOWERS TO SINGLE POLES AND THE BURIAL OF DISTRIBUTION LINES



POTENTIAL VIEW AFTER BURIAL OF ALL OVERHEAD UTILITY LINES



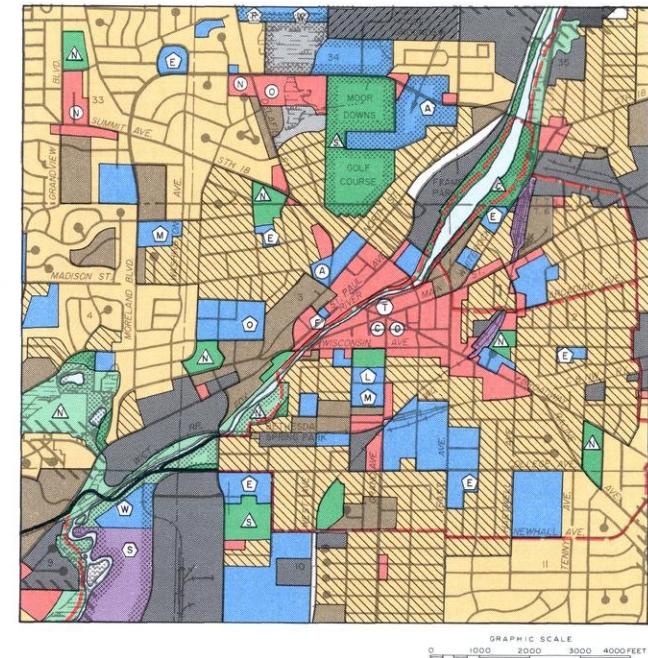


Map 29

RECOMMENDED LAND USE PLAN FOR THE WAUKESHA PLANNING AREA: 2010

LEGEND

Suburban Density Residential	Industrial
Low Density Residential	Industrial Park
Medium Density Residential	Quarrying
Medium-High Density Residential	
High Density Residential	
Residential Reserve	
Retail and Service Commercial	Recreational
Neighborhood Center	
Community Center	
Major Center	
Service and Office Center	
Hospital	
Library	
Municipal Administrative Offices	
Fire Station	
Police Station	
Public Works	
Public Elementary School	
Public Middle School	
Public High School	
Transportation and Utilities	
Transit Station with Parking	
Park and Pool Lot	
General Utility- Stage II Airport	
Sewage Treatment Plant	
Primary Environmental Corridor	
Secondary Environmental Corridor	
Isolated Natural Resource Area	
Other Environmentally Significant Areas	
Prime Agricultural Land	
Other Agricultural and Open Land	
Water	
Existing Trail	
Proposed Trail	
Limit of Proposed Expanded Waukesha Urban Service Area	
Proposed Western Segment of Waukesha Bypass	



neighborhood shopping facilities. The neighborhood units and recommended general locations for associated neighborhood elementary schools, neighborhood parks, and neighborhood shopping centers are shown in graphic summary form on Map 30.

The land use plan for the area was also briefly described in a summary report entitled A Land Use Plan for the City of Waukesha Planning Area: 2010, Summary Report, September 1993.

- Completion of development plans for the Parkside East neighborhood in the Town of Somers, Kenosha County, and the Endicott neighborhood in the City of Brookfield. Such plans are viewed by the Commission as important means of guiding and shaping urban land use development and redevelopment at the local level. The Parkside East neighborhood plan is documented in SEWRPC Memorandum Report No. 80, A Development Plan for the Parkside East Neighborhood, Town of Somers, Kenosha County, Wisconsin, September 1993. The Endicott neighborhood plan is documented in SEWRPC Memorandum Report No. 85, A Development Plan for the Endicott Neighborhood, City of Brookfield, Waukesha County, Wisconsin, September 1993. Neighborhood plans suggest future collector and local access street alignments and attendant block and lot configurations and identify the locations within their respective neighborhoods considered to be best for institutional, recreational, and commercial uses and for various kinds of residential uses. Such plans also recommend specific areas for protection from intensive development for environmental reasons, and indicate needs to reserve land for drainageways and utility easements. An appendix to the Endicott neighborhood plan suggests a performance regulation to protect development from freeway noise levels. The Parkside East neighborhood plan has been adopted by the Town of Somers. The recommended plan for the Endicott neighborhood, which has been adopted by the City of Brookfield, is shown in graphic summary form on Map 31.
- Completion of zoning ordinances for the City of New Berlin and the Town of Jackson.

RESIDENT PLANNING SERVICES

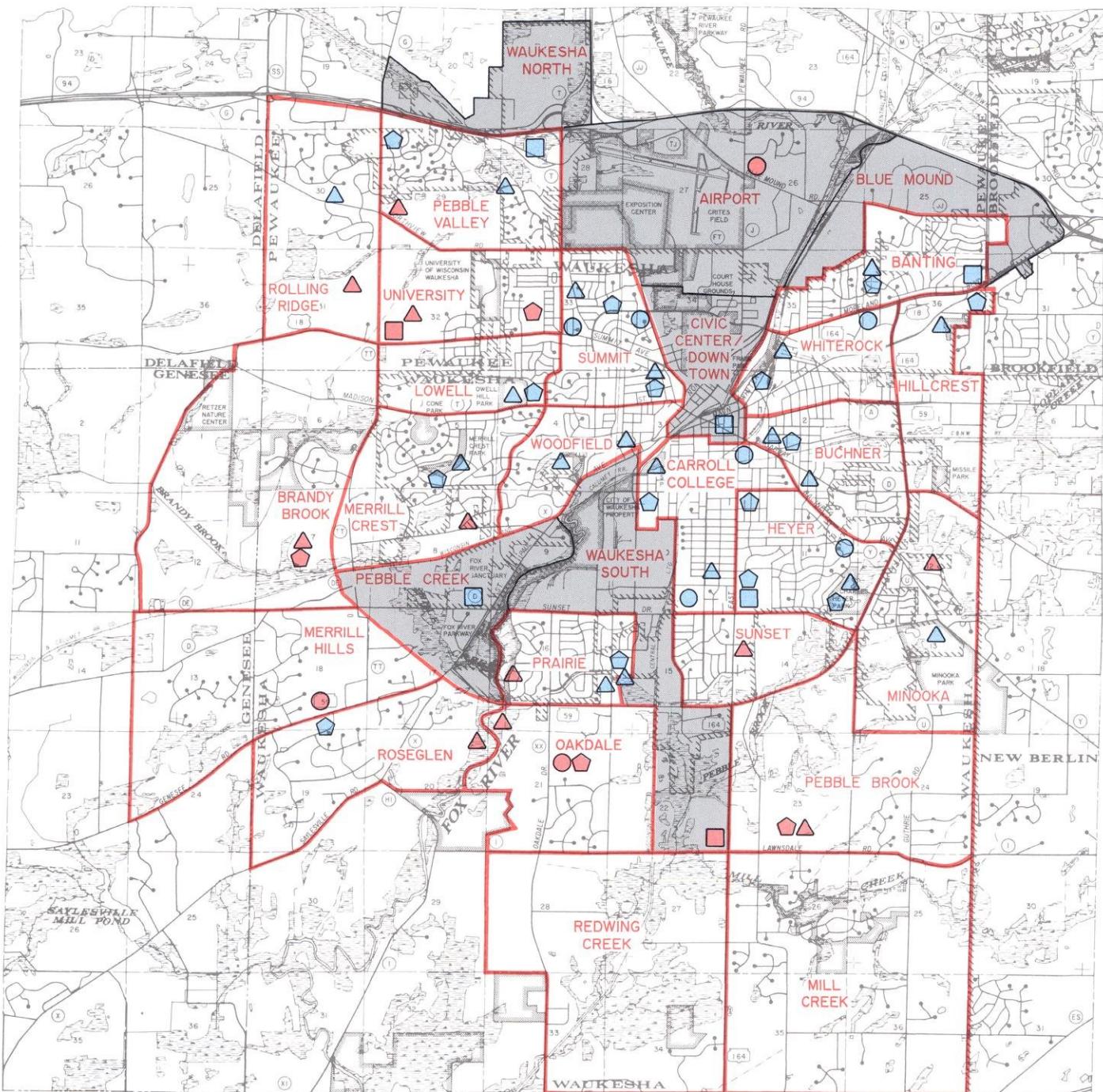
The Commission provides part-time resident staff assistance, on request, to local units of government. This type of assistance involves a commitment by the Commission staff to attend all local plan commission meetings and to provide such local planning recommendations as may be requested from time to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

During 1993, resident planning assistance was provided on a contractual basis to the Cities of Burlington and New Berlin; to the Villages of Menomonee Falls, Saukville, and Sussex; and to the Towns of Somers and Wheatland. Together, these services required Division staff attendance at and participation in a total of 108 plan commission, town board, village board, and city council meetings. Representative examples of services provided in 1993 include:

- Preparation of eight zoning text amendments to the City of Burlington Zoning Ordinance regarding bed-and-breakfast establishments, contractors' offices, veterinary clinics, pet stores, recycling centers, shoreland wetland regulation, and the creation of an attached single-family residential district.
- Review of, and comment on, 17 development site plans, 13 conditional use permit applications, a sign permit application, a proposed annexation, and a proposal to vacate a street in the City of Burlington.
- Preparation of a Village of Menomonee Falls land use plan amendment regarding urban development that is tributary to the Village of Sussex regional wastewater treatment facility. The Commission staff also reviewed and commented on a conditional use permit application and reviewed a conceptual plan for a housing development for the elderly in the Village.
- Preparation of six zoning text amendments to the Village of Sussex Zoning Ordinance regarding public access requirements in the central business district, residential development in the central business district, interpretation of yards on corner lots, and the use of wetlands in development density calculation, and revising the list of equip-

Map 30

RECOMMENDED LOCATIONS OF NEIGHBORHOOD FACILITIES IN DELINEATED NEIGHBORHOODS AND SPECIAL PLANNING DISTRICTS IN THE CITY OF WAUKESHA PLANNING AREA



LEGEND

NEIGHBORHOOD BOUNDARY

SPECIAL PLANNING DISTRICT

FACILITIES EXISTING IN 1990

 ELEMENTARY SCHOOL

PARK

NEIGHBORHOOD SHOPPING CENTER

COMMUNITY SHOPPING CENTER

FACILITIES RECOMMENDED BY 2010

 ELEMENTARY SCHOOL

PARK

NEIGHBORHOOD SHOPPING CENTER

COMMUNITY SHOPPING CENTER



Map 31

THE ENDICOTT NEIGHBORHOOD PLAN, CITY OF BROOKFIELD



LEGEND

Legend for Land Use Map:

- NEIGHBORHOOD BOUNDARY
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- SINGLE-FAMILY RESIDENCE
- TWO-FAMILY RESIDENCE (2.9 DWELLING UNITS PER NET ACRE)
- MULTI-FAMILY RESIDENCE (5.8 DWELLING UNITS PER NET ACRE)
- DAYCARE AND RELATED INSTITUTIONAL USE
- NONE COMMERCIAL
- GOVERNMENTAL AND INSTITUTIONAL
- RECREATIONAL
- DRAINAGEWAYS AND OTHER OPEN SPACE
- SURFACE DRAINAGE DIRECTION
- DETENTION / RETENTION POND
- WETLANDS
- LANDSCAPE BUFFER AND NO ACCESS EASEMENT
- BIKE PATH
- PEDESTRIAN TRAIL



A horizontal scale bar with a central vertical line. The word "GRAPHIC" is above the scale, and "SCALE" is below it. The scale is marked with "0" on the left, "200" in the middle, and "800 FEET" on the right. The scale is divided into four equal segments by the markings.

ment for which height modifications are permitted. Commission staff also commented on the expansion of nonconforming uses to the Village Zoning Board of Appeals, and prepared a subdivision control ordinance amendment regarding the design of cul-de-sacs.

- Review of, and comment on, five conditional use permit applications and five development site plans in the Village of Sussex.
- Review of, and comment on, one development site plan, five conditional use permit applications, and eight applications for zoning variances, and a proposed vacating

of parkland in the Town of Somers. The Commission staff also participated in discussion on the revision of the Town subdivision control ordinance, participated in discussions on conceptual plans for Kenosha County airport expansion, made a presentation on the findings and recommendations of the Kenosha Urban Planning District park and open space plan, and participated in a public hearing on the Parkside East neighborhood development plan.

- Review of, and comment on, three conditional use permit applications in the Town of Wheatland.

CARTOGRAPHIC AND GRAPHIC ARTS DIVISION

DIVISION FUNCTIONS

The Commission's Cartographic and Graphic Arts Division provides basic services to other Commission divisions in a number of functional areas. The Division is responsible for creating and maintaining current a series of regional planning base maps that are used not only by the Commission, but are extensively used also by other units of government and by 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 decennial 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 by 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, upon request, of contracts and specifications for large-scale mapping and control survey efforts by county and local units of government. Another Division function, begun in 1984 and attendant to the Commission Executive Director's service as the Milwaukee County Surveyor, 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 1993, work continued on the updating of the Commission's 1-inch>equals-2,000-feet-scale county planning base maps, using 1990 ratioed and rectified aerial photography and Wisconsin Department of Transportation state aid mileage summary maps. In 1993, this updating effort included updating of planimetric features and changing civil division corporate limit lines to reflect recent annexations and incorporations.

As of the end of 1993, all of Kenosha, Milwaukee, and Walworth Counties and portions of Washington and Waukesha Counties had been updated, representing about 52 percent of the total area of the Region.

TOPOGRAPHIC MAPPING AND SURVEY CONTROL

The Commission prepares, and encourages county and 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 counties and local communities in the preparation of contracts and specifications for these programs. All the horizontal and vertical control survey data obtained as 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 placement on the State Plane Coordinate System of all U. S. Public Land Survey corners within the County. That work was done in accordance with specifications prepared by the 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 included 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 Commis-

sion staff provide the necessary supervision and assistance. By the end of 1993, mapping and attendant control surveys had been completed for about 77 percent and 82 percent of the County, respectively.

In 1991, Milwaukee County undertook a county-wide program under which the land survey and control survey work was completed and the topographic mapping work was initiated with the Commission staff providing the necessary technical direction. As of the end of 1993, topographic mapping within Milwaukee County had been completed or was under contract, and a program to update existing mapping was started.

In 1992, Walworth and Washington Counties also undertook countywide programs under which land survey and control survey work was initiated with the Commission providing assistance in the preparation of contracts and specifications and with the field inspections and office analyses required for quality control. In 1993, Washington County and the Village of Kewaskum undertook a cooperative program to complete topographic mapping and attendant land and control surveys within the Village and environs, with the Commission providing assistance in administration and quality control for the program. Also in 1993, Ozaukee County and the City of Mequon undertook a cooperative program to complete topographic mapping and attendant land and control surveys within the City and environs, with the Commission providing assistance in administration and quality control for the program. These county-level surveying and mapping programs represent model programs of national interest.

Map 32 shows those areas of the Region for which, by the end of 1993, large-scale topographic maps have been or are being prepared to Commission-recommended standards. As shown in Figure 46 and Table 29, this area totals 1,596 square miles, or about 59 percent of the total area of the Region. A total of 8,354 U. S. Public Land Survey corners in the Region have been or by the end of 1993 were being relocated, monumented, and coordinated, representing about 71 percent of all such corners in the Region. The utility of the mapping and control survey data developed and collated by the Commission is indicated by the fact that the Commission received over 650 inquiries for topographic mapping and over 500 inquiries for control survey data during 1993 alone.

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 1993, requests for such information were fulfilled for 44 sites, bringing to 228 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 increase somewhat 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, State 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 burial through 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 1993, under the requirements of this legislation, the Division received, indexed, and filed 1,866 records of land surveys completed within Milwaukee County, the only county within the Region which meets the statutory criteria concerned. This brings the total number of records of land surveys completed within Milwaukee County which have been filed by the Division to 19,488.

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:

Map 32

LARGE-SCALE TOPOGRAPHIC
MAPPING AND RELOCATION,
MONUMENTATION, AND
COORDINATION OF U. S. PUBLIC
LAND SURVEY CORNERS: 1993

LEGEND

LARGE-SCALE TOPOGRAPHIC MAPPING
COMPLETED OR UNDER PREPARATION

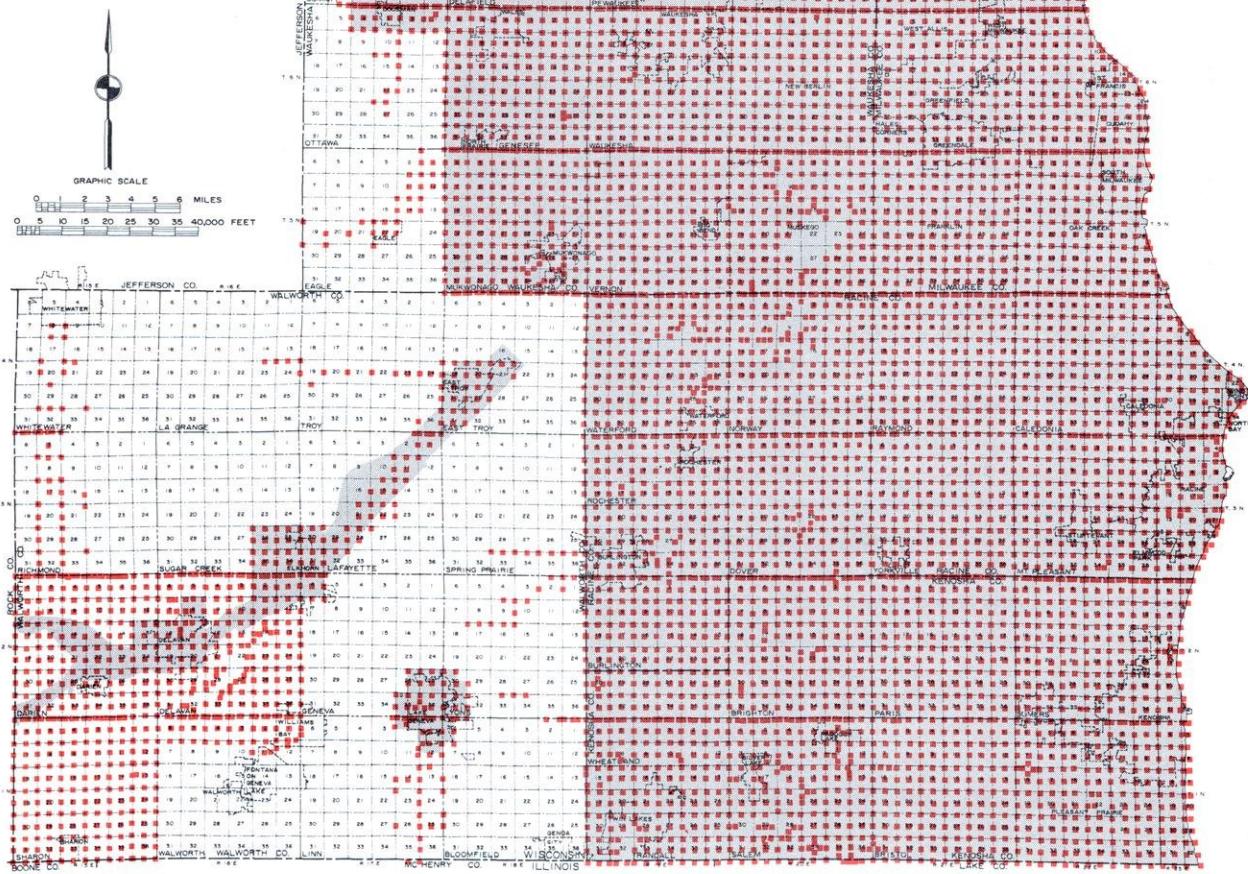
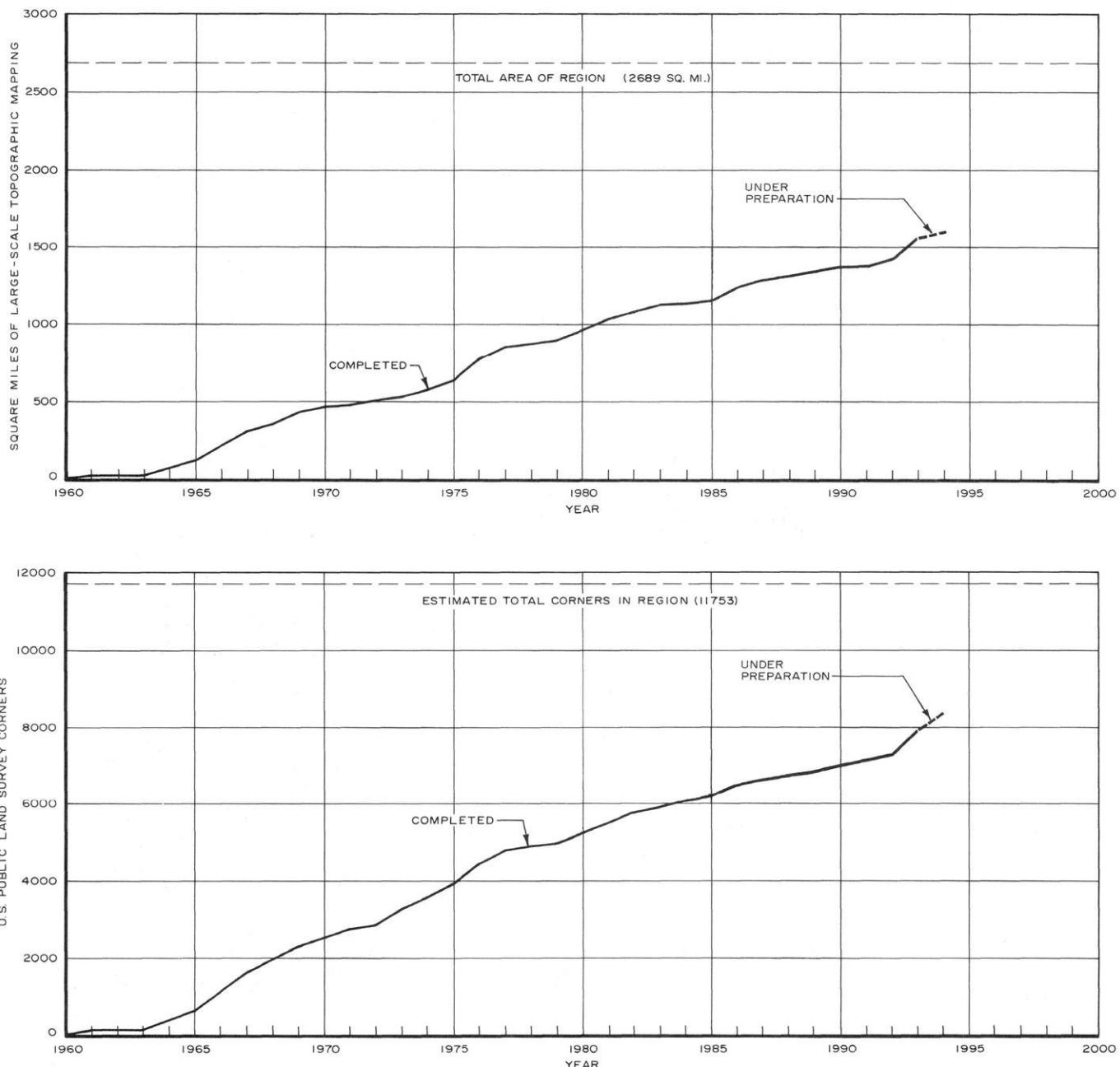


Figure 46

STATUS OF U. S. PUBLIC LAND SURVEY SECTION AND
QUARTER-SECTION CORNER RELOCATION, MONUMENTATION, AND
COORDINATION AND LARGE-SCALE TOPOGRAPHIC MAPPING IN THE REGION: 1993



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.

TYPICAL SEWRPC MONUMENT



Table 29

LARGE-SCALE TOPOGRAPHIC MAPPING AND RELOCATION, MONUMENTATION,
AND COORDINATION OF U. S. PUBLIC LAND SURVEY CORNERS: 1993

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 ^a	Multi- Agency	Total	Percent
Kenosha	278	--	27.75	236.25	--	14.00	--	278.00	100.00
Milwaukee	242	--	11.00	102.00	49.50	77.00	2.50	242.00	100.00
Ozaukee	234	26.75	24.25	43.25	--	17.50	--	111.75	47.76
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	9.00	122.50	28.10
Waukesha	581	1.25	78.75	222.50	--	145.25	--	447.75	77.06
Region	2,689	59.75	190.00	918.11	49.50	367.00	11.50	1,595.86	59.35

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, 7.25 square miles have been updated by other agencies. Of the 190.00 square miles originally mapped under SEWRPC programs, 79.00 square miles have been updated by other agencies. Of the 918.11 square miles originally mapped under county programs, 2.00 square miles have been updated by other agencies. Of the 367.00 square miles originally mapped under local programs, 171.25 square miles have been updated by other agencies.

^aIncludes 20 cities, 18 villages, and 3 towns.

County	Estimated Total Corners ^a	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 ^b	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	146	3	110	--	571	53.67
Racine	1,478	--	172	1,306	--	--	--	1,478	100.00
Walworth	2,503	282	--	420	--	121	11	834	33.32
Washington	1,905	139	149	347	--	428	50	1,113	58.42
Waukesha	2,535	76	463	955	--	596	--	2,090	82.45
Region	11,753	760	1,315	4,220	162	1,810	87	8,354 ^c	71.08

^aThe estimated number of corners for each county was determined by assigning standard and closing corners to the respective county concerned and by alternately assigning common corners to the two or more counties concerned.

^bIncludes 20 cities, 18 villages, and 3 towns.

^cBecause of the need to set witness corners, these 8,354 U. S. Public Land Survey corners, including the centers of the sections, are marked by 8,500 monuments.

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, the Milwaukee County Register of Deeds, all city and village engineers within the 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 1993, 43 corners of that system in Milwaukee County were perpetuated by remonumentation and referencing carried out by, or under the direction of, the Commission staff to replace destroyed, damaged, or substandard

monumentation. This brings to 344 the total number of such corners so perpetuated in Milwaukee County since 1984. Also in 1993, dossier sheets were prepared for the 43 remonumented corners as well as for 117 corners which were referenced by the Commission staff subsequent to perpetuation of the corners by the Wisconsin Department of Transportation, the Milwaukee County Department of Public Works, and city and village engineers. This brings to 629 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 9,692 prints of aerial photographs of portions of the Region were reproduced, along with 135 soil map prints and 313 prints of maps in the Commission base map series. Aerial photographs were purchased primarily by local units of government, utilities, real estate agents, retail businesses, and service and manufacturing companies. Soil photo prints and base maps were purchased primarily by real estate agents, utilities, surveyors, engineers, and individual property owners.

FINAL REPORT PRODUCTION

The Commission produces most of its documents using in-house staff and equipment. In 1993, the Commission received a first-place award for the production in 1992 of SEWRPC Community Assistance Planning Report No. 167, A Land Use Plan for the City of West Bend: 2010, Washington County, Wisconsin. The award was given in a competition entitled "In-Print 93," co-sponsored by the In-Plant Management Association and In-Plant Reproductions magazine. Judging criteria include print definition, ink coverage, register, design, typography, degree of difficulty, and overall excellence. The In-Plant Management Association is international in scope, serving managers of in-house printing and graphic communication activities. In-Plant Reproductions serves in-house printing plants in business, industry, and government. A similar award was also given to the Commission in 1992.

During 1993, the Cartographic and Graphic Arts Division was responsible for the production of the following Commission publications:

PROSPECTUSES

- Prospectus for the Preparation of a Sanitary Sewerage System Plan for the Northwestern Waukesha County Area, September 1993, 31 pages

OVERALL WORK PROGRAMS

- Overall Work Program—1994 Southeastern Wisconsin Regional Planning Commission, November 1993, 244 pages

ANNUAL REPORTS

- 1992 Annual Report, July 1993, 216 pages

COMMUNITY ASSISTANCE PLANNING REPORTS

- No. 97, 3rd Edition, Sanitary Sewer Service Area for the Village of Belgium, Ozaukee County, Wisconsin, August 1993, 33 pages
- No. 112, 2nd Edition, Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin, June 1993, 37 pages
- No. 128, 2nd Edition, Sanitary Sewer Service Area for the Village of Slinger, Washington County, Wisconsin, September 1993, 33 pages
- No. 158, 2nd Edition, Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin, August 1993, 27 pages
- No. 169, A Land Use Plan for the City of Waukesha Planning Area: 2010, Waukesha County, Wisconsin, September 1993, 300 pages
- No. 190, A Stormwater Management and Flood Control Plan for the Lilly Creek Subwatershed, Village of Menomonee Falls, Waukesha County, Wisconsin, February 1993, 351 pages
- No. 195, A Land Use, Urban Design, and Transportation Plan for Selected Arterial Street Corridors in the Village of Hales Corners, Milwaukee County, Wisconsin, May 1993, 152 pages
- No. 204, Racine Transit System Development Plan: 1993-1997, City of Racine, Wisconsin, June 1993, 206 pages

- No. 205, Sanitary Sewer Service Area for the Village of Newburg, Ozaukee and Washington Counties, Wisconsin, March 1993, 31 pages
- No. 208, Sanitary Sewer Service Areas for the Villages of Lannon and Menomonee Falls, Waukesha County, Wisconsin, June 1993, 41 pages

MEMORANDUM REPORTS

- No. 57, Amtrak Milwaukee-Chicago Passenger Survey Findings: June 1991, January 1993, 106 pages
- No. 68, Regional Land Use Plan Implementation in Southeastern Wisconsin: Status and Needs, May 1993, 152 pages
- No. 73, A Paratransit Service Plan for Disabled Persons: 1993 Update/Milwaukee County Transit System, January 1993, 37 pages
- No. 74, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Kenosha Transit System, January 1993, 31 pages
- No. 75, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Racine Transit System, January 1993, 32 pages
- No. 76, A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Waukesha Transit System Utility, January 1993, 44 pages
- No. 77, A Paratransit Service Plan for Disabled Persons: 1993 Update/Waukesha County Transit System, January 1993, 51 pages
- No. 78, Traffic Study of STH 83 between the Illinois-Wisconsin State Line and STH 50 in Kenosha County, March 1993, 39 pages
- No. 79, An Agricultural Drainage and Urban Stormwater Management Plan for Racine County Farm Drainage District No. 1, Village of Waterford and Towns of Norway and Waterford, Racine County, Wisconsin, September 1993, 99 pages
- No. 80, A Development Plan for the Parkside East Neighborhood, Town of Somers, Kenosha County, Wisconsin, September 1993, 53 pages

- No. 81, Aquatic Plant Management Plan for Phantom Lakes, Waukesha County, Wisconsin, July 1993, 45 pages
- No. 82, A Lake Protection Plan for Silver Lake, Waukesha County, Wisconsin, July 1993, 67 pages
- No. 83, City of Cudahy Economic Development Fact Book, Milwaukee County, Wisconsin, August 1993, 119 pages
- No. 84, Transportation Impacts of W. Wisconsin Avenue Closure between N. 11th Street and N. 16th Street, City of Milwaukee, Milwaukee County, Wisconsin, August 1993, 28 pages
- No. 85, A Development Plan for the Endicott Neighborhood, City of Brookfield, Waukesha County, Wisconsin, September 1993, 60 pages
- No. 86, Traffic Engineering Study of Ann Rita Drive, Coventry Drive, and Macaulay Drive in the Canterbury Hill Subdivision, City of Brookfield, Waukesha County, Wisconsin, July 1993, 24 pages

TECHNICAL RECORDS

- Volume 4, No. 6, December 1993, 169 pages, including the following articles:
 - Interpreting Soils of Southeastern Wisconsin for Onsite Disposal of Household Sewage
By Marvin T. Beatty, Ph.D.,
Professor Emeritus of Soil Science,
University of Wisconsin-Madison
 - Shifts in Centers of Population within the Region: 1963-1990
By Donald G. Dittmar,
SEWRPC Senior Specialist
 - Methodology for Review of Challenges to Wetland Field Delineations Conducted by the Southeastern Wisconsin Regional Planning Commission
By Donald M. Reed,
SEWRPC Chief Biologist
 - A Backward Glance—Unincorporated Settlements in Southeastern Wisconsin
By Arno M. Klausmeier, SEWRPC Librarian, with Assistance from
Scott K. Enk, SEWRPC Senior Editor

NEWSLETTERS

- Volume 33, Nos. 1-6, 232 pages

OTHER

- Amendment to the Regional Water Quality Management Plan: 2000, Village of Hartland, January 1993, 5 pages
- Amendment to the Regional Water Quality Management Plan—2000, Village of Twin Lakes, March 1993, 9 pages
- Amendment to the Regional Water Quality Management Plan: 2000, City of Muskego, March 1993, 12 pages

- Amendment to the Regional Water Quality Management Plan—2000, City of New Berlin, June 1993, 10 pages
- Amendment to the Regional Water Quality Management Plan—2000, City of Racine and Environs, June 1993, 1 page
- Amendment to the Regional Water Quality Management Plan—2000, Town of Geneva, Walworth County Metropolitan Sewerage District, December 1993, 7 pages
- Study Design for the Continuing Regional Land Use-Transportation Study: 1992-2000, February 1993, 122 pages
- Waukesha County Development Plan Study Design, May 1993, 17 pages

GEOGRAPHIC INFORMATION SYSTEMS DIVISION

DIVISION FUNCTIONS

The Commission's Geographic Information Systems Division provides basic support services not only to all of the Commission's planning divisions, but also to county and local governments in the development of automated land information systems. Since the mid-1970s, the Division has had a computer mapping capability that has provided the foundation for a still-evolving regional geographic information system (GIS). Conceptually, the Commission defines a GIS as a computer-based system of capturing, storing, retrieving, analyzing, and reproducing geo-based data such as land use, soils, wildlife habitat, and floodplain data. The system thus identifies and maps areas exhibiting a defined characteristic without regard to real property ownership. Nevertheless, in the Commission's GIS, the basis for the control of these data sets is the U. S. Public Land Survey System tied to the State Plane Coordinate System.

A land information system (LIS) is by Commission definition conceptually different from a GIS only in that an important new component is added, namely, real property boundary lines and definitions of ownership parcels. The data in an LIS are thus all parcel-related. Since such cultural information is also directly related to the U. S. Public Land Survey System, it is possible to integrate fully the Commission's regional GIS data base with the additional information being developed under the county land information systems. Indeed, over time and as counties complete land information systems, it may be expected that the regional GIS in Southeastern Wisconsin will, in effect, be merged with the seven county land information systems into a single computer-based system wherein resides a wide range of data pertaining both to the physical characteristics of the land and environment and the cultural characteristics of how the land and environment is owned and managed.

The following sections present a technical description of the Commission's computer mapping capabilities, which are evolving from year to year to take advantage of changes in the state of the art; a discussion of the status of the regional GIS; and a review of the status of the seven county-based land information systems in Southeastern Wisconsin.

COMPUTER MAPPING CAPABILITIES

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. Superficially, 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. 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 of simultaneously extracting information from more than one map, synthesizing and analyzing that information, and producing "new" information and "new" maps from the process. The ability to perform these types of operations is especially valuable to the Commission's area-wide planning efforts.

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 relatively recent past; prior to 1987, the Commission utilized CAD-type software for its computer-assisted mapping applications. In 1986, the Commission staff evaluated a number of GIS software products then commercially available to identify a software system most suitable for its use. 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 a 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-related analytical functions, including network- and land parcel-based functions.

The computer graphics hardware configuration upon which GENAMAP operates is based upon two Hewlett-Packard series 9000, Model 380, engineering work stations, each having a 19-inch, 16-color monitor and two 571-megabyte disks, and one Hewlett-Packard series 9000, Model 750 engineering work station having a 19-inch, 256-color monitor and seven 1.3-gigabyte disks. The three engineering work stations are connected through a local area network (LAN).

These three work stations share a Hewlett-Packard 1600/6250 dual-density tape drive, an eight-millimeter tape drive, a four-millimeter tape drive, a CD-ROM 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 three work stations jointly serve as the support devices for seven Hewlett-Packard 19-inch, 256-color terminals, six of which are attached to Calcomp 44-by-60-inch, high-precision digitizing tables for interactive map data capture and editing. A Calcomp color electrostatic plotter is also available for on-line color map production. This device is capable of handling 44-inch roll-feed media, and can produce monochrome, color-line, and solid color-fill finished drawings at a resolution of 400 dots per inch.

DEVELOPMENT OF A REGIONAL GEOGRAPHIC INFORMATION SYSTEM

Since the mid-1970s, the Commission has had under development a regional geographic information system with an emphasis on regional planning data needs. Efforts to date to build that system have been concentrated on the computerization of land use and related inventories that previously were quantified, manipulated, and stored in non-computerized fashion. Consequently, through 1993 the regional GIS consists largely of data on land use, soils, watersheds, floodlands, shorelands, vegetation, wildlife habitat, and scientific and natural areas. Not all of these data sets have as yet been fully converted to digital format for computerized storage and retrieval. The Commission continues to work annually toward completing the computerized regional planning data base.

In addition to the foregoing land-based data sets, the GIS also includes at the present time limited cultural boundary features, including civil divisions, traffic analysis zones, and planning analysis areas used for regional plan-

ning purposes. Over time, the Commission intends to build its GIS by adding base mapping information as well as network and line data attendant to the Region's transportation systems and, indeed, work toward achieving this goal was initiated during 1993 with the completion of a digital base map for Walworth County. Because the regional GIS is continually evolving, potential users of the data residing in the system need to specifically inquire of the Commission as to data availability.

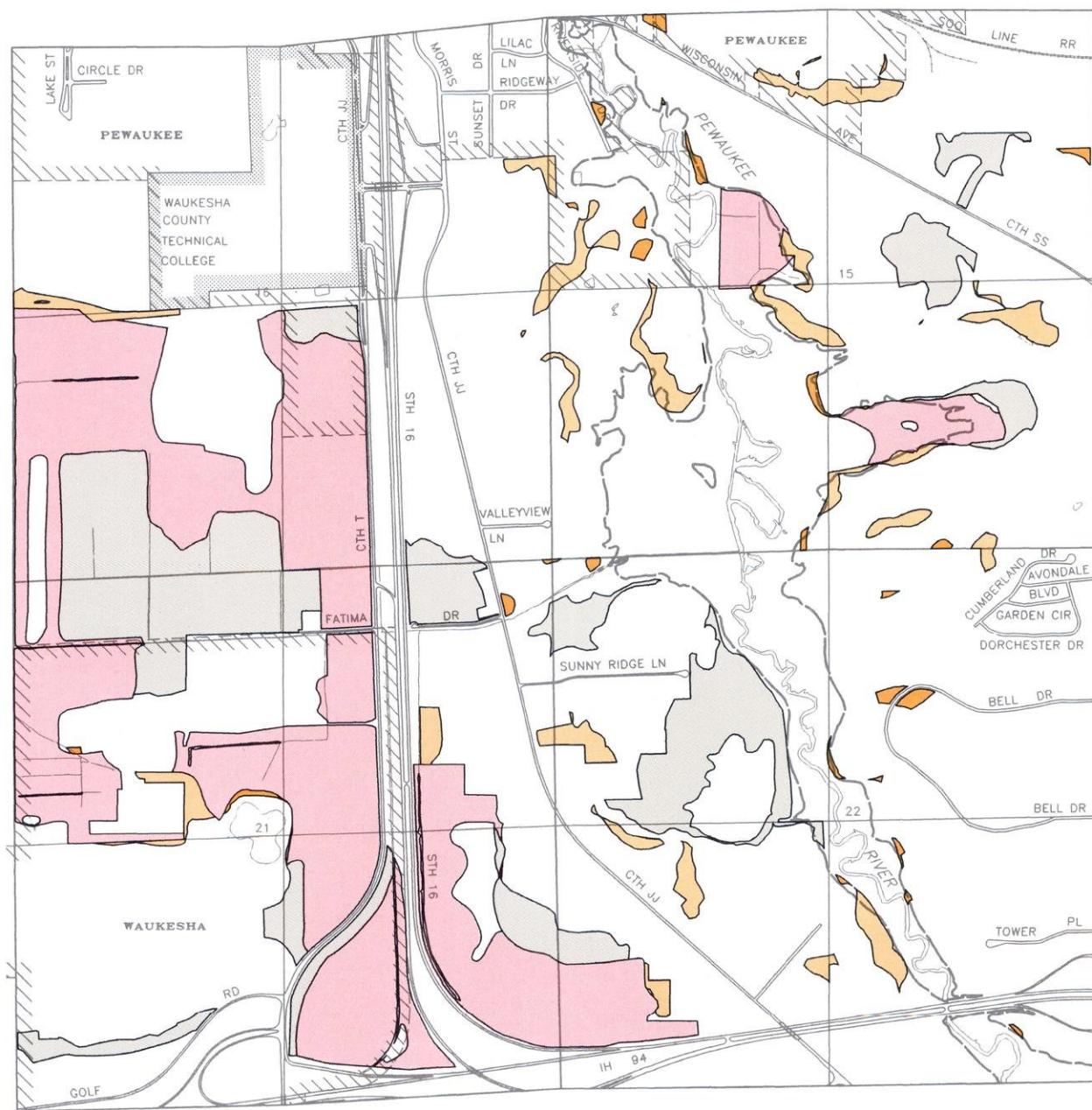
Using the Commission's regional GIS, the Commission, in 1992, at the request of the Wisconsin Department of Transportation, conducted a demonstration effort in which the computer technology was used to identify for the Department potential wetland mitigation and enhancement sites. The identification of such sites is critical in carrying out an agreement between the Wisconsin Departments of Natural Resources and Transportation under which the latter Department will mitigate wetland losses caused by State-sponsored highway and airport construction projects.

To demonstrate the capabilities of the GIS to assist in this matter, the Wisconsin Department of Transportation selected a four-square-mile study area mostly in the Town of Pewaukee. Within that study area, the data base residing in the GIS was expanded to include all relevant data on soils, wetlands, woodlands, natural areas, critical species habitats, wildlife habitat areas, land use, and primary environmental corridors. Using a set of locational criteria developed jointly by the Wisconsin Department of Transportation, the Wisconsin Department of Natural Resources, and the Commission, the computerized GIS was then used to locate, quantify, and map specific areas that would be suitable for wetland mitigation and for wetland enhancement within the study area. The results of this demonstration work effort are summarized graphically on Map 33. With this information, the Department of Transportation was then in a position to identify specific areas for potential use as wetland mitigation and/or enhancement sites.

On the basis of the results of the demonstration study, the Department of Transportation indicated to the Commission its intent to use the GIS technique to identify potential wetland mitigation and enhancement sites throughout the Region. During the balance of 1992, the Depart-

Map 33

SUITABLE WETLAND MITIGATION AND ENHANCEMENT SITES IN THE PEWAUKEE-IH 94 STUDY AREA: 1992



WETLAND MITIGATION SITES

- LESS THAN 1.0 ACRE
- 1.0 – 5.0 ACRES
- GREATER THAN 5.0 ACRES

— FLOODPLAIN BOUNDARY

WAUKESHA COUNTY

T 07 N	16	0 1 2 1	15
R 19 E	21	3 4 3 4	22

WETLAND ENHANCEMENT SITES

- LESS THAN 1.0 ACRE
- 1.0 – 5.0 ACRES (NONE)
- GREATER THAN 5.0 ACRES

GRAPHIC SCALE

400 0 400 800 1200 FEET

ment contracted with the Commission to identify such sites attendant to several highway improvement projects being programmed by the Department. This cooperative effort continued during 1993. By the end of 1993, a total of eight such site identification studies had been completed within the Region. The locations of these sites are shown graphically on Map 34. This cooperative working relationship with the Department of Transportation will also contribute to the further building of the regional digital GIS data base.

DEVELOPMENT OF COUNTY-BASED LAND INFORMATION SYSTEMS

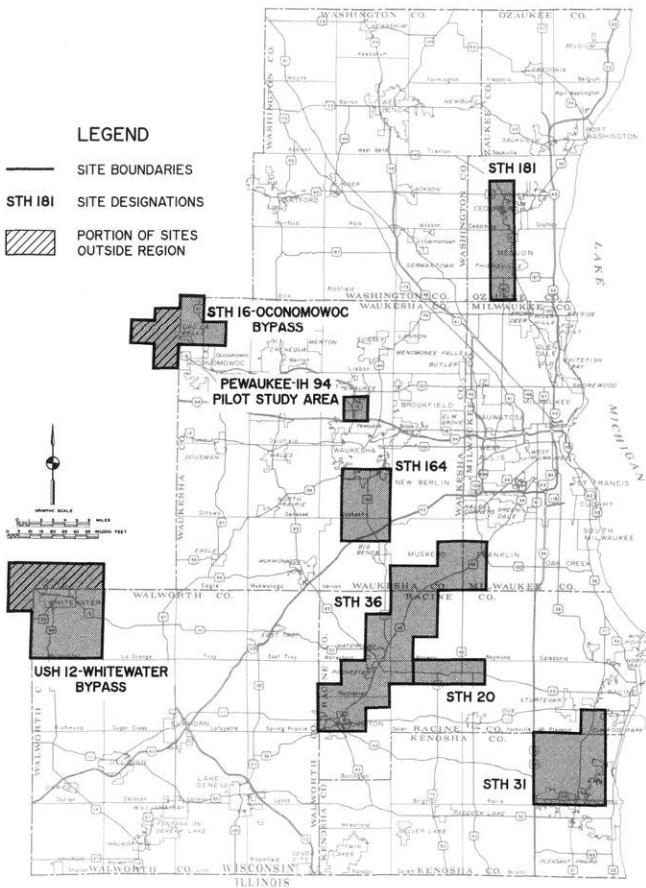
Since its inception, the Commission has recommended that county and local units of government in the Region prepare large-scale topographic and cadastral, or property-boundary, base maps founded upon a Commission-recommended monumented control survey network that precisely and accurately relates the 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 and are also developing new mapping directly in digital form. Such mapping forms the foundation for modernized systems of land records management.

Efforts to develop county-based land information systems were significantly enhanced by the initiation in 1990 of the Wisconsin Land Information Program. This program, 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. The program includes a supplemental Register of Deeds filing and recording fee of \$6.00. Counties retain \$4.00, to be used exclusively for implementing county land records modernization plans. The remaining \$2.00 is forwarded to the Wisconsin Land Information Board and is used by that Board primarily to award grants to county and local governments for projects that would implement county plans.

By the end of 1992, the Commission had assisted all seven counties in the Region in preparing

Map 34

WISCONSIN DEPARTMENT OF TRANSPORTATION WETLAND MITIGATION SITE IDENTIFICATION STUDIES CARRIED OUT WITHIN THE REGION: DECEMBER 31, 1993



county land information system plans. The following summarizes the major activities carried out during 1993 in the implementation of those plans.

Kenosha County

The Kenosha County plan is documented 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, August 1990. The plan was adopted by the County Board on September 25, 1990, and approved by the Wisconsin Land Information Board on January 7, 1991. The plan formalized a work effort that had begun in the mid-1980s following a land information system demonstration project undertaken jointly by the Commission and Kenosha County using the Town of

Randall as a demonstration area. Based on that pilot project, the Kenosha County plan included the following elements which, when completed, would provide an initial, usable land information system for the County:

- Land and control surveys as recommended by the Commission to locate and remonument all 1,203 U. S. Public Land Survey corners in the County and establish State Plane Coordinates and elevations for those corners. This work was completed prior to the preparation of the County plan in accordance with long-standing Commission recommendations.
- The completion of topographic base maps at a scale of one inch equals 200 feet with two-foot contour intervals. This mapping was also completed by Kenosha County to Commission specifications in conventional format prior to the development of digital mapping capabilities. Consequently, the demonstration study and the plan recommended that the conventional maps be converted to digital form by digitizing and/or scanning techniques.
- The completion of cadastral overlay maps in digital form at a scale of one inch equals 200 feet providing detailed information on real property boundaries and parcel identification numbers.
- The completion of an initial series of planning-oriented parcel-related digital files, including parcel ownership, assessed valuation, soil, land use, wetland, floodplain, shoreland, and zoning data.

During 1993, the Commission and Kenosha County executed an agreement under which the Commission would prepare for the County the automated land information system for an additional area of approximately 108 square miles, containing about 16,950 parcels. This project area represents the last remaining portion of Kenosha County for which the basic elements of an automated land information system need to be prepared and includes portions of the City of Kenosha and of the Village of Pleasant Prairie, all of the Villages of Paddock Lake and Silver Lake, and all of the Towns of Brighton and Paris. Funding for this project was provided by a grant from the Wisconsin

Land Information Board, by County-retained document-filing fees, and by a contribution from the Kenosha Water Utility.

Map 35 identifies the status of completion of the initial land information system in Kenosha County as of December 31, 1993. The automated base map, cadastral overlays, and planning and zoning overlays have been completed and are available for use over approximately 165 square miles, or 59 percent of the area of the County, representing about 29,100 parcels, or 49 percent of the number of parcels in the County. In addition, the automated system was under preparation at year's end for the remaining 115 square miles, or 41 percent of the County, representing an additional approximately 30,465 parcels, or the remaining 51 percent of the parcels in the County.

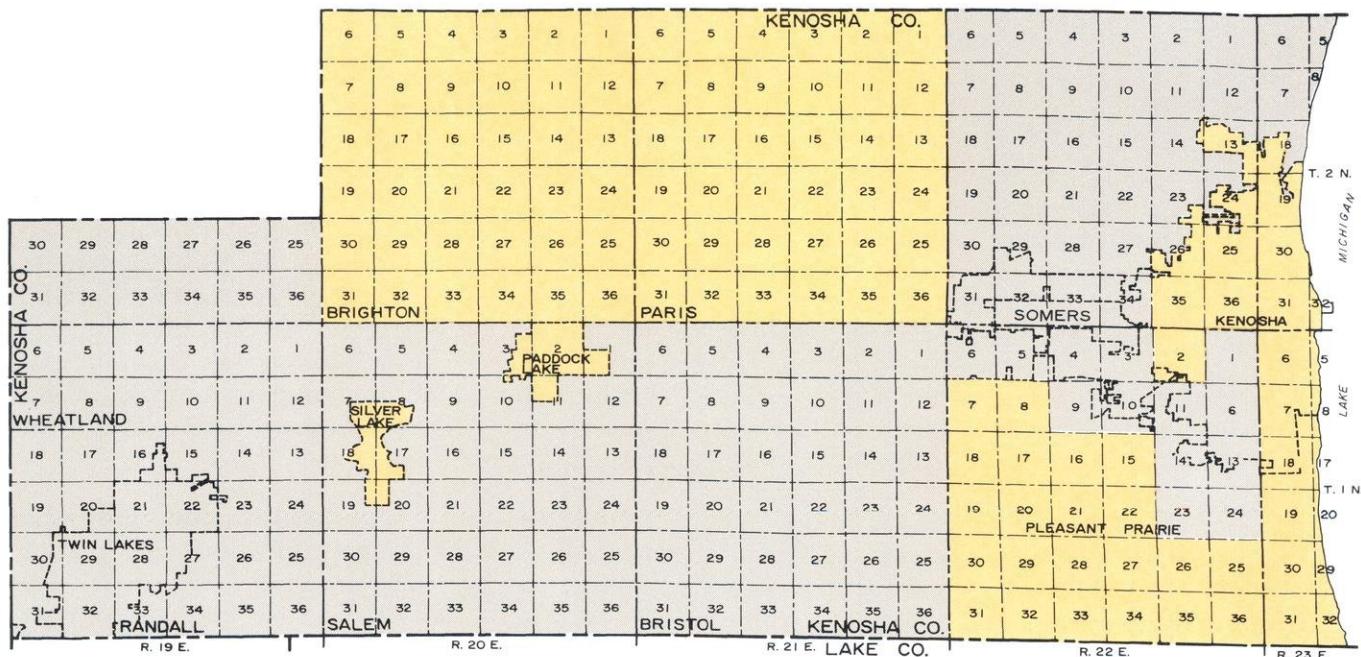
Kenosha County acquired computer hardware and software for its automated land information system during 1993, choosing GENAMAP software running on IBM RS 6000 engineering work stations. Two GENAMAP sites have been installed—one at the Courthouse in downtown Kenosha and a second at the Kenosha County Center in the Town of Bristol. These sites are linked together over a County computer communication line. In addition, the two engineering work stations are linked to the County's IBM AS 400 computer system, allowing access to nongraphic land information files, such as property ownership and tax assessment information.

At the request of Kenosha County, Commission staff assisted the County in the design and configuration of the hardware components of its system and, after its installation, provided specialized training to Kenosha County staff on the use of the GENAMAP software in conjunction with the County land information system digital maps.

The choice of GENAMAP by the Kenosha County staff as the computer software for the County's land information system ensures that the County will be able to easily access and make use of digital map information in the regional GIS being developed by the Commission. It also further ensures that the staffs of the County and the Commission will be able to cooperate closely on such issues of mutual concern as GIS/LIS application development and training.

Map 35

STATUS OF COMPLETION OF INITIAL LAND INFORMATION
SYSTEM IN KENOSHA COUNTY: DECEMBER 31, 1993



LEGEND

- AREA WHERE AUTOMATED BASE MAP, CADASTRAL OVERLAY, AND PLANNING AND ZONING OVERLAYS WERE COMPLETED AND AVAILABLE FOR USE AT YEAR'S END
- AREA WHERE AUTOMATED BASE MAP, CADASTRAL OVERLAY, AND PLANNING AND ZONING OVERLAYS WERE UNDER PREPARATION AT YEAR'S END



An example of the manner in which this type of close cooperation can be expected to occur took place in the second half of 1993, when the Kenosha County Land Use Committee asked that the Commission work with Kenosha County staff in developing the text of the zoning ordinance amendments and attendant zoning district maps for the Camp Lake-Center Lake area of the Town of Salem required to carry out a proposed innovative approach to floodplain zoning in areas formally committed to urban development that would not render previously permitted uses nonconforming in nature. In responding to the direction of the Kenosha County Land Use Committee, the Commission and Kenosha County staff determined to use to the greatest extent possible the automated data base then available in the Kenosha County land information system.

The data included in the initial phase of the Kenosha County automated land information system, insofar as maps and related data are concerned, are summarized in Table 30. That initial phase had been completed for the Town of Salem at the time the Camp Lake-Center Lake project was under way and, accordingly, could be drawn upon for use in constructing maps and in performing analytical and clerical work. The steps involved in carrying out this project with the aid of the automated land information system were as follows:

1. A project area was identified and a special base map of that project area computer-prepared. In constructing that base map, a number of map features from the available menu set forth in Table 30 were used. These consisted of U. S. Public Land Sur-

Table 30

**DATA SETS OF MAP FEATURES AND ASSOCIATED TEXT
FOR THE KENOSHA COUNTY LAND INFORMATION SYSTEM**

Data Set	Digital Map Features	Associated Text
Map Sheet Features	Map border	Map title
	Map trim lines	--
	Map logo	Map logo text
	Graphic scale	Graphic scale text
	North arrow	North arrow text
	Map legend symbols	Map legend text; map index township, range, and section numbers; map index municipality names; and other legend text and explanatory material
	Map index section lines	
	Map index county and township lines	
	Map index city boundary lines	
	Map index location box	
	Wisconsin State Plane Coordinate System grid intervals along map border	State Plane Coordinate System interval northings and eastings
Geodetic and Geographic Reference Features	U. S. Public Land Survey System corners	Corner northings and eastings
	U. S. Public Land Survey System monuments	Monument northings and eastings
	U. S. Public Land Survey System section lines	Grid and ground lengths, section line bearings, adjoining section reference text
	U. S. Public Land Survey System quarter-section lines	Grid and ground lengths, quarter-section line bearings
	Wisconsin State Plane Coordinate System grid intersections interior to map area	--
Hydrographic Features	Lakes, ponds, streams, and watercourses symbolized as open water	Lake, pond, and stream names
	Streams, watercourses, and drainage ditches not symbolized as open water	Stream and ditch names
Planimetric Features	Public pavement edge or curb lines	Public street and road names
	Public median or boulevard lines	
	Unimproved road lines	Unimproved road names
	Railway centerlines	--
	Abandoned railway centerlines	--
	Building roof/foundation outlines	--
	Ruins foundation outlines	--
	Dam lines	--
	Pier lines	--
	Culvert locations	--
	Culvert headwall lines	--
	Bridge deck lines	--
	Bridge wing or retaining wall lines	--

Table 30 (continued)

Data Set	Digital Map Features	Associated Text
Planimetric Features (continued)	Aviation runway or taxiway lines (paved)	--
	Aviation runway or taxiway lines (unpaved)	--
	Other identifiable planimetric features (silos and walls). Each on its own layer as needed	--
Cadastral Features	Street and road right-of-way boundary lines	Street and road names, historic road names and right-of-way widths
	Street and road centerlines	--
	Street and road cul-de-sac radii	Cul-de-sac radii values
	Railroad right-of-way boundary lines, common street and railroad right-of-way lines	Railroad names and right-of-way widths
	Major cross-country public and private easement boundary lines	Easement names and dimensions
	Land subdivision boundary lines	Subdivision names, block and lot notation, and selected dimensions
	Certified survey map boundary lines	Certified survey map numbers, parcel notation, and selected dimensions
	Condominium boundary lines	Condominium name text
	Real property parcel lines (common parcel lines, extended parcel lines, historic parcel lines, surveyed meander property lines, property division lines, and extended property division lines)	Real property parcel dimensions and annotations
	Real property parcel line vinculum symbology and annotation marks	Annotations and explanatory text
Cultural and Natural Area Boundary Features	Real property parcel polygons, surveyed property gaps and overlaps	Kenosha County real property parcel identification numbers, gap and overlap text
	Civil division boundary lines	Civil division names
	Land use polygons	Land use codes
	Zoning district polygons	Zoning district codes
	Shoreland district boundary lines	--
	Floodplain boundary lines	--
	Soil mapping unit polygons	Soil unit names

vey System corners, section lines, and quarter-section lines; lakes, ponds, streams, watercourses, and drainage ditches; building outlines; street and road right-of-way lines; railway right-of-way lines; and real property parcels. The base map was designed for producing display maps at a scale of one inch equals 400 feet.

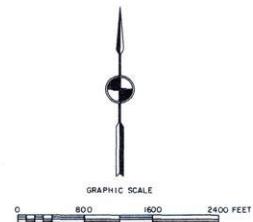
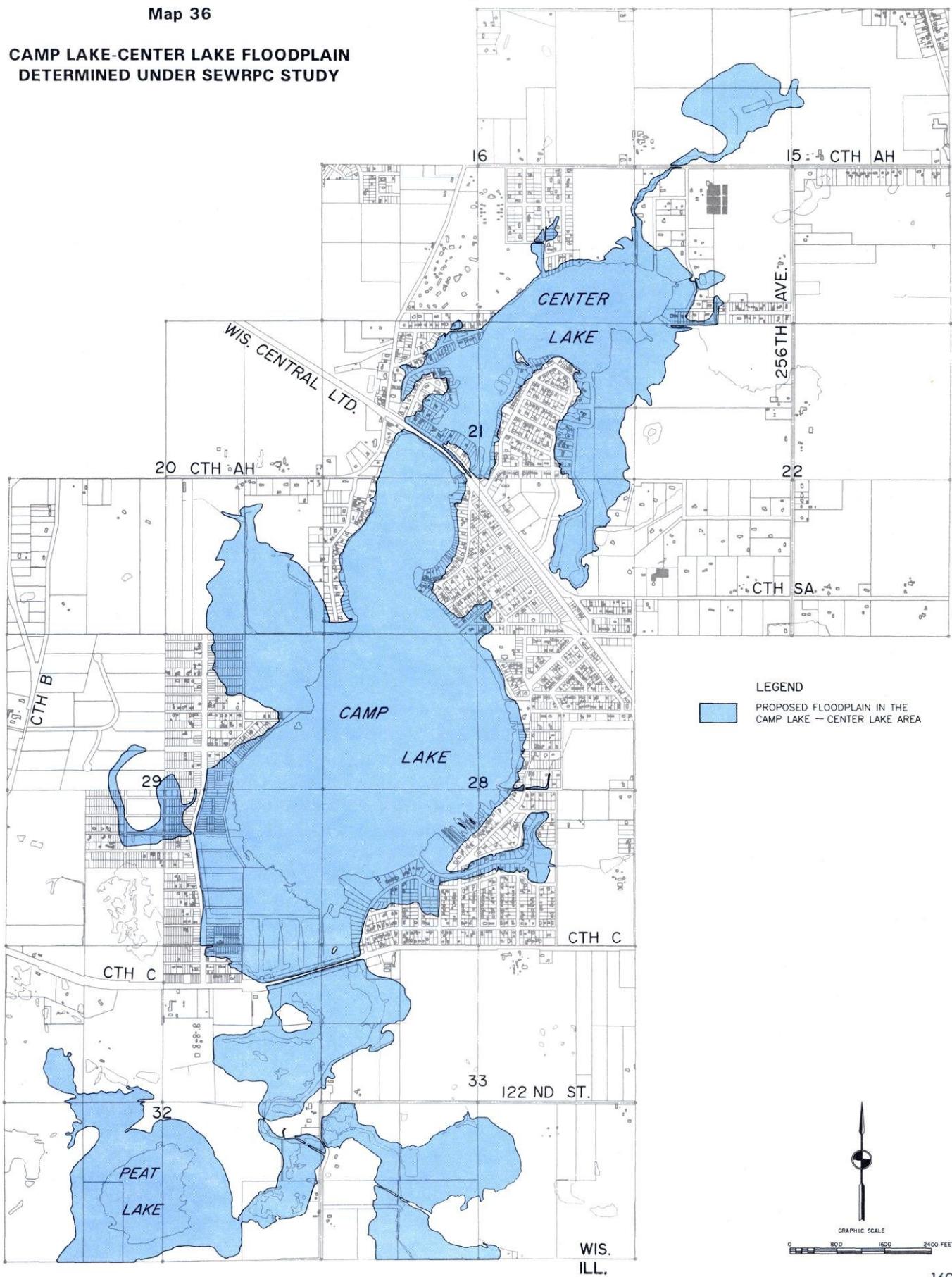
2. A display map was prepared identifying on the base map the areal extent of the newly developed 100-year recurrence interval

floodplain. That map is reproduced as Map 36. The production of this map required that the new floodplain area be digitized and added to the digital data base.

3. A display map was prepared identifying the proposed floodplain zoning districts in the Camp Lake-Center Lake area. The production of this map required digitally encoding the floodway as identified in the hydrologic and hydraulic study on large-scale, one-inch>equals-200-feet, two-foot

Map 36

CAMP LAKE-CENTER LAKE FLOODPLAIN
DETERMINED UNDER SEWRPC STUDY



contour interval topographic base maps and then, using the wetland data already residing in the digital data base, identifying that portion of the floodplain fringe which would be unsuitable for filling and development. The remainder of the floodplain fringe was then coded as suitable for development. Once all of this information was available in digital form, the composite display map of the proposed floodplain zoning was produced (see Map 37).

4. The next step involved developing a map that would aid the Kenosha County staff in complying with the notice requirements related to rezoning set forth in the Kenosha County Zoning Ordinance. The ordinance requires that individual notices be given to the owners of record of all parcels which are proposed to be rezoned and to the owners of record of all parcels which lie within a 300-foot distance from the area that is the subject of the rezoning. Given these requirements, it was a relatively simple task using the automated mapping base to produce the information shown on Map 38. This map displays the extent of the 100-year recurrence interval floodplain, which is defined as the area that is the subject of the rezoning effort. With that information available on the computer screen, the area lying within 300 feet of the outer edge of the floodplain is readily determined by the execution of a simple software command to create a "buffer" zone within a specified distance, in this case, 300 feet, from the outer edge of the floodplain. This buffer area is shown in tan on Map 38.
5. With the buffer area properly identified, the automated land information system is then used to identify: a) all of the parcels directly affected in whole or in part by the area that is the subject of rezoning—the floodplain—and b) those additional parcels which are not directly affected by the proposed rezoning but which lie in whole or in part within 300 feet of the area affected by the rezoning, the "buffer" area defined above. Using the computer software, these tasks are quickly and accurately completed even when literally hundreds of parcels are involved. The results of this analysis are summarized on

Map 39. Each of the parcels shown in blue lies wholly or partially in the floodplain and thus is directly affected by the rezoning. Those parcels shown in tan represent properties that lie at least partly within the 300 feet of buffer area, but are not directly subject to the rezoning. In addition to preparing the display map of the parcels so affected, the computer system was then used to prepare a list of the parcel identifiers—tax key numbers—for all of the parcels in both classes. In this case, the analysis revealed that there was a total of 889 parcels, shown in blue on Map 39, that were directly affected by the proposed rezoning. There were an additional 831 parcels, shown in tan on Map 39, which lie within the buffer area and whose owners, under the terms of the Kenosha County Zoning Ordinance, are also to be notified of the proposed rezoning.

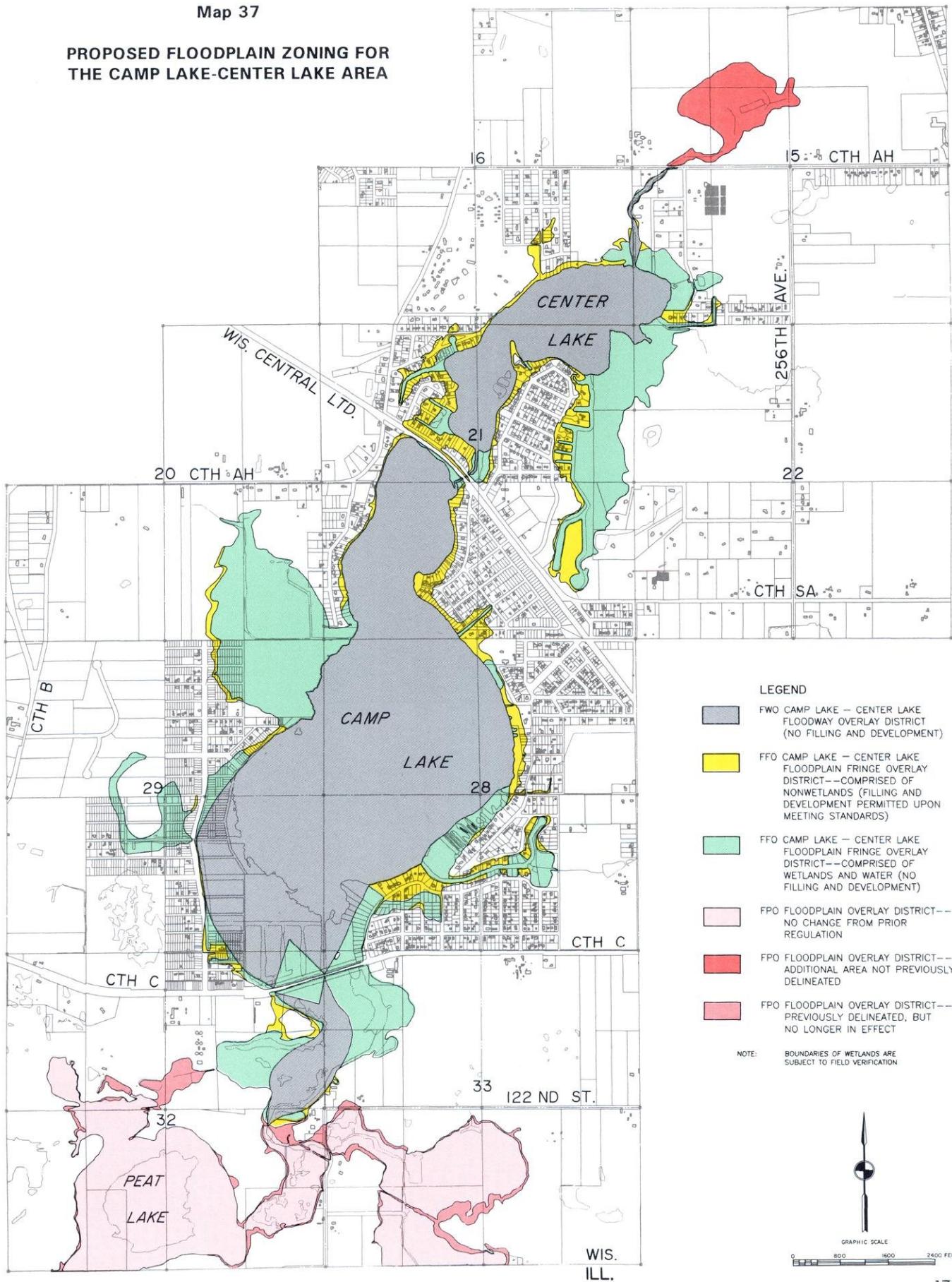
In this case, the display maps and the lists of parcels and property owners to be notified were developed by the Commission for Kenosha County using the Commission's hardware and software and Kenosha County's automated land information system data base. In 1994, Kenosha County will be in a position to perform this type of work directly. Moreover, once the Kenosha County system is fully installed and connected to Kenosha County computers which maintain the nongraphic aspects of the land information system data base, it will be possible to generate automatically the public hearing notification letters and mailing labels.

Milwaukee County

The Milwaukee County plan is documented in SEWRPC Community Assistance Planning Report No. 177, Feasibility Study for a Milwaukee County Automated Mapping and Land Information System, October 1989. The plan was adopted by the County Board on February 15, 1990, and approved by the Wisconsin Land Information Board on January 7, 1991. The plan proposed the creation of an automated digital mapping base for the entire County based upon Commission-recommended control survey and mapping specifications. The proposed mapping would build upon historic base mapping efforts carried out by Milwaukee County, the Milwaukee Metropolitan Sewerage District, and many of the

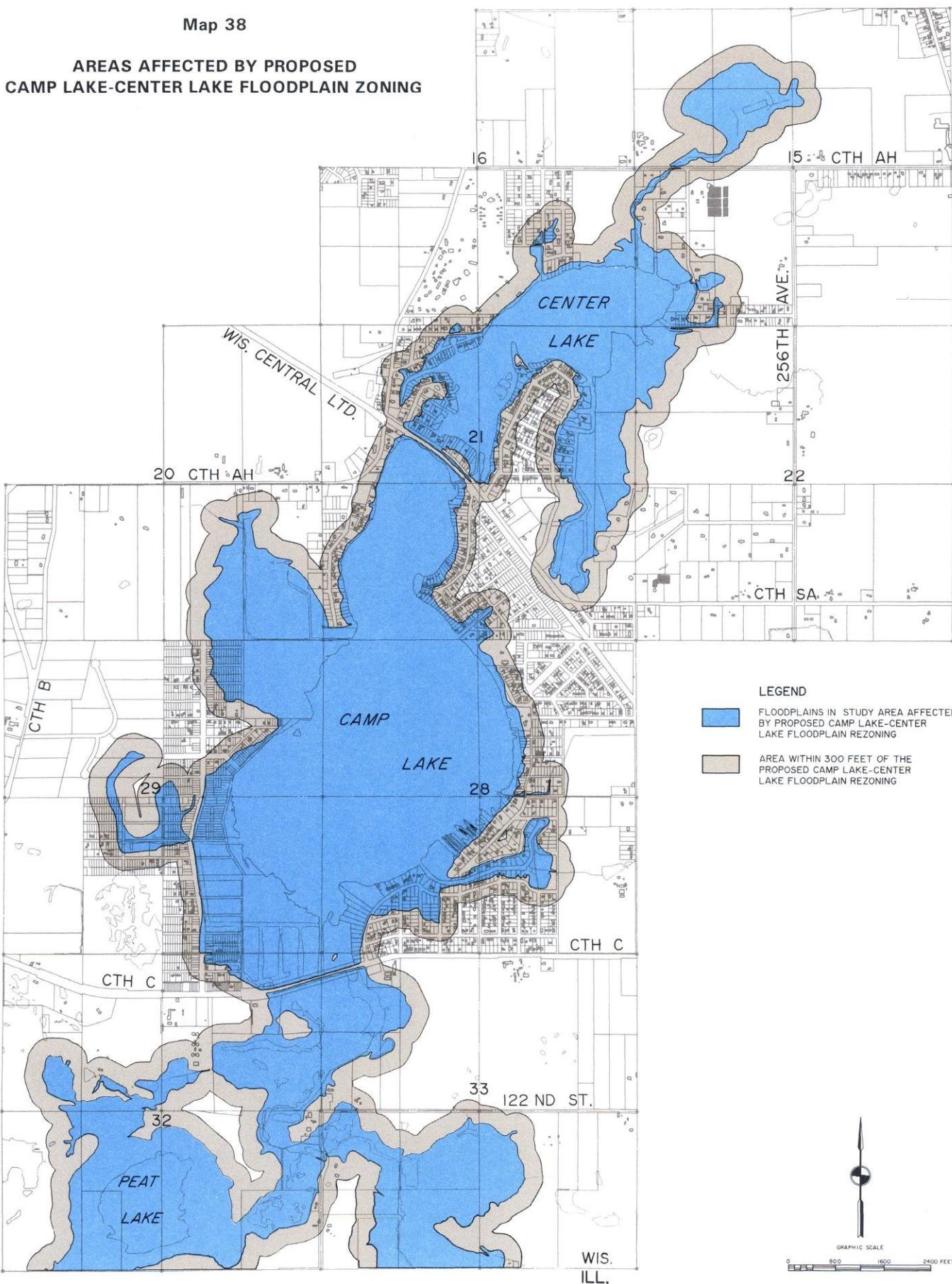
Map 37

PROPOSED FLOODPLAIN ZONING FOR
THE CAMP LAKE-CENTER LAKE AREA



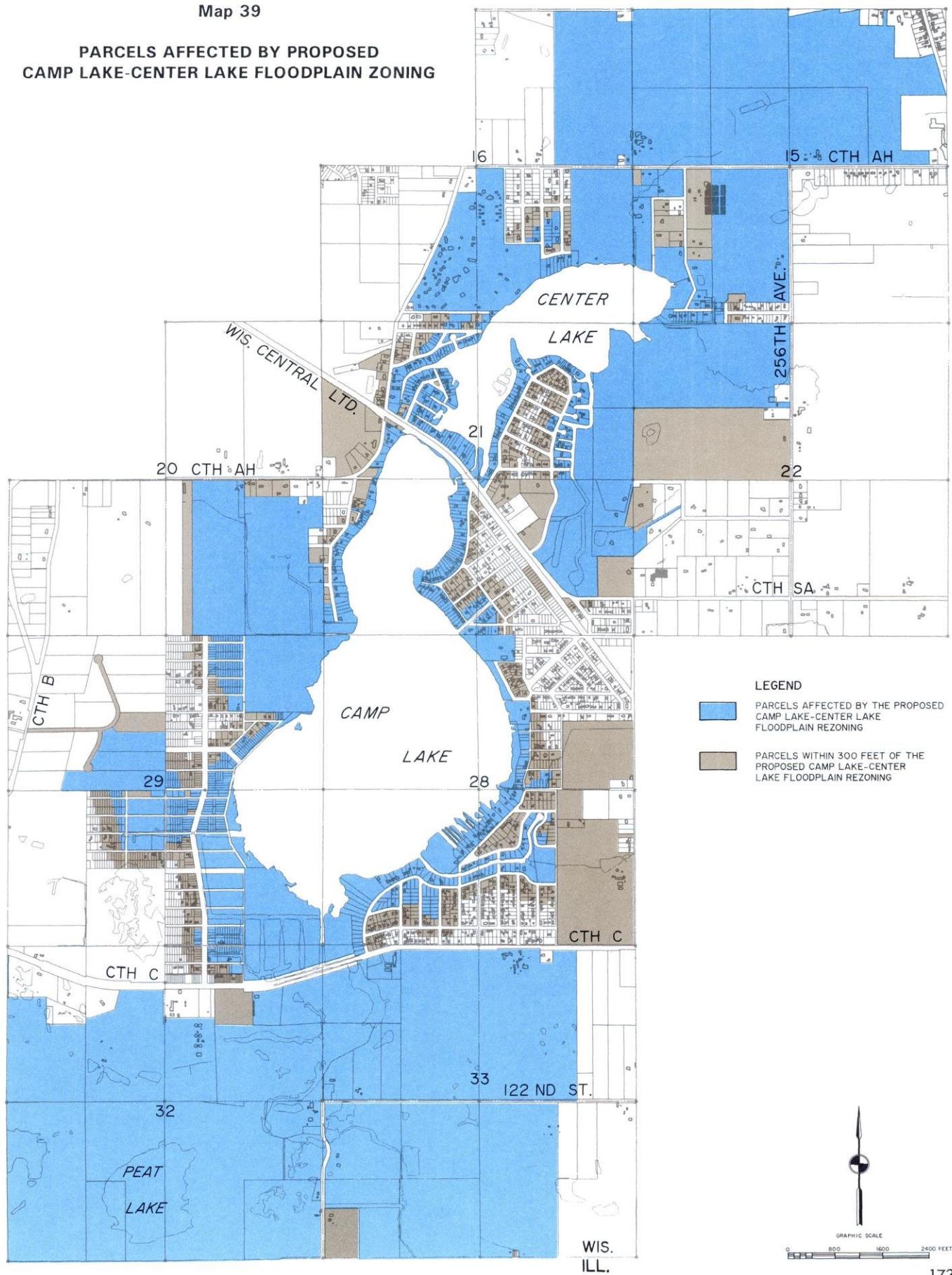
Map 38

AREAS AFFECTED BY PROPOSED
CAMP LAKE-CENTER LAKE FLOODPLAIN ZONING



Map 39

PARCELS AFFECTED BY PROPOSED
CAMP LAKE-CENTER LAKE FLOODPLAIN ZONING



cities and villages in the County. The Milwaukee County plan also proposed the creation of a public-private partnership jointly to develop, to own, and to manage the automated base map.

As reported in prior annual reports, a number of major steps have been taken to implement the Milwaukee County land information system plan. These steps include the execution in 1990 of a cooperative agreement between Milwaukee County, Wisconsin Bell, the Wisconsin Electric Power Company, and the Wisconsin Gas Company jointly to develop and maintain the recommended land information system. Importantly, during 1993, an addendum to the cooperative agreement was executed that added the Milwaukee Metropolitan Sewerage District as a full partner in the development of the land information system. The development of that system, known by the acronym MCAMLIS, is being overseen by a Steering Committee chaired by the Executive Director of the Regional Planning Commission, who, under State law, serves as Milwaukee County Surveyor. The Steering Committee in turn has contracted with the Commission to provide for the day-to-day technical management of the program.

The MCAMLIS work program, as refined in an implementation study completed in 1991, consists of the following basic tasks:

- The completion of the location and remonumentation of all U. S. Public Land Survey corners in the County, including the centers of the sections.
- The completion of high-order horizontal and vertical control surveys to establish the State Plane Coordinates and elevations of the U. S. Public Land Survey corners.
- The completion of large-scale topographic base maps in digital form at a scale of one inch equals 100 feet with two-foot contour intervals.
- The completion of cadastral overlay maps in digital form at a scale of one inch equals 100 feet providing detailed information on the location and configuration of all real property boundaries, including the property boundaries of all streets and public ways and other public land holdings; and assigning a parcel identification number (tax key

number) to each ownership parcel to enable the linking of geographic with nongeographic data files.

- The creation of a data set containing the street addresses of all structures identified in the mapping program.
- The development of a neutral spatial data exchange mechanism so that computerized data can be readily exchanged between the several proprietary hardware and software systems of the MCAMLIS partners.
- A data integration work effort that would eliminate the redundancies that exist in the conventional maps prepared by U. S. Public Land Survey one-quarter section; for example, common quarter-section lines and text associated with those lines, as well as the elimination of data "overlaps" along conventionally mapped borders. In effect, this work effort would create in digital form a "seamless" map of the County.

Prior to 1992, all recommended land and control survey work had been completed and steps had been undertaken to prepare, on a phased basis, the digital topographic base and cadastral overlays. During 1993, the following additional major steps were taken toward completion of the MCAMLIS-recommended work program:

- The Commission and the MCAMLIS Steering Committee executed an agreement under which the Commission would secure large-scale digital topographic base maps for an approximately 76-square-mile area in the central and southern portions of the County. Importantly, this project provided for obtaining topographic mapping for the last of the remaining areas of the County thus unmapped. Funding for this project was provided by a grant from the Wisconsin Land Information Board, by County-retained filing fees, and by contributions from the utilities participating in the MCAMLIS effort.
- The Commission and the MCAMLIS Steering Committee executed two separate agreements under which the Commission would secure digital cadastral mapping for portions of both the Village of Shorewood and the City of Wauwatosa and would combine

this mapping with digital map materials from other sources to begin building the integrated automated mapping base over a large portion of the central part of the County, including the Cities of St. Francis, Wauwatosa, and West Allis; a large portion of the City of Milwaukee and a portion of the City of Greenfield; and the Villages of Shorewood and West Milwaukee. Funding for these two projects was provided by County-retained document-filing fees and by contributions from the utilities participating in the MCAMLIS effort.

- With the assistance of the Commission, Milwaukee County submitted a grant application to the Wisconsin Land Information Board for the July 1993 filing period. The project to be supported by the State grant would secure large-scale digital topographic base maps for an approximately 36.5-square-mile area in the southern part of the County. This mapping was intended to replace previously completed analog-format topographic maps not prepared to MCAMLIS specifications as detailed within the County plan, or, in some instances, to replace seriously outdated older maps. Following receipt of a State grant resulting from this application, the Commission and the MCAMLIS Steering Committee executed an agreement under which the Commission would secure the desired large-scale digital topographic base maps. In addition to the State grant, funding for the work also was provided by County-retained document-filing fees and by contributions from the participating utilities.
- The Commission and the MCAMLIS Steering Committee executed an additional agreement under which the Commission would secure digital topographic and planimetric mapping for an area of approximately 8.25 square miles in the Brown Deer, Glendale, and River Hills area of northern Milwaukee County. This work, completed in December 1993, constituted a remapping effort, as the existing mapping did not meet MCAMLIS specifications as detailed within the County plan. Funding for this work effort was provided by County-retained document-filing fees and by contributions from the participating utilities.

• The MCAMLIS Steering Committee continued to work with the U. S. Geological Survey (USGS) toward the development and implementation of the vendor-neutral digital spatial data exchange mechanism. By December 31, 1993, MCAMLIS had obtained working commitments from two of the key vendors involved, Intergraph Corporation and GENASYS II, Inc. Work had also begun on the development of the necessary spatial data transfer standard documentation, and Commission staff were preparing the first draft of the documentation for the review and comment of the USGS. The development of a vendor-neutral digital spatial data exchange mechanism such as the spatial data transfer standard is one of the necessary components in the ultimate implementation of a central data repository for use by the MCAMLIS partners.

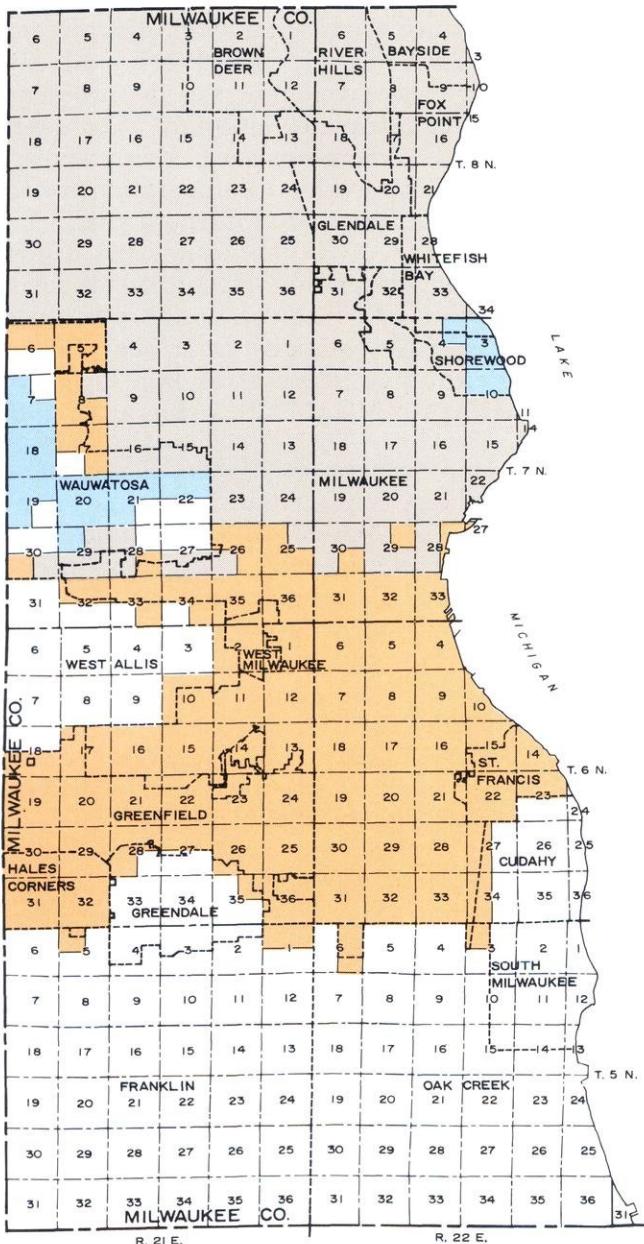
• With the assistance of the Commission, Milwaukee County submitted a grant application to the Wisconsin Land Information Board for the January 1994 filing period. The project to be supported by the State grant would provide for the conversion of contour lines and spot elevations to digital format over an approximately 53-square-mile area of the County. The digital conversion of planimetric and hydrographic map features for this area has been previously carried out under other MCAMLIS work projects. At year's end, Milwaukee County was awaiting action by the Board on that application.

Under Steering Committee guidance, other projects that began in 1991 and 1992 continued throughout 1993. These consisted of several interrelated efforts to prepare cadastral overlay mapping in the northeastern portion of the County and the preparation of the integrated automated mapping base in the northern quarter of the County. In addition to these projects, work was under way by the City of West Allis to prepare cadastral overlay maps for that City and by the City of Milwaukee to adjust its previously prepared digital cadastral overlay mapping to the horizontal control data secured by the Steering Committee in 1991.

Map 40 identifies the status of completion of digital topographic base mapping and cadastral overlay mapping in Milwaukee County as of

Map 40

STATUS OF COMPLETION OF DIGITAL
TOPOGRAPHIC BASE MAPPING AND CADASTRAL
OVERLAY MAPPING IN MILWAUKEE COUNTY
DECEMBER 31, 1993



LEGEND

-  AREA WHERE DIGITAL TOPOGRAPHIC BASE MAP AND CADASTRAL OVERLAY WERE COMPLETED AND AVAILABLE FOR USE AT YEAR'S END
-  AREA WHERE DIGITAL TOPOGRAPHIC BASE MAP WAS COMPLETED AND AVAILABLE FOR USE AT YEAR'S END
-  AREA WHERE DIGITAL CADASTRAL OVERLAY WAS COMPLETED AND AVAILABLE FOR USE AT YEAR'S END



December 31, 1993. The automated end product, digital topographic base maps and cadastral overlays, has been completed and is available for use over approximately 85 square miles, or 35 percent of the area of the County. In addition, digital topographic base maps are completed and available for use over an additional six square miles, or 2 percent of the County, while digital cadastral overlays are completed and available for use over an additional 61 square miles, or 25 percent of the area of the County.

Ozaukee County

The Ozaukee County plan was completed in 1992. The plan is documented in SEWRPC Community Assistance Planning Report No. 142, A Land Information System Plan for Ozaukee County, April 1992. The plan was adopted by the County Board on May 6, 1992, and approved by the Wisconsin Land Information Board on June 8, 1992. The plan builds upon prior limited topographic base mapping efforts completed to Commission-recommended specifications. More specifically, the plan includes the following elements:

- Land and control surveys as recommended by the Commission to locate and remonument all 1,064 U. S. Public Land Survey section and quarter-section corners in the County and establish State Plane Coordinates and elevations for those corners. When the plan was adopted, the Ozaukee County Surveyor and others had completed the relocation and remonumentation of 751 such corners, while State Plane Coordinates had been obtained for 494 corners and elevations for 438 corners.
- The completion of digital topographic base maps at a scale of one inch equals 200 feet with two-foot contour intervals.
- The completion of cadastral overlay maps in digital form at a scale of one inch equals 200 feet providing detailed information on real property boundaries and parcel identification numbers.

The following steps were taken during 1993 toward completion of the Ozaukee County land information system:

- The Commission worked with Ozaukee County and the City of Mequon in develop-

ing an initial project to facilitate the implementation of the County land information system plan. This project was submitted to the Wisconsin Land Information Board for the December 1992 grant period, and resulted in a State grant award of \$75,000. Work on the project began in 1993. The project involves land and control surveys and digital topographic base mapping for an area of approximately 46 square miles, or 20 percent, of Ozaukee County. This area encompasses most of the City of Mequon, all of the Village of Thiensville, and that portion of the Village of Bayside lying within the County. This project, which involves multiple funding sources, required a detailed prioritization of tasks, as a portion of the project area was located within a separately managed coastal management zone.

- The Commission provided assistance to Ozaukee County in conceiving three separate Wisconsin Land Information Board grant proposals to be submitted for consideration by the Board during the January 1994 grant period. These proposals involved land and control surveys and digital topographic mapping within the Cedarburg, Grafton, and Saukville project areas within Ozaukee County. At year's end, Ozaukee County had decided to submit two of these projects—those for the Cedarburg project area and the Grafton project area—to the Board for funding consideration and was awaiting action by the Board on those applications.

Racine County

The Racine County plan is documented in SEWRPC Community Assistance Planning Report No. 194, A Land Information System Plan for Racine County, August 1991. The plan was adopted by the County Board on September 9, 1991, and approved by the Wisconsin Land Information Board on October 14, 1991. The plan built upon control survey and conventional base mapping work completed by Racine County based upon Commission-recommended mapping specifications. Indeed, Racine County was the first county within the Region to complete the Commission-recommended control survey and topographic mapping program, in 1976. The Racine County plan included the following elements:

- Land and control surveys as recommended by the Commission to locate and remonument all 1,478 U. S. Public Land Survey corners in the County and establish State Plane Coordinates and elevations for those corners. This work was completed prior to the preparation of the County plan.
- The completion of topographic base maps at a scale of one inch equals 200 feet with two-foot contour intervals. This work was also completed prior to the preparation of the County plan. Consequently, the plan recommended that the conventional maps be converted to digital form by digitizing and/or scanning techniques.
- The completion of cadastral overlay maps at a scale of one inch equals 200 feet providing detailed information on real property boundaries and parcel identification numbers. At the time of the preparation of the County plan, Racine County had completed cadastral mapping in conventional form for the entire County except the City of Racine. Consequently, the plan recommended that work efforts be undertaken to prepare in digital form cadastral maps for the City of Racine and that the conventional cadastral maps completed for areas outside the City of Racine be converted to digital form.
- The completion of an initial series of planning-oriented parcel-related digital files, including parcel ownership, assessed valuation, soil, land use, wetland, floodplain, shoreland, and zoning data.
- The establishment of a computerized image indexing, storage, retrieval, transmittal, and copying system in the Register of Deeds office. This system would use optical-disk technology, in which a scanning device electronically captures the image on each document page and stores that image on an optical platter similar to a compact disc. With proper indexing and processing, it is possible to view documents on computer terminals and also to obtain hard copies of the viewed image.

The following steps were taken during 1993 toward completion of the Racine County land information system:

- Racine County submitted to the Wisconsin Land Information Board a grant application for the December 1992 filing period which resulted in a grant award of \$75,000. Work supported in 1993 by this State grant included the conversion of stored documents in the Register of Deeds office for use in the new imaging system.
- The Commission provided assistance to Racine County relative to evaluating the utility of digital mapping compiled and owned by Wisconsin Natural Gas Company for potential integration into the County's digital data base. The Commission performed a thorough analysis of the mapping, and advised Racine County that this mapping did not meet the specifications detailed within the Racine County land information system plan. Moreover, the analysis indicated that it would be more cost-effective to produce new mapping for the areas involved than it would be to modify or enhance the existing Wisconsin Natural Gas Company mapping.

During 1993, a major digital cadastral mapping project initiated by the County in 1992 continued. Under this work effort, the County is acquiring digital cadastral mapping for the City of Racine—an area of about 14 square miles—containing about 27,100 real estate parcels, or about 39 percent of all such parcels in the County. At the request of County staff, the Commission staff assisted in the review of the initial work performed by the firm retained by the County to carry out this work effort to ensure that the mapping was being performed in accordance with specifications set forth in the County plan.

Also during 1993, the County began the process of establishing a computerized image indexing, storage, retrieval, transmittal, and copying system in the Register of Deeds office. Equipment to operate the system was acquired, computer programming to control the operation of the system was initiated by County staff, and the conversion of some image records was started.

Walworth County

The Walworth County plan is documented in SEWRPC Community Assistance Planning Report No. 139, A Land Information System Plan for Walworth County, September 1991. The

plan was adopted by the County Board on October 15, 1991, and approved by the Wisconsin Land Information Board on December 9, 1991. The plan builds upon prior limited topographic base mapping efforts completed to Commission-recommended specifications. More specifically, the plan includes the following elements:

- Land and control surveys as recommended by the Commission to locate and remonument all 2,503 U. S. Public Land Survey section and quarter-section corners in the County and establish State Plane Coordinates and elevations for those corners. When the plan was adopted, the Walworth County Surveyor and others had completed the relocation and remonumentation of 1,778 such corners, while State Plane Coordinates had been obtained for 466 corners and elevations for 266 corners. The plan recommended that Walworth County focus its available resources in completing the land and control surveys throughout the County.
- The completion of digital topographic base maps and digital cadastral overlay maps at a scale of one inch equals 200 feet. The plan envisioned that such efforts would be initiated primarily by the local units of government in the County. The County would provide support for such efforts, particularly in seeking Wisconsin Land Information Board grants.
- The creation of an automated tract index pursuant to Section 59.55 of the Wisconsin Statutes.

The following steps were taken in 1993 toward implementation of the Walworth County plan:

- With the assistance of the Commission, Walworth County submitted to the Wisconsin Land Information Board a grant application for the July 1993 filing period. The project to be supported by the requested State grant would extend the land and control survey work to an additional 43-square-mile area in the Town of Delavan and City of Delavan. This application was approved and resulted in an award of \$50,000. Following the award, the Commission and Walworth County executed an agreement under which the Walworth County Surveyor and the Commission would work together to complete the work

set forth in the grant application. In addition to the State grant, funding for this project was provided by Walworth County through tax-levy monies and retained document-filing fees.

- With the assistance of the Commission, Walworth County submitted to the Wisconsin Land Information Board a grant application for the January 1994 filing period. The project to be supported by the requested State grant would provide for the completion of large-scale topographic mapping for a 36-square-mile area in the Town of Sharon. At year's end, Walworth County was awaiting action by the Board on that application.

Also during 1993, other projects that began in 1992 were completed or continued. The County's first plan implementation project—the completion of land and control surveys in a 31-square-mile area of the Town of Sharon—was finished during 1993 and substantial progress was made on a second project—the completion of land and control surveys in a 41-square-mile area in the Towns of Sharon and Darien and the Village of Darien. Both of these projects were carried out jointly by the Walworth County Surveyor and the Commission.

Washington County

The Washington County plan was completed in 1992. The plan is documented in SEWRPC Community Assistance Planning Report No. 184, A Land Information System Plan for Washington County, March 1992. The plan was adopted by the County Board on April 21, 1992, and approved by the Wisconsin Land Information Board on June 8, 1992. The plan builds upon prior topographic base mapping efforts completed to Commission-recommended specifications. More specifically, the plan includes the following elements:

- Land and control surveys as recommended by the Commission to locate and remonument all 1,905 U. S. Public Land Survey section and quarter-section corners in the County and establish State Plane Coordinates and elevations for those corners. When the plan was adopted, the Washington County Surveyor and others had completed the relocation and remonumentation of 1,163 such corners, while State Plane

Coordinates had been obtained for 786 corners and elevations for 593 corners.

- The completion of digital topographic base maps and digital cadastral overlay maps at a scale of one inch equals 200 feet. The plan envisioned that such efforts would be initiated primarily by the local units of government in the County. The County would provide support for such efforts in seeking Wisconsin Land Information Board grants and, potentially, in providing County monies to accelerate the mapping efforts.

The following steps were taken in 1993 toward implementation of the Washington County plan:

- With the assistance of the Commission, Washington County submitted to the Wisconsin Land Information Board a grant application for the December 1992 filing period. This application was approved and resulted in an award of \$65,000. The project to be supported by this State grant involves the conduct of land and control surveys over an additional 18-square-mile area in the Town of Trenton. Following the award, the Commission and Washington County executed an agreement under which the Washington County Surveyor and the Commission would work together to complete the work set forth in the grant application. In addition to the State grant, funding for this project was provided by Washington County through tax-levy monies and retained document-filing fees.
- The Commission and Washington County executed an agreement under which the Washington County Surveyor and the Commission would work together to complete the land and control surveys required in an 18-square-mile area in the Town of Richfield and under which the Washington County Surveyor would complete the land survey work required in a 21-square-mile area in the Town of Jackson. Funding for this project was provided by Washington County through tax-levy monies and retained document-filing fees. The Commission provided inspection services to Washington County to ensure that the specifications set forth in the County plan were met.
- With the assistance of the Commission, Washington County and the Village of Kewaskum submitted to the Wisconsin

Land Information Board a grant application for the July 1993 filing period. The project to be supported by the requested State grant would conduct land and control surveys, and complete digital topographic base mapping over a 12-square-mile area in the Village and its environs. This application was approved and resulted in an award of \$40,000. At year's end, arrangements for carrying out this project were being made.

- With the assistance of the Commission, Washington County submitted to the Wisconsin Land Information Board a grant application for the January 1994 filing period. The project to be supported by the requested State grant would conduct land and control surveys over an 18-square-mile area in the Town of Erin. At year's end, Washington County was awaiting action by the Board on that application.

Waukesha County

The Waukesha County plan is documented in SEWRPC Community Assistance Planning Report No. 193, A Land Information System Plan for Waukesha County, April 1991. The plan was adopted by the County Board on June 18, 1991, and approved by the Wisconsin Land Information Board on July 8, 1991. The plan builds upon prior topographic and cadastral base mapping efforts completed to Commission-recommended specifications. More specifically, the plan includes the following elements:

- Land and control surveys as recommended by the Commission to locate and remonument all 2,535 U. S. Public Land Survey section and quarter-section corners in the County and establish State Plane Coordinates and elevations for those corners. When the plan was adopted, the Waukesha County Surveyor and others had completed the relocation and remonumentation of, and obtained State Plane Coordinates for, 1,737 such corners, while elevations had been obtained for 1,663 corners.
- The completion of topographic base maps at a scale of one inch equals 200 feet with two-foot contour intervals, or at a larger scale of one inch equals 100 feet should local units of government in the County share in the additional cost of the larger-scale mapping. At the time of the completion of the County

plan, large-scale topographic mapping had been completed for 354 square miles, or about 61 percent of the area of the County. The plan called for any such already-completed mapping in hard-copy form to be converted over time to digital form.

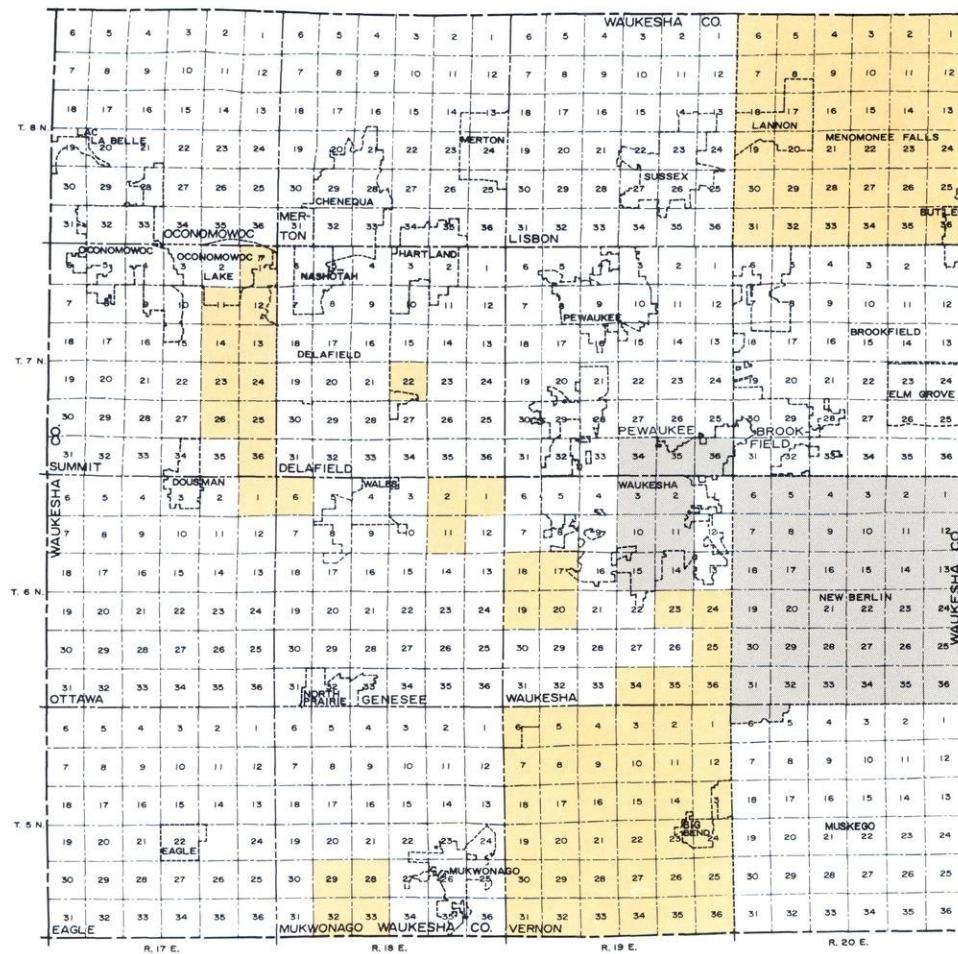
- The completion of cadastral overlay maps in digital form at scales of either one inch equals 200 feet or one inch equals 100 feet, depending upon the underlying topographic mapping scale. At the time of the preparation of the County plan, about 136 square miles of cadastral maps had been completed in conventional form. The plan recommends the conversion of that mapping to digital form over time.

The following steps were taken during 1993 toward implementation of the Waukesha County land information system plan:

- With the assistance of the Commission, Waukesha County submitted to the Wisconsin Land Information Board a grant application for the December 1992 filing period. This application was approved and resulted in an award of \$60,000. Following the award, the Commission and Waukesha County executed an agreement to carry out the project tasks called for in the grant application. The project involves: 1) the preparation of new cadastral maps over an approximately 76-square-mile area containing about 10,765 parcels; 2) the conversion to digital form of conventionally prepared cadastral maps over an approximately 96-square-mile area containing about 18,900 parcels; and 3) the conversion to digital form of the planimetric features of conventionally prepared topographic maps over an approximately 50-square-mile area. In addition to the State grant, funding for this project was also provided by Waukesha County through retained document-filing fees.
- The Commission and Waukesha County executed an agreement under which the Commission would complete the land and control surveying and digital topographic mapping over an approximately 34-square-mile area comprising all of the Village of North Prairie and portions of the Towns of Genesee and Mukwonago. Funding for this project was provided by Waukesha County using tax-levy monies.

Map 41

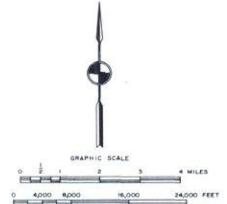
STATUS OF COMPLETION OF DIGITAL TOPOGRAPHIC BASE MAPPING AND
CADASTRAL OVERLAY MAPPING IN WAUKESHA COUNTY: DECEMBER 31, 1993



LEGEND

AREA WHERE DIGITAL TOPOGRAPHIC BASE MAP
AND CADASTRAL OVERLAY WERE COMPLETED
AND AVAILABLE FOR USE AT YEAR'S END

AREA WHERE DIGITAL TOPOGRAPHIC BASE MAP
WAS COMPLETED AND AVAILABLE FOR USE AT
YEAR'S END



- With the assistance of the Commission, Waukesha County submitted to the Wisconsin Land Information Board a grant application for the July 1993 filing period. The project to be supported by the requested State grant would involve the compilation and digitization of cadastral information for an area of about 79 square miles, containing about 11,825 parcels, and the digitization of planimetric map features for an area of 52 square miles. This application was approved and resulted in an award of \$100,000. At year's end, arrangements for carrying out this project were being made.
- The City of New Berlin submitted a grant application to the Wisconsin Land Information Board for the July 1993 filing period.

The project to be supported by the requested State grant involves the integration of digital cadastral map files, compiled and digitized with the assistance of the Commission, into the City's "seamless" digital map data base and the creation and integration of additional digital map files of zoning districts and wetlands. The City also proposed to undertake the computer programming needed to link the cadastral parcels to nongraphic tabular data such as ownership and tax assessment information. This application was approved and resulted in an award of \$50,000. Prior to the submittal of this grant application, the Commission had agreed to assist the City in developing digital mapping of the City's zoning districts.

- With the assistance of the Commission, Waukesha County submitted to the Wisconsin Land Information Board a grant application for the January 1994 filing period. The project to be supported by the requested State grant would conduct land and control surveys and prepare digital topographic mapping over an area of 23 square miles in the Town of Merton. At year's end, Waukesha County was awaiting action by the Board on that application.

During 1993, other projects that began in 1992 continued. These consisted of several interrelated efforts to prepare cadastral overlay mapping. In addition to a project in which the Commission is preparing for Waukesha County new cadastral overlay maps of the City of Muskego and a portion of the City of Brookfield,

and a second project in which the Commission is converting existing hard-copy cadastral overlay maps to digital form for the City of New Berlin, the City of Waukesha and the Village of Menomonee Falls had work under way to prepare digital cadastral overlay mapping for portions of those respective civil divisions.

Map 41 identifies the status of completion of digital topographic base mapping and cadastral overlay mapping in Waukesha County as of December 31, 1993. The automated end product—digital topographic base maps and cadastral overlays—has been completed and is available for use over approximately 46 square miles, or 8 percent of the County. Also, digital topographic base maps were completed and available for use over an additional 102 square miles, or 18 percent of the County.

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, book-keeping, 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's 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 1993 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, including the completion, maintenance, and expansion of a list of disadvantaged/women-owned businesses which are contacted as potential Commission vendors.

The Division is also responsible for assisting the Executive Director in 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 1993 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 gauge 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 1993 the Division distributed a total of 18,871 copies of Commission publications. These included: 155 prospectuses, 178 planning reports, 590 amendments to planning reports, 125 technical reports, 1,787 community assistance planning reports, 1,231 memorandum reports,

42 technical records, 715 annual reports, 9,382 newsletters, 516 conference proceedings, 3,902 community economic development profiles, 12 lake use reports, 29 transportation improvement programs, 20 overall work programs, 149 study designs, and 38 copies of the special publication entitled Twenty-Five Years of Regional Planning. In addition, the Division distributed 9,692 aerial photographs, 135 soils maps, 326 topographic maps, 1,089 control survey station dossiers and control survey summary diagrams, and 313 maps from the Commission's base map series.

APPENDICES

Appendix A

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION COMMISSIONERS AND COMMITTEES: 1993

COMMISSIONERS

	Term Expires
KENOSHA COUNTY	
***Leon T. Dreger	1994
*Francis J. Pitts	1992
**Sheila M. Siegler, Treasurer	1998

MILWAUKEE COUNTY

***William Ryan Drew	1996
*Patrick Marchese	1996
**Thomas W. Meaux	1992

OZAUKEE COUNTY

*Leroy A. Bley	1996
**Thomas H. Buestrin	1996
***Elroy J. Schreiner	1994

RACINE COUNTY

***David B. Falstad, Chairman	1998
**Martin J. Itzin	1994
*Jean M. Jacobson, Secretary	1996

WALWORTH COUNTY

**John D. Ames	1996
***Anthony F. Balestrieri	1994
*Allen L. Morrison, Vice-Chairman	1994

WASHINGTON COUNTY

**Daniel S. Schmidt	1998
*Patricia A. Strachota	1996
***Frank F. Uttech	1994

WAUKESHA COUNTY

***Duane H. Bluemke	1998
*Robert F. Hamilton	1994
**Paul G. Vrakas	1998

*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.

COMMITTEES

EXECUTIVE COMMITTEE

David B. Falstad, Chairman
Allen L. Morrison, Vice-Chairman
Jean M. Jacobson, Secretary
Sheila M. Siegler, Treasurer
William Ryan Drew
Robert F. Hamilton
Thomas W. Meaux
Francis J. Pitts
Daniel S. Schmidt
Elroy J. Schreiner
Frank F. Uttech

ADMINISTRATIVE COMMITTEE

Francis J. Pitts, Chairman
Sheila M. Siegler, Vice-Chairman
Thomas H. Buestrin
David B. Falstad
Jean M. Jacobson
Allen L. Morrison
Frank F. Uttech
Paul G. Vrakas

INTERGOVERNMENTAL AND PUBLIC RELATIONS COMMITTEE

Jean M. Jacobson, Chairman
Allen L. Morrison, Vice-Chairman
Leroy A. Bley
David B. Falstad
Robert F. Hamilton
Thomas W. Meaux
Francis J. Pitts
Sheila M. Siegler
Patricia A. Strachota

PLANNING AND RESEARCH COMMITTEE

Daniel S. Schmidt, Chairman
Anthony F. Balestrieri, Vice-Chairman
John D. Ames
Duane H. Bluemke
Leon T. Dreger
David B. Falstad
Martin J. Itzin
Jean M. Jacobson
Patrick Marchese
Allen L. Morrison
Elroy J. Schreiner
Patricia A. Strachota
Paul G. Vrakas

Appendix B

COMMISSION ADVISORY COMMITTEES: 1993

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON REGIONAL AIRPORT SYSTEM PLANNING

Duane H. Bluemke Commissioner, Southeastern Wisconsin Regional Planning Commission
Chairman Executive Director, Southeastern Wisconsin Regional Planning Commission
Kurt W. Bauer Airport Director, General Mitchell International Airport
Secretary
C. Barry Bateman
John B. Capelle Director of Community Development, City of West Bend
Sharon E. Crowe Administrator, Village of East Troy
Lucian M. Darin Director of Public Works, City of Hartford
Robert S. Demski Owner, Sylvania Airport, Town of Yorkville
Dennis H. Eiler Airport Director, Kenosha Regional Airport
William Flanagan U. S. Department of Transportation, Federal Aviation Administration
Neal A. Frauenthal Planning Manager, Walworth County Planning, Zoning, and Sanitation Department
George Gundersen Director, Bureau of System Planning, Division of Planning and Budget, Wisconsin Department of Transportation
Glenn S. Januska Airport Manager, Crites Field, Waukesha
Major Reid M. Knutson Base Civil Engineer, Wisconsin Air National Guard
Robert W. Kunkel Director, Bureau of Aeronautics, Wisconsin Department of Transportation
N. David Mann Airport Manager, John H. Batten Field, Racine
George E. Melcher Director, Office of Planning and Development, Kenosha County
Paul E. Milewski Director of Community Development, City of Oak Creek
George A. Mitchell Director of Public Works and Development, Milwaukee County
Lois Mitchell Owner, Capitol Airport, City of Brookfield
Earl E. Vorpagel, Jr. Chairman, Airport Commission, City of Burlington
Sylvester N. Weyker Highway Commissioner, Ozaukee County

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR KENOSHA COUNTY

Frederick J. Patrie Director of Public Works, Kenosha County
Chairman
Kurt W. Bauer Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary
John M. Antaramian Mayor, City of Kenosha
Shirley Boening Chairman, Town of Salem
Ralph L. Drinkwine, Jr. President, Village of Silver Lake
Raymond A. Forgianni, Jr. Director of City Development, City of Kenosha
Lauren A. Fox Chairman, Town of Randall
Thomas L. Frank Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Marlene P. Goodson President, Village of Paddock Lake
Donald K. Holland Administrator, City of Kenosha
David D. Holtze Chairman, Town of Somers
Thomas W. Kerkman Chairman, Kenosha County Highway and Parks Committee
George E. Melcher Director, Office of Planning and Development, Kenosha County
Robert R. Packee District Director, Wisconsin Department of Transportation
Michael R. Pollockoff Administrator, Village of Pleasant Prairie
Donald Smitz Chairman, Town of Wheatland
John J. Staudemeyer President, Village of Twin Lakes
Audrey J. Van Slocum Chairman, Town of Bristol
August Zirbel, Jr. Chairman, Town of Paris

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR MILWAUKEE COUNTY

George A. Mitchell Director of Public Works and Development, Milwaukee County
Chairman Executive Director, Southeastern Wisconsin Regional Planning Commission
Kurt W. Bauer City Engineer, City of Milwaukee
Secretary Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
John A. Erickson City Engineer, City of Wauwatosa
Thomas L. Frank
James R. Grassman Administrator, City of Wauwatosa
Dennis M. Johnson City Engineer, City of West Allis
Robert R. Packee District Director, Wisconsin Department of Transportation
Nick T. Paulos Village Engineer, Village of Greendale
David M. Weis City Engineer, City of Glendale

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON JURISDICTIONAL HIGHWAY PLANNING FOR RACINE COUNTY

James F. Rooney Director of Public Works, Racine County
Chairman
Cecil F. Mehring Highway Engineering Director, Racine County
Secretary
Kurt W. Bauer Executive Director, Southeastern Wisconsin Regional Planning Commission
Arnold L. Clement Planning and Development Director, Racine County
Marcel Dandeneau Chairman, Town of Caledonia
Thomas L. Frank Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Edward Furey Chairman, Town of Dover
Arthur Henning, Sr. President, Village of Waterford
Lloyd Human Chairman, Town of Norway
Richard M. Jones Commissioner of Public Works, City of Racine
Roger Kieffer President, Village of Rochester
Cliff Kinsey Chairman, Town of Burlington
Christopher Koceja Acting City Engineer, City of Burlington
John Korzilius Trustee, Village of Union Grove
Robert Langmesser Chairman, Town of Waterford
Wayne A. Loppnow Chairman, Town of Raymond
Dennis C. Mahoney President, Village of North Bay
Frank A. Miller President, Village of Elmwood Park
Clay E. Morgan President, Village of Sturtevant
James E. Moyer Chairman, Town of Yorkville
Robert R. Packee District Director, Wisconsin Department of Transportation
Wayne Raisleger Chairman, Town of Rochester
Robert S. Randleman President, Village of Wind Point
Michael F. Weber Administrator, Town of Mt. Pleasant
Thomas N. Wright Director of City 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
Leland J. Allen Chairman, Town of Port Washington
Lester A. Bartel, Jr. Chairman, Town of Grafton
David E. Birenbaum Street Commissioner, Village of Thiensville
Paul H. Brunquell Supervisor, Town of Saukville
Donald C. Bystricky President, Village of Belgium
Anthony R. Depies City Engineer, City of Port Washington

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON
JURISDICTIONAL HIGHWAY PLANNING FOR OZAUKEE COUNTY
(continued)

Robert R. Dreblow	Director of Engineering and Public Works, City of Cedarburg
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
William S. Heimlich	Planning Supervisor, Wisconsin Department of Transportation
Frederick Kaul	Chairman, Ozaukee County Highway Committee
Francis J. Kleckner	Chairman, Town of Belgium
Jeffery P. Knight	President, Village of Saukville
Fred W. Koehler, Jr.	Chairman, Town of Fredonia
D. Michael Mucha	Assistant City Engineer, City of Mequon
William Rathstack	President, Village of Fredonia
Kenneth A. Roell	Administrator, Town of Cedarburg
James R. Struck	Public Works Director, Village of Grafton

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	
Russell C. Abel	Chairman, Town of Barton
Arthur Anderson	Chairman, Town of Erin
Paul H. Bautzmann	Chairman, Town of Hartford
Gerald E. Boldt	President, Village of Jackson
Howard O. Buth	Supervisor, Washington County
John B. Capelle	Director of Community Development, City of West Bend
Peter L. Gonnering	Supervisor, Washington County
Charles H. Hargan	President, Village of Germantown
James E. Heipp	Supervisor, Town of West Bend
Willard F. Heppé	Chairman, Town of Polk
Gordon C. Hoffmann	Clerk, Town of Jackson
Carl Hohlweck	Chairman, Town of Wayne
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
William R. Neureuther	Chairman, Town of Richfield
Dean A. Otte	Clerk, Village of Slinger
Robert R. Packee	District Director, Wisconsin Department of Transportation
William Ripp	City Engineer, City of Hartford
James E. St. John	Division Administrator, U. S. Department of Transportation, Federal Highway Administration
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
John C. Spielmann	Economic Development Coordinator, City of Hartford
John Theusch	Chairman, Town of Farmington
Cheryl Vogt	Clerk, Town of Addison
Gary Wendorff	Member, Planning Commission, City of Hartford
Todd W. Wetterau	Trustee, Village of Germantown
Milton Wilkens	President, Village of Newburg

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON
JURISDICTIONAL HIGHWAY PLANNING FOR WALWORTH COUNTY

Benjamin J. Coopman, Jr.	Highway Commissioner, Walworth County
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
James Bilskey	Chairman, Town of Darien
Gary W. Boden	City Manager, City of Whitewater
James W. Byrnes	Chairman, Town of East Troy
Beatrice A. Dale	Mayor, City of Lake Geneva
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Carl A. Gustafson	Supervisor, Town of LaFayette
Kevin Hoak	President, Village of Sharon
Albert J. Jones	President, Village of Walworth
Neal J. Kedzie	Chairman, Town of LaGrange
Marilyn Kienbaum	Chairman, Town of Whitewater
Dean Logertman	President, Village of Darien
Thomas Lorden	Chairman, Town of Troy
LaMarr Lundberg	President, Village of Williams Bay
William R. Mangold	Chairman, Town of Lyons
James A. Mitchell	President, Village of East Troy
Allen L. Morrison	Chairman, Town of Sharon
Linda Olenski	Chairman, Town of Richmond
Paul Ormson	Mayor, City of Elkhorn
Richard Ploch	Chairman, Town of Geneva
Allan Polyock	Chairman, Town of Linn
Joseph H. Schaefer	Chairman, Walworth County Transportation Committee
Charles Schuren	President, Village of Genoa City
Lyle A. Smith	Public Works Director, City of Delavan
David S. Stebnitz	Chairman, Town of Delavan
James Stowell	Chairman, Town of Spring Prairie
Robert W. Tilton	Chairman, Town of Bloomfield
William S. Turner	President, Village of Fontana-on-Geneva Lake
James Van Dreser	Chairman, Town of Walworth
Loren Waite	Chairman, Town of Sugar Creek
Neil R. Wienser	Planning Supervisor, Wisconsin Department of Transportation

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON
JURISDICTIONAL HIGHWAY PLANNING FOR WAUKESHA COUNTY

Edwin H. Rohloff	Chairman, Town of Summit
Chairman	
Kurt W. Bauer	Executive Director, Southeastern Wisconsin Regional Planning Commission
Secretary	
Larry Alexander	Trustee, Village of Wales
James R. Behrend	Mayor, City of Delafield
Harry L. Behrens	Chairman, Town of Brookfield
Kathryn C. Bloomberg	Mayor, City of Brookfield
Richard A. Bolte	Director of Transportation, Waukesha County
Harlan E. Clinkenbeard	Administrator/Planner, Town of Pewaukee
Gerald T. Crawley	Chairman, Town of Vernon
David L. De Angelis	Mayor, City of Muskego
Richard A. Ensslin	President, Village of Butler
Paul A. Feller	City Engineer, City of Waukesha
Mark S. Fitzgerald	Administrator, Village of Hartland
Thomas L. Frank	Planning and Research Engineer, U. S. Department of Transportation, Federal Highway Administration
Cheri A. Frederick	Chairman, Waukesha County Public Works Committee
Jerry W. Gasser	President, Village of Mukwonago
Terry Gissal	President, Village of Lannon
Mark Grosel	President, Village of Nashotah

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON
JURISDICTIONAL HIGHWAY PLANNING FOR WAUKESHA COUNTY
(continued)

James P. Hansen	President, Village of North Prairie
Donald R. Holt	Chairman, Town of Lisbon
Vytautas P. Janusonis	Chairman, Town of Ottawa
Thomas E. Kraus	Chairman, Town of Merton
John F. Laimon	President, Village of Pewaukee
Sharon L. Leair	Chairman, Town of Genesee
Robert R. Packee	District Director, Wisconsin Department of Transportation
William E. Roberts	President, Village of Oconomowoc Lake
Joseph St. Thomas	Chairman, Town of Oconomowoc
Allen Salmela	President, Village of Eagle
Mark Schmalz	City Engineer, City of New Berlin
Bernard Schultz	City Engineer, City of Oconomowoc
Richard Seaman, Jr.	President, Village of Chenequa
James S. Soneberg	President, Village of Big Bend
Rodney T. Stilwell	Supervisor, Town of Waukesha
George Stumpf	President, Village of Lac La Belle
John H. Tews	President, Village of Sussex
Thomas E. Vavra, III	President, Village of Elm Grove
Max A. Vogt	Director of Public Works, Village of Menomonee Falls
Robert W. Weber	President, Village of Merton
Donald Wilton	Chairman, Town of Eagle
Kent D. Woods	Chairman, Town of Delafield
Gilbert Yerke	Chairman, Town of Mukwonago

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 Wisconsin Regional Planning Commission
Secretary	
James J. Blazek	City Engineer, City of Racine
Jon J. Dederich	Plan Commissioner, Village of Elmwood Park
Joel P. Ettinger	Area Director, U. S. Department of Transportation, Federal Transit Administration
Michael J. Glasheen	Transit Planner, Department of Transportation, City of Racine
Gerard Griswold	Engineer, Town of Caledonia
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
Dennis C. Mahoney	President, Village of North Bay
Thomas P. Melzer	Chairman, Town of Mt. Pleasant
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
Robert R. Packee	District Director, Wisconsin Department of Transportation
Robert S. Randleman	President, Village of Wind Point
James E. St. John	Wisconsin Division Administrator, U. S. Department of Transportation, Federal Highway Administration

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

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Joel P. Ettinger	Area Director, U. S. Department of Transportation, Federal Transit 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	Administrator, City of Kenosha

INTERGOVERNMENTAL COORDINATING AND ADVISORY COMMITTEE ON TRANSPORTATION SYSTEM PLANNING AND PROGRAMMING FOR THE KENOSHA URBANIZED AREA
(continued)

Wolfgang H. Klassen	Director, Bureau of Air Management, Wisconsin Department of Natural Resources
Joseph McCarthy	Director, Department of Transportation, City of Kenosha
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
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Richard Heaps	Director, Intergovernmental Relations, City of Milwaukee
Milton L. Howell, Jr.	Director of Public Works, City of New Berlin
Dennis M. Johnson	City Engineer, City of West Allis
James C. Kaminski	Commissioner of Public Works, City of Milwaukee
Kenneth S. Kinney	Director of Strategic Planning, Department of Administration, City of Milwaukee
George A. Mitchell	Director of Public Works and Development, Milwaukee County
Michael L. Morgan	Director, Department of City Development, City of Milwaukee
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Paul G. Vrakas	Mayor, City of Waukesha
Robert J. Welch	Director of Intergovernmental Relations, Milwaukee County
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Thomas P. Kujawa Managing Director, Milwaukee County Transit System
Glenn Lampark Deputy Public Works Director, Racine County
Joseph McCarthy Director of Transportation, City of Kenosha
Robert R. Packee District Director, Transportation District 2, Wisconsin Department of Transportation
Frederick J. Patrie Director of Public Works, Kenosha County
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James E. St. John Division Administrator, U. S. Department of Transportation, Federal Highway Administration
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Ruth Hilfiker Crops and Soils Agent, Racine County
Ralph E. Hollmon Executive Director, Milwaukee Metropolitan Sewerage District
Dennis M. Johnson City Engineer, City of West Allis
Orville L. Kurth District Conservationist, U. S. Soil Conservation Service, Milwaukee and Waukesha Counties
Steven E. Mace Water Resources Planner, Southeast District, Wisconsin Department of Natural Resources
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Christopher B. Lear Administrator/Clerk, Village of Saukville
Paul E. Mueller Land Use and Park Administrator, Washington County
Steven Narveson Director, Ozaukee County Department of Environmental Health
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 John D. St. John Former Supervisor, Milwaukee County
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 E. Craig Faust Director of Engineering, City of Cudahy
 Ruth Hilfiker Crops and Soils Agent, Racine County
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TECHNICAL AND CITIZEN ADVISORY COMMITTEE ON
COASTAL MANAGEMENT IN SOUTHEASTERN WISCONSIN
(continued)

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Dr. Harold M. Mayer Professor, Department of Geography, University of Wisconsin-Milwaukee
Gloria L. McCutcheon District Director, Southeast District, Wisconsin Department of Natural Resources
Allan Medoff Manager, Village of Fox Point
Dr. William G. Murphy Former Professor, Soils Mechanics, College of Engineering, Marquette University; Engineers and Scientists of Milwaukee
C. William Nelson Member, Great Lakes Sports Fisherman's Club
Mary C. Nelson City of South Milwaukee Shoreline Property Owner
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 Representative, Southeastern Wisconsin Sportsmen's Federation
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George E. Hall Chief, Boundary Review Section, Bureau of Intergovernmental Relations, Wisconsin Department of Administration
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COMMITTEE ON REGIONAL LAND USE PLANNING
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Paul E. Mueller Administrator, Washington County Land Use and Park Department
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Brad Lee G. Steinke Director of Community Development, City of Mequon
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Dan A. Wilson Resource Horticulture Agent, UWEX-Washington County
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**INTERGOVERNMENTAL COORDINATING AND
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Wesley Eisenhauer Former Director, Horticulture-Nature
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Marlin P. Johnson Associate Professor, Department of
Biological Sciences, University of
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G. Andrew Larsen Executive Director, Riveredge Nature
Center, Ozaukee County
Dr. Diane S. Lindsley Horticulture Director, Milwaukee County
Department of Parks, Recreation and Culture
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Department of Natural Resources-Madison
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Conservancy, Wisconsin Chapter
James P. Morrissey Environmental Impact Coordinator,
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University of Wisconsin-Whitewater
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Wisconsin Department of
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Wanda Lynn Bellow Alderman and Plan Commissioner,
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Ernest P. Celebre Vice-Chairman, Town of
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Harvey D. Elmer Director of Engineering Services,
Kenosha Water Utility
Raymond A. Forgianni, Jr. Director of City Development,
City of Kenosha
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Michael R. Pollockoff Administrator, Village of Pleasant Prairie
Phil Sander Citizen Member, City of Kenosha
Michael J. Serpe Trustee, Village of Pleasant Prairie
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Development Corporation

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IN THE TOWN OF NORWAY SANITARY DISTRICT NO. 1**

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Regional Planning Commission
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Plan Commission
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Conservation, Inc.
Delores Otto Supervisor, Town of Norway
Dale J. Pfeifle Environmental Protection Specialist,
U. S. Army Corps of Engineers
Donald J. Quarford District Manager, Town of Norway
Sanitary District No. 1
Mary Ellen Vollbrecht Water Regulation and Zoning Supervisor,
Southeast District, Wisconsin
Department of Natural Resources
Robert F. Welch Citizen Member
Melvin Wendt Citizen Member

Appendix C

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION STAFF: 1993

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Wendy J. Burton-Whitcomb Secretary	

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John G. McDougall
Assistant Geographic Information Systems Manager

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John D. Harasha
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John T. Washburn
Senior Specialists

Roy T. Grasse
Geographic Information Systems Supervisor

Karen J. Goralski
Programmer/Analyst

Joyce A. Gramz
Bradley G. Javenkoski
James G. Landwehr
Debra L. Schelbrock
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Gregory T. Fliss
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Scott A. Hameister
James W. Huff
Craig C. Kaliebe
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Digitizer Operators

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Kyle R. Polster
Jean M. Roman
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John R. Meland
Chief Economic Development Planner

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Principal Planner

Kevin S. Hall
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Paul E. Tonies
Senior Specialist

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Administrative Officer

Elizabeth A. Larsen
Administrative Assistant

Luella M. Fredrickson
Secretary

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Appendix D

PUBLICATIONS OF THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION: 1962-DECEMBER 1993

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

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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

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Comprehensive Regional Airport Planning Program, December 1969*

Regional Housing Study, December 1969

Deep Sandstone Aquifer Simulation Modeling Program, October 1972

Regional Park, Outdoor Recreation, and Related Open Space Planning Program, March 1973

Preliminary Engineering Study for the Abatement of Pollution from Combined Sewer Overflow in the Milwaukee Metropolitan Area, July 1973*

Kinnickinnic River Watershed Planning Program Prospectus, November 1974*

Regional Air Quality Maintenance Planning Program Prospectus, November 1974

Preliminary Engineering Study for the Abatement of Water Pollution in the Kenosha Urban Area, December 1975

Lake Michigan Estuary and Direct Drainage Area Subwatersheds Planning Program Prospectus, September 1978

Milwaukee Area Primary Transit System Alternatives Analysis Prospectus, October 1978

Milwaukee Northwest Side/Ozaukee County Transportation Improvement Study Prospectus, November 1978

Milwaukee Area Work Time Rescheduling Study Prospectus, December 1978

Pike River Watershed Planning Program Prospectus, April 1979

Milwaukee Area Freeway Traffic Management System Study Prospectus, June 1979

Oak Creek Watershed Planning Program Prospectus, December 1979

Prospectus for an Energy Emergency Contingency Plan for Southeastern Wisconsin, December 1983

Milwaukee River Priority Watersheds Program Prospectus, March 1985

Stormwater Drainage and Flood Control Planning Program Prospectus for the Milwaukee Metropolitan Sewerage District, March 1985

Infrastructure Study for the Southeastern Wisconsin Region, June 1986

Milwaukee High Lake Level Impact Study Prospectus, December 1987

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans for the Kenosha Area, June 1988

Prospectus for the Preparation of Coordinated Sanitary Sewer and Water Supply System Plans for the Racine Area, May 1989*

Natural Area Protection and Management Planning Program Prospectus, August 1989*

Prospectus for the Preparation of a Comprehensive Plan for the Kenosha Urban Planning District, December 1990

Des Plaines River Watershed Planning Program Prospectus, September 1991

Prospectus for a Study of Emergency Medical Services in Waukesha County, March 1992

Prospectus for the Preparation of a Sanitary Sewerage System Plan for the Northwestern Waukesha County Area, September 1993

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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

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Overall Work Program—1994 Southeastern Wisconsin Regional Planning Commission, November 1993

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Study Design for the Continuing Regional Land Use-Transportation Study: 1970-1974*

Study Design for the Continuing Land Use-Transportation Study: 1972-1976*

Study Design for the Areawide Water Quality Planning and Management Program for Southeastern Wisconsin: 1975-1977*

Study Design for the Milwaukee Harbor Estuary Comprehensive Water Resources Planning Program, September 1981

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No. 2 - Regional Base Mapping Program, July 1963*

No. 3 - The Economy of Southeastern Wisconsin, June 1963*

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Volume 3 - Recommended Regional Land Use and Transportation Plans: 1990, November 1966*

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- No. 12 - A Comprehensive Plan for the Fox River Watershed
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 - Volume 2 - Alternative Plans and Recommended Plan, February 1970
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- No. 14 - A Comprehensive Plan for the Racine Urban Planning District
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 - Volume 2 - The Recommended Comprehensive Plan, October 1972
 - Volume 3 - Model Plan Implementation Ordinances, September 1972
- No. 15 - A Jurisdictional Highway System Plan for Walworth County, October 1972
- No. 16 - A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin, February 1974
- No. 17 - A Jurisdictional Highway System Plan for Ozaukee County, December 1973
- No. 18 - A Jurisdictional Highway System Plan for Waukesha County, January 1974
- No. 19 - A Library Facilities and Services Plan for Southeastern Wisconsin, July 1974
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- No. 21 - A Regional Airport System Plan for Southeastern Wisconsin, December 1975
- No. 22 - A Jurisdictional Highway System Plan for Racine County, February 1975
- No. 23 - A Jurisdictional Highway System Plan for Washington County, October 1974*
- No. 24 - A Jurisdictional Highway System Plan for Kenosha County, April 1975
- No. 25 - A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000
 - Volume 1 - Inventory Findings, April 1975
 - Volume 2 - Alternative and Recommended Plans, May 1978
- No. 26 - A Comprehensive Plan for the Menomonee River Watershed
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- No. 27 - A Regional Park and Open Space Plan for Southeastern Wisconsin, November 1977
- No. 28 - A Regional Air Quality Attainment and Maintenance Plan for Southeastern Wisconsin: 2000, June 1980
- No. 29 - A Regional Wastewater Sludge Management Plan for Southeastern Wisconsin, July 1978*
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 - Volume 2 - Alternative Plans, February 1979*
 - Volume 3 - Recommended Plan, June 1979*
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- No. 35 - A Comprehensive Plan for the Pike River Watershed, June 1983
- No. 36 - A Comprehensive Plan for the Oak Creek Watershed, August 1986
- No. 37 - A Water Resources Management Plan for the Milwaukee Harbor Estuary
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 - Volume 2 - Alternative and Recommended Plans, December 1987
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- No. 40 - A Regional Land Use Plan for Southeastern Wisconsin—2010, January 1992

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- No. 3 - Zoning, April 1964*
- No. 4 - Organization of Planning Agencies, June 1964*
- No. 5 - Floodland and Shoreland Development, November 1968
- No. 6 - Soils Development, August 1969*

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- No. 2 - Water Law in Southeastern Wisconsin, January 1966*
- No. 2 - 2nd Edition, Water Law in Southeastern Wisconsin, December 1977
- No. 3 - A Mathematical Approach to Urban Design, January 1966*
- No. 4 - Water Quality and Flow of Streams in Southeastern Wisconsin, November 1966*
- No. 5 - Regional Economic Simulation Model, October 1966*
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- No. 8 - A Land Use Design Model
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- No. 9 - Residential Land Subdivision in Southeastern Wisconsin, September 1971
- No. 10 - The Economy of Southeastern Wisconsin, December 1972*
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- No. 17 - Water Quality of Lakes and Streams in Southeastern Wisconsin: 1964-1975, June 1978
- No. 18 - State of the Art of Water Pollution Control in Southeastern Wisconsin
 - Volume 1 - Point Sources, July 1977
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- No. 19 - A Regional Population Projection Model, October 1980
- No. 20 - Carpooling in the Metropolitan Milwaukee Area, March 1977
- No. 21 - Sources of Water Pollution in Southeastern Wisconsin: 1975, September 1978*
- No. 22 - Recent Population Growth and Change in Southeastern Wisconsin: 1970-1977, September 1979
- No. 23 - Transit-Related Socioeconomic, Land Use, and Transportation Conditions and Trends in the Milwaukee Area, December 1980
- No. 24 - State-of-the-Art of Primary Transit System Technology, February 1981
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- No. 26 - Milwaukee Area Alternative Primary Transit System Plan Preparation, Test, and Evaluation, March 1982
- No. 27 - Milwaukee Area Work Time Rescheduling Study, August 1981

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- No. 28 - Evaluation of the Milwaukee Area Rideshare Program: 1972-1982, May 1983
- No. 29 - Industrial Land Use in Southeastern Wisconsin, November 1984
- No. 30 - The Development of an Automated Mapping and Land Information System: A Demonstration Project for the Town of Randall, Kenosha County, Wisconsin, December 1985
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- No. 32 - General Mitchell International Airport Enplaning Passenger Survey Findings: 1989, August 1990
- No. 33 - Integration of the Computer-Assisted Management and Planning System with a Parcel-Based Land Information System: A Demonstration Project in Kenosha County, September 1992

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- No. 1 - Residential, Commercial, and Industrial Neighborhoods, City of Burlington and Environs, February 1973
- No. 2 - Alternative Land Use and Sanitary Sewerage System Plans for the Town of Raymond: 1990, January 1974
- No. 3 - Racine Area Transit Development Program: 1975-1979, June 1974
- No. 4 - Floodland Information Report for the Rubicon River, City of Hartford, Washington County, Wisconsin, December 1974
- No. 5 - Drainage and Water Level Control Plan for the Waterford-Rochester-Wind Lake Area of the Lower Fox River Watershed, May 1975
- No. 6 - A Uniform Street Naming and Property Numbering System for Racine County, Wisconsin, November 1975*
- No. 7 - Kenosha Area Transit Development Program: 1976-1980, March 1976
- No. 8 - Analysis of the Deployment of Paramedic Emergency Medical Services in Milwaukee County, April 1976
- No. 9 - Floodland Information Report for the Pewaukee River, Village of Pewaukee, Waukesha County, Wisconsin, October 1976
- No. 9 - 2nd Edition, Floodland Information Report for the Pewaukee River, Village of Pewaukee, Waukesha County, Wisconsin, March 1985
- No. 10 - Land Use and Arterial Street System Plans, Village of Jackson, Washington County, Wisconsin, December 1976
- No. 11 - Floodland Information Report for Sussex Creek and Willow Springs Creek, March 1977
- No. 12 - Waukesha Area Transit Development Program: 1977-1981, January 1977*
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- No. 14 - Floodland Management Plan for the Village of Pewaukee, February 1978
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- No. 25 - A Plan for the Delrock Neighborhood, City of Delavan, Walworth County, Wisconsin, January 1979*
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- No. 30 - Whitewater Area Rail Service Plan, August 1979*
- No. 31 - Waukesha Area Transit Development Program: 1981-1985, February 1980*
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- No. 39 - A Public Transit System Accessibility Plan
 - Volume 1 - Kenosha Urbanized Area, June 1980
 - Volume 2 - Milwaukee Urbanized Area, Milwaukee County, May 1980
 - Volume 3 - Racine Urbanized Area, June 1980
 - Volume 4 - Milwaukee Urbanized Area, Waukesha County, June 1980
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- No. 46 - A Farmland Preservation Plan for Racine County, Wisconsin, August 1981
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- No. 64 - 2nd Edition, Sanitary Sewer Service Area for the City of Muskego, Waukesha County, Wisconsin, March 1986
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- No. 74 - Kenosha County Overall Economic Development Program (OEDP) Update-1981, April 1982*
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- No. 75 - A Solid Waste Management Plan for Walworth County, Wisconsin, September 1982
- No. 76 - A Land Use Plan for the Town and Village of Pewaukee: 2000, December 1982*
- No. 77 - A Wetland Protection and Management Plan for the City of Waukesha and Environs, February 1983*
- No. 78 - Sanitary Sewer Service Area for the City of Burlington, April 1986*
- No. 79 - Racine Area Transit System Plan and Program: 1984-1988, May 1984
- No. 80 - A Lake Michigan Public Access Study for Racine County, Wisconsin, September 1982*
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- No. 82 - A Central Transfer Site Location and Design Analysis for the City of Waukesha Transit System, December 1982

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- No. 99 - Sanitary Sewer Service Area for the Village of Butler, Waukesha County, Wisconsin, February 1984
- No. 100 - Sanitary Sewer Service Area for the City of Waukesha and Environs, Waukesha County, Wisconsin, June 1985*
- No. 101 - Kenosha Area Transit System Plan and Program: 1984-1988, June 1984
- No. 102 - City of Whitewater Overall Economic Development Program Plan, January 1985
- No. 103 - Sanitary Sewer Service Area for the Allenton Area, Washington County, Wisconsin, September 1984
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- No. 105 - Waukesha County Transit Plan: 1988-1992, September 1988
- No. 106 - Sanitary Sewer Service Areas for the City of Kenosha and Environs, Kenosha County, Wisconsin, November 1985
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- No. 108 - A Park and Open Space Plan for the City of Brookfield, Waukesha County, Wisconsin, August 1991

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- No. 111 - Land Use and Urban Design Plan for the City of New Berlin: 2010, April 1987
- No. 112 - Sanitary Sewer Service Area for the Village of East Troy and Environs, Walworth County, Wisconsin, August 1984
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- 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, June 1985*
- No. 114 - Village of Shorewood Comprehensive Traffic Plan, Milwaukee County, Wisconsin, September 1984
- No. 115 - A Fire Station Building Program and Site Analysis, Village of Sturtevant, Racine County, Wisconsin, September 1984
- No. 116 - Milwaukee County Overall Economic Development Program Plan, October 1985
- No. 117 - Washington County Overall Economic Development Program Plan, December 1985
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- No. 119 - Sanitary Sewer Service Area, Village of Silver Lake, Kenosha County, Wisconsin, May 1987
- No. 120 - A Solid Waste Management Plan for Milwaukee County, Wisconsin, July 1987*
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- No. 136 - A Park and Open Space Plan for Washington County, March 1989
- No. 137 - A Park and Open Space Plan for Waukesha County, December 1989*
- No. 138 - A Development Plan for the Franklin Industrial Park Neighborhood, City of Franklin, Milwaukee County, Wisconsin, July 1988

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- No. 139 - A Land Information System Plan for Walworth County, September 1991
- No. 140 - A Park and Open Space Plan for the Town of Jackson, Washington County, Wisconsin, September 1986
- No. 141 - Sanitary Sewer Service Area for the Waterford/Rochester Area, Racine County, Wisconsin, May 1986
- No. 142 - A Land Information System Plan for Ozaukee County, April 1992
- No. 143 - Sanitary Sewer Service Area for the Town of Salem Utility District No. 2, Kenosha County, Wisconsin, February 1986
- No. 144 - A Development Plan for the City of Cedarburg: 2010, February 1991
- 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, October 1986
- No. 146 - A Wildlife Habitat Management Plan for the Nicholson Wildlife Center, Town of Caledonia, Racine County, Wisconsin, May 1986
- No. 147 - Sanitary Sewer Service Area for the City of Racine and Environs, Racine County, Wisconsin, November 1986
- No. 148 - A Park and Open Space Plan, Village of Walworth, Walworth County, Wisconsin, November 1986
- No. 149 - Sanitary Sewer Service Area, Village of Twin Lakes, Kenosha County, Wisconsin, May 1987
- No. 150 - A Rapid Transit Facility Plan for the Milwaukee Northwest Corridor, January 1988
- No. 151 - A Transportation System Plan for the Blue Mound Road (USH 18) Corridor, December 1987
- No. 152 - A Stormwater Drainage and Flood Control System Plan for the Milwaukee Metropolitan Sewerage District, December 1990
- No. 153 - Traffic Management and Control Plan for the Village of Whitefish Bay, July 1988
- No. 154 - A Transit System Development Plan for the City of Waukesha: 1988-1992, December 1989
- No. 155 - A Lake Michigan Shoreline Erosion Management Plan for Northern Milwaukee County, Wisconsin, December 1988
- No. 156 - Waukesha County Animal Waste Management Plan, August 1987
- No. 157 - Sanitary Sewer Service Area, City of New Berlin, Waukesha County, Wisconsin, November 1987
- No. 158 - Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin, November 1987
- No. 158 - 2nd Edition, Sanitary Sewer Service Area for the Town of Lyons Sanitary District No. 2, Walworth County, Wisconsin, August 1993
- No. 159 - Waukesha County Agricultural Soil Erosion Control Plan, June 1988
- No. 160 - Racine County Agricultural Soil Erosion Control Plan, July 1988
- No. 161 - Sanitary Sewer Service Area for the Village of Kewaskum, Washington County, Wisconsin, December 1988
- No. 162 - A Land Use and Transportation System Plan for the Village of Menomonee Falls: 2010, April 1990
- No. 163 - A Lake Michigan Shoreline Erosion Management Plan for Milwaukee County, Wisconsin, October 1989
- No. 164 - Kenosha County Agricultural Soil Erosion Control Plan, April 1989
- No. 165 - A Development Plan for the Burlington Industrial Park Neighborhood, City of Burlington, Racine County, Wisconsin, January 1991
- No. 166 - A Park and Open Space Plan for the Village of Sussex, Waukesha County, Wisconsin, September 1988
- No. 167 - A Land Use Plan for the City of West Bend: 2010, Washington County, Wisconsin, July 1992
- No. 168 - A Land Use Plan for the Town of LaGrange: 2010, March 1991

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- No. 169 - A Land Use Plan for the City of Waukesha Planning Area: 2010, Waukesha County, Wisconsin, September 1993
- No. 170 - Washington County Agricultural Soil Erosion Control Plan, March 1989
- No. 171 - Ozaukee County Agricultural Soil Erosion Control Plan, February 1989
- No. 172 - Sanitary Sewer Service Area for the City of Oconomowoc and Environs, Waukesha County, Wisconsin, February 1989
- No. 173 - A Stormwater Management Plan for the City of West Bend, Washington County, Wisconsin Volume One - Inventory Findings, Forecasts, Objectives, and Design Criteria, October 1989 Volume Two - Alternatives and Recommended Plan for the Silver Creek Subwatershed, June 1990
- No. 174 - An Evaluation of Alternative Means for the Governance of the Delavan Lake Area, Walworth County, Wisconsin, March 1989
- No. 175 - Sanitary Sewer Service Area for the Village of Genoa City, Kenosha and Walworth Counties, Wisconsin, February 1989
- No. 176 - Sanitary Sewer Service Area for the City of Franklin, Milwaukee County, Wisconsin, October 1990
- No. 177 - Feasibility Study for a Milwaukee County Automated Mapping and Land Information System, October 1989
- No. 178 - A Park and Open Space Plan for the Village of Grafton, Ozaukee County, Wisconsin, March 1989
- No. 179 - A Park and Open Space Plan for the Town of Caledonia, Racine County, Wisconsin, November 1989
- No. 180 - Sanitary Sewer Service Area for the Village of Union Grove and Environs, Racine County, Wisconsin, August 1990
- No. 181 - A Water Quality Management Plan for Oconomowoc Lake, Waukesha County, Wisconsin, March 1990
- No. 182 - A Water Use Management Plan for Waubeesee Lake and the Anderson Canal, Racine County, Wisconsin, December 1990*
- No. 183 - Kenosha Transit System Development Plan: 1991-1995, City of Kenosha, Wisconsin, September 1991*
- No. 184 - A Land Information System Plan for Washington County, March 1992
- No. 185 - A Plan for the Creation of an Automated Mapping and Parcel-Based Land Information System for Kenosha County, August 1990
- No. 188 - Sanitary Sewer Service Area for the City of Mequon and the Village of Thiensville, Ozaukee County, Wisconsin, January 1992
- No. 189 - A Transit System Feasibility Study and Development Plan for the City of West Bend: 1992-1996, February 1991
- No. 190 - A Stormwater Management and Flood Control Plan for the Lilly Creek Subwatershed, Village of Menomonee Falls, Waukesha County, Wisconsin, February 1993
- No. 191 - Sanitary Sewer Service Area for the Village of Mukwonago, Waukesha County, Wisconsin, November 1990
- No. 192 - Sanitary Sewer Service Area for the Village of Dousman, Waukesha County, Wisconsin, December 1990
- No. 193 - A Land Information System Plan for Waukesha County, April 1991
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- No. 195 - A Land Use, Urban Design, and Transportation Plan for Selected Arterial Street Corridors in the Village of Hales Corners, Milwaukee County, Wisconsin, May 1993
- No. 196 - A Management Plan for Powers Lake, Kenosha and Walworth Counties, Wisconsin, November 1991
- No. 197 - A Wildlife Habitat Management Plan for the General Electric Company, Medical Systems Group, Lands, City of Waukesha and Town of Pewaukee, Waukesha County, Wisconsin, June 1991
- No. 198 - A Management Plan for Wind Lake, Racine County, Wisconsin, December 1991

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- No. 199 - A Park and Open Space Plan for the Town of Mt. Pleasant, Racine County, Wisconsin, November 1991
- No. 200 - A Land Use and Transportation System Development Plan for the IH 94 South Freeway Corridor, Kenosha, Milwaukee, and Racine Counties, December 1991
- No. 202 - A Park and Open Space Plan for the City of Muskego, Waukesha County, Wisconsin, January 1992
- No. 203 - Sanitary Sewer Service Area for the City of Lake Geneva and Environs, Walworth County, Wisconsin, December 1992
- No. 204 - Racine Transit System Development Plan: 1993-1997, City of Racine, Wisconsin, June 1993
- No. 205 - Sanitary Sewer Service Area for the Village of Newburg, Ozaukee and Washington Counties, Wisconsin, March 1993
- No. 206 - Sanitary Sewer Service Area for the Eagle Lake Sewer Utility District, Racine County, Wisconsin, December 1992
- No. 208 - Sanitary Sewer Service Areas for the Villages of Lannon and Menomonee Falls, Waukesha County, Wisconsin, June 1993

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- No. 1 - Cedarburg Central Business District Parking Study, City of Cedarburg, Ozaukee County, Wisconsin, December 1986
- No. 2 - Courthouse Parking Study, Ozaukee County, Wisconsin, December 1986
- No. 3 - Alternative Industrial Park Site Location and Cost Estimate Analysis, City of Oconomowoc, Waukesha County, Wisconsin, December 1986*
- No. 4 - Pilgrim Parkway Traffic Study, Village of Elm Grove, Waukesha County, Wisconsin, December 1986*
- No. 5 - Capital Improvements Program: 1987-1991, Village of East Troy, Walworth County, Wisconsin, December 1986*
- No. 6 - Report of the Hoan Bridge South Task Force, Milwaukee County, Wisconsin, December 1986
- No. 7 - Public Transit Ridership Trends in Southeastern Wisconsin: 1975-1986, May 1987
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- No. 9 - An Arterial Highway System Plan for Eastern Racine County, April 1987
- No. 10 - City of Elkhorn Fact Book, Walworth County, Wisconsin, November 1986
- No. 11 - City of Elkhorn Overall Economic Development Program Plan, Walworth County, Wisconsin, December 1986*
- No. 12 - Economic Development Fact Book, City of Oconomowoc, Waukesha County, Wisconsin, March 1987
- No. 13 - Overall Economic Development Program Plan, City of Oconomowoc, Waukesha County, Wisconsin, March 1987
- No. 14 - Village of Menomonee Falls Economic Development Fact Book, September 1991
- No. 15 - Overall Economic Development Program Plan, Village of Menomonee Falls, Waukesha County, Wisconsin, September 1987
- No. 16 - Unpolluted Dredge Materials Disposal Plan for the Port Washington Harbor, City of Port Washington, Ozaukee County, Wisconsin, May 1987
- No. 17 - A Public Transit Program for Handicapped Persons—City of Waukesha Transit System Utility, May 1987
- No. 18 - A Central Public Works Facility Building Program, Site Location Analysis, and Site Development Plan for the City of New Berlin, May 1987
- No. 19 - Overall Economic Development Program Plan, City of Burlington, Racine County, Wisconsin, March 1988
- No. 20 - CTH N Traffic Study, City of Cedarburg, Ozaukee County, Wisconsin, February 1987
- No. 21 - A Public Transit Program for Handicapped Persons—Milwaukee County Transit System, June 1987

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- No. 22 - A Public Transit Program for Handicapped Persons—Waukesha County Transit System, June 1987
- 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 - Traffic Engineering Study of West and North Beach Roads in the Village of Oconomowoc Lake, Waukesha County, Wisconsin, January 1991
- 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
- 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. 41 - A Traffic Safety Study of N. Berkeley Boulevard between E. Montclaire Avenue and E. School Road in the Village of Whitefish Bay, Milwaukee County, Wisconsin, November 1991
- 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

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- No. 48 - Washington Avenue (STH 57) Traffic Study in the City of Cedarburg, Ozaukee County, Wisconsin, January 1991
- 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
- No. 51 - Traffic Study of W. Fond du Lac Avenue in the Village of Menomonee Falls between N. 124th Street (STH 145) and W. Main Street (STH 74), Waukesha County, Wisconsin, January 1991
- No. 52 - Traffic Impact Study of the Alpine Valley Music Theatre in the Town of LaFayette, January 1991
- No. 53 - A Stormwater Drainage and Flood Control System Plan for Grantosa Creek, Cities of Milwaukee and Wauwatosa, Milwaukee County, Wisconsin, February 1992
- No. 54 - Traffic Engineering Study of E. Birch Avenue in the Village of Whitefish Bay, January 1991
- No. 57 - Amtrak Milwaukee-Chicago Passenger Survey Findings: June 1991, January 1993
- No. 58 - A Paratransit Service Plan for Disabled Persons—Milwaukee County Transit System, January 1992
- No. 59 - A Paratransit Service Plan for Disabled Persons—City of Kenosha Transit System, January 1992
- No. 60 - A Paratransit Service Plan for Disabled Persons—City of Racine Transit System, January 1992
- No. 61 - A Paratransit Service Plan for Disabled Persons—City of Waukesha Transit System Utility, January 1992
- No. 62 - A Paratransit Service Plan for Disabled Persons—Waukesha County Transit System, January 1992
- No. 63 - A Land Use-Transportation Study of the N. 76th Street Corridor, August 1991
- No. 64 - Lake Arterial Extension Planning Study, August 1991
- No. 65 - Analysis of the Intersection of S. Pine Street (STH 83) and E. State Street (STH 83) in the City of Burlington, Racine County, Wisconsin, September 1991
- No. 66 - City of Cudahy Overall Economic Development Program Plan, Milwaukee County, Wisconsin, June 1992
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- No. 69 - Environmental Assessment of the Proposed Development of the Millard Sand and Gravel Pit, July 1992
- No. 70 - A Wildlife Habitat Management Plan for the Franklin Lions Legend Park Study Area, August 1991
- No. 71 - A Specialized Transportation Service Plan for Elderly and Disabled Persons within Waukesha County, June 1992*
- No. 73 - A Paratransit Service Plan for Disabled Persons: 1993 Update/Milwaukee County Transit System, January 1993
- No. 74 - A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Kenosha Transit System, January 1993
- No. 75 - A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Racine Transit System, January 1993
- No. 76 - A Paratransit Service Plan for Disabled Persons: 1993 Update/City of Waukesha Transit System Utility, January 1993
- No. 77 - A Paratransit Service Plan for Disabled Persons: 1993 Update/Waukesha County Transit System, January 1993
- No. 78 - Traffic Study of STH 83 between the Illinois-Wisconsin State Line and STH 50 in Kenosha County, March 1993
- No. 79 - An Agricultural Drainage and Urban Stormwater Management Plan for Racine County Farm Drainage District No. 1, Village of Waterford and Towns of Norway and Waterford, Racine County, Wisconsin, September 1993

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- No. 80 - A Development Plan for the Parkside East Neighborhood, Town of Somers, Kenosha County, Wisconsin, September 1993
- No. 81 - Aquatic Plant Management Plan for Phantom Lakes, Waukesha County, Wisconsin, July 1993
- No. 82 - A Lake Protection Plan for Silver Lake, Waukesha County, Wisconsin, July 1993
- No. 83 - City of Cudahy Economic Development Fact Book, Milwaukee County, Wisconsin, August 1993
- No. 84 - Transportation Impacts of W. Wisconsin Avenue Closure between N. 11th Street and N. 16th Street, City of Milwaukee, Milwaukee County, Wisconsin, August 1993
- No. 85 - A Development Plan for the Endicott Neighborhood, City of Brookfield, Waukesha County, Wisconsin, September 1993
- No. 86 - Traffic Engineering Study of Ann Rita Drive, Coventry Drive, and Macaulay Drive in the Canterbury Hill Subdivision, City of Brookfield, Waukesha County, Wisconsin, July 1993

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
Village of Pleasant Prairie
Town of Bristol

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, Lake Geneva
No. FX-Lauderdale Lakes
(17, Green Lake,
20, Middle Lake,
18, Mill Lake)

No. FX-39, Lulu Lake
No. FX-21, North Lake
No. FX-37, Pell Lake
No. FX-43, Peters Lake
No. FX-25, Pleasant Lake
No. FX-24, Potters Lake
No. FX-38, Silver Lake
No. FX-30, Wandawega Lake

Waukesha County

No. FX-3, Big Muskego Lake
No. FX-23, Denoon Lake
No. FX-19, Eagle Spring Lake
No. FX-10, Little Muskego Lake

No. FX-14, Lower Phantom Lake
No. FX-2, Pewaukee Lake
No. FX-34, Spring Lake
No. FX-33, Upper Phantom Lake

LAKE USE REPORTS-MILWAUKEE RIVER WATERSHED

Fond du Lac County

No. ML-2, Long Lake
No. ML-9, Auburn Lake
No. ML-21, Forest Lake
No. ML-12, Mauthe Lake
No. ML-18, Mud Lake
No. ML-5, Kettle Moraine Lake

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

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- 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

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 - 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
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 - by Harlan E. Clinkenbeard, Land Use Planning Chief
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 - by Wade G. Fox, Cartography and Design Supervisor, and
 - Robert L. Fisher, Coding Supervisor
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 - 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
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Reconciliation of Sample Coverage in the Internal O & D Surveys
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by William T. Wambach, Jr., P.E.
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by Richard B. Sheridan, Chief Transportation Planner
A Study of the Water Quality and Flow of Streams in Southeastern Wisconsin
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Simulation Models in Urban and Regional Planning
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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
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Milwaukee & Suburban Transport Corporation

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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

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A Modal Split Model for Southeastern Wisconsin
by Edward Weiner, Highway Engineer

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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

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by Sheldon W. Sullivan, Administrative Officer
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by Wayne H. Faust, Associate Planner
A Backward Glance: Downtown Yesterdays
by Gerald P. Caffrey, Milwaukee Municipal Reference Librarian

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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

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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

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Freeway Flyer Service in Southeastern Wisconsin-A Progress Report: 1964-1971
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Development of Equations for Rainfall Intensity-Duration-Frequency Relationship
by Stuart G. Walesh, Water Resources Engineer

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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

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by Stuart G. Walesh, SEWRPC Water Resources Engineer

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Jean Lusk, SEWRPC Research Analyst

The Changing Factorial Ecology of Milwaukee's Black Ghetto
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A Backward Glance: Environmental Corridors of Yesterday and Today
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Jeanne Sollen, Editor

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by Douglas A. Cherkaver and Vinton W. Bacon,
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An Overview of the Sources of Water Pollution in Southeastern Wisconsin
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The Effect of Sample Rate on Socioeconomic and Travel Data
Obtained through Standard Home Interview
by Jean Lusk, SEWRPC Planner

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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

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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

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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

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Review and Analysis of Lake Michigan Water Levels at Milwaukee, Wisconsin

by David P. Kendzierski, SEWRPC Principal Planner

Lake Levels and Datum Differences

by Kurt W. Bauer, SEWRPC Executive Director

A Backward Glance—A History of Storm Damage and Protective Measures in Milwaukee Harbor

by Bruce W. Jordan, M.A.

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Interpreting Soils of Southeastern Wisconsin for Onsite Disposal of Household Sewage

by Marvin T. Beatty, Ph.D., Professor Emeritus of Soil Science, University of Wisconsin-Madison

Shifts in Centers of Population within the Region: 1963-1990

by Donald G. Dittmar, SEWRPC Senior Specialist

Methodology for Review of Challenges to Wetland Field Delineations Conducted

by the Southeastern Wisconsin Regional Planning Commission

by Donald M. Reed, SEWRPC Chief Biologist

A Backward Glance—Unincorporated Settlements in Southeastern Wisconsin

by Arno M. Klausmeier, SEWRPC Librarian, with Assistance from

Scott K. Enk, SEWRPC Senior Editor

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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
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- 9th Regional Planning Conference, April 14, 1976
- 10th Regional Planning Conference, March 15, 1978
- 11th Regional Planning Conference, April 19, 1979
- 12th Regional Planning Conference, January 31, 1980
- 13th Regional Planning Conference, November 9, 1983
- 14th Regional Planning Conference, May 13, 1985
- 15th Regional Planning Conference, November 14, 1988
- 16th Regional Planning Conference, May 5, 1992

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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*
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TRANSPORTATION IMPROVEMENT PROGRAMS—continued

- 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
- A Transportation Improvement Program for the Kenosha, Milwaukee, and Racine Urbanized Areas in Southeastern Wisconsin: 1992-1996, October 1991
- A Transportation Improvement Program for Southeastern Wisconsin: 1993-1998, December 1992

OTHER

- Twenty-Five Years of Regional Planning, December 1985

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Appendix E

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INDEPENDENT AUDITOR'S REPORT

To the Commissioners of
Southeastern Wisconsin
Regional Planning Commission
Waukesha, Wisconsin

We have audited the accompanying general purpose financial statements of the Southeastern Wisconsin Regional Planning Commission, as of December 31, 1993, and for the year then ended. The information included in these 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 the audit be planned and performed to provide reasonable assurance that the general purpose financial statements are free of material misstatement. The audit included examining, on a test basis, evidence supporting the amounts and disclosures in the general purpose financial statements. The audit also included 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, 1993, and the results of its operations for the year then ended in conformity with generally accepted accounting principles.



VICTOR L. YOUNG, S.C.

Waukesha, Wisconsin
August 12, 1994

Southeastern Wisconsin Regional Planning Commission

Combined Balance Sheet - All Fund Types and Account Groups

December 31, 1993

	<u>Governmental Fund Types</u>		<u>Account Groups</u>		<u>Totals</u>	
	<u>General</u>	<u>Special Revenue</u>	<u>General Fixed Assets</u>		<u>1993</u>	<u>(Memorandum Only)</u>
<u>Assets</u>						
Treasurer's cash	\$1,507,563.77	\$ 692.06	\$	\$ 1,507,563.77	\$ 702,062.45	
Other receivable				692.06	621.32	
Grants receivable		535,128.13		535,128.13	394,021.03	
Contracts receivable	135,150.06	149,465.16		284,615.22	515,972.94	
Service agreements receivable	159,150.81			159,150.81	284,109.71	
Prepaid expense	33,346.90			33,346.90	32,954.82	
Fixed assets			745,324.93	745,324.93	651,958.88	
Due from/(to) other funds	555,405.86	(555,405.86)				
Total Assets	\$2,390,617.40	\$129,879.49	\$ 745,324.93	\$ 3,265,821.82	\$ 2,581,701.15	
<u>Liabilities</u>						
State sales tax	\$ 232.33	\$	\$	232.33	\$ 633.16	
Accounts payable	644,356.09	129,879.49		774,235.58	326,460.92	
Vacation accrual	137,165.88			137,165.88	107,930.23	
Deferred revenue	54,411.00			54,411.00		
Total Liabilities	836,165.30	129,879.49		966,044.79	435,024.31	
<u>Fund Equity</u>						
Investment in fixed assets			745,324.93	745,324.93	651,958.88	
Fund balances - designated	1,083,195.00			1,083,195.00	883,195.00	
- undesignated	471,257.10			471,257.10	611,522.96	
Total Fund Equity	1,554,452.10		745,324.93	2,299,777.03	2,146,676.84	
Total Liabilities and Fund Equity	\$2,390,617.40	\$129,879.49	\$ 745,324.93	\$ 3,265,821.82	\$ 2,581,701.15	

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 Balance - All Governmental Fund Types

For the Year Ended December 31, 1993

	<u>Governmental Fund Types</u>			<u>Total</u>	
	<u>General</u>	<u>Special Revenue</u>	<u>1993</u>	<u>(Memorandum Only)</u>	<u>1992</u>
<u>Revenues</u>					
Contributions from counties	\$1,315,170.00	\$ 2,158,743.40	\$ 1,315,170.00	\$ 1,267,640.00	
Grant revenues		1,761,069.01	2,158,743.40	2,209,403.86	
Contract revenues	970,071.59		2,731,140.60	1,518,650.83	
Service grants	366,234.49		366,234.49	859,966.61	
Interest on invested funds	41,589.98		41,589.98	56,714.64	
Other income	127,178.96	5,799.05	132,978.01	153,946.44	
Total Revenues	2,820,245.02	3,925,611.46	6,745,856.48	6,066,322.38	
<u>Expenditures</u>					
Salaries and fringe benefits	2,563,085.45	1,377,212.81	3,940,298.26	3,674,623.14	
Office and other expenses					
Technical consultants	585,600.55	1,316,651.24	1,902,251.79	885,475.11	
Office supplies	79,215.67	11,447.24	90,662.91	80,749.95	
Insurance, audit, legal fees	54,961.33	1,100.00	56,061.33	53,897.49	
Library acquisition and dues	25,070.20	117.02	25,187.22	27,536.23	
Reprographics and publication	88,907.17	4,269.47	93,176.64	176,536.82	
Newsletter	5,721.47		5,721.47	22,466.78	
Postage expense	18,160.42		18,160.42	59,097.86	
Travel expense	49,468.66	14,460.37	63,929.03	74,613.81	
Telephone expense	22,765.57	24.60	22,790.17	26,054.56	
Rent	147,848.32		147,848.32	131,881.00	
Computer graphics hardware and maintenance	13,179.91		13,179.91	401,172.51	
Annual report	741.30		741.30	1,583.80	
Other operating expenses	5,524.62	1,543.55	7,068.17	21,121.23	
Unemployment compensation expense	24,428.76		24,428.76	14,753.50	
Auto/office equipment maintenance	180,254.87	995.72	181,250.59	120,648.21	
Capital outlay	93,366.05		93,366.05	206,635.40	
Regional conference				6,199.48	
Total Expenditures	3,958,300.32	2,727,822.02	6,686,122.34	5,985,046.88	
Excess (Deficit) Revenues Over Expenditures	(1,138,055.30)	1,197,789.44	59,734.14	81,275.50	
Operating Transfers in (out)		1,197,789.44	(1,197,789.44)		
Fund Balance - beginning of year		1,494,717.96		1,413,442.46	
Fund Balance - end of year		\$1,554,452.10	\$ -	\$ 1,554,452.10	\$ 1,494,717.96

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 Government Fund Types
For the Year Ended December 31, 1993

	<u>Budget</u>	<u>Actual</u>	<u>Variance Favorable (Unfavorable)</u>
Revenues			
Contributions from counties	\$ 1,315,170.00	\$ 1,315,170.00	\$
Grant revenues	1,976,245.00	2,158,743.40	182,498.40
Contract revenues	5,000.00	2,731,140.60	2,726,140.60
Service grants	1,812,875.00	366,234.49	(1,446,640.51)
Interest on invested funds		41,589.98	41,589.98
Other income		132,978.01	132,978.01
Total Revenues	5,109,290.00	6,745,856.48	1,636,566.48
Expenditures			
Salaries and fringe benefits	3,953,170.00	3,940,298.26	12,871.74
Office and other expenses			
Technical consultants	244,000.00	1,902,251.79	(1,658,251.79)
Office supplies	119,000.00	90,662.91	28,337.09
Insurance, audit, legal fees	57,000.00	56,061.33	938.67
Library acquisition and dues	20,000.00	25,187.22	(5,187.22)
Reprographics and publication	180,000.00	93,176.64	86,823.36
Newsletter	6,500.00	5,721.47	778.53
Postage expense	19,000.00	18,160.42	839.58
Travel expense	54,260.00	63,929.03	(9,669.03)
Telephone expense	22,000.00	22,790.17	(790.17)
Rent	137,860.00	147,848.32	(9,988.32)
Computer graphics hardware and maintenance	180,000.00	13,179.91	166,820.09
Annual report	1,000.00	741.30	258.70
Other operating expenses	10,000.00	7,068.17	2,931.83
Unemployment compensation expense	4,500.00	24,428.76	(19,928.76)
Auto/office equipment/maintenance	30,000.00	181,250.59	(151,250.59)
Capital outlay	68,000.00	93,366.05	(25,366.05)
Regional conference	3,000.00		3,000.00
Total Expenditures	5,109,290.00	6,686,122.34	(1,576,832.34)
Excess Revenues Over Expenditures		59,734.14	59,734.14
Fund Balance - beginning of year	-	1,494,717.96	-
Fund Balance - end of year	\$ -	\$ 1,554,452.10	\$ -

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, 1993

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 Financial Statements
For the Year Ended December 31, 1993

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, 1993 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 the Financial Statements
For the Year Ended December 31, 1993

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 25 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>1993</u>	<u>1992</u>
Desks	\$ 24,005.09	\$ 19,533.23
Chairs	27,491.29	24,424.88
Calculators and adding machines	13,703.99	13,638.97
Filing cabinets	44,205.43	43,195.83
Typewriters	23,035.67	22,815.77
Book cases	26,671.40	21,866.95
Tables	35,900.97	33,513.22
Data processing equipment	225,036.60	171,255.27
Major equipment	157,199.17	151,508.42
Automobiles	114,725.50	98,955.00
Miscellaneous	53,349.82	51,249.34
	<u>\$ 745,324.93</u>	<u>\$ 651,958.88</u>

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1993

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 1993 were \$323,651.30.

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 6.2% 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, 1993 was \$323,651.30. 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, 1993

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, 1993 was \$610,304.51 or .030% of the total system's unfunded liability of \$2.04 billion.

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, 1993 for the Wisconsin Retirement System as a whole, determined through an actuarial valuation performed as of that date, was \$25,175.3 million. The Wisconsin Retirement System's net assets available for benefits on that date were \$25,436.5 million, leaving assets in excess of pension benefit obligation of \$261.2 million.

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, 1993 Comprehensive Annual Financial Report.

Southeastern Wisconsin Regional Planning Commission

Combined Notes to the Financial Statements

For the Year Ended December 31, 1993

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	\$ 435,160.63
Temporary cash investments	1,072,403.14
Total	\$ 1,507,563.77

Note 5 - Cognizant Agency

The cognizant agency for the Single Audit report is the Wisconsin Department of Administration.

Note 6 - Commitments

Rent

The Commission leases space from Waukesha County under a lease agreement that runs through December 31, 1994. The Commission has the option of renewing the lease for two successive periods of three years each. The minimum lease payments are as follows:

1994 \$ 135,739.00

Note 7 - Designated Funds

The Commission has designated the following funds for future purposes:

Surveying and mapping services trust	\$ 100,000.00
Equipment replacement	50,000.00
Unemployment Compensation Trust	50,000.00
Errors and Omissions Insurance	150,000.00
Computer Graphics Reserve Account	350,000.00
Stream Gaging	13,195.00
Office Computer Reserve Account	320,000.00
Aerial photography Reserve Account	50,000.00
	\$ 1,083,195.00



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